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POWERED BY HEALTH:
HEALTHISM IN FOOD MARKETING AND CONSUMER RESEARCH.

A SYSTEMATIC REVIEW AND A CRITICAL DISCOURSE ANALYSIS.

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To my ~~four~~ three P's:
Patrizio and my Parents,
Olga and Aleksandr

Abstract in English

Health has become so tightly connected to food that it feels omnipresent in the food marketplace and marketing research journals. In fact, the omnipresence of food brands with health-related value propositions and the ever-growing abundance of marketing research dedicated to health and food consumption are symptomatic of the same issue: the power of a cultural discourse that establishes health as a super-value and a personal responsibility, known as the ideology of healthism. The implications of healthism are controversial. On the one hand, healthism produces an environment for empowerment, increased health involvement and political democratization. On the other, it creates messages about appropriate and responsible forms of consumption, individuals' freedoms and duties, moralization, the promotion of some interests at the expense of others, health-related anxieties, cost increase, etc. In the social reality increasingly defined and structured by markets, understanding how marketing discourse frames health in the context of food may be one of the most important yet overlooked aspects of understanding healthism. Founded in social construction of reality perspective and theoretical lens of critical social research, this work examines marketing knowledge about health, its underlying assumptions, social implications and consequences that are routinely overlooked.

By conducting a review and a critical discourse analysis of a systematically produced sample of 190 marketing and consumer research publications about health and food, this study revealed research trends in the field, mapped the structure of research streams, and identified three dominant, co-existing discourses. The three discourses –"nutri/edu" discourse, "simple solutions" discourse, and "win-win" discourse – employ different food-related meanings and problematizations, rationalize healthism using different appeals and arguments, and produce different solutions for consumer wellbeing and empowerment. Each discourse thereby establishes the market reality of food as the main stage for enactment of responsibility for health. The three discourses with their respective vocabularies provide a common interpretative frame equally suitable for scholars, marketers, policymakers and consumers. The variation among the three discourses demonstrates the power of healthism, which offers an internally complex and heterogeneous system of meanings that nevertheless provides a unifying, value-based platform for various market actors. Health thus has an ideological function in marketing and consumer research – it helps establish a higher level of legitimacy for the arguments about the nature of consumer choice, the food industry and marketing discipline and practice.

Discerning underlying assumptions about health and food in marketing discourse works as both a critical assessment of marketing scholars' taken for granted assumptions and as a stepping stone to better understand how public discourse shapes the social reality of markets and consumption. Moreover, this research draws attention to the relevance of critical discourse analysis for and of marketing research.

Keywords: healthism, ideology, marketing discourse, critical discourse analysis, systematic literature review, content analysis, health and food

Abstract in Italian

Ormai non si può immaginare il mercato alimentare e di conseguenza articoli scientifici di ricerca di marketing senza la presenza del concetto di salute. La sempre crescente abbondanza di studi di marketing e di consumer behavior dedicati alla salute e l'onnipresenza di brand alimentari posizionati con riferimento ai valori di salute e benessere in effetti sono sintomi dello stesso "problema": la potenza di un discorso culturale che stabilisce che la salute sia una responsabilità personale e un valore assoluto, conosciuto anche come healthism, l'ideologia del salutismo. Le implicazioni del salutismo sono controverse. Da un lato, il salutismo produce un clima sociale propenso al empowerment, al maggior coinvolgimento civico nella preservazione della salute e alla democratizzazione politica. Dall'altra parte, il salutismo diffonde le idee che prescrivono quali forme di comportamento sono appropriate e quali no, quali forme di consumo si può definire responsabili e quali siano le libertà e i doveri degli individui. Il salutismo così crea delle moralizzazioni, ansie relative alla salute, aumenti dei costi e promuove gli interessi di alcuni individui a scapito di altri. Considerando che la nostra realtà sociale è definita sempre più dai mercati e dalle loro strutture, per capire meglio l'essenza e il potere sociale del salutismo, sta diventando anche più importante comprendere che tipo di significati della salute e del cibo salutistico vengono proiettate tramite il discorso di marketing. Nonostante l'attualità, questo tema è ancora trascurato dai ricercatori di marketing.

Il presente lavoro cerca di colmare questo gap e indaga sul sistema di conoscenza prodotto nella ricerca di marketing sull'argomento della salute, partendo dalla prospettiva teorica della realtà come costruzione sociale e approcci critici alla ricerca sociale. Quindi la conoscenza di marketing è esaminata dal punto di vista delle sue ipotesi sottostanti, implicazioni sociali, conseguenze e altri presupposti che sono abitualmente trascurati.

Innanzitutto questo studio rivela le tendenze di ricerca nel settore e propone una "mappa" dei filoni di ricerca basata su una revisione sistematica della letteratura su un campione di 190 pubblicazioni scientifiche di marketing e di ricerca dei consumatori che trattano il tema della salute e del cibo. Inoltre lo studio applica un metodo di critical discourse analysis per identificare tre dominanti sistemi d'idee - tre discorsi della salute - nei testi di marketing, intitolati "nutri/edu", "simple solutions" e "win-win". Questi tre discorsi inquadrano la costruzione di diversi significati legati alla salute e al salutismo, problematizzano diversi aspetti del consumo alimentare, impiegano diversi argomenti per promuovere il consumo salutistico, e offrono diversi tipi di soluzioni per il benessere dei consumatori. Nonostante le differenze significative, ogni discorso alla fine stabilisce che non c'è un contesto sociale migliore per esprimere e praticare la responsabilità per la propria salute che il mercato del cibo. La variazione tra i tre discorsi, infatti, dimostra la potenza dell'ideologia di salutismo, in quanto offre un sistema di significati internamente complessa ed eterogenea che tuttavia funziona come una piattaforma unificante per i vari operatori del mercato. Quindi si può sostenere che la salute ha una funzione ideologica nella ricerca di marketing e di consumer behavior: invocare il valore della salute aiuta gli autori a legittimare le scelte sugli argomenti trattati nella ricerca ed elevare il valore dei risultati ottenuti.

Lo studio di credenze e presupposti nel discorso di marketing sulla salute e sul cibo ha due tipi di utilizzi. Il primo è una valutazione critica delle ideologie che orientano il lavoro di ricerca scientifica di marketing, ideologie che spesso non vengono nemmeno riconosciute come tali. Il secondo è che questo lavoro aiuta a capire come le credenze, le conoscenze e il discorso condiviso danno forma alla costruzione della realtà sociale dei mercati e del consumo. Inoltre, questa ricerca richiama l'attenzione sulla rilevanza dell'analisi critica dei discorsi, sia per che della ricerca di marketing.

Parole chiave: salutismo, healthism, ideologia, discorsi di marketing, critical discourse analysis, revisione sistematica della letteratura, content analysis, salute, mercato alimentare

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Ksenia Silchenko
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1. Introduction

1.1. Finding the questions

My five-plus years in a market research consultancy firm prior to starting my PhD were entirely dedicated to health issues. Working on projects for pharmaceutical and consumer health (over-the-counter, OTC) clients, you cannot do otherwise. My job specifically involved studying how consumers understand medical and pharmaceutical (product) information and act on their knowledge, turning this understanding into consumer insights for marketing department, who'd translate them into strategic marketing decisions for their brands.

Health was everywhere in consumer narratives, and I soon learnt that it was not only consumers who were sick, those we'd conventionally define as "patients", who lived and breathed health on a daily basis. Marketing and brand managers, their creative agencies, their consultants and market research firms were also sincerely, even fiercely concerned with maximizing health for individuals and communities. The narratives about empowerment and the growing demand for products and services that help consumers achieve better health and quality of life were loud and clear, and all kinds of marketing professionals tried to look up to the most successful companies and brands that capitalized on the new health consciousness. So it felt natural for me to remain faithful to the issue of health in my early PhD research plans and dedicate my study to exploring how brands can better (co)create health value for (and with) the consumers.

I preferred to move away from the pharmaceutical market to the food industry, because it appeared a less regulated, more extensive, more "everyday" type of market, yet equally rife with health. Indeed, in the food marketplace, health has become omnipresent and considered an ever-growing "megatrend" (Hudson, 2012, 2015). Driven to understand the structure and "secrets" of better-performing health value propositions, as any other student or researcher approaching a new topic, I went on Google Scholar, Scopus, Web of Science, EBSCOhost and other comprehensive databases of research publications and embarked on an extensive reading of marketing and consumer research about health and food.

To say that I was overwhelmed by the amount and the range of studies that came up in my initial exploration of the topic is an understatement. When trying to make my way through the topics that seemed extremely relevant – such as health claims, nutrition disclosures and their international regulations, macro-economic effects of improving welfare, package and portion sizes, health halos, healthy brands, the natural health marketplace, functional foods, credence goods, fortified foods, organic foods, GM foods, medical foods, health-focused (or not) corporate social responsibility, social marketing campaigns, etc. – it became clearer and clearer that there was no simple way to choose *the* food marketing topic that would provide a better point of entry on the path towards food wellbeing (Block et al., 2011).

Still feeling disoriented and confused, I went to my local supermarket for daily groceries. Standing in front of a fridge dedicated to health foods, I overheard a conversation between a young grade-schooler and his grandmother. She had apparently left her glasses at home and asked the boy to help her find lactose-free cheese. In the simultaneously disinterested and extremely mindful manner that only children are capable of, the boy said, "Grandma, is lactose-free the same as gluten-free?" At that moment, I realized what exactly bothered me in all the marketing research literature I had tried to make sense of: the interchangeable sameness (Adorno 1991) and undistinguished differences (Warde, 1997) produced by the universality of health. Though in marketing research there were so many different "gluten-free"-s and "lactose-free"-s (and I really mean any food quality regulatable or marketable in the name of health), health was also discussed as such a universal good that, from a value standpoint, "gluten-free" was indeed no different from "lactose-free".

This overheard conversation helped me articulate a paradox equally relevant for the market reality and work of academic marketing research around issues of health and food: more and more choices and more and more strategies are justified by health – a single concept that becomes more and more inclusive and thus more and more vague. Next to no one among marketing scholars really questioned what *health* really was – for him or her as an individual or a researcher, for food marketers, or for the consumers. Instead, numerous research articles used any example (even remotely) related to health to "amplify" research relevance, validity, and significance, because it has become commonly accepted that anything done (or researched) for health must be worth it.

The proliferation of consumer demand for health and the omnipresence of food brands with health-related positioning are symptomatic of the same issues as the abundance of marketing research with its internal paradoxes and highly essentialized vision of health. They all are expressions of the powerful cultural discourse about health as a personal responsibility and a "metaphor for everything that is good in life" (Crawford, 1980, p. 365). This discourse, defined by Crawford (1980) as healthism, incorporates (sometimes in disguise) messages about appropriate and responsible forms of consumption, (citizen)-consumer freedoms and duties, moral values, promotion of the interests of some people at the expense of others, and more. This makes marketing research literature in itself a form of knowledge and public discourse, and therefore a rich and appropriate context for understanding what (and how) is traded as health on today's markets[1].

These considerations compelled this research project to take a U-turn from its original aspirations in terms of its purpose (from instrumental goals of marketing management to concept-centric analysis of marketing discourse); its position regarding health promotion via marketing (from proponent to more cautious and critical); the role of research articles about health and food (from archives of marketing knowledge to cultural texts in the broad sense) and their application in research (from sources for conducting literature review to data); and

[1] However, it was not until my visiting period at the University of Southern Denmark that, thanks to Søren Askegaard's guidance and encouragement from the rest of the CCC research group, I believed in and fully committed to this research idea.

its conceptualization of marketing's essence and *raison d'être* (from producing value by serving consumers' unmet needs to a socio-organizational ideological enterprise).

As Fischer and Otnes (2006, p. 21) summarize Glaser and Strauss's point about strategies and sources of identifying research questions (in grounded theory), "researchers will find, not only their answers, but also their questions, in the research contexts they choose to investigate". This description encapsulates a short version of how this research project dedicated to the study of the ideology of healthism in the context of marketing and consumer research came together. The remaining sections of this introduction will provide a longer and more detailed version.

1.2. Positioning of the study

What do marketing and health have in common? At a first glance, the question may seem like an apples-and-oranges comparison, yet there is more to it than a false analogy. Both marketing and health are powerful public discourses that, according to the perspective of social constructionism (Berger & Luckmann, 1966; Foucault, 1972), construct social reality. Both marketing- and health-speak invest everyday conversations across different public and private life domains, shaping relations among individuals. Both marketing and health produce ideas that have become common sense, taken for granted and firmly ingrained in today's (consumer) culture. Both marketing and health frame people's desires and aspirations to a better life and brighter future, for the self and for their societies. Both marketing and health work as theoretical systems of meanings and systems of practical goals and motivations for various market players. In other words, both marketing and health can be considered dominant ideologies of today, even though they are rarely discussed in ideological terms.

Marketing is indeed rarely studied or talked about from the perspective of discourse and/or ideology. Instead, marketing as an academic discipline is more likely to identify with a positive "normal" science (Pirson & Varey, 2014; Skålén, Fougère, & Fellesson, 2008), and as a practice, with data- or model-driven techniques and instruments, strategic competencies and skills ensuring relevance for managerial result-oriented practices (Hackley, 2003; Marion, 2007; Tadajewski, 2010a). Marketing views itself as utterly practical and thus non-ideological, which probably accounts for the remarkable scarcity of critical studies within marketing research (Alvesson, 1994; Marion, 2006; Skålén et al., 2008; Tadajewski, 2010b).

The paradox, however, as stated by Eckhardt, Dholakia, and Varman (2013, p. 11), is that ideology is almost like "He-Who-Must-Not-Be-Named": marketing concepts are clearly used to advance ideas and ideologies of all kinds, and the topic of ideologies of marketing spurs intense debates at coffee breaks at academic conferences, in popular intellectual media and in the social science and humanities disciplines, but is rarely discussed in academic marketing journals or textbooks. So, it can be said that ideology is only a secondary construct in marketing and consumer research, useful and instrumental for some arguments, but not one of fundamental importance (O'Reilly, 2006, p. 265).

Only a few marketing and consumer researchers incorporate issues of ideology and discourse into their research. This approach is more compatible with research agendas that address both marketing and societal issues, such as macromarketing[2] research, historical and critical marketing[3] studies, and consumer culture[4] research. These researchers (see, e.g., Eckhardt et al., 2013; Fitchett, Patsiaouras, & Davies, 2014; Fırat, 2013; S. J. Levy & Luedicke, 2013; Marion, 2006; O'Reilly, 2006; Sherry, 2011; Skålén et al., 2008; Skålén & Hackley, 2011; Zwick & Cayla, 2011) recognize that marketing constructs social reality and could be considered one of the most influential global ideologies of the present day. Because of the global spread and power of marketing discourses, they "must be fundamentally evaluated, critically analysed and reflected upon if we are to understand what they do or may do to societies and human beings" (Skålén et al., 2008, p. 14).

An ideological viewpoint on health seems less improbable than one on marketing, but healthism (Crawford, 1980, 1994, 2004, 2006), or the ideology of health imperative (Lupton, 1995), can be considered a well-established construct and theoretical perspective primarily in the context of sociology of health and medicine (Illich, 1975, 1977; Lupton, 1995; Skrabanek, 1994; Zola, 1977), not in marketing or consumer research. Healthism essentially is an ideological neoliberal project that prioritizes health over anything else (Kristensen, Lim, & Askegaard, 2016). Health thus becomes an individual responsibility, a "metaphor for everything that is good in life" (Crawford, 1980, p. 365) and a "scientific equivalent" of such values as happiness, sense of purpose, self-esteem, work satisfaction, creativity, resilience, stress resistance, confidence in the future, commitment, etc. (Skrabanek, 1994). The implications of the ideology of healthism are widely and controversially discussed. Some argue that it produces the environment for empowerment, increased health involvement and political democratization, while others focus on increasing health-related anxieties, massive pathologizing, an articulation of inequalities bordering on discrimination, the potential for distortion of medical and healthcare priorities and cost increase (Anker, Sandøe, Kamin, & Kappel, 2011; Kristensen et al., 2016), the creation of a culture of complaint and victimhood, and the increasing valuation of safety over risk-taking, femininity over masculinity, and childhood over adulthood (Furedi in Fitzpatrick, 2001).

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[2] Macromarketing studies how marketing systems influence society and how society, in turn, enables or restricts marketing activities. It examines widely accepted yet imperfect economic structures and market practices, and researches the issues around wellbeing of societies from a marketing standpoint. (Tadajewski, 2014, p. 42)

[3] Critical marketing's main goal is to reveal the flaws and limitations of mainstream marketing thinking and to create re-energized concept of marketing in the light of contemporary, wide-ranging societal changes – including consumerism, globalization, climate change, deregulation, and so on (Pirson & Varey, 2014, pp. 7–8). It is concerned with challenging marketing concepts, ideas and ways of reflection that present themselves as ideologically neutral or that otherwise have assumed a taken-for-granted status. (Tadajewski, 2014, p. 39)

[4] Consumer culture theory (CCT) is an interdisciplinary family of theoretical perspectives that applies interpretive and critical perspectives to the study of consumption in view of the dynamic relationships between consumer actions, the marketplace, and cultural meanings. The four research programs in CCT identified in the seminal publication by Arnould and Thomspon (2005) are consumer identity projects, marketplace cultures, sociohistoric patterns of consumption, and mass-mediated marketplace ideologies and consumers' interpretive strategies. Criticized for its interest in micro- and/or exotic cases of consumption contexts, CCT responded by expanding the contextualization of micro-level of consumer experiences with macro-social explanatory frameworks (Askegaard & Linnet, 2011) and more extensively studying the work of economic actors that define and structure consumer culture and consumers' daily lives (Zwick & Cayla, 2011).

In marketing and consumer research, healthism has not generated much attention, except for a handful of cases in food consumption (Anker et al., 2011; Askegaard et al., 2014; J. M. Cronin, McCarthy, & Delaney, 2015; Delaney & McCarthy, 2014; Kristensen, Askegaard, & Jeppesen, 2013; Kristensen, Askegaard, Jeppesen, & Anker, 2010; Kristensen, Boye, & Askegaard, 2011; Yngfalk & Fyrberg Yngfalk, 2015) and pharmaceutical marketing (Brennan, Eagle, & Rice, 2010) contexts. The number of researchers who bring up healthism is disproportionally low compared to the abundance of research examining various aspects of the pursuit of health through food on an individual or social levels: although health and consumer wellbeing have been more typical of research agendas in macromarketing since the 1970s (Pancer & Handelman, 2012) and more recently in transformative consumer research[5] (Mick, Pettigrew, Pechmann, & Ozanne, 2011), health has become a common thread in virtually all sub-disciplines and theoretical traditions of marketing, formally legitimized in the broadened (Kotler & Levy, 1969) institutional definition of marketing with an orientation at societal issues (AMA, 2008, 2016). Yet, considering that the main pillar of healthism – i.e., the imperative of individual responsibility for health – is also a pillar of neoliberalism (Crawford, 2006, p. 409) and thus free markets and consumer(ism) cultures, the absence of theoretical interest in healthism in marketing discipline seems remarkably inadequate.

From the perspective of healthism, food marketplace context is in fact a valid choice from the theoretical standpoint. First of all, health and food have been closely connected since the dawn of time. For much of human history, food was medicine and medicine was food. For example, in Ancient Greece, the birthplace of the modern concept of medicine, a daily regimen of self-care known as dietetics (i.e., combination of exercise, pleasurable eating and drinking, sleep, and sexual relationships) was considered superior to medicine in regard to health (Coveney, 2006). The connection between discourses of health and food is traditionally strong and is present across various cultural contexts. Moreover, in marketing literature today, food is virtually the only context that overtly focuses on consumer health (Luomala, Paasovaara, & Lehtola, 2006). Natural or holistic health markets and consumption practices (Thompson, 2003, 2005; Thompson & Troester, 2002) can be considered another setting, but even this context is packed with examples of food choices and eating regimens that constitute individual alternative health strategies. More importantly, the everyday aspect of food consumption means that the possibility (and the power) of individual choice is rarely doubted in this domain (Sassatelli, 2004), which makes it the perfect "natural" context for exerting individual responsibility for health.

Because marketing and health(ism) are powerful public discourses, yet understudied either on their own or together, this research focuses on the intersections of the two topics. In this perspective, founded in social constructionism (Berger & Luckmann, 1966), the social reality of the health food market and consumption is constructed by public discourses (Fairclough, 2003; Foucault, 1972), including marketing discourse. Since markets have become the key institution of culture (Sherry, 2011) and the context where individuals explore, identify and

[5] Transformative consumer research (TCR) is a relatively new academic movement in marketing research that seeks to support and promote research that benefits consumer welfare and quality of life for all those affected by markets and consumption (Mick et al., 2011).

experience the world around them (Fitchett et al., 2014), understanding how marketing discourse frames health in the context of food may be one of the most important yet overlooked aspects of healthism. Marketing research texts examining issues of health and food can be considered an appropriate "semiotic point of entry" (Fairclough, 2010) for the study of healthism in marketing discourse for two reasons. First, these texts represent an archive of epistemologized and formalized forms of marketing knowledge perfectly suited for "archeological" analysis (Foucault, 1972). Second, like other forms of social science (Berger & Luckmann, 1966; Foucault, 1972; McCarthy, 1996; Mulkay, 1979), they adopt some social vision and thus embrace a substructure of assumptions, sentiments and values (Murray & Ozanne, 2006, p. 48) regarding not only the marketing profession, but health and food as well. Thus, understanding knowledge formations in marketing research works as a critical assessment of marketing scholars' assumptions and ideologies that are routinely overlooked. Ans it also serves as a stepping stone to better understand how public discourse embodies and rationalizes healthism and how this ideology shapes the social reality of markets and consumption.

The only study, to my knowledge, that combines the interest in health (and food) with concern for marketing scholars' assumptions examines how morality discourses about food and health influence research in consumer behavior and, more specifically, in transformative consumer research on food and health (Askegaard et al., 2014). The present study can be considered an extension of the reflexive position, motivation, outlined problems and questions raised by Askegaard and colleagues in that study. However, this work was influenced by a much wider array of theories, concepts and considerations. It is founded in the sociology of knowledge and a social constructionist position (Berger & Luckmann, 1966; Foucault, 1972, 1980a) regarding the notions of discourse, ideology and status of scientific knowledge and the role of knowledge in dialectics of the individual and society. The adopted theoretical lens is informed by critical social research tradition (L. Harvey, 1990) and those disciplines within marketing research that adopt critical and reflexive standpoints and apply knowledge from the social sciences to the study of markets and consumption, including consumer culture theory, especially in its epistemology-wise extended version focusing on the context of context (Askegaard & Linnet, 2011), critical marketing (Alvesson, 1994) and consumer research (Murray & Ozanne, 2006), macromarketing (Fırat, 2013; S. J. Levy & Luedicke, 2013), and those contributions in particular that studied marketing publication texts from the critical perspective of the encoded ideology (Hackley, 2003; Hirschman, 1993; Skålén et al., 2008). This critical approach implies a choice of a fundamental concept or lens used to unlock the process of analysis (L. Harvey, 1990). In case of this research, healthism works as an analytical lens for critical research and is informed by literature in the sociology of health and medicine (Lupton, 1995, 2005; Skrabanek, 1994) and food (Coveney, 2006; Warde, 1997) and, particularly, by Robert Crawford's (1980, 1994, 2004, 2006) analysis of healthism. From the methodological perspective, this whole study was operationalized with the help of methodologies and tools of text analysis, specifically critical discourse analysis (Fairclough, 2003, 2010; Lupton, 2010) and such techniques as content analysis (Krippendorff, 1989; Mayan, 2009) and semiotic analysis (Mick, 1991; Mick & Oswald, 2006; Oswald, 2015).

1.3. Research objective and research questions

This work is particularly concerned with the issue of knowledge, its social implications and consequences. The main objective of this research is to better understand how marketing discourse frames health in the context of food, discern underlying assumptions about health and food in marketing discourse and bring attention to the perspectives that are otherwise underrepresented in the dominant discourse.

This research objective translates into the main research question of this dissertation: *How does (academic) marketing discourse establish and justify health as a taken-for-granted market reality in the food context?*

This main question can be broken into several sub-questions, addressed at different stages of this work:[6]

Sub-question 1. What are the structures of knowledge around health and food in marketing and consumer research that support omnipresence of health in the food marketplace?

a. What is the state of *self-declared knowledge*? How is it structured, and how has it evolved over time?
b. What are the components of existing *taken-for-granted knowledge* about health and food in marketing and consumer research?
c. What are (or could be) *the implications of underlying assumptions* for scholars, marketers, policymakers, and consumers?
d. What (potential) *controversies* hide behind the obvious, self-evident and inevitable value of health in marketing research?

Sub-question 2. What is the role of health in marketing discourse? That is, how do meanings of health and food serve the marketing scholar to sustain the needs of their profession?

1.4. Research approach

To examine underlying assumptions about health and its ideology in marketing discourse, this work analyzed a systematically produced (Tranfield, Denyer, & Smart, 2003) sample of 190 marketing and consumer research publications. To maximize the analytical purposefulness, the sample was generated in such a way to ensure getting a slice of what can be considered more common in the marketing and consumer research about health and food. Getting exhaustive coverage, besides being unrealistic (White, 2009, p. 56), was not an objective. Neither was the objective to access only the most influential and cited publications. In this respect, the research parallels the logic of sociology of knowledge (Berger & Luckmann, 1966)

[6] Sub-question 1a is addressed in Chapters 6-7, 1b, 1c and 1d – in Chapters 8 and 9, sub-question 2 – in Chapter 10.

that knowledge includes not only its "higher forms" (e.g., top-ranking or most specialized journals, higher researchers' and articles' quotation frequency, special issues), but everything that passes as knowledge in a marketing scholars' community.

Considering the dual nature of the utilized data sources (i.e., research articles can be seen as either direct sources of marketing knowledge or as cultural texts in a broader sense), this research focused on two ways of analyzing texts. The first is concerned with a conventional approach to the analysis of scientific literature, i.e., a literature review. It was done systematically with the help of content analysis methods (Krippendorff, 1989; Mayan, 2009) and produced an original synthesis of a vast number of research articles about health and food marketing and consumption.

The other approach to analyzing texts is more concerned with underlying assumptions and the "unsaid". This approach calls for critical discourse analysis (Fairclough, 2003, 2010), a multidisciplinary methodological orientation that does not develop a purely literary analysis, but combines a more local linguistic analysis with a more sociological contextual analysis (Lupton, 1995, 2010) concerned with the system of dominant ideas and meanings, and social, political and cultural functioning of discourse. Its analytic tools include manifest content analysis and co-occurrence analysis of "problematization" portions of texts (Locke & Golden-Biddle, 1997), binary oppositions and the Greimas' semiotic square (Mick, 1991; Mick & Oswald, 2006; Oswald, 2015).

Critical discourse analysis helped uncover three dominant discourses that co-exist in marketing and consumer research. By embodying and rationalizing healthism using different appeals and arguments, the three marketing discourses use different vocabularies of meanings (though not necessarily different terms) and thus produce different solutions for consumer wellbeing, empowerment and responsibilization, which in their turn have potentially problematic consequences from cultural, humanistic, ethical, social justice or even health standpoint.

The criticism of this study does not address individual researchers' contributions or research papers' quality. Instead, this work tries to articulate the positions that are currently sidelined in the dominant marketing discourse (e.g., the sociocultural perspective), deconstruct the most naturalized assumptions and show the implications of existing marketing discourse and realities, so that the (potentially) problematic aspects could be positively transformed. Critical discourse analysis provides a methodological tool that fits this research orientation.

The critical perspective is more visible in the second part of the analysis. In fact, the outputs of these two types of textual analysis are noticeably different in the way they are presented in writing. In the chapters dedicated to the systematic literature review, most of the in-line references point to articles in this research's corpus of texts (i.e., data). A number in square brackets (in superscript following the normal in-line reference) was assigned to all articles included in the sample and used everywhere in this work to ease the distinction between references-to-data and reference in the standard academic sense (those with no superscript). On the contrary, in the critical discourse analysis chapters, there are more references that

point to research cited for analytical purposes. Quotations from data sources are used extensively as well, but their role is different – they provide evidence and illustrations for the discussion.

1.5. Chapters outline

After this introduction, this dissertation will proceed into three chapters that together form this work's theoretical framework. Chapter 2 sets the ontological and epistemological ground for this research and provides an overview of the sociology of knowledge, the discipline at the intersection of sociology, philosophy and history concerned with the relationships between social order and systems of thought (i.e., what is considered knowledge in a society, how social institutions influence knowledge distribution, how thinking and prevalent ideas function in people's social life, how ideas transform into shared knowledge, what the social origins of modes of thought are, and how people in societies frame and interpret the social reality through knowledge). More specifically, Berger and Luckmann's (1966) thesis of social construction of reality is introduced and explained. Social constructionism is a foundational theoretical premise for this inquiry and for all the key notions and concepts used throughout the work, including multiplicity of knowledge(s), discourse, ideology, power, archeology of knowledge, and the status of scientific knowledge.

Chapter 3 provides a review of the marketing literature regarding the issue of ideology as it shapes markets, the work of marketers and the scholars engaged in marketing and consumer research. In an attempt to better structure scattered (but not too numerous) research about marketing and ideology, marketing and consumer scholars' contributions were divided into three categories: market ideologies (i.e., political, economic, institutional, etc. powerplays acting as mechanisms legitimating market existence, expansion or creation), marketing ideologies (i.e., a system of knowledge that justifies marketing as a discipline and as a socio-organizational institution, esp. to help marketers maintain their ability to meet the demands of their occupation) and marketing as ideology (i.e., a global ideology expanding neoliberal discourse well outside of a market setting).

Chapter 4 provides an overview of one particular ideology – that of healthism, the ideology that has become a biopolitical project with pronounced moral rhetoric that holds together the market and consumption system of health food. This discussion, sourced from a range of sociological perspectives on health, illness, risks and food, will serve as an analytical framework for the empirical analysis of marketing discourse on health food and its ideological underpinnings and implicit assumptions.

Chapter 5 explains the adopted methodology and shows how it was applied step-by-step from early research design and planning, to data collection and synthesis, and finally to the analytical stage. Specifically, it demonstrates the procedures involved in production of the sample of publications researched here, techniques applied at various stages and discusses why (and how) this research approach can be defined as critical.

Chapters 6 and 7 report on the results of a systematic literature review of health and food marketing research. Chapter 6 presents a bibliographic synthesis of 30 years of marketing and consumer research in the field of health and food, assessing authorship and manuscript characteristics, revealing the research status quo and visualizing research trends in the field in terms of research methods and study characteristics.

Chapter 7, on the contrary, presents the structure of 30 years of marketing and consumer research on health and food by categorizing research streams and presenting them in the form of a map. Each research stream is discussed in terms of the collective findings of the research articles that constitute it, their declared rationale and theoretical underpinnings, and their connections to other research streams. Considering the ever-growing research in this field, mapping these streams can ease the navigation for those who are interested in this topic, clarify central constructs and typology formations and thus reduce the complexity within the existing research.

Chapters 8–10 shift from literature review to the outcomes of critical discourse analysis. Chapter 8 sets out by identifying key thematic (ir)regularities in various marketing texts through detailed analysis of the content and co-occurrences of problematizations in the opening paragraphs of research articles. Introductory paragraphs in academic writing function as a strategic discursive device that essentially shapes research work by grounding research in the existing context and then disrupting it in order to create a unique and original contribution. This analysis helped identify three dominant discourses about health and food, labeled "nutri/edu" discourse, "simple solutions" discourse, and "win-win" discourse, which are introduced and thoroughly discussed in this chapter in terms of their distinct thematic choices, guiding assumptions, invoked arguments, structuring dichotomies and broader consequences for various market actors.

Chapter 9 carries on the analysis brought in the previous chapter and proposes a deconstructionist analysis of the critical components of the three discourses: conceptualization of health, (healthy) food product and (healthy food) consumer. These fundamental concepts are often taken for granted in marketing and consumer research texts about health and food and thus result in a lack of reflexive conceptual discussion. Building on the analytical tool of the Greimas' semiotic square, this chapter digs into the "unsaid" and into the "obvious" to show the controversies within and, ultimately, produces a critical vocabulary of health and food in dominant marketing discourses.

Chapter 10 discusses these findings in light of the ideological functioning of health in marketing discourse. This chapter argues that health food is a powerful symbol and argument that invests marketing texts with a function that transcends the domain of food. The five functions of health, or "health halo" effects as they can be figuratively called, that are discussed in this closing chapter are the moralizing effect, the market-binding effect, the (dis)empowerment effect, the industry legitimation effect, and the marketing (re)branding effect.

Finally, Chapter 11 presents conclusions, discusses the contributions, lists this research's limitations and future research directions, and considers how a critical discourse study can drive future marketing scholars' reflections.

As a final note, the dissertation (except for this introduction) was written using the pronoun "we", which acknowledges those who guided, encouraged, and suggested how to develop this work. Here "we" (though also an academic convention in my mother tongue) stands for my gratitude for the intellectual contributions of all those who helped me during this project. However, the responsibility for any errors, misjudgements or inaccuracies in the arguments that are put forward in this work is all mine.

2. Theoretical inspiration: Sociology of knowledge

Health is omnipresent in the public discourse, as well as in the marketplace. Furthermore, food and health seem to be connected so tightly that it has become hard to imagine one without another. Knowing about health seems like some of the most important knowledge each one of us, as consumers, needs to have, making it a compelling claim for marketing strategies. The same ubiquity and interconnection is valid for academic research about health and food, meaning that knowledge about health seems to constitute one of the strategic priorities for scholars in marketing and social studies.

In order to examine the function of knowledge about health and food in marketing, we first need to clarify the theoretical and epistemological underpinnings that guide our approach to health as a form of social knowledge. We will do so by providing an overview of the discipline concerned with the relationships between social context and systems of thought, known as the sociology of knowledge. More specifically, we will focus on the social construction of reality theoretical tradition within the sociology of knowledge, and will introduce and discuss key notions and concepts (e.g., ideology, discourse, social knowledge, etc.) to be used throughout the rest of this work.

2.1. Sociology of knowledge between two intellectual traditions

The relationship between knowledge and social reality lies at the core of a discipline known as the sociology of knowledge. Generally speaking, the sociology of knowledge argues that "society's influence extends into the structures of human experience in the form of ideas, concepts, and systems of thought" (McCarthy, 1996, p. 1). Unlike a philosophical quest to find the ultimate truth, the sociology of knowledge is concerned primarily with what is considered knowledge in a society, how social institutions influence knowledge distribution, how thinking and prevalent ideas function in people's social life, how ideas transform into shared knowledge, what the social origins of modes of thought are, and how people in societies frame and interpret the social reality through knowledge. As a discipline, the sociology of knowledge has developed at the intersection of sociology, philosophy, and history. More recently, the growing importance of knowledge as such in economic and technological developments (of "knowledge economy") and of communication and media (of "information society") has helped legitimate sociology's focus on studying the "force of knowledge in its own right" (McCarthy, 1996, p. 20).

The issues of knowledge and thinking have always attracted the attention of intellectuals, but an explicit focus on the relationship between social order and knowledge is considerably more recent, compared to other disciplines in the social sciences. Moreover, there are many valid contributions that do not explicitly declare their disciplinary association with the

sociology of knowledge (Swidler & Arditi, 1994, p. 322). The name of the discipline was coined by German philosopher Max Scheler in 1920s, who used it to discuss the relativity of historically and socially located systems of thought. Building on Marx's concepts of ideology and false consciousness, Nitzsche's concept of self-deception, and historical methods of inquiry, his goal was to demonstrate the relationship between thought and its historical settings. His work could be considered a moderate conception of the sociology of knowledge, even though one of Scheler's concepts - "relative-natural world view" explaining that human knowledge relative to a historical situation appears to individual as the natural way of looking at the world - become solidly integrated into subsequent theories in the field (Berger & Luckmann, 1966, pp. 17–19).

A more narrow definition and a "radical" conception of the sociology of knowledge (Berger & Luckmann, 1966, pp. 17–19) was given by Karl Mannheim, who saw it as both a theory and a socio-historical method: "the sociology of knowledge is one of the youngest branches of sociology; as theory it seeks to analyse the relationship between knowledge and existence; as historical-sociological research it seeks to trace the forms which this relationship has taken in the intellectual development of mankind" (Mannheim, 1954, p. 237). Mannheim expanded on Marx's concept of ideology, abstracted it from the context of political usage, and started treating it rather as a general epistemological problem. He proposed a categorization of ideologies by two types: i) particular ideology (skepticism towards some ideas or representations used by an opponent regarded as conscious disguises of the real nature of the situation) and ii) total ideology (distortion of total structure of the mind in an entire epoch or historico-social group) (Mannheim, 1954, pp. 49–50). The third type of ideology is implied throughout his work as general ideology, or understanding that no human thought is immune to ideologizing influences of the social context. In other words, unlike his predecessors, Mannheim claimed that society determines not only the moment of appearance, but also the content of human thought – an argument that helped establish the sociology of knowledge as a method for the study of almost any facet of knowledge systems (Berger & Luckmann, 1966, pp. 20–23).

Both fathers - of the term and of the narrow definition - of the sociology of knowledge have built their arguments by parting from the work and conceptions of society by Karl Marx, whose voice has been highly influential for the discipline. According to McCarthy (1996), on a macro level we can distinguish between two intellectual traditions in the sociology of knowledge: i) knowledge as socially determined, and ii) knowledge as constructing social reality. The first tradition derives directly from a Marxist understanding of man's consciousness as determined by his social and material world (Berger & Luckmann, 1966, pp. 17–18). It was primarily concerned with identifying either social conditions that facilitate recognition of neutral, disinterested, objective truth or social interests that might bias it (Swidler & Arditi, 1994, p. 306).

The social determination view in the sociology of knowledge, however, has some limitations. For instance, it's inherently concerned with uncovering socially produced distortions of some ideal form of truth and not with systematic study of the social conditions of knowledge as

such (Werner Stark in Berger & Luckmann, 1966, p. 24; Foucault, 2001d, p. 119). Its realism and material focus fail to account for cultural and symbolic aspects of societies, which became even more evident with the overall linguistic turn in humanities and social sciences (McCarthy, 1996). The major critique, which eventually produced the second intellectual tradition, according to Berger and Luckmann, the authors of the seminal work *The Social Construction of Reality* (1966), is the focus on theoretical thought and ideas, while it's the common sense knowledge that functions as "more real" in social lives:

> Only a very limited group of people in any society engages in theorizing, in the business of 'ideas', and the construction of *Weltanschautingen*. But everyone in society participates in its 'knowledge' in one way or another. Put differently, only a few are concerned with the theoretical interpretation of the world, but everybody lives in a world of some sort. Not only is the focus on theoretical thought unduly restrictive for the sociology of knowledge, it is also unsatisfactory because even this part of socially available 'knowledge' cannot be fully understood if it is not placed in the framework of a more general analysis of 'knowledge'. To exaggerate the importance of theoretical thought in society and history is a natural failing of theorizers. It is then all the more necessary to correct this intellectualistic misapprehension. The theoretical formulations of reality, whether they be scientific or philosophical or even mythological, do not exhaust what is 'real' for the members of a society. Since this is so, the sociology of knowledge must first of all concern itself with what people 'know' as 'reality' in their everyday, non- or pre-theoretical lives. In other words, common-sense 'knowledge' rather than 'ideas' must be the central focus for the sociology of knowledge. It is precisely this 'knowledge' that constitutes the fabric of meanings without which no society could exist. (Berger & Luckmann, 1966, p. 27)

By being concerned not only with theoretical thought, this "newer" approach to sociology of knowledge converges the study of formal with informal knowledge, shifting its focus to "social consciousness": structures of knowledge linked to broader cultural patterns that shape the thinking of every person. It examines "how kinds of social organization make whole orderings of knowledge possible […], political and religious ideologies as well as science and everyday life, cultural and organizational discourses along with formal and informal types of knowledge." Overall, it shifts the attention from an examination of the contents of knowledge to the study of forms and practices of knowing or, in other words, how ideas become plausible to those who hold them (Swidler & Arditi, 1994, pp. 306, 321) and how they then construct reality.

2.2. Social construction of reality: the role of knowledge in the dialectics of individual and society

So what does it mean that reality is socially constructed? How can the facts of the social world that we objectively experience at the same time be the product of human thought? The seminal work on explaining this paradox appeared in 1966 in *The Social Construction of Reality* by Berger and Luckmann. Their theory analyzes the role of common sense knowledge, or everything that passes for "knowledge" in a society, in terms of a reciprocal and dialectical

relationship between subjective experiences and social institutions. Berger and Luckmann's main claim is "to be in society is to participate in this dialectic" (1966, p. 149). This ongoing dialectical process consists of three moments (not gradual chronological developments, but occur simultaneously): knowledge externalization, objectivation, and internalization.

Subjective meanings are *externalized* and shared by individuals in their personal encounters, where common sense knowledge helps create an inter-subjective world – the reality where people can almost literally share the "here and now" world with each other, meaningfully communicate based on the common attitude to the world, and live their normal self-evident routines of everyday life. For subjective meanings to be shared in a society, they need to be made apprehensible and common to all people participating in communication and social life. This is done through *objectivation* maintained primarily through language and other symbolic systems (Berger & Luckmann, 1966).

The stock of knowledge thus is built around objectivations of experiences, events, and people's conduct. On the one hand, people need to have a stock of general knowledge shared by everybody, but, on the other, nobody can know everything about the world – in other words, knowledge is possessed differently by different individuals. The social distribution of knowledge is based on pragmatism and the relevance of knowledge to specific roles that individuals play in social institutions. Such distribution can be referred to as a *system of expertise* (Berger & Luckmann, 1966).

Frequently repeated actions form patterns and routines, within which people are assigned certain roles. A combination of patterned actions and sets of roles leads to the creation of a more stable "crystallized" social order of institutions. Further, in the passage from one generation to another, "the objectivity of the institutional world 'thickens' and 'hardens'" (Berger & Luckmann, 1966, p. 76) on a massive level, and the original meanings assigned to certain actions or social roles get lost and become simply taken-for-granted. In this way, new generations in the process of their socialization *internalize* socially constructed reality as an objective world, analogous to the natural world, and previously objectivated human thought - as the body of generally valid truth about reality. To ensure that institutionalized meanings are objectively available and subjectively plausible, the process of second-order objectivation, or *legitimation*, occurs. Legitimation produces cognitive and normative explanations and conceptual and organizational justification strategies for those who do not have a link to the original institutionalized meanings. On the ultimate level, legitimation produces theoretical knowledge that integrates different meanings and encompasses social order in its totality as a *symbolic universe*. This is the universe in almost literal sense, because everybody lives in it and takes it for granted, all human experience take place in it, and deviance from it is viewed as departure from the only possible reality (and labeled as heretics, madness, sickness, criminality, etc.). In this way, even the most obvious objective social reality is dialectically constructed through knowledge. In Berger & Luckmann's own terms, "Knowledge about society is thus a *realization* in the double sense of the word, in the sense of apprehending the objectivated social reality, and in the sense of ongoingly producing this reality" (1966, p. 84, original italics).

Once again, the dialectic process is continuous and simultaneous: social structures define personal knowledge and a man as a social product, whose actions and thoughts in their turn produce societies. Even if human knowledge becomes taken-for-granted as an objective world and not a set of human thoughts, it still changes as much as social reality does. Yet, "we have no "reality" at all, unless we have knowledge to tell us about it" (McCarthy, 1996, p. 2). Similarly, following Nietzsche, Foucault (2001c) claims that "knowledge is always the historical and circumstantial result of conditions outside the domain of knowledge […] Knowledge is not a faculty or a universal structure. Even when it uses a number of elements that may pass for universals, knowledge will only belong to the order of results, events, effects."

One of the most significant structural changes is concerned with changes in media that transmit knowledge. In various historical moments, media have been shown to have sweeping effects on the entire organization of knowledge systems and social realities. Reportedly, print and literacy profoundly altered knowledge and knowing starting from the 15th century on (Eisenstein in Swidler & Arditi, 1994, pp. 307–308). Later, by creating instantaneous, immediate, globally shared communication television has had a similar effects on social consciousness (McLuhan in Swidler & Arditi, 1994, pp. 307–308). In modern society, reality is especially loaded with the presence and global circulation of multiple media: traditional print and popular press, TV, popularized scientific data (commission reports, press releases, open access journals, census bureau data, etc.), social media used by government organizations, administrative agencies, and professional organizations, blogs, online posts, tweets, etc. "The growth and dissemination of these texts is both a mark of what knowledge is today and what *counts* as knowledge today" (McCarthy, 1996, pp. 24–25, original italics). Both the number and the form of media that have become an integral part of everyday lives today show the growing complexity in social stocks of knowledge and plurality of social realities.

In the following discussion of knowledge as socially constructed, we will single out some of the elements which we consider most relevant for our further analysis. These are: multiplicity of knowledge(s), the role of language in social construction of reality, ideology, and the status of scientific knowledge.

2.2.1. Knowledge vs. knowledges

The social construction of reality perspective implies the complexity of knowledge systems and a plurality of knowledge types. As we've discussed earlier, in order to establish the main argument of the dialectics of social reality and human knowledge Berger and Luckmann (1966) had to go beyond considering only theoretical ideas as knowledge and take into account everything that is regarded as knowledge in a society: what everybody knows about the social world, in other words. This includes such types of knowledge as linguistic objectivations and typifications built-in in vocabularies; pre-theoretical knowledge such as assemblages of maxims, morals, proverbial nuggets of wisdom, values and beliefs, myths;

role-specific knowledge unequally distributed in societies as differentiated expertise; explicit theories, etc. (Berger & Luckmann, 1966, pp. 112–115).

Some theorists of the social construction of reality, such as McCarthy (1996), go even further in discussing the variety and plurality of knowledge and try to linguistically objectivate this idea by using the word knowledge in plural form as "knowledges." McCarthy (1996, p. 19)'s primary intention is to indicate the disappearance of a "unified mental world." He defines knowledges as:

> […] everything that counts as knowledge, from folk beliefs, techniques and remedies for living, to religious ideas and collective opinions. Knowledges are also understood as expressing the collective experiences of entire societies as well as particular groups, classes, regions, and communities. Knowledges also include, for example, the ideas, programs, and information developed and disseminated by a host of workers—professionals, such as doctors, scientists, and lawyers, or service workers, such as teachers, the police, and the clergy. […] Knowledges are those organized and perpetuated ways of thinking and acting that enable us to direct ourselves to objects in our world (persons, things, and events) and to see them *as* something. […] At this point, let us define knowledges as *any and every set of ideas and acts accepted by one or another social group or society of people—ideas and acts pertaining to what they accept as real for them and for others*. (McCarthy, 1996, pp. 23–24, original italics)

More specifically, knowledges in the plural form emphasizes that there are multiple sets of knowledge that are simultaneously applied for the interpretation of a single event by "mixing information and common sense, drawing on both experts' ideas and on traditional notions, combining facts and observations with judgments and evaluations" (McCarthy, 1996, p. 17). It also highlights "the growing conviction that there are so many *versions* of reality corresponding to the near-endless numbers of special interest groups, each asserting its special right to express its own truth over those of others" (McCarthy, 1996, p. 19), meaning that "the many, varied, and competing ideas and interpretations and conflicting knowledge universes and ideologies need to find various degrees of recognition, tolerance and cooperation" (Berger & Luckmann, 1966, p. 142). It also brings attention to the heterogeneity of discourses and signifying systems used in multi-channel communication between individuals and on the institutional level (McCarthy, 1996, p. 24). In other words, in the historical conditions of today, "knowledges come in variety packs," they are disparate and dispersed, available in different sites and settings, and via multiple channels, and are multicoded in multiple languages (McCarthy, 1996, pp. 24–28).

McCarthy (1996)'s approach elevating the idea of multiple types of knowledge to the extreme of violating the standards of English usage is after all not too drastic. It explicitly illustrates one of the core elements of the social construction of reality approach to conceptualizing knowledge in dynamic and dialectical terms, as attached to its historical setting, and naturalized as objectively perceived reality. The plurality, or co-existence and mutual accommodation of shared core universe and different partial universes (Berger & Luckmann, 1966, p. 142), seems to be reflecting the specific historical character of the knowledge and social reality of today, as stated by several theorists in this intellectual tradition of the sociology of knowledge.

Additionally, we should note that in some other contributions to the theories of knowledge, the word is used in the plural form to reflect the translation from some Roman languages (especially French), whose grammar not only allows the use of word "knowledge" in plural, but also structures the authors' thinking about knowledge in its multiplicity. Several translations of highly-influential works of Foucault, in fact, struggle with his usage of the term, combined with the difficulty to distinguish between two types of knowledges Foucault extensively focuses on. One of them corresponds to the French word *connaissance*, or abstract theoretical type of ideal knowledge, and another - to *savoir*, or a more practice-driven "middle sort of knowledge" corresponding only roughly to the English "know-how" (Foucault, 1972; Gordon, 2001).

2.2.2. Language and discourse: theoretical and practical significance

As a result of so-called linguistic turn in the 20th century, language has moved from "a secondary, derivative phenomenon" to "the central feature about which everything rotates" in philosophy, human sciences, and social sciences, establishing that language is a condition for thinking, which cannot be avoided (Raffnsøe, Gudmand-Høyer, & Thaning, 2016, pp. 153, 160). Thus, language is also a vehicle of the social construction of reality, central to the transformation of human thinking and individual experiences into sharable meanings and generally available objects of knowledge (Berger & Luckmann, 1966; Searle, 1995).

For an individual, language *is* the reality: a child does not distinguish between the object and the object's name, "a thing is what it is called, and it cannot be called anything else" (Berger & Luckmann, 1966, p. 77). In many cases, "ways of talking" are inseparable from "ways of seeing" (Fairclough, 2010). Berger and Luckmann (1966, pp. 35–36) exemplify it in this manner,

> I apprehend the reality of everyday life as an ordered reality. Its phenomena are prearranged in patterns that seem to be independent of my apprehension of them and that impose themselves upon the latter. The reality of everyday life appears already objectified, that is, constituted by an order of objects that have been designated as objects before my appearance on the scene. The language used in everyday life continuously provides me with the necessary objectifications and posits the order within which these make sense and within which everyday life has for me. I live in a place that is geographically designated; I employ tools, from can openers to sports cars, which are designated in the technical vocabulary of my society; I live within a web of human relationships, from my chess club to the United States of America, which are also ordered by means of vocabulary. In this manner language marks the coordinates of my life in society and fills that life with meaningful objects. (Berger & Luckmann, 1966, pp. 35–36)

Language has the capacity to transcend individual experiences constrained by the "here" of the body and the "now" of the present, and therefore can act as an "objective repository of vast accumulations of meaning and experience, which it can then preserve in time and transmit to following generations" (Berger & Luckmann, 1966, p. 52). Language typifies

experiences so that they have a meaning to both the speaker and other members of society, yet sharing the meaning does not imply that it will be an identical meaning (Berger & Luckmann, 1966, pp. 53–54). Meanings of everyday life are delineated by the semantics of the language, which in its own turn was produced out of accumulation of individual experiences over the history of language development (Berger & Luckmann, 1966, pp. 55–56). In cultures where people speak languages that distinguish between the formal and informal "you," the so-called T-V distinction, social distance is experienced very differently compared to cultures that have only one form of second person pronoun. So, just like knowledge in general, language is a "realization" in a double sense:

> We have seen how language objectifies the world, transforming the *panta rhei* of experience into a cohesive order. In the establishment of this order language *realizes* a world, in the double sense of apprehending and producing it. Conversation is the actualizing of this realizing efficacy of language in the face-to-face situations of individual existence. In conversation the objectifications of language become objects of individual consciousness. (Berger & Luckmann, 1966, p. 173, original italics)

As we can see, being a medium of meaning production, language is both a structured system external to the individual and a very personal means of expression (McCarthy, 1996, p. 26). Once again, we may "blame" the limitation of the English language in creating the confusion around the double meaning of language as both a repository of structural meanings and a subjective means of self-expression. In writings in French by structuralists and post-structuralists, such as Ferdinand de Saussure, Claude Levi-Strauss, and Michel Foucault, the vocabulary allows a distinction between *langage* (language as a system of rules), *langue* (specific established linguistic system) and *parole* (speech, individual acts of speaking). The concept that tends to put various aspects of language together and adapt it for social (rather than purely linguistic) analysis is *discourse*. Most generally speaking, discourse stands for "a group of ideas or patterned way if thinking which can both be identified in textual and verbal communications and located in wider social structures" (Lupton, 2010, p. 145).

Due to multidisciplinary applicability, the term discourse can be used in different meanings. In a very general abstract way discourse is a particular view of the language as one of the interconnected elements of social life (Fairclough, 2003, pp. 3–4). It also can be understood as a collection of all statements produced by a group of signs (Foucault, 1972, p. 80). In a more particular sense, discourse is a system of texts, messages, talks, dialogues, or conversations with a specific application (Fairclough, 2003, pp. 3–4).

In the context of knowledge, discourse can be best understood as a "group of statements that belong to a single system of formation" (Foucault, 1972, p. 107) and governed by a set of rules (i.e., "discursive practices") that "determine what may be said, by whom, in what context and with what effect" (Gordon, 2001, p. xvi) in a given period and for a given social, economic, geographical, or linguistic area (Foucault, 1972, p. 117). Discourses with their regularities could be internally coherent, even if radically different from either discourses accepted in the past/present or in the dominant/alternative systems of thought. Such historically and culturally specific rules and practices organize and produce different forms of knowledge, of

"what people think […and…] what is thinkable" (Swidler & Arditi, 1994, p. 314), and thus, each discourse needs to be grasped in the specificity of its occurrence.

The key theoretical takeaway of the Foucauldian understanding of discourse is that discourses do not represent knowledge and reality, but produce them. Everything that is known is made knowable through discourses: "there is no knowledge without a particular discursive practice, and any discursive practice may be defined by the knowledge that it forms" (Foucault, 1972, p. 183).

Understanding the role of language and discourse in the social construction of reality has not only theoretical, but also practical significance. On a practical level, products of verbal and written communication, such as individual statements, discursive events, and discursive formations, open up possibilities to grasp the knowledge and, thus, the reality through the analysis of texts in the broad sense of this word[7] via a methodological approach of discourse analysis.

Discourse analysis has established itself as a multidisciplinary method applied in research in political science, anthropology, sociology, history, social psychology, etc. It examines texts combining more "local" textual analysis methods with broader sociological perspectives - in other words, combining textual and contextual dimensions. The textual dimension refers to the structure of discourse on micro-linguistic (use of grammar, rhetorical devices, syntax, use of words, content matter of sentences, etc.) or macro level (topics, themes, style, genre, etc.). The contextual dimension is rather concerned with the production and reproduction of systems of dominant ideas, discursive meanings, and influences in social interactions and situations, and the connection of textual structures of discourse to social, political, and cultural context (Lupton, 2010, p. 145). The goal of discourse analysis is not descriptive or observational, but by definition critical, and thus requires approaches based on critical awareness and reflexivity, requiring "sensitivity to the manner in which ways of knowing are generally accepted as common-sense and taken-for-granted" (Lupton, 1995, p. 13).

Besides, critical awareness and reflexivity, discourse analysis on the contextual dimension requires some degree of comparison to a rivalry or opposing system of knowledge, either in simultaneity or in a historical perspective. Embracing discursive formations in their dispersion and discontinuities, intrinsic oppositions, and contradictions constitutes the core principle of one of the most prominent approaches to the analysis of knowledge via discourse described by Michel Foucault as *archeology of knowledge* (Foucault, 1972). This archeological approach first and foremost is set to distinguish itself from, on the one hand, historical disciplines (e.g., history of ideas), and, on the other, logical/philosophical or linguistic structural analysis of discourse. The main distinction is archeology's focus on discourses per se (not as a symbolic representation of some hidden truth) in their socio-historical specificity, their unique internal (ir)regularities, their practices and events, their strategic games and

[7] In a broad sense, the term text includes any "written and printed texts such as shopping lists and newspaper articles are 'texts', but so also are transcripts of (spoken) conversations and interviews, as well as television programmes and web-pages. We might say that any actual instance of language in use is a 'text' – though even that is too limited, because texts such as television programmes involve not only language but also visual images and sound effects" (Fairclough, 2003, p. 3).

polemical facts, and their system of discursive transformations and continuities (Foucault, 1972, 2001c, p. 2). On various levels, the archeological approach seeks possibilities for the comparison of discursive formations and favors instances of contradictions and dispersions over universal continuities. Archeological analysis exists in plural, is set to "differentiate differences instead of reducing them" (Foucault, 1972, p. 169), and to uncover "the play of analogies and differences as they appear at the level of rules of formation" (Foucault, 1972, p. 160).

2.2.3. Power and knowledge and the (new) concept of ideology

The concept of ideology is one of the fundamental notions in the sociology of knowledge: as we've shown before, the study of ideology as false consciousness and distortion of reality by the ruling class advanced by Marx preceded and determined the conception of the sociology of knowledge as a discipline, and the father of the discipline, Karl Mannheim, was focused precisely on the study of ideology. Ideology occupies considerable space in the social construction of reality perspective, yet the attention shifts from the content of ideology to its function.

The social construction of reality perspective sees ideology as a particular type of social knowledge. Similar to its original conception, ideology is a specific type of social knowledge that has political or power-related implications. Differently from the Marxist pejorative conception that presupposes that ideology distorts consciousness and hides the truth that can be realistically grasped and uncovered with the help of an ideology-free scientific knowledge, social construction focuses exclusively on the social effects of ideology, not its content in terms of truth value.

Generally speaking, all knowledge serves a number of functions in constructing social reality, such as: "to integrate a social order, to provide a coherent and meaningful sense of reality (and unreality) for human beings, to render and to preserve a person's or group's identity, and to legitimate action and authority" (McCarthy, 1996, p. 5). In the case of ideology, its function is rather political and is concerned with establishing, maintaining, enacting, and transforming the relations of power. Power relations here do not refer only to a conventional understanding of power as enacted in political organizations, but also to relations between ethnically and culturally diverse groups, men and women, rich and poor, adults and youth (Fairclough, 2010, p. 26), and virtually any of "the multiple forms of subjugation that have a place and function within the social organism" (Foucault, 1980b, p. 96).

The function of ideology also needs to take into consideration how the concept of power has changed with the development of society. Compared to an authoritative and sovereign conception of power, in modern societies power relations have flattened and become more dispersed:

> Power must be analysed as something, which circulates, or rather as something which only functions in a form of a chain. It is never localized here and there, never in anybody's hands,

> never appropriated as a commodity or piece of wealth. Power is employed and exercised through a net-like organization. And not only do individuals circulate between its threads; they are always in a position of simultaneously undergoing and exercising this power. They are not only its inert or consenting target; they are always also the elements of its articulation. In other words, individuals are the vehicles of power, not its points of application (Foucault, 1980b, p. 98).

Foucault (2001d, p. 120) insists that power should be seen as "a productive network that runs through the whole social body, much more than as a negative instance whose function is repression."

Accordingly, social theory has moved away from the Marxist concept of power domination and exploitation, to such more modern concepts of power relations as "disciplinary power" (regulating conduct by reinforcing individuals' discipline and behavior in expected "regular" ways with systems of surveillance and assessment), "bio-power" (disciplinary power regulating people's body, birth, death, and illness), "pastoral power" (guiding social conduct like a shepherd guiding his flock), (Foucault, 1980b, 1997, 2001b, 2001d), and "epistolary power" (providing "technical" and/or abstract guidance from a distance) (Sulkunen, 2009).

Since power relations are configured differently today, consequently, the function of ideologies needs to be perceived differently: "in today's world, systems of knowledge such as medicine and law need be neither false nor distorted, but the authority they effectively claim, the power they yield as institutions, and the élites they employ and protect certainly place them in the vicinity of ideological systems" (McCarthy, 1996, p. 30).

Just as with any knowledge, when ideologies become more stable and institutionalized on a more massive level, they become *lived* rather than *thought* (Althusser in McCarthy, 1996, p. 46): they obtain the status of common sense, and may lose the explicit connection to power discourse for all parties involved (i.e., both the dominated and the dominant). One of the frequently used metaphors (e.g. Fairclough, 2010; Foucault, 1972; Lupton, 1995) to talk about ideologies is opacity: when some particular ideological representations become naturalized, they turn opaque and are no longer visible as ideologies. Despite opacity, their power relation function persists and extends its effects. For this reason, ideology - more than any other type of knowledge - has attracted the utmost attention from social researchers. While the socially constructed nature and origins of common (a-political) social beliefs (e.g., that comfort food helps convalescing or that old habits die hard) might be interesting to some specialized scholars, it may be completely irrelevant for most other people, yet knowledge affecting power relations and inequalities needs to be treated with more caution and reflexivity.

The common sense nature of ideologies makes them difficult to grasp. They are, in Fairclough's (2010, p. 27) words, "primarily located in the unsaid, or in the implicit propositions," so to access whether particular discourses have an ideological character becomes a demanding task. A critical perspective helps make ideological representations visible (Fairclough, 2010, p. 39), exposed, historicized, and rendered problematic (McCarthy, 1996, p. 50). Additionally, the invisible or the opaque could be best seen in comparison to

something else, which is why ideologies become visible when there is an element of otherness, such as a conflict between ideas, a transition, or a change.

Word ideology itself is rather employed to talk about outsiders' knowledge, foreign to our own symbolic universe. For instance, in Karl Mannheim's (1954) original conception, ideology was a polemical term to talk about the opponent, the Other. Similarly, concerns about ideology come in the form of questioning the validity of an opponent's thought in the pre-sociology of knowledge approaches by Marx and Napoleon (McCarthy, 1996, p. 35). We talk about the ideology of other societies and of other epochs, especially when their knowledge does not stand up to par to our standards and ideals (McCarthy, 1996, p. 31). Eagleton's (1991, p. 2) metaphor of ideology as halitosis "in the sense what the other person has" is the perfect summation of the point.

Further, the otherness could lead to a straight clash between various worldviews, which makes ideologies not only identifiable, but vividly felt. McCarthy (1996, pp. 4, 32) lists such modern ideological clashes happening everywhere on national and global landscapes as racial and ethnic conflicts, conflicts of nation-states and parties, between church and secular authorities, of medical and technical elites asserting social agendas for the unborn and the dying, various fundamentalisms, the growth of state violence, neo-Nazi movements, etc. The clash allows better seeing and understanding the interests and ideas at odds with each other, leading to realizations that trigger universe maintenance mechanisms (Berger & Luckmann, 1966) or, on the contrary, paradigm shifts (Kuhn, 1970). Both involve widening the gap between conflicting ideas and strengthening ideologies by producing more compelling discourses of legitimation.

Legitimation of ideologies, just like legitimation of other knowledge types, requires conceptual and/or social mechanisms that produce explanations of ideology's superiority on a more theoretical level (Berger & Luckmann, 1966, p. 126). Contrary to the earlier theoretical traditions based on mythology, theology, and philosophy (Berger & Luckmann, 1966, pp. 126–130), dominant legitimation mechanisms of today rely on scientific systems of knowledge, rationality, practicality, and pragmatism (Berger & Luckmann, 1966, p. 130; Foucault, 1972; McCarthy, 1996, p. 50; Sulkunen, 2009, p. 148). Such understanding of the role of science is very different compared to the Marxist view, which sees scientific thought as "knowledge without deception" (Marx in McCarthy, 1996, p. 40) and a countermeasure against ideology's false consciousness. Critical approaches in the social construction of reality tradition, as we will briefly discuss in the following section, bring attention to both cultural and ideological forces at play in theories and practices of science, just like in any other social domain (McCarthy, 1996, pp. 29–30).

Besides a critical view on ideologies[8] and their function in establishing, maintaining, and

[8] Raymond Geuss (cited in Eagleton, 1991, pp. 43–44) distinguishes between the "pejorative" definition of ideology (i.e., a set of values, meanings and beliefs that involve an element of self-deception and used to legitimate unjust forms of power), the "descriptive" definition (i.e., a belief system characteristic of certain social groups anthropological, "world-view" in an anthropological sense), and the "positive" definition (i.e., a set of beliefs that coheres and inspires a specific social group in the pursuit of political interests judged to be desirable).

changing social relations of power, they can be seen in more descriptive terms (Fairclough, 2003, p. 9) as cultural phenomena and systems of integration that "provide the most fundamental frameworks through which people interpret experience and "live" the conditions available to them […] that serve to orient human actors to one another and to their worlds […] that express both how we actually live and how we imagine we live" (McCarthy, 1996, p. 45). As unconscious structures of thought that create social reality, ideologies in a more anthropological perspective ensure social integration, shape social identity, hold together social practices and rituals, and mediate all aspects of lived social experiences. That being said, the difference between "facts," "opinions," "beliefs," or "ideologies" is tenuous and negotiable (McCarthy, 1996, p. 27).

Taking into consideration the changed nature of power in societies and the socio-historical nature of knowledge, Michel Foucault introduced and made popular the use of an inseparable symbiosis of *power/knowledge* to show that in the modern social world, power is knowledge and knowledge is power: "There couldn't be any knowledge without power; and there couldn't be any political power without the possession of a certain special knowledge. […] Political power is not absent from knowledge, it is woven together with it" (Foucault, 2001c, pp. 31–32). As a matter of fact, power/knowledge was a fundamental theme of Foucault's body of work, and especially in historical studies of the archaeology of human sciences, and just like the social construction of reality tradition evolved as a critique of the concept of ideology as false consciousness (Foucault, 2001d, p. 119). In Foucault's own words from an interview reported in Gordon (2001):

> I have been trying to make visible the constant articulation I think there is of power on knowledge and of knowledge on power. We should not be content to say that power has a need for a certain discovery, a certain form of knowledge, but we should add that the exercise of power creates and causes to emerge new objects of knowledge and accumulates new bodies information. The exercise of power perpetually creates knowledge and, conversely, knowledge constantly induces effects of power. (Gordon, 2001, pp. xv–xvi)

Several techniques originating from the past serve today as forms of power/knowledge. For instance, from the end of Middle Ages until the 17-18th century, the technique of inquiry about population wealth, money resources (and later spread in knowledge and learning) was used as a technique of transforming knowledge into power and vice versa. This inquiry technique has produced the practice of testimony based either on participation and observation of events or on special knowledge about a certain realm of life. Through juridical institutions' practices, inquiry and testimony are still in use as modes of authenticating truth and acquisition and transmission of knowledge (Foucault, 2001c, pp. 49–52). Another modality of power/knowledge is expressed in the techniques of examination and surveillance, which gave rise to human sciences (i.e., psychiatry, psychology, sociology) and population statistics starting from the 18th century, as opposed to the sciences of observation (e.g., geography, astronomy, zoology, botany) linked to the technique of inquiry. Knowledge acquired through surveillance is organized around an idea of a "norm" (e.g., normal behavior, normal child's development, normal health, etc.), and exercising power based on such knowledge – around guiding people into disciplining themselves in order to abide by the defined norm (Foucault,

2001c, p. 59). In both cases, as Gordon (2001, p. xvi) summarizes it, the "rational exercise of power tends to make the fullest use of knowledges capable of the maximum instrumental efficacy."

Power/knowledge is also linked to the "regimes of truth" through which every society makes the difference between what to consider true and false, "the mechanisms and instances that enable one to distinguish true and false statements; the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true." In most Western societies, one of the essential rules of the regime of truth is the reliance on scientific discourse to produce knowledge that can obtain the status of truth in the societies (Foucault, 2001d, pp. 131–132).

2.2.4. Status of scientific knowledge: between the standard view and the social reality of science

Science has always had a special status within social studies, yet for different reasons. Earlier approaches in the sociology of knowledge, in fact, excluded science from sociological consideration. This was based on the fundamental difference attributed to knowledge about natural world versus that about the social world. Valid scientific knowledge is one that "reveals and encapsulates in its systematic statements the true character if this world" (Mulkay, 1979, p. 20), which essentially means that science does not create meaning, but recognizes reality which already exists and formulates it in only one possible truthful way. The first sociological accounts of scientific knowledge (i.e., the social determination tradition) were thus concerned with social conditions that are best fitted to reveal such objective truthful knowledge (e.g., democratic societies), as well as its social consequences (e.g., distortion). In other words, science was treated as a social phenomenon rather than a type of socially constructed knowledge, leaving the evaluation of social and cultural determination of the content of scientific knowledge beyond questioning (Mulkay, 1979, pp. 17–23, 59–60).

Throughout centuries of philosophical thought, a certain standard of what truthful and objective scientific knowledge *should* be has been developed, which Scheffler (in Mulkay, 1979, p. 18) called the "standard view of science." Science thus should be "objective not subjective, rational not doctrinaire, and marked by equanimity not fanaticism" (McCarthy, 1996, p. 31). It should demonstrate stringent criteria for validity, impersonal technical criteria of observational laws, and abstract explanatory regularities of theoretical laws, as well as adhere to a certain ethos based on the values of universalism, communism (i.e., truthful knowledge is a public property), disinterestedness and organized skepticism (Mulkay, 1979, pp. 17–23).

More recent approaches to the nature and status of scientific knowledge started casting an eye on the content of scientific truths and on the practices of scientific work, unraveling the myths about some of the fundamental principles of supposed objectivity (e.g., scientific uniformity, observable objects, stable meanings, common access, intellectual detachment,

rational reflection) (Mulkay, 1979). A discipline known as the sociology of scientific knowledge is concerned precisely with what comes to count as scientific knowledge and how what is perceived as science affects social life (Collins, 1983, p. 267). The sociology of scientific knowledge demonstrates that the institution of science that was once considered as external and superior to the society is in fact a social and human enterprise (McCarthy, 1996, p. 118).

The reality of science as social and cultural practice is that scientific knowledge emerges in particular socio-historical settings (Foucault, 1972), is influenced by sociocultural and political factors external to science (Mulkay, 1979), is developed by the virtue of scientists' thoughts and actions constrained by the guiding paradigm until a scientific revolution takes place (Kuhn, 1970), is created and maintained by scientific communities (Collins, 1983), evolves out of researchers' personal ambition and desire to make a name for themselves, and depends on forms of thinking within which it can be comprehended and accepted as both "standard science" and "interesting theory" within a society (Davis, 1971). In this sense, scientific knowledge about the physical world is socially constructed because even the most technical precise and detailed observations and theorizations are "mediated through available cultural resources; and these resources are in no way definitive" (Mulkay, 1979, p. 60).

Comparing an idealized vision of science with the actual practices and complicated attitudes in scientific communities at large, the norms of scientificity in the social construction of reality perspective are reformulated in a more flexible manner, as put by Mulkay (1979, p. 95):

> Sociologists and philosophers have converged on a conception of science as an interpretative enterprise, in the course of which the nature of the physical world is socially constructed [...] A rather better general formulation would be that scientific knowledge is established by processes of negotiation, that is, by the interpretation of cultural resources in the course of social interaction. Cognitive/technical resources are employed by scientists in such negotiation; but the eventual outcome depends also on the availability of other kinds of social resources. The conclusions established through scientific negotiation are not, then, definitive accounts of the physical world. They are rather claims which have been deemed to be adequate by a specific group of actors in a particular cultural and social context. (Mulkay, 1979, p. 95)

That being said, the "standard view of science" is still very powerful in influencing the idea of science both among the general public and the scientific community. For the latter, it informs professional ideology used to preserve elite status of science, its institutional autonomy and minimal regulation from outside, selective employment, control over education facilities, extensive public support in terms of research funds, etc. The idea of science as a truly valid type of knowledge that leads to a practical benefit and scientists' own claim to be objective and politically neutral is thus ideological in itself. It creates and institutionalizes a hierarchy among ideas and is used for political reasons oriented at the maintenance of institutional autonomy, and more specifically relatively autonomous control over its own reward system (e.g., employment, career mobility, salaries, fellowships, and prestige) and authoritativeness derived from a secure source of patronage from publicly funded resources (Mulkay, 1979, pp. 112–120; Kuhn, Crane and Wuthnow in Swidler & Arditi, 1994, pp. 311–312).

To sum up, scientific knowledge is a social construct like other cultural products, yet it is clear that it possesses an "intellectual supremacy in the modern world" (Mulkay, 1979, p. 60) and can boast a special privileged status and social organization. In Berger and Luckmann's terms scientific knowledge is the current dominant theoretical system of thought used for legitimation and maintenance of "symbolic universe", which substituted such conceptual systems as mythology, theology, and philosophy, used as all-embracing frames of reference in the past (Berger & Luckmann, 1966, pp. 113–115).

In Foucauldian terms, scientific knowledge is the current dominant discursive practice of the "regime of truth" in most Western societies (Foucault, 2001d, pp. 131–132). In this sense, every discourse that corresponds to the criteria of scientificity, such as rational structure and verifiable procedures and conclusions, has a privileged position of power compared to other forms of knowledge.

Scientific discourse is especially interesting to Foucault precisely because Western societies have invested it with the status of ultimate rationality and truth. Yet it's not because science can be considered more valid than other forms of knowledge. If every type of knowledge strives to become epistemologized, more rational, and move towards or into the domain of science, the analysis of knowledge should follow the opposite direction and use scientific discourses as a starting point of Foucauldian archeology by questioning "sciences, their history, their strange unity, their dispersion, and their ruptures" to uncover the preceding domain of common knowledges and discourses (Foucault, 1972, p. 195).

This is precisely why, among various types of discourses about health and food in the market setting, this research (as empirical investigation) focuses on academic marketing discourse about health and food: we consider that marketing and consumer research makes theorizations of common (i.e., of consumers) and specialized (i.e., of marketing professionals) social knowledge about health and food, and thus would be a valid starting point to uncover the ideological functioning of health knowledge in modern consumer societies.

3. Literature review: Ideology in marketing and consumer research

In this chapter, we adopt the social construction of knowledge perspective, introduced in the previous chapter, in order to focus on the peculiarities of marketing as a social construct. In particular, we'll look at marketing through the perspective of ideology and power/knowledge interplay, review marketing research involved in uncovering the underlying ideologies that shape the market, the work of marketers, and the scholars engaged in marketing and consumer research. Looking at marketing as a socio-organizational practice governed by a set of ideas with a function of market and consumption legitimation is not a standard approach to conceptualizing marketing, yet the popularity of this approach has been growing recently. We find this approach especially useful in the light of discussing the ideology of healthism accounting for the ubiquity of health in the consumer marketplace and in marketing research, which will be the topic of the following chapter.

3.1. Concept of ideology in marketing

As we discussed in the previous chapter, the social construction of reality perspective sees ideology as a type of social knowledge that has a political function of establishing, maintaining, enacting, and transforming the relations of power. As the Foucauldian notion of power/knowledge further explains, in today's social reality, any knowledge could function as power, and power always relies on some sort of knowledge. Since scientific knowledge occupies a special status of privileged knowledge in Western societies, ideologies often rely on scientific discourse for their legitimation.

When it comes to marketing - the discipline that produces both theoretical and practical knowledge about consumers and markets – does it contain ideologies too? Can we say that marketing functions like an ideological system in modern society? In which form and variations does ideology in marketing exist? Which power function does it produce?

Ideology has always been only a secondary construct in marketing and consumer research, useful and instrumental for some arguments, but not one of fundamental importance (O'Reilly, 2006, p. 265). When ideology in marketing and consumer research moves more towards the foreground and when the concept requires explicit definition, researchers seem to follow one of the following common strategies.

First, scholars doing marketing and consumer research love to cite Eagleton's (1991) definition given in the opening of his book, which lists 16 distinct uses of the term and explains that the common definition of ideology will probably remain an illusion because it has several useful meanings, which are not always compatible. Eagleton's multi-definition of

ideology often serves marketing and consumer researchers as a substitute for a discussion about the reasons for choosing one or another operational definition.

Another interesting common practice in marketing research, which is shared with many other social theorists of knowledge and ideologies, is to use the "classical" definition of ideology by Marx as an anti-definition: it is introduced only to be contrasted to a more neutral meaning adopted from either cultural, anthropological, or political uses of the term. Table 3.1 below summarizes various definitions of ideology, including their intellectual origin, commonly cited in marketing research.

In considering ideology in marketing, we should also keep in mind the hybridity of marketing as i) practice, ii) a branch of knowledge and academic discipline, and iii) a socio-organization institution (Fırat, 2013; Hackley, 2003; Marion, 2006; Slater, 2011 etc.), and therefore discuss how socially-constructed knowledge turns into stable ideological systems of meanings on three levels: in the market systems; in the worldview shared by marketing practitioners, researchers and commentators; and in the global social imaginary influenced by the marketing's "way of seeing."

While the last element, marketing as ideology, is ideology in its most conventional meaning, the first two are systematically (mis)perceived as ideology-free. Marketing as a practice, and even more so the marketing discipline taught and researched in the academic world, are often displayed and perceived as economically rational and perfectly calculable objective "truths." Both are supposed to be realms of facts and figures, which, in common perception, are the opposites of ideology and cannot possibly be socially constructed.

In conventional economic logic, marketing could be seen as a "normal" commercial practice, where marketers' actions are perfectly economically rational and are based on some sort of hard objective knowledge (about the market or about the consumer). However, the problem with marketing, as Slater (2011, p. 24) puts it, is that it's a hybrid of economy and culture and so an "impure monstrosity that clearly exists but which possesses dubious conceptual rights to existence." We can think of *demand,* a fundamental working concept in marketing, used to justify a multitude of marketing activities to the point that "demand management" is being used as the quintessence or synonym of marketing management (Kotler 1976, p. 96 in Alvesson, 1994, p. 293), more specifically of the social construction of demand, as a good illustration of the point. Demand cannot be seen as a universal and measurable "pure" entity because marketing itself influences the demand curve through psychological techniques (e.g., advertising) by ceaselessly encouraging consumers to problematize their own life and thus to invent new needs to be satisfied through the market (Slater, 2011, pp. 27–28). Marketing at large can be seen as "the systematic constructing and "bending" of needs and wishes in a way that ties them strongly to commodities […] as the manipulation of consciousness "hypersensitive" to "needs" and wants which, it is promised, the market will satisfy" (Alvesson, 1994, p. 305). This reasoning further leads Alvesson to formulate a critical (even cynical) metaphor of marketing as "mystification" that is not limited to the construction of consumer needs and demand, but can also confuse the understanding of needs:

> The field can be conceptualized in terms of the construction, distortion and fragmentation of (our understandings of) needs. This conceptualization of course disregards to some extent the positive functions of marketing, but the point is that it captures vital elements of what marketing is also about, apart from fulfilling "true" needs (wants): it is also about the production of "false", "artificial" or "socially created" needs, i.e. it makes arbitrary linkages between needs and goods. (Alvesson, 1994, p. 303)

Similarly, the concepts of "offering," "value," and the "market," central in all official AMA definitions of marketing (AMA, 2016), are the outcomes of complex processes of cultural and social construction and not universal "natural" categories of exchange relations (Zwick & Cayla, 2011). Thus, marketing, in Alvesson's (1994, p. 300) words "can perhaps be better described as a set of techniques or an "ideology,", rather than a "science" ". Or as Zwick and Cayla (2011, pp. 15–16) put it, following analysis by Sherry (2011, p. 343), marketing operates "as an ideological screen rather than simply a technique that aims to arrange the world (class, ethnicity, gender, life course, and core/periphery relations) according to a singular vision of the good life as the ability to consume commercially produced private goods and services."

Furthermore, to be recognized as an autonomous academic discipline, marketing needs to possess enough scientific credibility. This means it needs to correspond to socially expected norms of scientificity, the idea of what "science" should be. The dominant and privileged position in contemporary society is given to the abstract idea of pure positivistic scientific knowledge. However, as we've shown before, in the perspective of the sociology of knowledge, any scientific discipline is a social construct and not a universal representation of the only possible objective truth revealed from the natural reality. After all for a scientific discipline or a school of thought to be legitimized as such, it needs to rely on a community of academics who share a consensus about a certain paradigm, social practices of professional interaction, similar educational background, and the same language to engage in communication (Kuhn, 1970; Ostergaard & Bode, 2016). Production of knowledge in academia is subject to the politics of institutional networks (Tadajewski, 2016) and a truly social activity (Bradshaw & Brown, 2008) based on ongoing interactions with the literature, co-authors, peers, colleagues, librarians, administrative staff, students, journal editors, funding agencies, etc. within the "academic food chain" (Tadajewski, 2016).

As Ostergaard and Bode (2016) put it, there are still a lot of "feelings of awkwardness, unease, or even anxiety" when it comes to connecting the rational idea of science with the real-world context of doing science contaminated by subjective factors such as careers, the job market, professional rules of the game, and personal factors. Nevertheless, despite the unease, we'll look into the research that attempts to uncover the underlying systems of ideas and beliefs that govern marketing as a system of socially constructed knowledge.

Table 3.1. Ideology conceptions used in marketing and consumption research

	Intellectual origin	Operative definition of ideology	Examples of papers citing definition
Anti-definitions	Marx & Frankfurt School	A system of beliefs or values that emanate from and promulgate the worldview of the dominant group in a society. It's used to sustain and legitimate the power of the dominant group over perceptions of social reality and over social relations and institutions of the subjugated social groups. This is achieved by masking inequitable relations and thus systematically distorting reality, concealing contradictions and presenting an illusory picture of the social world.	(Hirschman, 1993); (Marion, 2006); (Zwick & Bradshaw, 2016)
	Friedrich Engels	*False consciousness:* system of thought imposed by the dominant group, that, in effect, creates a false perception of social reality within other groups.	(Hirschman, 1993)
	Antonio Gramsci	*Hegemony:* the ability of a dominant social group to obtain consent from those being subjugated, with the use of either overt coercion or co-opted consent from subjugated social groups to their own oppression.	(Hirschman, 1993)
Definitions	*Literary criticism:* Terry Eagleton	(a) the process of production of meanings, signs and values in social life; (b) a body of ideas characteristic of a particular social group or class; (c) ideas which help to legitimate a dominant political power; (d) false ideas which help to legitimate a dominant political power; (e) systematically distorted communication; (f) that which offers a position for a subject; (g) forms of thought motivated by social interests; (h) identity thinking; (i) socially necessary illusion; (j) the conjuncture of discourse and power; (k) the medium in which conscious social actors make sense of their world; (l) action-oriented sets of beliefs; (m) the confusion of linguistic and phenomenal reality; (n) semiotic closure; (o) the indispensable medium in which individuals live out their relations to a social structure; (p) the process whereby social life is converted to a natural reality. (Eagleton, 1991, pp. 1–2)	(Hackley, 2003) (Hirschman, 1993) (Humphreys, 2014a) (O'Reilly, 2006)
	Teun van Dijk	Representation of people's beliefs about themselves and about the social world.	(Bajde, 2013)
	Roland Barthes	Mythic narratives work to naturalize socially constructed meanings, practices, and ideological view-points as taken-for-granted states of the world—whose legitimacy as social facts can "go without saying."	(Humphreys & Thompson, 2014)
	Political economy: Michael Dawson	A worldview readily found in population, including sets of ideas and values that cohere, that are used publicly to justify political stances, and that shape and are shaped by society. Further, political ideology helps define who are one's friends and enemies, with whom one would form political coalitions and, furthermore, contains a causal narrative of society and the state. Cognitively, ideology refers to what one "sees" and responds to in the social world.	(Crockett & Wallendorf, 2004)
	Anthropology: Louis Dumont	Based on the concept of collective representation, ideology encompasses a wide array of social phenomena (values, norms, beliefs, meanings, symbols, and customs) and emphasizes the necessity of a common framework: in a given social space at a given moment in time, people are sharing the same intellectual heritage, a set of shared beliefs integrated into the institutions, committed to action and thus rooted in reality. Ideology delineates the range of expected and accepted behavior in a particular context, the constraints on the range of human action and expectations of the present players, the rules of the game and how the game is played.	(Marion, 2006)
	Clifford Geertz	Ideologies mediate all aspects of the lived and socially produced reality.	(Bajde, 2013)
	Philosophy: Paul Ricoeur	Ideology ensures social integration and the strengthening of social identity, help make sense of society and structure social practices.	(Bajde, 2013)
	Louis Althusser	Ideology as always existing in an apparatus, and its practice, or practices.	(Fougère & Skålén, 2013)
	Slavoj Žižek	Unconscious fantasies or desires that structure reality.	(Zwick & Bradshaw, 2016)

Source: Author's own elaboration

The rest of the chapter will revise the extant literature analyzing the dynamics and processes involved in the social construction of knowledge that shapes the markets and in ideological aspects of marketing. We will look at them at three levels. First, various powerplays (e.g., political, economic, institutional, cultural) may act as mechanisms or discourses legitimating market systems and consumption. We will refer to such ideologies as *market ideologies*. Second, marketing has its own system of knowledge and discursive regularities that function to justify marketing as a practice, as a system of knowledge, and as a socio-organizational institution. We can call these - *marketing ideologies*. Finally, marketing can be seen as a global ideology expanding neoliberal discourse well outside of a market setting. This last level can be referred to as *marketing as ideology*.

3.2. Market ideologies

Market ideologies are sets of shared ideas and values that are used publicly to justify market existence, expansion, or creation. Market ideologies can be summarized under an umbrella term of neoliberalism – a meta-ideology of extensive economic liberalization based on a belief that individual pursuit of self-interest through active use of market resources is more likely to increase the overall social welfare (Marion, 2006; Wensley, 2010). More often than not, neoliberalism is framed in negative terms (Askegaard, 2014; Fitchett & Caruana, 2015; D. Harvey, 2005), but it's hard to contest that it is also "a moral backbone of the market" (Wensley, 2010, p. 237), which eventually makes virtually any discussion of market ideologies – a discussion about neoliberalism.

When it comes to research of more specific issues, marketing scholars tend to be concerned with how particular systems of ideas function in various settings to produce market realities unexplainable solely at levels of economic rationality or personal subjectivity. Some of the most relevant examples of marketing and consumption research into market ideologies are summarized in Table 3.2 below.

Market ideologies may thrive in multiple forms and shapes and use a variety of discourses such as political engagement (Crockett & Wallendorf, 2004; Sandikci & Ekici, 2009; Zhao & Belk, 2008), environmental sustainability (Giesler & Veresiu, 2014; Holt, 2012; Humphreys, 2014a; Humphreys & Thompson, 2014; Thompson & Coskuner-Balli, 2007), gender (in)equalities (Bokek-Cohen, 2016; Knudsen & Kuever, 2015), religion (Choudhury, 2014; Sandıkcı, 2011), technology (Kozinets, 2008), etc. in order to legitimize markets and consumption. For this reason, we will not focus on single ideas that can be used to justify markets and consumption, but instead will look at three common features commonly identified in market ideology research: legitimation of (existing vs. emerging) market systems; interplay (or amalgamation) of multiple ideologies for market-sustaining purposes; and creation of consumer subjectivities via market-mediated power networks.

Table 3.2. Market ideology research overview (relevant examples)

	Subject of market ideology/ research focus	Mechanisms of market ideology enactment	Focal ideas, beliefs & values
Supporting existing/dominant market structures			
(Zhao & Belk, 2008)	Social conformation to global consumerism within an officially hostile environment governed by rival ideologies	Decontextualizing and reconfiguration of political symbols via advertising symbols	Communism; consumerism
(Holt, 2012)	Unsustainable market and consumption system (despite ethical values paradigm)	Ideological lock-in (ideologies naturalized within market institutions and consumer practices)	Ethical values; health
(Humphreys & Thompson, 2014)	Trust in expert systems (despite major disaster)	Ideological containment via disaster myth narrative in national news media (purifying segregation, exception, reprobation, restoration)	Just world coping; Romantic nature ideal; sustainable consumption
Naturalization of alternative/new markets			
(Thompson, 2004)	Alternative marketplace (natural health) and innovations contesting dominant social and institutional power	Market mythologies tailored to specific competitive conditions and to multifaceted ideological agenda	Holistic wellbeing; Romantic (nature) vs. Gnostic (technology) myth
(Thompson & Coskuner-Balli, 2007)	Community-supported agriculture market system as countervailing market to resist co-optation of organic food movement	Social consensus (or ideological alignment) between farmers & consumption communities	Market/globalization resistance: ideals of rooted communities; morally and socially redemptive artisanship; refutation of commodity fetishism
(Humphreys, 2010b)	Gambling as (im)moral consumer practice	Moral legitimization of consumer practice via shifts in semantic association and meaning structures of alongside changes in normative, cognitive, and regulatory structures	Cultural binaries: filth vs. purity; poverty vs. wealth
(Press & Arnould, 2011)	Community-supported agriculture as a form of counter-cultural market innovation	Cultural codes linking the countercultural market formation to traditional ideologies and mainstream consumerism realities and norms	American pastoral ideal: "middle landscape"; suburbia; safety; freedom; community; spiritual fulfillment; contributing to a better world
(Bajde, 2013)	(Entrepreneurial) philanthropy	Alternative (entrepreneurial) conceptions of dominant (philanthropic) ideology	Utopian values; philanthropy; poverty alleviation; empowerment; connectivity
(Humphreys, 2014a)	Corporate norms of CSR	Discursive shifts in environmental discourse (from technology as harm to technological efficiency) and different constellation of responsibility (from government actors to company and consumer stakeholders)	Environmental sustainability values: Protection vs. harm; technology vs. toxic encroachment

	Subject of market ideology/ research focus	Mechanisms of market ideology enactment	Focal ideas, beliefs & values
Consumer subjectivities			
(Crockett & Wallendorf, 2004)	Consumers' political activism and social relationships	Commodification of social relations through consumption acts (in response to attenuated access to products and services)	Traditional black (disillusioned) liberalism; black nationalism
(Giesler & Veresiu, 2014)	Consumer subjects' sense of responsibility	Institutionalization of moralistic governmental practices through PACT (personalization-authorization-capabilization-transformation) routine	Shared responsibility for: environmental sustainability, extreme poverty, health-consciousness, and financial literacy
(Ulver-Sneistrup, Askegaard, & Kristensen, 2011)	Consumers' morality and work ethics of consumption	Brand-resisting consumption of brands: bridging good and bad consumption to legitimize the former	Romantic craftsmanship myth of traditional work ethics: "the true love" invested, the handmade, the sacred of the organically emerged, the joy of the natural being, and the absence of touch by evil (industrial) hands
(Zwick & Ozalp, 2011)	Consumers' entrepreneurial self and lifestyle	Configuration of consumer subject as an object of consumption	Lifestyle community; DIY self; enterprising consumption
(Zwick & Bradshaw, 2016)	Consumers' (communities) communication, lifestyle, and subjectivity	Mobilization of customer community, extraction of value from production of consumer communication	Network ethos; openness and non-hierarchical collaboration; autonomy; harmonious social production
(Kozinets, 2008)	Consumers' identities and lifestyles (in relation to the material world of commercial culture)	Dynamic ideological model: contradiction and movement between different (interconnected) ideological elements	Ideological contradictions: collectivist vs. individualist morality; reason vs. emotion; labor/work vs. pleasure/play

Source: Author's own elaboration

3.2.1. Legitimation of existing or alternative market systems

Legitimation of market and consumption is the key function of market ideologies. As explained by Humphreys (2014a, p. 491), legitimation is the social process of making a practice or an organization congruent with other pervasive cultural values, beliefs, institutions, and social norms. Legitimation on the regulative, normative, and cultural-cognitive levels can occur through either explicit mechanisms (e.g., reward or punishment of a company in response to its actions), or in a less blatant way of cognitive legitimation (e.g., brands become part of daily life and of culture). The legitimizing function of market ideologies could be directed at either status quo maintenance or at constitution of new consumption practices or new markets (Press & Arnould, 2011).

Research into ideologically driven market innovations, establishment of counter-mainstream consumption trends, and creation of market systems around them is perhaps one of the richest sources of insight into the functioning of ideology in the market. For instance, Thompson (2004) shows how ideas and practices of holistic wellbeing, an ideology contesting the dominant social and institutional power of patient-doctor medical system, have established an alternative natural health marketplace by tailoring a marketplace mythology to fit specific competitive conditions and exigencies of the core target group of so-called cultural creatives. Legitimacy of this alternative market is achieved thanks to different stakeholders combining meanings and metaphors so that they serve multiple ideological agendas.

In a similar vein, Thompson and Coskuner-Balli (2007) discuss a case of a Community Supported Agriculture market system, conceived as an ideological opposition to a process of corporate cooptation of organic markets. Legitimation of this alternative market system is achieved through ideological alignment between farmers and communities of consumers around a set of anti-globalization and anti-consumerism values and institutionalization of a particular form of communal experience. Additionally, the connection of the Community Supported Agriculture market's values to a long-standing traditional ideology of American pastoralism allowed gaining greater general legitimacy and moving this market structure from the position of opposition into the mainstream (Press & Arnould, 2011).

Since legitimation is a process, market structures, once established as alternative, countervailing, dubious, or small-scale, could become (more) mainstream – just like the case of Community Supported Agriculture markets – via naturalization and institutionalization of emergent discourses. Ideologies can become naturalized on three levels: in the cultural discourse, in everyday consumption practices that embody that ideology, and in the material structure of market-supporting institutions (Holt, 2012). The process of ideological naturalization is the common theme in the work by Humphreys (2010b, 2014a; Humphreys & Latour, 2013), who looks at legitimation of such institutions as gambling, online gaming, or corporate norms of CSR from a socio-historical perspective. By tracking discursive shifts in meaning structures in popular media, she shows how the changes of cultural symbols presented in popular media discourses are linked to changes in normative and regulatory structures, and in consumers' cognitive association categories.

On the other hand, some alternative market structures and relationships never come to life because, even in the cases of dramatic disasters or ethical conflicts, the dominant system maintains its power and control. Some of such legitimation mechanisms that support the existing market structures include ideological containment (Humphreys & Thompson, 2014), ideological lock-in (Holt, 2012), commodification of social relations (Crockett & Wallendorf, 2004), and market mythologies (Thompson, 2004).

3.2.2. Interplay and amalgamation of ideologies for market sustainment

Conceptions of ideology generally refer to a set of beliefs, values, norms, meanings, symbols, and customs shaped and shared by a social group. Yet such beliefs and ideas are often hard to reveal, because when naturalized and institutionalized, they become implicit, stable, and therefore invisible (Fairclough, 2010; L. Harvey, 1990). In research on market ideologies, however, one of the common themes is interplay of different, often conflicting ideologies, which, just like the Foucauldian archeology of knowledge approach (1972) suggests, allows researchers to access through dispersions and differences the hidden ideological meanings behind consumption acts and market structures. The concept of otherness and symbolic clashes helps researchers in dealing with ideological opacity of market ideologies.

In the perspective of ideological interplay, market ideologies are seen as a combination of market-sustaining ideology (e.g., neoliberalism, consumerism, capitalism, etc.) with its apparent contradiction: communism (Zhao & Belk, 2008), anti-consumption (Thompson & Coskuner-Balli, 2007), sustainability (Humphreys, 2014a; Humphreys & Thompson, 2014), philanthropy (Bajde, 2013), ethical values paradigm (Holt, 2012) etc. In this sense, market-sustaining ideology has a hegemony effect on alternative or conflicting ideologies by absorbing and redefining the values in a manner than helps preserve the dominance of the market and consumerism.

Zhao and Belk (2008) look at the phenomenon of marketization of conflicting ideologies in the context of Chinese advertising in the unique context of an economic transition from communism to a consumer society. Both on a macro-social and micro-level of individual advertisements, they find a blurred boundary between politics and the marketplace: consumerist values are intertwined with communist visuals and rhetoric; anti-consumerism campaigns are transformed into advertising celebrating consumption; the symbol of pride in Chinese anti-consumerist society becomes Chinese brands conquering the global market.

A particular market phenomenon of microlending, which combines venture capitalism with philanthropy, is seen by Bajde (2013) as a case of a utopian ideology of entrepreneurial philanthropy. Marketization of philanthropy is built on infusing the dominant philanthropic ideology with alternative conceptions, derived from neoliberal market economy. In the case of Kiva microlending, utopian values blend in with market thinking and techniques to produce a coherent entrepreneurial philanthropy ideology around beliefs in alternative forms of charity, empowerment of the poor, and social connectivity.

The power of market ideologies to amalgamate different ideologies to justify consumption in any form is at play even when marketization is in the normal order of things, and not a case of an impossible marriage of rivalry ideologies. For instance, Kozinets (2008) shows that technology, one of the major elements of modern consumer culture, is a case of dynamic ideology, where consumer identities and lifestyles are flexibly shaped and negotiated at the nexus of ideological contradictions between collectivist and individualist moralities, between reason and emotion, and between work and pleasure. Thompson (2004) stresses the inherent contradiction between Romantic nature and Gnostic technology myth, which produces multifaceted ideological agendas used equally by advertisers and consumers in the natural health marketplace. Ulver-Sneistrup, Askegaard and Kristensen (2011) show how consumers bridge the reality of consumption with the Romantic myth of craftsmanship and traditional work, which is the case of using "ideological resources from another intellectual field" (Ulver-Sneistrup et al., 2011, p. 233), to justify good or acceptable brand consumption.

On the contrary, the case of a dysfunctional interplay of ideologies is expressed by Holt's (2012) concept of ideological lock-in, explained as institutional "stickiness" of a practice that is simultaneously deemed morally right and wrong. This is illustrated by the American market for bottled water, where this ultimately unsustainable consumption is an unintended consequence of the construction of a consumption ideology, based on the cultural belief in risk of tap water and health benefits of hydration, which is specific to the bottled water market construction per se.

3.2.3. Market-mediated power networks and configuration of consumer subjectivities

In one of the foundational works on market ideology, Crockett and Wallendorf (2004) look at how contemporary consumption become the arena where political ideology is constructed and expressed. Through a critical ethnographic research study of African-American consumers living in a large racially segregated Midwestern city in the US, they analyze response strategies of two African-American normative ideologies to deal with attenuated access to some products and services (e.g., food, schools, housing). Response strategies deriving from black liberal ideology included outmigration and outshopping, neighborhood preference, critique of black working-class consumers' dysfunctional behavior, and desirability of unrestricted consumer choice. Responses emerging from black nationalist ideology, on the other hand, included opposition to outmigration and outshopping, entrepreneurship, critique of black criminality and racists' assumptions, racial chauvinism, and overall problematization of individual sovereignty. In the time when more traditional forms of political participation are decreasing, political activism and social relationships – and not only of African-Americans – become commoditized in the form of market and consumption behavior.

The "vote with your wallet" metaphor has indeed become an important part (or rather myth) of social reality (Schwarzkopf, 2011), even though today its sibling of "vote with your

shares/likes/tweets"[9] form of political engagement is gaining popularity as well. The marketplace is a potent site of political action, which can take forms of withdrawals from purchase or boycotting of certain brands (Simon, 2011) or of entire product categories (Kristensen et al., 2011), constituting networks that publicly address matters of concern (Foster, 2011), creation of new countervailing forms of production and consumption (Press & Arnould, 2011; Thompson & Coskuner-Balli, 2007), increase in charity work and donations (Bajde, 2013; King, 2004), etc.

The consumption acts of "citizen-consumers" (L. Cohen, 2004) do not carry only the power of political expression. They are also used as a means of social integration and of social identity projects, sources for production of subjectivities, understanding and general orientation in life. In a world where heightened levels of individualization have become a norm, market ideologies and individual acts of consumption create interpellation and constitute the very nature of individual subject positions (Kozinets, 2008). Market systems and ideologies become important contexts of socialization, where "people are fostered to become, along with everything else, consumers. And this socialization continues throughout their lives. In other words, a great deal of a person's subjectivity is associated with the level and content of consumption. To own and consume becomes a core element in life" (Alvesson, 1994, p. 304). In this regard, Arnould and Thompson (2005, p. 874) identify a stream in consumer research concerned with "systems of meaning that tend to channel and reproduce consumers' thoughts and actions in such a way to as to defend dominant interests in society" and systematically predispose consumers' towards certain identity projects on macro-level (e.g., via economic and cultural globalization) or meso-level (e.g., via particular marketing communication or fashion systems).

One of the specific topics within the conversations about consumer subjectivities is concerned with ethical identity projects. Giesler and Veresiu's (2014) study contributes to the understanding of the moralistic governance regimes involved in configuration of a responsible – i.e., ethical, free, and rational – consumer subjectivity in its various forms: green consumer, health-conscious consumer, bottom-of-the-pyramid consumer, and financially-literate consumer. Based on a longitudinal study of World Economic Forum discourses, Giesler and Veresiu (2014) conclude that the ethical ideology of shared responsibility is established on the institutional, rhetorical, material, and personal levels and involves a four-step "P.A.C.T. routine": i) personalization (philosophical foundation by establishing a responsible consumer ideal), ii) authorization (rational justification of responsibility through scientific knowledge), iii) capabilization (provision of material structure), and iv) transformation (behavioral change embodying new moralized self-understanding).

Consumer subjectivities are the main resources of marketing, not just its targets. The social production of the market is in fact enacted "by empowering its subjects to conceive of themselves as entrepreneurial subjects, responsible for the success or failure of their own conduct" (Bandinelli & Arvidsson, 2013, p. 68). In this regard, Zwick and Ozalp (2011) and

[9] In contrast to other forms of political and social engagement, activism limited to social media, is referred to with a depreciative "slacktivism" (Cornelissen, Karelaia, & Soyer, 2013; Kristofferson, White, & Peloza, 2014).

Zwick and Bradshaw (2016) introduce the concept of "biopolitical marketing" in an attempt to explain the transformation of the understanding of marketing from the technology of domination, persuasion, and control to a platform of co-creation, engagement and empowerment of entrepreneurial subjects and biopolitics as conceptualized by Foucault (1997):

> Biopolitical marketing aims to mobilise and extract value from the production of consumer communication, lifestyles and subjectivities. It is a vision of marketing that wants to replace the conventional ethos of consumer discipline and control with an ethos of the network, emphasising openness and non-hierarchical collaboration, autonomy, and harmonious social production. (Zwick & Bradshaw, 2016, p. 93)

Biopolitical marketing is interested in a free and autonomous consumer subject, whose entrepreneurial self (Zwick & Cayla, 2011) can be literally put to work (Cova & Dalli, 2009; Cova, Dalli, & Zwick, 2011; Zwick, Bonsu, & Darmody, 2008) to produce economic value for the market by producing their lifestyles and subjectivities. Activating consumer creativity also requires management and control over channeling such creativity into a profit-making market process.

Ideologically, biopolitical marketing removes distinctions between marketer and consumer, production and consumption, acts of consumption and life itself. With the spread of such biopolitical marketing practices – as demonstrated with the examples of the condominium and lofts market (Zwick & Ozalp, 2011), social media brand communities (Zwick & Bradshaw, 2016), expiration date food labeling (Yngfalk, 2016), commercial weight-loss programs (Yngfalk & Fyrberg Yngfalk, 2015), etc. - the commodification of virtually every form of life becomes naturalized and perceived as the taken-for-granted state of the world. In such a world, extracting value directly from a consumer's production of their lifestyle and subjectivities requires first an ideological production of creative, enterprising, responsible, ethical, competitive, and cooperative consumer subjects.

3.3. Marketing ideologies

While market ideologies, which we've discussed before, are fundamental for justification of market existence and legitimation of its expansion, there are other ideologies at play, though they could appear even more hidden. We're talking about ideologies that mediate and justify all aspects of the marketers' reality. Compared to the extensive attention dedicated to researching how ideologies work at the level of consumers, "a rather minor effort has been made to study the growing army of economic actors whose work is to define markets and give shape to the consumer culture as we know it" (Zwick & Cayla, 2011).

According to Wensley (2010), three main ideas underlie marketing management and marketing research today: i) neoliberal consensus, ii) the presumed efficiency of unfettered market system, and iii) convergence towards global markets and consumers. With a partial overlap, Marion (2006) lists three arguments accounting for the existence of marketing as: i)

consumer's sovereignty and alignment of firm and customer's interests, ii) economic evolution, and iii) marketing's universality. While both talk about various aspects of neoliberalism as the key implicit assumption in marketing, they do not completely agree on what constitutes the "trinity" of marketing beliefs. What they agree upon is that such assumptions cannot be completely avoided or dismissed, but the research needs to be more reflexive and critical in addressing these topics.

Following Levy and Luedicke (2013, p. 58), we define marketing ideology as a "worldview found among marketing practitioners, researchers and commentators, including ideas and values that cohere, that are used publicly to justify marketing action, and that are shaped by market interactions and political regulations. Any marketing ideology defines objectives, strategies, and research topics, and often contains a causal narrative of how marketing helps to increase the wealth of the nation/nations." Similarly, for Marion (2006, p. 247), "the first function of marketing ideology is to help marketers to maintain their ability to meet the demands of their occupation. It provides arguments that justify their commitment to marketing, and renders this commitment attractive and stimulating."

We will discuss the evolution of marketing ideologies in a historical overview based on Levy and Luedicke (2013), and talk in more detail about the key ideas of the marketing worldview: consumer centrism in its various manifestations (consumer-centric managerialism and consumer data and representations); free market and neoliberalism assumption; and epistemic ideologies of marketing knowledge.

3.3.1. Marketing ideologies in a historical overview

In their insightful historical analysis focused specifically on the evolution of marketing ideology (summarized in Table 3.3)[10], Levy and Luedicke (2013) track marketing ideas from 19th century mercantilism through pragmatic commercial orientation at production and distribution, to the more current ideologies of customer orientation, globalization of marketing concept, and power of branding. For each stage, they explain the socio-historical context and technological changes that helped sustain ideological developments. They also show how concepts and subjects of marketing discipline changed alongside these historical developments. The envisioned function of markets is closely connected to the key symbol (or

[10] Most marketing textbooks in the historical overview section focus on the standard history of marketing concept, not the evolution of marketing ideology as we are trying to do here. Cf. The standard version of the history of marketing talks about Kotler's (1967) intelligent integration of works and ideas introduced by Keith (1960), Levitt (1960), McKitterick and Borch (both 1957, in Skålén et al., 2008) in 1950s-1960s into "the new concept of marketing." Marketing historians (Skålén et al., 2008) however attribute the seminal articulation of the marketing concept to Wroe Alderson's (1957) *Marketing Behavior and Executive Action,* who stated that management from a marketing perspective implies finding out what the customers want and need and in turn giving them what it is that they want and need. In a more mainstream version of marketing concept history, Robert J. Keith's article 'The marketing revolution" (1960), published in the *Journal of Marketing,* is considered the starting point. The historical periodization of production-oriented, sales-orientated, and marketing-oriented eras, introduced by Keith, still dominates in most of marketing textbooks. Theodore Levitt's (1960) paper "Marketing myopia" published in *Harvard Business Review* is another fundamentally cited source in the history of marketing concept. He argued that marketing became "myopic" due to an excessive selling-oriented view and a marketing-orientated view would help redirect marketing efforts and broaden the scope of marketing, making it less myopic.

symbolic figure) that structure discourses and worldviews in different periods: a figure of a good 19th century tradesman (borderline diplomat) serving his country was replaced by a persuasive door-to-door salesman in the first half of 20th century to become more conceptual (concept of consumer, concept of the brand) in the modern times.

Table 3.3. Historical evolution of marketing ideology (S. J. Levy & Luedicke, 2013)

19th century	**Pre-marketing ideology of mercantilism** • Symbolic figure: "Good tradesman" • Main function of commerce: to expand the economic wealth of the country • Imperialist acquisitions, search for exotic substances and exploitation of colonial resources strengthen the state power by weakening the power of rival states • Subject of research/study: good tradesmen practices • Economic & historical context: system with strong government control, monopolies and high tariffs; colonialism
1900-1945	**Pragmatic ideology of production and distribution** • Symbolic figure: affable and overly persuasive door-to-door salesman • Main function: to transfer of goods through commercial channels from producers to consumers • In growing competitive market, consumers vote on product's success or failure with their dollar, which calls for i) service orientation to counter consumer resistance and ii) (over)pricing strategies to succeed in the market competition • Subject of research/study: marketing channels and logistics, sales technologies • Economic & historical context: technological innovations deriving from industrial revolution; system of exchanging goods for money; increasingly competitive environment
1945-1989	**Marketing ideology of customer orientation** • Symbolic figure: consumer with complex perceptions, thoughts, and feelings about brands • Main function: to meet (and create) needs of consumers and use brands to symbolically differentiate from the competition • Switch from marketing as a function to marketing as a concept concerned with customer orientation and rising concept of the brand • Subject of research/study: human aspect of marketplace; marketing management concepts (e.g., marketing mix, portfolio matrix, 5-forces, SWOT analysis) and behavioral theories; marketing research (segmentation) • Economic & historical context: post–World War II; newly rebuilt highly effective production lines; plenitude of products and abundance of choice; increasingly competitive market environment
1990-2010s	**Branding-focused marketing ideology of global networked conversation** • Symbolic figure: brand as a complex network of social discourses animated by multiple brand interest groups talking about and materially expressing their ideas of the brand's intended meaning • Main function: to establish a (global) multichannel conversation with super-empowered and hyper-connected consumers through branding • Diffusion and expansion of the brand idea (everything and everyone is a brand) and the broad adoption of a branding-focused marketing ideology: branding is no longer a marketing decision, but a business imperative • Subject of research/study: brand measures linking branding with traditional marketing ideology (e.g., brand equity, brand personality, brand relationship, brand community, brand co-creation, etc.); multichannel marketing • Economic & historical context: rise of information technology and the Internet; speed-up of globalization; fall of the Iron Curtain and expansion of global trade; new social media and online technologies; rise of affluent consumers in Eastern economies
Future	**Branding ideology** • Marketing becomes a function of branding, instead of branding being a function of marketing • Inclusion of moral values into the brands' narratives • Reputation building by catering to consumers' moral views of the world • An ideal brand as a blend of function (products, tools, attributes, clever use of resources), humanity (psychosocial, segment, culture benefits), and aesthetics (the arts and all the senses)

Source: elaboration of Levy, S. J., & Luedicke, M. K. (2013). From Marketing Ideology to Branding Ideology. *Journal of Macromarketing*, *33*(1), 58–66. http://doi.org/10.1177/0276146712459656

The authors predict that in the near future, due to intensifying and globalizing competition, branding will be substituting marketing ideology "as a more glamorous and sophisticated as well as virtuous idea. It means having a vision that is implemented by suitable forms of expression, tangibly, with imaginative language and artistic visualization rather than pursuing less inspiring commercial goals" (S. J. Levy & Luedicke, 2013, p. 64). Brand is a sign of a triumph of the personal, expressive, meaningful, unique, identity-endowed, and humanized over undifferentiated mass commodities (Applbaum, 2011). Branding ideology implies that everything and anything can be branded (Fırat, 2013): goods, services, football teams (McDonagh, 2017), cities (S. Brown, McDonagh, & Shultz, 2013; Merrilees, Miller, & Herington, 2012), religions (Aoun & Tournois, 2015; Einstein, 2007; J. A. J. Wilson & Grant, 2013), nations (Fan, 2006; Kerrigan, Shivanandan, & Hede, 2012), events (Moor, 2003), ideas, personal identities, and personas (Bandinelli & Arvidsson, 2013; Dion & Arnould, 2016), etc.

Levy and Luedicke's (2013) analysis is an extensive overview of implicit assumptions and beliefs shared among marketers [11]. As the analysis shows, in the current phase of marketing development, there are several influential ideological frameworks: consumer orientation and its evolved version focusing on the consumer agency; expansion of branding; and globalization of marketing concept.

3.3.2. Consumer-focused managerialism

Consumer-centrism has been one of the major pillars of marketing since its inception as a concept. It's what justifies marketing as a socio-organization institution rather than a practice of selling. Proverbial "customer is king"/"customer is always right" is one of the clichés associated with marketing, and as any other stereotype, it is so sticky that the actual meaning associated with good selling practices and service orientation has long gone and evolved into a broader socio-organizational norm. In the contemporary meaning, consumer orientation is rather an expression of a managerialist ideology (Hackley, 2003; Marion, 2007), penetrating virtually all market activities and institutions, organizational arrangements, routines, patterns of action, structures, actors, and language of communication (Arnould & Cayla, 2015). Such understanding implies that consumer-centrism needs to be complemented and supported by managerial practices, and is expressed in the concept of "customerism" introduced and explained by Skålén, Fougère, and Fellesson (2008) as following:

> Customerism is a form of governmental rationality that, through prescribing certain practices and technologies, aims to establish customer needs and demands as the point of reference for management, organizational behavior, the design and development of organizational forms and the products and services that organizations offer. Within marketing discourse, customerism is signified by concepts such as customer orientation, marketing orientation, market orientation, service dominant logic, and the marketing concept, which all are or have been central moments or nodal points of marketing discourse. Since the customeristic governmental rationality is embedded in most articulations of managerial marketing

[11] For other insightful historical overviews, see (Marion, 1993; Schwarzkopf, 2011; Skålén et al., 2008).

> discourse, its meaning is also indirectly expressed through technologies such as the four Ps, the Gap model, or customer satisfaction measurement[12]. (Skålén et al., 2008, pp. 152–153)

Marketing the ideology of customerism, differently from consumerism that turns citizens into consumers, is about making all kinds of organization and its employees conditioned and determined by their customers' needs (Fougère & Skålén, 2013). In other words, it creates marketers' subjectivities, including that of "part-time marketers" - those not directly involved in the work of marketing, but who should always consider themselves partly as marketers (Gummesson, 1991). From the societal perspective, customerism can be considered rationality by serving consumers, and a moral principle - from the perspective of the organizational member for whom serving the consumer becomes "the right thing to do" (Skålén et al., 2008).

To show how the implications of customerism have become a dominant ideology, Fougere and Skålén (2013) analyze it historically by looking at three prominent marketing schools of thought: i) scientific sales management, ii) marketing management, and iii) service marketing. Scientific sales management presents a case of mild customerism, where the responsibility to take consumer needs into account has become the mission of sales managers and salespeople. In marketing management, the focus on employee behavior and managerialism was generally de-emphasized, but the customeristic orientation grew considerably to eventually become the central ordering principle in marketing management. Finally, service marketing logic emphasizes strengthened customeristic ideology and its associated practices intensifying and extending the responsibility to take care of consumer needs to all organizational members.

The global expansion of marketing as ideology, which we will discuss in more detail further in this chapter, is, according to Fougere and Skålén (2013), the direct effect of the development of academic marketing and its associated managerial practices supporting the ideology of customerism in managerial marketing. On the other hand, this ideology seem to have become so strong that "it fully colonized marketing theory" (Fougère & Skålén, 2013, p. 15), resulting in a marketing discipline that "lacks reflexivity and seemingly can never really see the world outside of its customeristic ideology" (Fougère & Skålén, 2013, p. 23).

3.3.3. Consumer data and consumer representations

Another central idea of modern marketing ideology is best expressed in another marketing maxim: "know thy consumer." In fact, knowledge about consumers is perceived as absolutely necessary in order to implement a consumer-centric organization philosophy and structure. The better an organization knows and understands its consumers, the better it's able to orient its business practices towards this knowledge, the better it would be able to meet consumer needs, and eventually – to make profit out of it and create a sustainable competitive advantage (Arnould & Cayla, 2015; Pridmore & Lyon, 2011).

[12] Among other pronounced examples of such technologies of managerialism thorough customeristic governmental rationality we can consider internal marketing and reverse organizational pyramid.

In the desire to know the consumer, many companies adopt a data-driven strategy, relying on technologies of CRM or database marketing. Collecting various types of consumer data (e.g., demographic, psychographic, attitudinal, transactional, behavioral, etc.), however, is a process of creating an idea or a representation rather than an act of uncovering the objective truth about the consumer – just like any other socially constructed knowledge. Therefore, it's the ideas about consumers that occupy most space in marketing work as much as or even more than "concrete" consumers. The ideas about the make-up of consumers and their actions underlie and inform virtually the whole of marketing practice (D. T. Cook, 2011).

In their analysis of loyalty marketing practices, Pridmore and Lion (2011) refer to the practice of analysis and assessment of consumer data as assembling the consumer brand through surveillance. This practice is largely considered defining for the modern organizations. With the big data capabilities, consumers are "rendered visible as a collection of data points" (2011, p. 125) and turn into objects of marketing (or subjects of "consumption" of marketing surveillance) with specific performance expectations (2011, p. 117):

> Marketing practices make use of technologies and methods that increasingly render consumers as both known and knowable entities, resulting in the emergence of 'glass consumer' whose identity (or identities) is fluidly connected to the sets of categories to which they are deemed to belong. These transparent consumers are increasingly the focus of marketing initiatives and evaluations, used to prod and mange consumer behavior in desired directions. Yet the production of 'glass consumers' is only possible in so far as everyday routines of consumers have been digitized. (Pridmore & Lyon, 2011, p. 115)

In this perspective, consumer identities live inside databases, where they can be identified, assembled, visualized, operationalized, (re)shaped, owned, and controlled (Pridmore & Lyon, 2011; Zwick & Dholakia, 2004). Essentially, consumers become organizations' "fetishes" which assume magical powers as they circulate into and within firms (Arnould & Cayla, 2015).

Both individual consumers and segments are shaped, assembled, and reduced to collections of data (Addis & Podestà, 2005). In the case of consumer segments, inventive statistical cluster manipulations bring to life stable consumer groupings, meaningful to the organizations that create them. The segments are almost literally brought to life as "quasi-people" (Sunderland & Denny, 2011, p. 157) by the virtue of naming and psychological profiling (via further, often qualitative market research). The fact that such segments hardly exist in the real life (Sunderland & Denny, 2011) does not undermine their functionality for data-oriented marketing goals, such as sending special offers, awarding discounts, determining waiting times in case of a call to a call center, sending newsletters, and other targeting initiatives.

Arnould and Cayla (2015) illustrate the process of fetishization of consumers – an organization's sense making process of turning abstract consumer information into consumer personas with names, images and avatars, life stories and other material cues that make them appear as personas, who are simultaneously real and ideal: "Personas are hybrids, mixing organizational beliefs, in the way personas incarnate beliefs about ideal consumers, and physical properties, in the way that personas are presented materially as an external projection of who the sovereign consumer is" (Arnould & Cayla, 2015, p. 17). In other words,

consumer fetishization helps organizations in turning "uncontrollable" sovereign consumers into a (quasi-) objective and manageable object.

At the same time, as discussed by Marion (2007), consumer representations may turn into a potential trap of becoming "consumer-compelled" and forced to listen to the existing consumers with their familiar understanding of their needs, thus penalizing innovation and new concepts development. Steve Jobs was often quoted as saying that iPod did not come to life because it was something consumers wanted at the moment: if asked, they would have asked for a Walkman with a faster rewind function. So there are obvious limitations in marketers' being too close to consumers and seeing the world only through their existing consumers' eyes: "organizations can become trapped with the mental representations of the marketing concept and thus move from the customer sovereignty to the tyrannical market" (Marion, 2007, p. 104).

3.3.4. Free markets and neoliberalism assumption

Adam Smith's "invisible hand" concept is often cited as the original formulation of what is understood as the neoliberal idea today. The idea of free markets occupied economic thought for centuries, but the turn towards neoliberalism thinking is associated with political ideology that emerged and gained prominence starting from the 1970s-80s (Fitchett et al., 2014). Despite the fact that Smith intended a different, much smaller scale meaning to his "invisible hand" (and reportedly mentioned it in almost a footnote), the concept grew to stand for a very broad social and political belief that individual pursuit of self-interest is more likely to increase the overall social welfare (Wensley, 2010).

Today, neoliberalism could be considered as a central guiding principal of economic thought and management and unchallenged ideology of marketing – in fact, marketing as a discipline was conceived as the rationality of neoliberalism (Skålén et al., 2008). The core assumption of neoliberalism is that individual freedoms are guaranteed (and enabled) by the freedom of the market and trade. As Harvey (2005, pp. 2–3) puts it in his historical examination:

> Neoliberalism is in the first instance a theory of political economic practices that proposes that human well-being can be best advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets and free trade. […] neoliberalism values market exchange 'as an ethic in itself, capable of acting as guide to all human action, and substituting for all previously held ethical beliefs', it emphasizes the significance of contractual relationship in the marketplace. It holds that the social good can be maximized by maximizing the reach and the frequency of market transactions, and it seeks to bring all human action into the domain of the market. (D. Harvey, 2005, pp. 2–3)

Ideologically centered around two fundamental ideals of human dignity and individual freedom, neoliberalism can be seen as a utopian project and a set of political practices (blending state, market, and democratic institutions) that justify the power of elites.

According to Harvey (2005), the latter dominates and is powerful enough to substantially twist or even make abandoned the utopian principles of freedom in the quest for global capitalism and preservation of privileges of elites at the expense of people and the environment. While a highly critical topic, the actual practices of neoliberalism and its often damaging outcomes are not the main focus of this discussion. Instead, we rather focus on the ideological fundamentals deriving from the neoliberalism worldview that constitute marketers' implicit assumptions.

Fitchett, Patsiaouras, and Davies (2014) summarize the most significant taken-for-granted beliefs that derive from neoliberalism and that constitute marketers' worldview as: i) belief in the importance of consumption as the foundation in personal, social, economic, and cultural life, ii) belief in the centrality of the consumer as an active subject (agent), and iii) belief that that the market offers a legitimate, if not the most legitimate. context through which individuals should seek to explore, identify, and experience the world around them (2014, p. 497). In neoliberal society, having a choice, making choices (and not being able to make choices) become understood as particular expressions of freedom and a skillset of a modern person (Coveney, 2006). Neoliberalism elevates consumer choice to the level of a right that society is organized to defend.

Establishing the centrality of the market not only for consumption, but for virtually all life experiences builds a new ethic of marketing itself and a specific "vision of the future" (Cayla & Peñaloza, 2011) it communicates. Marketing is understood here as a form of power and a "perpetual questioning machine asking consumers to make a project of themselves based on ongoing examination and questing; to look at oneself as a set of constant multiplying problems and as yet unrealized potentials; to translate them into personal needs and desires; and to look at the market for solutions" (Zwick & Cayla, 2011). Therefore, the "vision of the future" marketing ideologically communicates is self-actualization and wellbeing achieved through more and more consumption and on better and better markets. In the conditions of remarkable strength of the market in modern culture, "almost no one any longer questions why the health of the market and its expansion should precede the health of human beings. It is taken for granted that the only means to humanity's health is through the health of the market" (Fırat, 2013, p. 81).

3.3.5. Epistemic ideologies: masculine and Western-centric ideologies, practice/theory ambivalence, and uncritical theory assemblages

Academic marketing is best understood as a hybrid: of socio-cultural and economic-commercial thought (Applbaum, 2011; Slater, 2011), economics and psychology (Sherry, 2011), of practice and theory (Hackley, 2003), of mathematical/statistical and managerial implications language (Addis & Podestà, 2005), etc. Despite the hybrid nature, it has established itself in the universities and research institutions as a legitimate discipline with a specific set of approaches, narratives, and "rules of the game." However, some of the common frameworks may act as taken-for-granted fundamentalism assumptions, especially in

mainstream marketing, creating distinctions between acceptable/"good" vs. unacceptable/"bad" marketing science, and therefore can be referred to as special cases of ideologies, which we call here epistemic.

Among epistemic ideologies, the research identifies masculine ideology, western-centric research agenda, ambivalence of practice/theory, and uncritical theory assemblages as the most critical themes in marketing as academic discipline. These epistemic ideologies construct the reality not only of the academic marketing work, but spill over to the marketing management domain: "academics may live in ivory towers, but their values and credo take life on the streets and in the boardrooms and meeting halls of many cities around the world" (Cayla & Peñaloza, 2011, p. 338).

Hirschman (1993) shows how academic research published in the 1980-90s in the *Journal of Consumer Research* is dominated by masculine ideology. Despite the presence of an "alternative" minority, the majority of consumer research can be characterized as systematically privileging masculine over feminine ideology, which is constructed around a series of binary oppositions: rationality-emotionality; objectivity-subjectivity; quantitative-qualitative; hard-soft; manipulative-nurturant; personal detachment-personal involvement; universalistic-particularistic; technology-nature; instrumentalism-expressiveness; independent-dependent; public-private; dominance-submission; active-passive; agency-communion; self-interest-altruism (Hirschman, 1993, p. 540). As a result, quantitative models, information processing and machine metaphors, rational utility maximization, detached and deceptive methods, capitalist point of view, competition and conflict, and other masculine themes outnumber and overpower such feminine themes as public policy and social welfare, (de)contextualization, consumers' escape strategies, and anti-capitalism. The masculine ideologies, for Hirschman, act as powerful ideological blinders, which researchers need to be more aware of – if not try to remove them and apply different perspectives. Despite over 20 years since Hirschman's first call to open the academic marketing world to more feminine approaches, the mainstream is still ideologically dominated by the same masculine positivistic perspective, where a quantitative approach is desirable, while theoretical, conceptual, and qualitative works - much less so, and critiques of popular topics are not easy to publish. Overall, quickly constructed, quantitatively oriented, and easy to produce empirical projects within fairly mainstream topics are encouraged (Tadajewski, 2016).

Another epistemic ideology is evident in the prevalence of Western-centric view in research (Cayla & Peñaloza, 2011; Varman & Saha, 2009), which works in much a more implicit manner than simply the prevalence of US-authored research in the top journals (Svensson, 2005). The idea of Western science and marketing discipline tends to be the dominant marketers' worldview and so academic discourses that study the non-Western local – even when performed by/from the same local - tend to mimic the global (exemplified in America- or Euro-centrism) (Varman & Saha, 2009) or create hybrids of global-local elements (Denegri-Knott, Witkowski, & Pipoli, 2013). Adherence to the Western principles of academic activities creates pre-packaged processes of teaching and research that perpetuate the discipline's

dependency on the West, but it is also functional because it allows gaining legitimacy as researchers or educators (Varman & Belk, 2009; Varman & Saha, 2009).

As a more subtle example of Western epistemic ideology work in marketing, Cayla and Peñaloza (2011) show with an example of Rostow's modernization theory that Western-centric ideology creates and reinforces – not just describes – cultural hierarchy: Western developed countries represent the modern, while developing economies represent the bottom or beginning of modernization. While the common sense and multiplicity of cases demonstrate that modernization development is rarely linear and preordained and the future is always uncertain, the foundational modernization theory idea that underdeveloped nations follow in the footsteps of developed ones is never really questioned.

Another theme in epistemic ideology concerns marketing's ambivalent place between practice and theory: while following the scientific standards and rules of academic world, marketing has a strong "fetish for managerial relevance" (Fitchett et al., 2014, p. 498). Overall, the "mainstream" marketing research is concerned with such managerial interests as how to better influence and control consumer behavior and how to make management more efficient and more effective (Tadajewski, 2010a). Despite a massive practical orientation towards managerial relevance, marketing still needs the status of a discipline in order to occupy its space in business schools and academic research venues and thus have access to intellectual, material, and status-bearing resources reserved to sciences. The practice/theory hybridity is a case of ideological dilemma in academic marketing, which authors need to resolve, at least symbolically, in order to retain scientific legitimacy (Skålén et al., 2008).

One approach to the legitimation of marketing scientifically is the use of terms from other disciplines. The "science" part in marketing is often ensured by revoking its connection to economics: more often than not, marketing is taught in business schools, which stem from the economic faculties and is studied with regard to economic paradigms. However, the scientific component in marketing does not necessarily have to come (only) from economics. Hackley (2003, p. 1344) asserts that one of marketing's distinctive features is "conceptual kleptomania," or borrowing and assimilation of concepts and research approaches from various disciplines beyond economics such as psychology, statistics, anthropology, sociology, etc. Such openness to and creative absorption of adjoining disciplines (MacInnis & Folkes, 2010) is in fact seen as a virtue that makes marketing simultaneously unique and scientific/objective (Hackley, 2003).

In an alternative to borrowing definitions and concepts from other sciences, marketing may rely on the method and its presumed objectivity, achieved via extreme specialization and "extreme technicality, almost engineering" of mathematical formulas and statistical models (Addis & Podestà, 2005, p. 403).

Another approach is based on rhetoric construction of such hybrids as a-theoretical practice and practical theory. In his analysis of a particular form of didactic marketing, managerial marketing textbooks, Hackley (2003) claims that marketing texts rhetorically build and sustain their practical authority by presenting certain facts about consumer needs and wants

as neutral and occurring "naturally," as well as about successful managerial techniques and skills. In this way, marketing management is positioned as a neutral, yet practical and prescriptive activity. To reinforce the inter-disciplinary and institutional legitimization, managerial marketing texts "invoke representations of 'theory'" to rhetorically assert an a-theoretical normative managerial model for marketing, where theory is both aggrandized and despised (Hackley, 2003, p. 1336). Interestingly, the word "theory" is avoided and is substituted by more descriptive terms such as "tool," "framework," "concept," "model" to "imply that marketing owns a special theory that is not a theory" (Hackley, 2003, p. 1333). Paradoxically, such texts are legitimized as marketing science by establishing them as suitable for excellence in business practice and articulation of theory itself as practical theory (Skålén et al., 2008). Such legitimation requires several layers of translation from extreme technicality of difficult mathematical formulas (ensuring scientificity) into easier more approachable managerial implications aiming at a company's interests (Addis & Podestà, 2005).

Excessive consideration of relevance in academic marketing, however, could lead to knowledge production that does not leave space (in academic journals and in university curricula) for alternative less-practically oriented perspectives and voices, thus producing unreflexive marketing researchers and professionals (Brownlie & Saren, 1997; Skålén et al., 2008). After all, as Bridgman (as cited in Tadajewski, 2010a, p. 214) states, relevance does not have to be equated with the "pursuit of a narrow commercialization agenda where the business school becomes the "servant" of industry, propagating a strictly managerialist view of the world."

Brownlie and Saren (1997) further claim that the marketing discipline's quest for closing the relevance gap is a myth that the academic world is interested in preserving, rather than "closing." Relevance (and other types of) gaps are not merely holes that need to be closed, or problems that need to be fixed, but discursive springboards for new research and opportunities for contribution (Locke & Golden-Biddle, 1997). In this way, closing "real" gaps for marketers is not in the best interest of marketing scholars: on the contrary, the construction of gaps is a form of art and a must-have skill for doing and publishing research.

Finally, marketing discourse with its hybrid double orientation at practice and theory, often creatively but uncritically assembles and replicates knowledge taken from other sources. Overall, marketing discipline seems to be less influenced by the general critical research trend than other management disciplines such as accounting or human resource management (Alvesson, 1994; Marion, 2006; Skålén et al., 2008).

Reportedly academic marketing has always demonstrated a certain rhetorical style of introducing such concepts as paradigm shifts (Skålén et al., 2008), revolutions (D. G. B. Jones & Richardson, 2007; Keith, 1960), or panaceas (Badot, Bucci, & Cova, 2007), compared to previous concepts. However, reformulation of the concept does not necessarily substantially change the central ideas and their internal relationships. The rhetoric of change is used rather to persuade, to attribute legitimacy and authority, and to emphasize the authenticity of otherwise uncritical and unreflexive reproductions of knowledge in the form of "strategic assembleages" (Brownlie, 2013, p. 76) or "marketing management FMCGs (Fast Moving

Current Generalisations)" (Brownlie & Saren, 1995, p. 622, 1997, p. 150). Commodification of knowledge partially results from the non-transparent reviewing process taken-for-granted in the modern academic world (Brownlie, 2013; Brownlie & Saren, 1995), as well as from other taken-for-granted assumptions illustrated in this section.

3.4. Marketing as ideology

Globalization of marketing goes beyond the broadening of the marketing concept to noncommercial bureaucratically-managed organization, as initially formulated by Kotler and Levy (Kotler & Levy, 1969). Globalization of marketing today is rather an unforeseen "tsunami of neoliberal ideology" (Eckhardt et al., 2013) penetrating all realms of life, which we can describe as a global spread of marketing as ideology.

Several interrelated processes contribute to the global spread of marketing as ideology. First, markets have considerably expanded due to the establishment of neoliberalism as a central guiding principal of economic and political thought. If we consider that markets have become the context where individuals explore, identify, and experience the world around them (Fitchett et al., 2014), then marketing – as an institutionalization of market practices – has diffused globally as well. As Fırat (2013) puts it:

> Marketing is the institutionalization of practices through which market exchanges are organized and executed as imagined in modern culture. […] As we recognize and articulate marketing as institutionalized practices that in modernity work to reinforce and expand the market, an institution that constructs the complex of desire and its means for diffusion and execution, we shall also have a deeper understanding of why and how it has diffused as a global ideology. (Fırat, 2013, p. 80)

In the expansion of markets as central stages of human activities, the language of the market - the "marketing-speak" - has replaced the language of democracy to talk about individual freedom and dignity (Fırat, 2013, p. 80). Moreover, marketing gets increasingly indistinguishable from the fabric of everyday life. Everything people do, including the acts of market resistance and anti-consumerism ethos, ends up in the vortex of marketing (Ulver-Sneistrup et al., 2011; Zwick & Bradshaw, 2016).

Second, marketing within all types of organizations has worked its way into subjectivities of all organizational members (and thus virtually all people, since most are also parts of some type of organization). While initially marketing was a function of organizations responsible for the facilitation of relationships of a company with the external world, it has then expanded to all types of organizations and became a business philosophy encompassing all organizational activities, turning all organizational members into "part-time marketers" (Fırat, 2013; Fougère & Skålén, 2013; S. J. Levy & Luedicke, 2013; Skålén et al., 2008).

Third, with the globalization of information technology and media, the relevance of communication in all social realms continues to grow. With marketing being "the culture of

communication," we see that the communication practices replicated from advertising and branding start to command everyday interactions. The rhetoric of marketing, advertising, and branding (Hackley, 2003) takes the form of CVs, social media profiles, etc. in becoming part of career, personality, friendship, and love life. In a world where almost all relations among human beings are mediated by communication and information technologies, marketing becomes the culture of the time and the language of all cultural discourses become infused with the language of marketing (Fırat, 2013).

Bandinelli & Arvidsson (2013) refer to the process of penetration of marketing in virtually all life contexts as "vertical expansion" (to contrast with horizontal expansion envisioned by Kotler and Levy (1969)), where the concept of brands becomes the lens to see and talk about such diffirent things as cities, football teams, religions, nations, and personal identities. Askegaard (2006) refers to brands as the most significant ideoscape[13] of globalization. As Sherry (2011, p. 345) poetically puts it, "as brands become magnets and beacons, totems and fetishes, and ultimately pilgrimage sites, life appears to become absorbed into their auras and orbits."

Marketing therefore is impossible to disentangle from culture – it is the key institution of culture: "Marketing is both a barometer and a pressure front in respect of cultural ethos. All elements of the marketing mix shape and reflect culture, society, and personality. Marketing is thoroughly imbricated in everyday life" (Sherry, 2011, p. 344). With such a degree of globalization on the institutional, social, mental, and discursive levels, the presence and influence of marketing knowledge becomes so implicit and undistinguishable that market thinking becomes the dominant way to see the reality. An alternative imaginary organizing life around something that is not marketing simply does not exist (Fırat, 2013).

In the perspective of global "marketization of life" (Sherry, 2011, p. 343), marketing can be seen as a social construction and a discourse (Skålén & Hackley, 2011) operating on various levels beyond organizations and even beyond markets. In other words, we can say that marketing creates social reality. And as we've shown in this chapter, marketing as a social construct embodies certain ideologies that are naturalized and therefore routinely overlooked and taken-for-granted.

[13] Ideoscape is one of five flows or forces of globalization ("scapes") conceptualized by Arjun Appadurai (1990). Ideoscape stands for global circulation of ideas. Other scapes include: ethnoscape (migration of people across cultures and borders), technoscape (technology-enabled interactions and exchanges), finanscape (global circulation of financial flows), and mediascapes (global media-enabled spread of information and images).

4. Analytical framework: Healthism and ideological framing of food/health marketing

Among ideology-focused marketing and consumer research, considerably less attention was dedicated to healthism - the ideology of health promotion - which is surprising, considering the ubiquity of health in the food marketplace and the abundance of health-related food research in various marketing traditions.

While healthism (Crawford, 1980, 2006, Illich, 1975, 1977; Zola, 1977 etc.), or the ideological "imperative of health" (Lupton, 1995), is a well-researched topic in the sociology of health and medicine, in the field of marketing, except for a handful of cases in the food context (Anker et al., 2011; Askegaard et al., 2014; J. M. Cronin et al., 2015; Delaney & McCarthy, 2014; Kristensen et al., 2013, 2010, 2011; Yngfalk & Fyrberg Yngfalk, 2015), the ideological framing of health does not attract as much interest as regulatory issues around health food labeling, health information processing by consumers, behavioral and cognitive biases in health choices, food processing innovations, market growth concerns, etc. In our view, healthism is one of dominant market ideologies of the present day and, as one of the major driving forces of neoliberalism (Crawford, 2006, p. 409), an integral part of marketing ideologies.

In this chapter, we will discuss the social construction of health, illness, and risks in the ideology of healthism as a biopolitical project and moral rhetoric that holds together the market and the consumption system of health food. This discussion will serve as an analytical framework for the empirical analysis of marketing discourse on health food and its ideological underpinnings and implicit assumptions.

4.1. Healthism: Ideology of health as mega-value

The concept of healthism, most often associated with political economy analysis of the changing institution of healthcare by Robert Crawford (1980), stands for individual preoccupation and responsibility for health raised to the level of super value, a "metaphor for everything that is good in life" (1980, p. 365). In healthism, health is a focal and signifying practice, which "reinforces the privatization of the struggle for generalized wellbeing" (1980, p. 365) and commands "enormous resources and generating an expansive professionalization and commercialization along with attendant goods, services and knowledge" (2006, p. 401).

Halthism as a term could be traced back to the sociology of medicine and work by Irving Zola (1972, 1977) and Ivan Illich (1975, 1977) on medicalization of society, or the expansion of the medical profession's jurisdiction into various domains of social life[14]. By challenging the

[14] One of the more contextualized examples of the medicalization of society is expansion of the medical domain into the social and behavioral domains. More specifically, labeling behaviors, often controversial or deviant, with medical terms and thus moving issues that used to be considered of social concern into the medical domain (Nye, 2003). Some of the examples

positivistic assumption that medicine is a realm of objectivity, neutrality, and scientific truth, sociological accounts of medicine (Conrad, 2007; Illich, 1975, 1977, Zola, 1972, 1977 etc.) discuss how medicine substitutes religion ("authority of truth") and jurisdiction/law ("truth of authority") as explanatory and political power (Coveney, 2006; Fitzpatrick, 2001) and becomes "an institution of social control" (Zola, 1972, 1977). Healthism was originally conceived as a by-product of medical imperialism turning the war on illness into a civic imperative and changing the understanding of health as "not merely the means to some larger end but the end in itself, no longer one of the essential pillars of the good life but the very definition of what is the good life" (Zola, 1977, p. 51).

While viewing healthism as a derivate of medicalization, Crawford (1980, 1994, 2004, 2006) extends the notion of healthism to the contexts that go beyond or even against medical profession and institutions (Turrini, 2015). The professional power of medicine is less relevant to Crawford's healthism than the "medical way of seeing" or "cultural dissemination of medical perception or ideology" (Crawford, 1980, pp. 369–371).

Crawford's move away from focusing exclusively on professional medicine was largely a result of social changes and political ideology in the 1970s that helped construct a "mega-value" of health, empower individuals through higher health awareness, and assert moral pressure to (re)frame their lifestyles around the pursuit of better health. In short, the battlefield for health has moved from the social and public arena into the space of individual self-concepts and lifestyles, corresponding to what Foucault has termed "governmentality", i.e., a mode of governing the population through establishing a mentality of subjects who are responsible for governing themselves (Foucault, 1997, 2001a; Gordon, 2001).

The redefinition of health to an individual's self-consciousness and lifestyle in ideological terms (over)simplified the cause-effect explanation of good health: "one either smoked and got lung cancer or did not smoke and avoided cancer; either changed diet and exercised and stayed slim and avoided heart disease etc." (Crawford, 2006, p. 409). One of the results of such etiological explanation is the emergence of so-called "lifestyle diseases," or diagnoses growing in number and frequency in more affluent societies and associated with how people lead their lives: e.g., coronary heart diseases, type 2 diabetes, chronic obstructive pulmonary disease, some types of cancer, but also atherosclerosis, asthma, chronic liver disease, metabolic syndrome, chronic renal failure, osteoporosis, depression, and obesity (WHO, 2014). Individual lifestyle choices are widely seen as direct causes of such diseases, despite growing concern that this specific view is limiting and not taking into consideration a broader picture and the multiple causes of such diseases (Vallgårda, 2011).

Furthermore, Crawford (2006, p. 409) asserts that the ideological triumph of healthism, which established personal responsibility for health in terms of common sense, played a decisive role to the ascendancy of the social order of neoliberalism. In the healthists' world,

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of considerably recent medicalizations include attention deficit/hyperactivity disorder (ADHD), Alzheimer's, depression, anorexia, drug addiction, alcoholism, obesity, post-traumatic stress disorder (PTSD), pre-menstrual syndrome (PMS), etc. (Conrad, 2007; Fitzpatrick, 2001).

the pursuit of health becomes synonymous with doing politics (Crawford, 1980, p. 381), which is often taken to the marketplace just like many other consumption acts that become commoditized forms of civic and political expression (Crockett & Wallendorf, 2004; Foster, 2011; Press & Arnould, 2011; Thompson & Coskuner-Balli, 2007).

Today, in most developed economies, health consciousness has become practically unavoidable (Crawford, 2006). Healthism is virtually taken for granted as part of social imaginary, which means that the aspiration of health maintenance or improvement is a fundamental part of our choices, evaluations, behaviors, (dis)approval of self and others, and various social practices (Kristensen et al., 2016). At the same time, the very meaning of the word "health" has expanded tremendously, leading to reducing the multiplicity of experience of good living to an issue of health. Health has become a "scientific equivalent" of such values as happiness, sense of purpose, self-esteem, work satisfaction, creativity, resilience, stress resistance, confidence in future, commitment, etc. (Skrabanek, 1994).

The implications of the ideology of healthism are widely and controversially discussed. Some argue that it produces the environment for empowerment, increased health involvement, and political democratization, while others focus rather on the increase in creating health-related anxieties, massive pathologizing, articulation of inequalities, borderline discrimination, potential for distortion of medical and healthcare priorities, and cost increase (Anker et al., 2011; Kristensen et al., 2016), creation of a culture of complaint and victimhood, elevation of the value of safety over risk-taking, femininity over masculinity, or childhood over adulthood (Furedi in Fitzpatrick, 2001).

The social construction of health risks and healthism serve as a common thread in understanding some of the divergent moral practices and market realities of today, such as consumer practices of self-disciplining the body, democratization of health expertise, a culture of DIY (i.e., Do It Yourself) health solutions, risk management lifestyles, multiplication of health/food expert systems, health discriminations, nutritionism, framing obesity as an epidemic, etc. – which we will discuss in more detail below. We will start from more general topics explaining elements that constitute health and healthism today, and later move into a more contextualized discussion of medicalization and healthism in the food domain.

4.2. Privatization of struggle for health

Crawford's healthism relies on the notion of privatization of the struggle for wellbeing, which is explained as "the preoccupation with personal health as a primary—often the primary—focus for the definition and achievement of well-being; a goal which is to be attained primarily through the modification of life styles, with or without therapeutic help" (Crawford, 1980, p. 368). Privatized solutions are based on individual choices, "require above all else the assumption of individual responsibility," and rest "within the individual's determination to resist culture, advertising, institutional and environmental constraints, disease agents, or, simply, lazy or poor personal habits" (Crawford, 1980, p. 368).

Privatization itself can be seen through the lens of polysemy as referring to several different, yet closely interconnected realities and practices, which become more (or less) salient depending on the context of inquiry (e.g., sociocultural and political contexts, medicine, psychology, economics, marketing). Probably the most extensively studied meaning is based on reading private as "personal." It relies on understanding that privatization involves a shift of responsibility for health from public institutions onto individual consumers. In more economic terms, privatization may also refer to the transformation of the institution of medicine in response to the modern responsible and "expert patient" consumer into a market-driven structure, with growing importance of marketing logic and the quest for patient-as-consumer satisfaction. Additionally, such marketization of medicine, combined with heightened individual responsibility, contributes to the creation and growth of the consumer marketplace of health-related offerings, producing an autonomous domain enabling consumer health projects. In other words, we can say that healthism as a form of ideology is characterized by three levels of privatization: responsibilization, marketization, and democratization.

4.2.1. Responsibilization: Enterprising self-care and duty of self-discipline

Personal responsibility for health is widely considered "the sine qua non of individual autonomy and good citizenship" (Crawford, 2006, p. 402). One of healthism's foundational principles is that health, as a personal enterprise, must be achieved through self-reflection, self-effort, and self-discipline. The object of such self-care strategies is not just the illness, but every health-related risk and human vitality itself. These strategies help people get closer to such desired outcomes as a healthy-looking body, higher productivity, and feelings of happiness, self-confidence, and self-assurance of "doing the right thing" (Kristensen et al., 2016).

Personal responsibility for health entails a highly, even painfully reflexive self, capable of arousing serious personal distress and moral censure (Warde, 1997, p. 96). In a health-valuing culture, people define themselves (and others) and evaluate the qualities of their character by failures or successes in adopting or following health-enabling practices, such as dieting or exercising: "Through health, the modern self demonstrates his or her agency, the rational capacity to re-make self and world" (Crawford, 2006, pp. 402–403).

Acquiring and constantly updating health-related knowledge is one of the key practices of individual responsibility. On the one hand, people are obliged by the omnipresence of health messages circulated by the media, but, on the other, they eagerly seek health information and create elaborate and intricate lay conceptions of health and causal pathways of good health and disease (Crawford, 2006, p. 402). Other practices related to in the morality of personal responsibility involve a range of screening and self-surveillance methods from dietary regimes, slimming programs, running and fitness, anti-smoking ethic, self-measuring and self-tracking devices, to commercial health enhancing products and services - all locating health control within the realm of individual action, and often within individual bodies.

Bodies are central to the individual's responsibilization, but the Cartesian dualism with the opposition of body and mind is not sufficient to understand healthism. As Kristensen, Boye and Askegaard (2011) and Kristensen, Lim and Askegaard (2016) demonstrate, health responsibility involves holism where the mental and the bodily are reconfigured and re-interpreted as an overlap rather than an opposition: strict self-care regiments require self-reflexive individuals to regard the body as a project under constant conscious control and surveillance, yet, simultaneously, the body is also an ultimate verification mechanism to (dis)confirm and (dis)approve of such self-care regiments.

In Fitzpatrick's (2001) perspective, the body is a public testimony of people's health and of their conformity with the new moral code of healthy living. This code is constructed around the idea that a healthy lifestyle is a modern substitute for religion. In fact, the common features of modern healthism and traditional religion are striking: "the devotion to the cause of fitness displayed by the faithful, the spirit of self-denial required to sanctify the body, the zealoty of the newly converted, the dogmatism of the clergy" (Fitzpatrick, 2001, p. 70). The state of the body is meant to express moral rectitude through personal appearance, thus justifying even the most severe regimes of disciplining the body – including practices once associated with ascetic religious observance (Lupton, 1996; Warde, 1997). In many ways, the secularized morality of the body is more authoritarian and intrusive than traditional religion it has replaced.

The empowering side of autonomy and freedom from health gatekeepers in exercising personal responsibility is countered by an increased burden of discipline. The irony of healthism is that with increased health consciousness comes a stronger feeling of anxiety and insecurity about the reality of health. As a matter of fact, health is considered one of the principal "structural anxieties of our epoch" (Warde, 1997, p. 56).

From a political economy perspective, the ideological benefits of making health maintenance a personal responsibility and a constant preoccupation consists in reducing the burden of welfare (including a growing aging population and non-communicable diseases) by changing the health flows from healthcare to multiple "new" healthcare providers, which includes systems of private medical providers, an industry of health enhancing products and services, and self-powered citizen/consumer processes with a high degree of market-participation (WEF, 2015). In this sense healthism, just like other biopolitical projects of responsibilization, such as bottom of the pyramid consumer, financially literate consumer, or green consumer projects (Giesler & Veresiu, 2014), is a rhetoric actively involved in producing market and consumption systems.

4.2.2. Democratization: Health consumerism and alternative expertise

Another sign of privatization of health comes from a transformation of the social institution of medicine. Healthism blurs the boundaries between the clinics and society at large, between doctors and patients, patients and asymptomatic "normal people," between medical

treatments and consumption practices (Turrini, 2015). Thompson (2003) talks about ever-increasing permeability of the worlds of medical practice and consumer marketplace. One of the symptoms of this permeability is the rhetoric of market competition infusing medical practice with such new-to-medicine, yet typical-to-business concepts as "patients as informed consumers," "doctors and nurses as service providers," "service efficiency," "cost control," etc. Additionally, it is expressed in the shift in the terminology about the subject of healthcare (from "patient" to "client" to "consumer") and the rhetoric of personal empowerment (e.g., "freedom of choice," "right to know," "entitlement to participate") (S. Henderson & Petersen, 2000, pp. 2–3).

Another symptom of consumerism and democratization in medicine is an emergence of so-called "expert patient" consumers. Contrary to the idea of a "good consumer" of healthcare, whose main job is to exhibit appropriate information-seeking behavior and comply to the prescribed course of action and behavior (S. Henderson & Petersen, 2000, pp. 2–3), expert patients openly question and challenge the medical authority.

Healthism shapes the responsible self that's susceptible to consumerism and its freedom of choice ethos rather than to a position of an obedient patient (Crawford, 2004), giving rise to increased skepticism of conventional authorities, pharmaceutical industry as greedy monopolists, and doctors as business people like any other (Beck, 1992; Nye, 2003).

The process of democratization of healthcare gives rise to multiple expert systems, which increasingly serve as guides and consultants for consumers' health regimes and strategies. The problem of the current situation around health is not the absence of information or guidance, but on the contrary, an abundance of expert advice and forced navigation between complex and contradicting mediascapes (Appadurai, 1990). Essential components of individual responsibility for health are "doing your own research" and "seeking a second opinion" within or outside the conventional medical profession. Doctors all over the world today compete against Dr. Google for people's attention and trust.

While searching for the "perfect match" with a health professional, consumers seek an honest and authoritative voice, capable of relating to personal beliefs and justifying a certain lifestyle. This process involves scanning through options and making a choice between "old-fashioned" medical professionals, health experts who act as a "normal human being," alternative health gurus, holistic or spiritual guides, personal trainers, evidence-based cases of success, etc. (Crawford, 2006; Kristensen et al., 2016). Otherwise, consumers themselves become small, private, alternative experts trusting their bodily sensations to make ultimate health judgments (Beck, 1992; Keane, 1997; Kristensen et al., 2011).

Interestingly, the need for alternative expertise results from skepticism and suspicion towards the traditional medical science, which paradoxically does not become less necessary or influential. Quite contrarily, "a reality defined and thoroughly structured by medicine is becoming the prerequisite of thought and action" (Beck, 1992, p. 211). Despite a plethora of alternative health experts, the medical science does not lose its power. The power gets redistributed and becomes more transparent and integrated in a "personalized repertoire for

the pursuit of meaning" (Kristensen et al., 2016, p. 12).

4.2.3. Marketization: Infrastructure for DIY health solutions

While the conventional system of healthcare faces an increase in consumerist orientation, the consumer marketplace is becoming increasingly medicalized (Thompson, 2003). If in the past it was possible to clearly delineate the "wellness-oriented market" (Bloch, 1984) and the market of "health-related offerings" (Granzin, Olsen, & Painter, 1998), today such a task becomes increasingly daunting (Andre, Chandon, & Haws, 2014). Consumers come to the supermarkets to shop for health as much as (and sometimes more than) to pharmacies.

Consumers exercise their right to chose and assemble solutions for their health through a combination of expert systems, autonomous strategies of self-care, and the market. Even in the case of self-powered and self-administered strategies, such as home cooking or eating regimes, self-tracking apps and devices, the necessary tools are not entirely produced by consumers themselves. Whether they are conventional or alternative, health-enhancing solutions are mediated by the market.

A number of healing practices, wellness philosophies, diagnostic models, and treatment theories evolved around complementary and alternative medicine: traditional alternative medicines practiced for centuries worldwide such as acupuncture, homeopathy, naturopathy, Ayurveda, traditional Chinese medicine; body manipulation therapies such as chiropractic, osteopathic medicine, tai chi, yoga, Sekkotsu, colon cleansing; dietary and herbal approaches such as dietary supplements, herbalism or herbal medicine, macrobiotics; mind-body approaches like meditative techniques, biofeedback, energy medicine, hypnotherapy, Reiki, qi gong, aromatherapy, music-therapy, feng shui, faith-healing etc. These diverse health philosophies and techniques act as substitutes or supplements of the Western scientific medical approach based on use of pharmacology or physical interventions to treat pathologies or alleviate symptoms of diseases. When it comes to alternative or complementary DIY solutions, orthodox medical science is often critically framed as superficial, symptom-focused, depersonalized, and ethnocentric, and therefore not sufficient for the "real healing" (Thompson & Troester, 2002), but scientific arguments (especially new ground-breaking science or vague references to marginalized or foreign studies) are simultaneously used for justification of individual consumer choices and for market systems support (Thompson, 2004).

As Thompson and Troester (2002) show with the example of holistic health, consumer micro-cultures such as traditional medicines or body manipulation or mind therapies are fragmentations of a larger consumer culture oriented at DIY health and self-care practices. This means that they share many ideals, social beliefs, and cultural orientations, encompassed by a postmodern value system permeated by the ideology of healthism. The four consumer articulations of this value system identified by Thompson and Troester (2002) include: i)

harmonious balance (purification), ii) making connections (searching for sense-making insights), iii) mindfulness (thoughtful choice), and iv) flexibility (pragmatic moderation).

While some consumers justify their choices to exclude intermediaries (i.e., doctors, nurses, pharmacists) by alternative medicine philosophies and others by mixtures of beliefs and scientific knowledge, it seems they all are guided by their embodied experiences (Kristensen et al., 2013), the structures of feeling that "create alignments between subjective experiences and ideological conditions" (Thompson, 2004, p. 238). Naturally, in the decision-making context, besides values and experience-based intuitions, consumers are also influenced by the specific options offered by the market. And today many, if not most, products and services seem to have a health-related component (e.g., Andre et al., 2014).

The market of DIY health solutions involves an apparent paradox for consumers. As consumers actively use market resources to enhance their wellbeing, they also pronounce skepticism towards the marketplace. When the solution is perceived as un-conventional or anti-mainstream, it's also perceived in terms of a more personal, consumer-to-consumer, relationship more than in market-to-consumer terms. So, the aura of alternativeness around market agents helps create trustworthiness in contrast to both the typical market agents (Askegaard, Kristensen, & Ulver, 2016; Ulver-Sneistrup et al., 2011) or solutions provided by the state (Kristensen et al., 2016), which is a particular form of market-bound consumer resistance (Izberk‐Bilgin, 2010).

To conclude, the market system of health-enhancing products and services cannot be considered an institution passively feeding off of healthism ideology. Rather marketization is essential in the understanding, execution, and evolution of what individual responsibility for health is. Without the market and the choices it offers, a rational and entrepreneurial health-conscious subject cannot even exist. In our view, healthism should be understood as an interplay of ideologies of medicalization and marketization of everyday life, which together justify consumption of health in any form.

4.3. Shrinking of health "normality": from disease treatment to risk management

An humorous 1889 book *Three Men in a Boat (To Say Nothing of the Dog)* by Jerome K. Jerome opens with a perfect illustration of how vulnerable health could be to the mere exposure to risk information. In the first chapter, the author goes to the British Museum library to read about his small health issue, hay fever, but in an unthinking moment he starts to turn the pages of the medical encyclopedia and to read the symptoms of illnesses from typhoid fever, St. Vitus Dance, and ague, to Bright's disease, Cholera, diphtheria, etc. Vivid descriptions of the symptoms give him a sensation that he actually experiences those symptoms in his own body: "I had walked into that reading-room a happy, healthy man. I crawled out a decrepit wreck" (Jerome, 2002, p. 8).

People today live Jerome K. Jerome's experience every day and on a larger, yet more unconscious, scale. Without wanting it, they are exposed (metaphorically speaking) to the

fullest "medical encyclopedia" through media, public health awareness campaigns, the Internet, etc. With scientific advances in medicine, modern societies are increasingly medicalized and "diagnostisized" (Brinkmann, 2010 in Kristensen et al., 2016), and many behaviors (especially deviant), mental or physiological states can be labeled with some kind of diagnostic term. The more items can be placed in the "medical encyclopedia," the more illnesses "Jeromes" can associate with the more fragile and illusory the health "normality" would appear. Expansion of non-health and the shrinking of health would also turn the latter into a "luxury good," highly desired, yet hard to obtain (Brennan, Eagle, et al., 2010). This supports and further enhances the naturalization of ideology of healthism.

The notion of the health danger, unlike in 19th century medical thought, today goes beyond physical disease, expanding to "health risks." As Crawford (2006) puts it,

> Health-consciousness is also danger-consciousness – an awareness of and sensitivity to increasingly ambient and omnipresent potential harms. The 'imperative of health' is a mandate to identify dangers in order to control them. Most contemporary dangers to health, unlike an approaching epidemic, are not immediately apparent. Disease or symptoms may not appear for years, even decades. Both the pervasiveness of dangers and their prolonged time-span require a medically informed, vigilant and sustained awareness – a monitoring of the life-world for toxins, an ear turned to medical and governmental health advisories and, increasingly, a lifelong regimen of medical supervision. Thus, to be health conscious today is to come into an understanding that one's health is in continuous jeopardy. (Crawford, 2006, p. 403)

Risks are in fact some of the most interesting and prominent social constructs in healthism. In its original meaning, the term stood for any statistical probability of an event to happen. But today, it's not neutral any longer, and is associated exclusively with negative probabilities. Risk is a "professional" scientific word for danger (Lupton, 1993).

Risks exist only in the form of projection in the future, are expressed in the facts accumulated from the past, and influence how we perceive, interpret, and act in the present with the sole purpose of not confirming the projection about the future. Risks' *raison d'être* is by narrating the future to instigate instrumental anticipatory (consumption) acts in the present (Derek Robinson, 2015).

Risk is a way of giving meaning to phenomena as dangerous and requiring surveillance and control (Lupton, 1993, 1999, 2005, 2013c). As the author of "risk society" concept Ulrich Beck (1992, p. 27) discusses, risks are generally invisible and require "sensory organ" of (conventional or alternative) expert judgment to be qualified. Risks exist in terms of knowledge about them and, as a result, can be changed, magnified, dramatized, or minimized within our knowledge about them, under different social, cultural, political and historical conditions. The social effect of risks is not dependent on their scientific validity, but on their diffusion in the society.

While, on the one hand, risks are known only through systematic research and experts' point of view, on the other, the commonly shared understanding is that the decision of how to

handle risks should not be made by the experts, but by the concerned individuals. Informed consent is the symbol of such an order of things nowadays (Sulkunen, 2009, pp. 3–4).

Risks can be used to legitimize the existing or alternative experts and market systems associated with them. In the public health domain, similarly to the market "disaster myths" (Humphreys & Thompson, 2014), risks are subject to ideological containment, when they are framed as isolated failures in an otherwise well-functioning expert system. The causes of such disruptive events can be located and corrected without undermining the trustworthiness of the system as a whole (Lupton, 1993). On the contrary, when health-related crises or risks are framed as symptoms of underlying structural weaknesses and vulnerabilities, they tend to spark anxieties and doubts about the integrity of the relevant expert systems (Lupton, 1993).

The body of knowledge about health risks is constantly growing, thanks to the acceleration of epidemiological research, advances in diagnostic technology for risk factors and predispositions, identification of environmental and occupational hazards, and public health education campaigns, etc. (Crawford, 2004). Building on some examples from Britain in the late 1980s-1990s, Fitzpatrick (2001, pp. 24–28) concludes that risk scares, minor or major such as AIDS, mad cow, MMR (measles, mumps, and rubella) vaccine, follow four stages of "scare development": i) build-up in the medical field, ii) take-off in media, iii) backlash of controversial information and heightened cynicism, and iv) steady state with a less fatalistic and "contained" (Humphreys & Thompson, 2014) reassessment of the problem. Risk scares take tangible and real preoccupations of scientists and turn them into disproportionate accounts, where many voices—sometimes too many—emphasize the ideas of healthism by shrinking health itself close to nonexistence.

As these words are being written, new global risks are taking over the media attention and consumer anxiety. The latest is a mosquito-borne Zika virus, linked to birth defects if pregnant women are infected, spreading in Latin America and in Brazil in particular (which is a destination for this year's Olympics). The public media advice, on the one hand, primarily addresses the people "constrained" to travel to Latin America (otherwise it's advised to cancel the trip), but, on the other, helps boost the sales of the repellents in the US (Neff, 2016a, 2016b) and determine competitive pricing of the best Zika protectants in other markets (Jarvis, 2016)—all of it way ahead of the massive flow of athletes and journalists to Brazil for the Olympics.

Moreover, health-related risks are no longer necessarily placed exclusively outside of the body. Instead, they are increasingly internalized – a concept of immunity is a good example, equally important today for laymen and medical professionals. If the metaphor of illness is a force invading or penetrating the body, the emphasis on health risks moves the focus towards the internal borders of the body and the interaction of diet, medication, physical activity, and genetics (Nye, 2003).

By-products of health-risk dichotomy are personal ambivalence of inability to choose between dangers (Beck, 1992; Giddens, 1991; Sulkunen, 2009) and an escalating spiral of control and anxiety (Crawford, 2004). Despite an expectation that it's possible to gain more

control and achieve health by battling every possible risk and reducing the exposure to harm, the result is a paradox of growing anxieties and health insecurities.

Healthists' lifestyle thus is a continuous risk (reduction) management operation based on the notion that illness is a "point of perpetual becoming" (D. Armstrong, 1995, p. 402). Such lifestyle is amply supported by the shift towards "anticipatory medicine," which relies on statistical assessment of predispositions and risk factors, thus dehumanizing the doctor-patient encounter and degenerating the individual body (Skrabanek, 1994). A recent globally-disputed example would be the controversial decision (and its discussion in media) by public figure Angelina Jolie to perform a "proactive" preventative double mastectomy based on her screening result that identified her having a BRCA1 "faulty" gene which, according to statistics, is associated with a 87% risk increase of developing breast cancer and a 50% increase of ovarian cancer risk (Jolie, 2013; Marsden, 2013).

Just like Ms. Jolie, modern governments increasingly rely on "surveillance medicine" (D. Armstrong, 1995) and collective risk calculus adopted from insurance companies (Beck, 1992; Campos, 2005; Nye, 2003) in order to assess potential costs and dangers of individual genetic risks and unhealthy lifestyles, and promote neoliberal policies based on the notions of cost-effectiveness, prevention, and individual responsibility for health maintenance. New findings from biomedical science and epidemiology about risk factors turn whole populations into potentially sick due to potentially risky predispositions, pre-illnesses, or "at risk" states and lifestyles, not to mention the factor of genetics (Coveney, 2006).

4.4. Moralistic and dividing function of health

Conrad (1992, 2007) sees the major distinction between medicalization and healthism in how they frame morality discourse. While medicalization provides biomedical causes and interventions for social and moral issues, healthism "turns health into the moral" (Conrad, 1992, p. 233).

In its extreme versions, healthism may provide totalitarian justification for racism, segregation, and eugenic control, which was the case in Nazi Germany and the Soviet Union according to Skrabanek (1994), where healthy was interpreted as patriotic and pure, while unhealthy as foreign and polluted. In its "everyday" version in most Western countries, he talks instead about "coercive healthism," where human activities are divided through various forms of public education and information into approved and disapproved, healthy and unhealthy, prescribed and proscribed, responsible and irresponsible (Skrabanek, 1994, p. 15).

In everyday life, according to Kristensen, Lim and Askegaard (2016, p. 11), "the shopping basket becomes a window into the moral character of a person," so the success or failure to resist temptations and comply with self-discipline in every aspect of the healthist's lifestyle provides a basis for other people's judgment. The perceived capability to control health-related conduct (e.g., health food consumption, fitness routine) as well as visible health-related traits (e.g., body weight, appearance) become a socially dividing practice.

Acting as the moral compass for the self, health becomes an (in-group and out-group) identity-marker: "I am who I am because I am healthy/I am healthy because of who I am; you are who you are because you are unhealthy/you are unhealthy because of who you are" (Crawford, 2006, p. 414). Thus, health serves as an instrument for socially dividing practices of evaluation of the (moral, responsible, good citizen, healthy) self against the (immoral, careless, bad citizen, unhealthy) other. The unhealthy other is a threat of contamination, physical or virtual, to the healthy self and therefore needs to be kept distant or isolated. Moreover, not only the actual sickness, but a mere risk potential boosts the division. Since the individual risk-related decisions have an impact on others, failure to act preventatively, whether by conscious choice or not, is seen as a sign of social irresponsibility (Crawford, 1980, p. 379; Sulkunen, 2009, pp. 3–4). Health, in other words, is increasingly used as an argument for a new form of social Darwinism (Frank, 2002; Skrabanek, 1994; Sulkunen, 2009; Turrini, 2015).

The moralistic dividing function of health declares sick people responsible for their own un-health. When it comes to family or friends who cross the line and become unhealthy, it may confound these dividing strategies and soften the judgment that people deserve the disease they get, but the healthy-unhealthy distinction remains strong nevertheless: it just reframes the imagined qualities of the unhealthy and irresponsible otherness (Crawford, 1994, 2006).

In a secularized world, health serves as a social ideal and a moral foundation of character, especially for the middle class, replacing the virtue of a religious worldview. The language of health allows a distinction between those respectable and disreputable, those safe and dangerous, those with the right to rule and those in need of guidance and supervision (Crawford, 1994, p. 1349). In this way, health, especially for the middle class, becomes a trajectory to construct the socially desired responsible self, based on a combination of individual agency and freedom of choice with self-control and self-discipline.

In some recent discussions in legal research, the term "healthism" is used in an alternative meaning to talk about discrimination on the basis of health status, similarly to more familiar discriminatory "isms" such as racism, sexism, ageism etc. (Roberts & Leonard, 2015).

In the public and legal discourses, health is not a widely recognized antidiscriminatory category such as race, religion, gender, age, disability, genetics, or sexual orientation. However, the interest is growing because the cases of distinguishing individuals based on their health status become more and more visible and contradictory. A discriminatory function of health in the modern social and normative environments can be seen especially well in the case of insurance companies and employment practices, but it spills over in a variety of other spheres, including health-care access, public health, reproductive technology, the marketplace, and the judicial system (Roberts & Leonard, 2015).

The private health insurance industry is built up on the principles of discrimination by health: the policy premium payment is based on individual risk profile, age, medical history, tobacco use, and more and more often unhealthy conducts, and genetic and other predispositions (Roberts & Leonard, 2015). The premium is determined by risk calculus statistics, where the

correlations are more often than not based on associations and co-occurrences, and not on straightforward causal links (Campos, 2005). At an increasingly alarming rate individuals are denied insurance coverage or have the coverage revoked precisely when they need it most, making insurance a system exploited by a healthy population demanding (expensive) unnecessary preventative monitoring, and leaving sick people in need of care out (Fitzpatrick, 2001).

In the case of employment practices, the "lifestyle discrimination" seems to have become a trend: people are refused employment or promotion or otherwise treated differently based on health-related traits and conducts that are not related to the direct job duties. Just as with insurance companies, the employers view out-of-work activities (e.g. diet, recreational sports, sleep habits, substance use, political activities, social and sexual activities, moonlighting, etc.) as proxies for work ability and perform risk calculus based on such information. The two most frequently reported lifestyle discriminators today are smoking and obesity. While several laws restrict discrimination against diagnosable health conditions, lifestyle discrimination is out of juridical protection (Roberts & Leonard, 2015). Under the healthism ideology, lifestyle and related health traits are subject to individual responsibility and workers can simply make the choice: to have a job and quit smoking, or to risk losing the job if not. On a more symbolic level, obese people or those who are not able to quit smoking are discriminated through stigmatizing, shaming and humiliation, because they are viewed as incapable of self-control (Lupton, 2013c) and as dangerous carriers of un-health that can be somehow "contagious" for the healthy others in society (Gard & Wright, 2005).

4.5. Food in healthism: Medicalization of food and the duty of healthy eating

Medicalization could be considered especially strong in the domain of food and eating. For example, Mayes (2014b) analyzes the evolution of medicalization through three food-related concepts - under-eating or anorexia nervosa, over-eating or obesity, and medically-guided infant nutrition - in order to show how food in general "is progressively invested with medical significance [and…] touted as possessing a therapeutic or health enhancing capacity that indicates an individual's or population's present and future health" (Mayes, 2014b, p. 1). The outcome of medicalization, according to Mayes, is "blurring the distinction between food and medicine" (2014b, p. 5).

Food is not only an enormous industry, but a meaningful social practice of immense psychological and emotional significance which can be seen as a "laboratory for the understanding of social relationships" and, in particular, of "structural anxieties of our epoch" (Warde, 1997, pp. 22, 56). As Sassatelli (2004, p. 177) puts it:

> In more than one way food is indeed crucial to how we negotiate consumption as a specific and meaningful set of activities. This is both because of the position of food in all societies we know – the role it plays in the different forms of cohabitation, for example – and because of its special features in contemporary societies. Food consumption is now a very dynamic field, with changes and innovations which are, to some extent, jeopardising its workings as a taken-for-

> granted route to people's sense of identity and belonging (Warde 1997). In general terms, food consumption is both imbued with morality and constitutes a territory for the practical translation of moral and political visions. Indeed, when we look at the ways consumer culture is being criticised in contemporary society, we see that food consumption is one way in which people start to imagine a different world.

In the case of healthism, food consumption is one of the main stages of individual responsibility enactment, representing simultaneously one of the major risk factors and source for individual self-care strategies.

4.5.1. Food as risk: Safety hazards, nutritional dangers, and obesity epidemic

Risk avoidance and risk management lifestyles are possibly most evident in the case of food consumption. With eating being a daily need, the presence of risks associated with food becomes perhaps the most important risk awareness context. Food is a "liminal object" that crosses the border between the outside and the body and gets "incorporated" within body boundaries through the act of eating (Fischler, 1988). This makes the risks associated with food more imminent and more intimate, compared to global warming, environmental degradation, radioactivity, and other technology or environmental risks happening on the outside, not within the body (Beck, 1992; Lupton, 1996).

The risks in the context of food are constructed at three levels: i) food safety hazards, ii) nutrition-informed risks, and iii) risks of the unknown.

The first group of risks is concerned with public safety concerns about turning food into a poisonous substance. Such food safety risks inevitably receive a lot of media attention, just like in the case of salmonella outbreaks, beef contaminated by with E.coli bacteria, mad cow disease (BSE), toxic or bacteria contamination of water, etc. (Fitzpatrick, 2001; Lupton, 2005). Food risks could be ambivalent, because they are often presented by the media as global and potentially dangerous for all, but at the same time, as Lupton (2005) shows, there are regional, geographical, and national risks. So, contextual and socio-demographic and cultural differences need to be taken into account when looking at food risks.

Food-related health scares are defined by scientists, and reported by mass media, but eventually evaluated by the legal profession, who issue the verdict determining whether or not the hazards are substantial and which market players are responsible. Such verdicts may cause liabilities and fines for industries; profound market and production system changes; companies altering production or brand lines; consumers switching brands, going for alternative products, withdrawing from purchase and consumption, actively boycotting certain products or companies, etc. But since risks, according to Beck (1992, pp. 22–23), exist in terms of our knowledge about them, they can be changed, magnified, dramatized, or minimized by the power of social definition. Thus, whether scientifically or legally substantiated or not, risks can lead to serious distress for the market, involved categories,

brands, or the consumers (Fitzpatrick, 2001; Giesler, 2012; Holt, 2012; Humphreys & Thompson, 2014).

Besides direct effects, food scares lead to the formation of food-focused neo-tribes (Maffesoli, 1996) or new social movements with niche specializations in terms of diet (Beck, 1992; Ekström & Askegaard, 2000; Warde, 1997). Vegetarianism (and later veganism) is reported to be one of the indirect outcomes of various meat-related scares (i.e. mad cow, hormones, antibiotics etc.) as much as ethical movement in support of animal rights (Fitzpatrick, 2001). Organic food, wholefood, and slow food movements also originate from safety concerns towards modern technologies of large-scale agriculture, pesticides, genetic engineering, and food processing and against transnational companies as such (Coveney, 2006). These counter cultures did not only influence consumer attitudes to certain categories of food, they also directly influenced food industry attitudes in favor of food products marketable as "natural" and "unprocessed" (Press & Arnould, 2011; Thompson & Coskuner-Balli, 2007).

The second type of risk is concerned with more subtle potential dangers that food can cause to human health: specifically, nutritional components of food products that could be potentially detrimental to human health. Nutrition-related risks are increasingly becoming more and more complex. For example, lipophobia or "fat is bad" is one of the most widespread and commonly recognized nutrition-related risks nowadays (Askegaard, Jensen, & Holt, 1999). However, if in the 1980-90s the nutritional advice demonized fat as such, today it distinguishes between good and bad fats and low-density and high-density cholesterol. A simple message from the past "reduce fat intake" today requires more detail: "reduce dietary fats, but only if they are saturated animal fat or hydrogenated vegetable oil or monosaturated oils which have not been cold pressed, and eat more fats, animal or vegetable, which contain Omega-3 acids" (Lupton, 1996, 2005, p. 449, 2013a). Needless to say, fat (or other nutrition risks) cannot be experiences as an objective quality of food, but is rather constructed through expert articulation of risks and their cultural understandings (Askegaard et al., 1999).

The third type of risk is more generally concerned with various uncertainties surrounding food. In the perspective of the "omnivore paradox" articulated by (Fischler, 1988), for example, uncertainty is associated with food's novelty. Since human beings are omnivores and need variety in eating, their relationship with food has been always caught between the safety of the known and the risks of the unknown. The modern society, which has shifted from gastronomy, the rules of good living and self-care through food (Coveney, 2006) to the state of gastro-anomy, a condition bereft of any rules (Fischler in Warde, 1997, pp. 30–31), is believed to increase the anxiety of the omnivore's paradox instead of regulating it. Individualization of more health-related risks leads to a deprivation of confidence in food and in people's ability to make the right choice (Warde, 1997, pp. 30–31). Food thus is always a source of risk, personal uncertainty, and anxiety, because even the most familiar food (in the present) may have potentially unpredictable health effects (in the future).

Another more concrete example of risks of the unknown is the case of genetically modified (GMO) food, a new cost-effective type of technology that can solve a variety of nutrition problems (e.g., safety, costs, availability, sustainability, etc.), but that is so new and different

that it causes a great deal of distress and anxiety about its unnatural origin and unknown long-term effects (Ekström & Askegaard, 2000). GMOs are controversial and fall into the "reflexive scientization" logics described by Beck (1992, p. 155) as growing skepticism of science, despite the need to rely on scientific explanations of reality.

However, the riskiest of all the food-related risks is the looming health catastrophe of obesity, or "obesity epidemic" that has turned the entire food market into a "tobacco industry of the new millenium" (Nestle, 2013). Obesity epidemic is an odd term considering the absence of an infectious component in obesity; yet even the World Health Organization uses the term, sometimes interchangeably with a more recent neologism of "globesity" (WHO, 2016a). Body weight, as we discussed before, is seen as an outward expression of health status that is also standardized by the official body mass index (BMI) metrics, which gives functional language (of statistics) to the obesity epidemic risk debate between science, politics, and morality.

The obesity epidemic talk is very loud, pervasive, and "strategically alarmist," meaning that it's often designed around hyperboles intended to shock people into changing their behavior (Gard, 2010; Gard & Wright, 2005). But a growing stream of research with a more critical approach to the obesity epidemic (e.g., Campos, 2005; Gard & Wright, 2005; Herrick, 2009) actually shows that higher weight is not the best indicator of bad health, and the legitimacy of calling obesity a disease (not a symptom of an underlying health condition) is questionable. Facts and arguments collected by these studies are eye-opening in that they show that a moderately active larger person can be healthier than a slender but sedentary one and that it's dieting and weight lose-regain cycles that create most harmful health effects (Campos, 2005). They demonstrate that in many cases the data on prevalence of obesity lacks reliability and accuracy (Ross, 2005). Moreover, what is often presented as an indubious causal relationship between higher BMI and health problems is rather a case of "speculations delivered with an air of certainty" (Gard & Wright, 2005, p. 5). Except for extreme cases on both sides (extreme underweight or morbid obesity), body weight does not seem to have significant effect on the state of human health (Campos, 2005). In other words, studies establishing that obesity is an epidemic instead of causation show only some degree of correlation (i.e., association) found through regression and statistical analysis, which often also silences several important factors, such as smoking, activity levels, age, income status, race, etc. (Campos, 2005). Despite inability to prove causation and "hypothesis which underlie food policies […] beyond all reasonable doubt" (Skrabanek, 1994, p. 89), scientists nevertheless make recommendations, which are often based on generalizations supported by popular beliefs (Gard & Wright, 2005). The "unpalatable fact", as Skrabanek (1994, p. 89), puts it, is that "those who benefit [from current health promotion policies] will be a minority while those who are inconvenienced are the majority."

Similarly, the causes of obesity remain a black box and, instead of a scientific explanation, are discussed with the use of conservative age-old ideas about social and moral discipline. Both of the most frequently used viable explanations—evolutionary and human nature explanations—are far from being scientific. The evolutionary logic, popular in all aspects of explaining life today, that states that our lifestyles are out of step with the prehistoric make-

up of the body and human genetics, is merely a form of "just-so stories", i.e., stories about an invented past to explain the present, hypothesis about hypothesis. The human nature explanation is a "everyone everywhere" story, which states that the environment we live in today is inherently obesogenic, and that people are weak of will and prone to gluttony (Gard & Wright, 2005, pp. 108–125).

Critical obesity studies argue that BMI is a social construct of appropriateness rather than a mathematical prediction of bad health. It has double standards for various social classes, does not account for gender physique differences, sets a purely arbitrary threshold of fatness, and promotes an overly restrictive cultural ideal of thinness (Campos, 2005; Gard & Wright, 2005; Ross, 2005; Skrabanek, 1994), not to mention the morality of equating thin body with virtue (good health, success, smartness, and worthiness) and fat body with vice (individual's greed, immorality, laziness, and lack of self-discipline) (Askegaard et al., 2014). The language of BMI in obesity attempts to turn complexity and uncertainty about health consequences related to food into a simple and strict causal prediction. After all, by giving a name and quantifying risks, they can be understood and managed through knowledge about them. This is however, according to Beck (1992, p. 63) a certain way "how 'rationality' can become 'irrationality'."

In this context, obesity too is a social construct and an "invention," a powerful branded narrative about food as a risk that mobilizes enormous public and private resources for the sake of life-long management of people's bodies, appearances, and weight (Campos, 2005). The use of the word "epidemic" together with obesity plays the crucial role in providing the widespread anxiety and moral panic, typical of risks. As Gard & Wright (2005) put it,

> Using the term 'epidemic' in relation to increases in rates of 'obesity' thus metaphorically evokes the high levels of emotion associated with infectious disease epidemics and legitimizes the same kinds and levels of intervention and public response. Characterizing obesity first as a disease and then one of epidemic proportions requires the immediate mobilization of resources to bring about change. With infectious epidemics there is a sense that all are at risk of they come into contact with the organism. In the context of 'obesity epidemic' this is translated into a sense that anyone might 'catch it', that people who are overweight or obese have already succumbed and are thereby dangerous 'carriers' to be avoided. This permits their stigmatization and permits action to be taken because of the 'danger' to themselves and to society. (Gard & Wright, 2005, p. 174)

Obesity thus, as advanced by Gard (2010) should not be understood as a sum total of the changes in the way present-day societies cook, eat, and (do not) move, but as a broad and complex social movement and a globally pervasive shift in the way people think and behave.

All three types of health-related food risks require risk assessment, risk avoidance, and risk management strategies. In Beck's (1992, pp. 35–36) words, "Cooking and eating are becoming a kind of implicit food chemistry, a kind of witch cauldron in reverse, meant to minimize harmful effects." Consistent with individual responsibility and blame in healthism, food risks are viewed as very personal, internal to the individual, and directly resulting from poor, un-deliberate or uninformed, choices (Lupton, 1999, 2005), which makes the responsibility for the risk management a personal obligation.

Constant deliberation about the risk or safety of food can be extremely difficult and frustrating. In everyday life, people tend to experience food choices as habitual, taken-for-granted, and non-reflexive, but with strong healthist orientation, when the choices of avoiding risks become more conscious and weighted against all pros and cons, the choice may turn into a serious personal distress and moral censure (Warde, 1997), as well as continual struggle of preferences over health consideration, or even inability to choose (Lupton, 2005).

In the perspective of public health, consumers' most important responsibility lies in acquiring knowledge about health hazards from the experts: dieticians, epidemiologists, risk analysts, government officials, and food producers. The actual consumer strategies are much more complex, and looking at poor consumer understanding of scientific facts is far too simplified and misleading. In fact, the "knowledge gap" in terms of nutrition knowledge is far less wide than often portrayed by public health (Coveney, 2006).

Brunel and Pichon (2004) list 4 types of food-related risk reduction strategies: i) confrontation and not buying risky products overall; ii) avoidance by denial or fatalistic acceptance of risk; iii) clarification through alternative information search; and iv) simplification by trusting producer or authority messages. The first two strategies are handled at the pre-purchase stage, and last two are inherent to the consumption situation. Analysis of consumer subject positions in regard to health food consumption by Kristensen, Askegaard and Jeppesen (2013), rather focuses on the use of the body and bodily experiences in their risk management strategies, which can be of four types as well: i) performance of a pre-set script of self-imposed regulations; ii) wisdom inherent in culinary quality and ideal of balance; iii) normality inherent in cultural principles of good life; and iv) sin, which is an absence of a positively formulated platform from which the consumer can claim a legitimate health management strategy. Overall, risk assessment requires consumers to negotiate between various expert systems and their own embodied experiences. Risk management then relies on how well consumers manage to find principles they feel they can trust and products that resonate with such principles.

4.5.2. Science of good nutrition: Moral imperative and explanatory power for multiple expert systems

Food, like many other social and individual issues rationalized in the modern period, became a matter of technical rationality rather than practical judgment (Warde, 1997, p. 49). The technical rationality prevalent in the domain of food is nutrition, which is also instrumental for the medicalization of food and thus moving it into the territory of healthism.

Under the perspective of nutrition, food is a combination of nutrients that can be beneficial or harmful for a person's health. Block et al. (2011) synthesize the essence of biomedical or nutritionism logic in the equation: "food = nutrients = health." Scrinis (2008) claims that "nutritionism," the nutritionally reductive approach to food and health, is the dominant ideology or paradigm of today. The nutrition way of seeing food is prevalent even when

people chose not to follow nutrition principles and guidelines. Nutritionism undermines and represses other ways of engaging with or thinking of food (e.g., types of food processing, food origin, sensual and embodied experience of consumption, social meanings of food, etc.) among consumers, food industry, governments, and even scientists:

> Nutritionism has become a contemporary certainty, one that is taken for granted and mostly unchallenged, even among food and nutrition experts and institutions. While there is much contestation over the way nutrient-level knowledge is used and abused, few have questioned the reductive focus on nutrients per se. (Scrinis, 2008, p. 39)

The dominance of nutritional knowledge in the domain of food represents more than a set of scientific facts, figures, and recommendations for consumers to learn and implement in daily living. As an ideology, nutritionism not only rationalizes food, but also mediates the idea of what we consider good (vs. bad) foods, choices, eating habits, and moral characters. As Coveney (2006, p. xii) puts it, "It is this moral imperative which is encoded in nutrition that makes it so compelling, so engaging, so judgmental, and so strangely popular."

In order to understand the current state of the ideological power of nutrition in the domain of food, we need to examine it from a socio-historical perspective. Coveney (2006) explains that there are two standard approaches to historical analysis of nutrition, where it can be seen as: i) a series of unfolding discoveries and progress in nutrition science, or ii) a history of politicization of health. In the first perspective, scientific discoveries (e.g., of nutrients in the lab) and sociological discoveries (e.g., of poor eating habits of particular social groups) are continuously turned into practical applications (e.g., preventative medicine or nutritional guidelines). In the second, the history rather consists of institutional strategies to educate and improve nutrition and health (e.g., risks of cholesterol awareness campaign, home science classes in schools, etc.) (Coveney, 2006, p. 16).

We are, however, more concerned with the ideological side of nutrition knowledge, and therefore will rely on Coveney's (2006) historical analysis of nutrition as a system of thought. By looking at how meanings and morals around food changed across various eras and institutions, he shows that nutrition today is part of governmentality technologies and strategies designed to better manage populations. The calculated, scientific, rational understanding of food resulted from the concern for the control of populations together with such "population sciences" as social statistics, social sciences, population medicine, etc. intended to inform the legal system, health, life, and behavior of individuals through the normalization of mundane activities. At the same time, such scientific knowledge functions as a self-disciplining ethos, which defines proper ways of conduct replacing religious principles in modern secular societies (Coveney, 2006, p. xv–xvi, 1).

Nutrition science serves as a basis of moral judgments about food. While nutrition science is a considerably recent phenomenon, Coveney (2006) claims that moral obligations were always at the core of human behavior around food, but relied on different justifications across history. In Ancient Greece, for instance, food pleasure was deemed less problematic than today. Food constituted part of dietetics, i.e., a daily regimen of self-care comprising exercise,

pleasurable eating and drinking, sleep, and sexual relationships. Mindfulness and flexibility were especially appreciated, since various situations, seasons, hours, and even places required an appropriate regime. Bodily health was considered a daily concern, everyone was expected to be their own doctor, and medicine was a subordinate of dietetics as simple pragmatic alterations of self-care regime for the sick person. Self-mastery, moderation, and balance between asceticism and indulgence were considered the main practice of ethical conduct (Coveney, 2006, pp. 26–28).

In the early Christian era, the ethics of food shifted from desire of balance between pleasure and moderation towards a painful tension between the two. Carnality and sensuality of the flesh became viewed as the central problem of existence, where indulgence becomes a moral sin and a danger to the purity of the soul. Hence, denial of pleasure and fasting become solutions to ethical concerns that food represented. "Civilizing" one's appetite was necessary to claim spiritual purity and immortality. Christian thought implied a constant search for an "authentic self," a subject of spiritual desire as opposed to the "true self," and so food was treated not like in Ancient Greece as a matter of personal ethics, but rather as a duty to God, often expressed in renouncing flesh (Coveney, 2006, pp. 32–45).

The period of the 18-19th century when Ascetic Protestantism become a powerful discourse in political and scientific circles, built on the moral codes of early Christians. This discourse established nutrition as a form of spiritual discipline. Self-renunciation and food limitations were expressed in a form of scientific rather than religious restrictions, but the ultimate objective of food problematization was to purify the soul. Nutrition was understood as a set of ascetic principles to exert over the body in order to improve the spiritual character of a person. Some notorious pioneers of modern nutrition came from Protestant denominations and had uneasy relationships with the scientific community. For instance, Ellen White was one of the "prophets" of the Seventh Day Adventism church, who formulated a "healthy, holy, happy" theology consisting of dietary rules (avoid pork meat, alcohol, spices, tobacco, tea, and coffee), and also established a sanatorium in the US that hired John Harvey Kellogg as a medical director. Another sanatorium was opened later in Australia. These sanatoriums started producing food products to accommodate the propagated dietary rules. Wheat flake cereals (and later other types of cereal) that were launched in these sanatoriums in the end of 19th century are still on the market under famous brand names of Kellogg's (in the US.A.) and Weetabix (in Australia) (Coveney, 2006, pp. 47–58). Curiously, the health food industry of today has a special relationship with the category of breakfast cereals, e.g., Kellogg's All Bran campaign in 1980s was instrumental in instituting the 1990 Nutrition Labeling and Education Act (NLEA), which still regulates all nutrition labeling in the US. Also, cereals are some of the most frequently recognized symbols of healthy food, based on consumer perception studies (e.g., Ma, Ailawadi, & Grewal, 2013 [82]).

Wilburn Olin Atwater, according to Coveney (2006), can be considered the father of modern nutrition thought. Atwater's contribution in fact combined work on metabolism in the field of chemistry with economics, and helped establish the central assumption of modern nutrition: the rational way of eating and the ideal diet based on science. He produced a nutritional

accounting system that allowed calculating nutrient intake and nutrient need, thus connecting physiological economy to food economy. Such an approach drastically disconnected the flavor and taste of food from its scientific nutritional "use value." The solution to moral problematization of pleasure has become considering the pleasure of food superficial since even tasteless food is perfectly digestible and healthy. Such an economic approach to food has made nutrition especially popular for the public organizations managing workhouses and prisons, where rationing of food become the subject of costs and efficiency in both economic and metabolic terms (Coveney, 2006, pp. 58–75). The orientation at rationing and finding the most economic source for calories remained one of the main applications of nutrition knowledge throughout the early 1900s, the Second World War, and the post-war reconstruction period (Keane, 1997). And, more generally speaking, the principle of a double entry accounting system still prevails as "energy-in/energy-out" logic (Gard & Wright, 2005) of nutrition and weight management on both scientific and personal levels. This principle became so strong and influential that today it justifies obesity science as well. However, as Gard & Wright (2005, p. 80) show, the underlying assumption of "energy-in/energy-out" and "body as a machine" might be problematic because it keeps "asking the same questions and deriving small variations on a small set of answers for at least 120 years."

Establishing the relevance of nutrition on the levels of various social institution (e.g., for the poor at the level of social organizations, for the well-off in sanatoriums and spas) has helped to grow the area of nutrition knowledge influence beyond chemistry. Nutrition ended up providing a shared language and conceptual framework (Coveney, 2006) to the range of experts, agents, and settings from food producers, medical professionals, to public policymakers and economists.

In the beginning of the 20th century, based on new chemistry findings, more and more different nutrients were classified according to their usefulness. For instance, if in the 19th century fruits and green vegetables were deemed unnecessary extravagances without sufficient nutritional usefulness, in the beginning of 20th century the discovery of vitamins and better understanding of the function of minerals provided scientific language to confirm their nutritional "goodness." Foods with a high protein and vitamin content were classified as "protective," high-calorie cereals, bread, rice, sugar as "energy bearing" etc. (Keane, 1997). Nutrition produced the "regime of truth" for food and eating. Enormous amounts of information were gathered about individuals and populations in order to define the "normal" (health, child growth, weight, etc.), giving rise to "surveillance medicine": when a person was found outside of the "normal" population, intervention was required. In other words, nutrition produced three new types of knowledge: i) an understanding of food in chemical terms, ii) health consequences of poor diet, and iii) categories in the population based on nutrition status (Coveney, 2006, pp. 76–90).

After the Second World War (in the 1950s in the United States and in the 1970s in Europe), rational consideration of nutrition became understood alongside new conditions of increased food choice: "Choice and the freedom to chose have become part of the normative category of food, not having choice is regarded as a situation in need of correction" (Coveney, 2006, p.

93). Nutrition has acquired a stable position in political, social, and biological spaces of life on both the macro and micro levels. On the one hand, concern with diet-related diseases (WHO, 2014) and a "sick population" assumption (Coveney, 2006, p. 15), created a "landscape of nutrition," or a growing expanse of nutrition rationales and understandings about food in scientific and medical terms. Diagnosed as sick and non-compliant, the population is encouraged to modify diets based on rational and scientific dietary recommendations. On the other hand, nutrition becomes incorporated at the level of personal lives and families, making food-related choices an individual's responsibility and preoccupation. As the main focus of the current historical period, food choice is continuously problematized against the nutritional "truth" and the morality of self-regulation (Coveney, 2006, pp. 92–122).

With the growth of its importance, nutrition has expanded beyond chemical science, and largely become a rationalization discourse used in the promotion and justification of various food and lifestyle choices. As a matter of fact, it's the abundance and mixed information derived from multiple expert systems of knowledge that is problematic today. Nutrition also becomes "self-reinforcing; it is a constant reminder of the need for further work to reform strategies, improve interventions and reformulate expertise" (Coveney, 2006, p. 114), because even the most knowledgeable consumer would face a discrepancy between rational rules of nutrition and reality of food choices. In this regard, Mayes and Thompson (2015) speak about "nutritional scientism" or else simplification and superficial references to science, appropriating nutrition as the primary value of food and translating it in "lay person" terms. As Coveney (2006, p. 138) puts it, "Nutrition thus becomes popularised; it becomes a commodifiable media product. This process transforms a complex science like nutrition into a product of sheer entertainment; one which finds its place in magazines, newspapers and popular TV programmes."

To sum up, nutrition provides "a moral discourse alongside a scientific discourse on food" (Coveney, 2006, p. 88). For modern consumers, food choice based on nutrition principles allows them to recognize themselves as moral and good citizens. As a moral discourse, it has replaced previous food-related moral discourses (e.g., dietetics in Ancient Greece, asceticism in Christianity), and provided a common conceptual framework and a common language for various expert knowledge systems. Therefore, nutrition is on the one hand a "medical way of seeing" (Crawford, 1980, pp. 369–371) and, on the other, a rational justification of the values of self-reflection and self-regulation derived from the Christian denial of pleasure and guilt for the indulgence of eating.

4.5.3. Health food as a compulsory commodity

In consumer culture, experiencing pleasure by consuming new items has become an obligation (Baudrillard in Warde, 1997, p. 57). Pleasures here do not need to be taken literally as indulgences or the opposites of healthy. On the contrary, in healthism choosing health food is a moral pleasure and hence also a duty. A growing ability to make healthy food choices translates into an immense moral responsibility consumers must take (if they can) in order to

minimize treatment costs and to maximize the happiness of people around (Sulkunen, 2009, p. 1). In this sense, the constant development of new health food products to place on the market is an essential mechanism for consumer responsibilization (Giesler & Veresiu, 2014) and companies' ethical responsibility (Dalli & Morici, 2015; Lubin & Esty, 2010; Prasad & Holzinger, 2013).

This mechanism is so pervasive nowadays that the food marketplace has decisively became one of the markets, where it's impossible to disentangle health-related products from those that do not have any health components, even though some market observatories manage to quantify the "health & wellness" food market segment, based on explicit "health branding" (Anker et al., 2011; Chrysochou, 2010b; Chrysochou, Askegaard, Grunert, & Kristensen, 2010; Grunert, Larsen, Chrysochou, & Anker, 2008) that uses functional claim, processing claim, or a health symbol in their positioning. Table 4.1 summarizes global growth data for the health food industry in the version of Euromonitor International, one of the largest global consumer and industrial market research firms. In their version, the category includes so-called fortified or functional foods (beneficially-perceived nutrient added), better-for-you foods (negatively-perceived nutrient eliminated), naturally healthy foods, foods for intolerance or sensitivities, and ethical or sustainable foods (Euromonitor International, 2015b).

Table 4.1. Global growth of health & wellness food industry, 2006-2014 (in US$ mn)

	2006	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
World	455866	518786	574575	572483	618290	681629	702851	727177	750418
Asia Pacific	89580	100631	116147	129594	149499	173327	189898	197392	211271
Australasia	8701	10391	10986	10937	13718	16345	17382	16912	16451
Eastern Europe	21563	27730	33445	28523	32158	36394	36162	39539	37793
Latin America	40265	48651	57048	57339	70239	79891	83797	88230	93290
Middle East & Africa	18040	20651	23591	24854	28300	31570	34598	35593	37521
North America	138545	150297	159430	157626	162734	169817	173805	175229	176039
Western Europe	139173	160435	173929	163611	161642	174284	167208	174282	178052

Source: Elaboration of data from Euromonitor International. (2015). Statistics. *Euromonitor Passport*. Retrieved November 13, 2015, from https://www.portal.euromonitor.com/portal/

Marketing departments of all kinds of food businesses are exposed to impressive statistics about the consumer demand for healthy food. Market research by Accenture (Accenture-UN Global Compact, 2014) finds that "more than 80% of consumers all over the world declare a high level of interest for products that help lead healthy life." Nielsen and Natural Marketing Institute (Nielsen - NMI, 2014) report that 89% of consumers say taking personal responsibility for one's health is the best way to stay healthy, 75% say they feel they can manage health issues through nutrition, and 64% say they will take whatever means necessary to control their own health. They continue by saying, "More than nine-in-10 respondents in Latin America (94%), Asia-Pacific (93%), and Africa/Middle East (92%) say they're willing to pay more for foods with health attributes to some degree, compared to about eight-in-10 in Europe (79%) and North America (80%)" (Nielsen - NMI, 2014, p. 12). The survey by the European Consumer Organization (BEUC, 2015) quotes that 96% of consumers want to know the energy content of the food they buy. Havas Worldwide (2012) reveals that 7 in 10 consumers worldwide trust food in being a health enabler on par with

pharmaceutical products. Can marketing managers exposed to such statistics avoid using health messages in positioning their products and services?

The amount of compelling consumer statistics compiled by commercial market research agencies could be seen as a particular version of population sciences, considered instrumental for governmentality and neoliberal order (Foucault, 1997, 2001a; D. Harvey, 2005), which shifts the responsibility for people's health from the state to the consumers by directly involving the food industry. The problem is not that market research firms produce inaccurate or exaggerated statistics. Even though they rarely apply advanced statistical methods for data analysis, they follow the same approaches to collecting data and aggregating descriptive statistics about populations as practiced and prescribed by the scientists in academia. Due to market competition and the financial resources of the private sector, they often collect and distribute data faster and more efficiently, to the point that some of the tools initially established for commercial market research today are eagerly used by academics in their research (e.g., Amazon Mechanical Turk, Qualtrics, SurveyMonkey, and other online panels). So the problem is not (in)adequacy or (un)reliability of data, but their interpretation and, more specifically, mistaking a consumer moral duty to eat healthy for indices of consumer demand.

Not recognizing the moral and ideological aspects of health is not limited to commercial market research agencies. Social scientists at large and academic researchers in marketing and consumer behavior are also, according to Askegaard et al. (2014), guilty of un-reflexive reproduction of moralities about health and food. They can be summarized in four morality discourses: i) dichotomous qualifications of food items into good and bad, ii) value of will power and self-control to resist pleasure, iii) stigmatization of obese body and moral qualities of the body's owner, and iv) market actors' profit (im)morality and ideal of responsible production and informed choice. These moral assumptions may be dangerous, as they constrain "goals, methods and conclusions of policy-makers and researchers in many ways," producing "consequences that subtract from, rather than add to, general consumer well-being" (Askegaard et al., 2014, pp. 1819–1820). The authors call for more self-reflexivity about researchers' own moral assumptions and more diversity in defining subjects and objects of food and health research for a "more constructive, inclusive and self-reflective body of knowledge on food and health" (Askegaard et al., 2014, p. 1821).

Inspired by this work (Askegaard et al., 2014), we would like to further examine the underlying assumptions about health and food in academic marketing discourse and open it up for a more reflexive discussion. The original work examined predominantly psychological research contributing to a transformative consumer research (TCR) agenda. This work's focus is broader, and focuses on general marketing discourse, where, we believe, health has an ideological function. Objective of this research is thus to uncover the ideology of healthism in marketing (research and as a consequence practice) by grasping the components of existing taken-for-granted knowledge about health in food marketing and examining broader consequences of underlying assumptions for scholars, market actors, and consumers. Such more overt reflection will not only help identify a set of ideas about health and food accepted

by marketing scholars, but to examine marketing knowledge as it contributes to the process of construction of market and consumer reality, where healthy food is a compulsory commodity.

5. Research approach: meta-analysis of marketing discourse on health/food

In order to continue and expand on work on moralities of health and food research (Askegaard et al., 2014) and examine underlying assumptions about health and its ideology in marketing research, we undertake an analysis of academic marketing discourse in a systematically-produced sample of marketing articles. Such research can be qualified in the most general terms as meta-analysis, yet differently from a more diffused form of a statistical method that re-elaborates (raw) data from previous research in order to produce new insights, our approach to meta-analysis is based on a discursive and concept-centric approach. The aim of this chapter is to explain this adopted methodology and to discuss how it was applied step-by-step from the early research design and planning, to data collection and synthesis, and finally to the analytical stage.

5.1. Methodological orientation: Discursive concept-centric meta-analysis

As other forms of social science and knowledge (Berger & Luckmann, 1966; Foucault, 1972; McCarthy, 1996; Mulkay, 1979), marketing discourse, i.e, "the broad context in which theory, knowledge and practice take place" (Fitchett & Caruana, 2015, p. 1), is constructed through a particular set of discursive conventions and assumptions, or ideologies, that are routinely overlooked. And when it comes to the topic of health, academic marketing (Askegaard et al., 2014), just like public health (Kristensen et al., 2016; Lupton, 1995) or mass media discourses about food (Schneider & Davis, 2010b; Warde, 1997) is not immune to the ideology of healthism. Completely freeing research from (any) ideology is hardly a viable option. As Murray and Ozanne (2006, p. 48) put it, "in order to study society, all research adopts some social vision and thus embraces a substructure of assumptions, sentiments and values. The most untenable value position of all is to believe that one's perspective is value-free". Or in words of Hirschman (1993, p. 551, original italics), "all discourse and consciousness are ideologically bounded and grounded. Thus, there is no getting *beyond* ideology, there is only the possibility of becoming aware of its presence and consciously choosing the values we wish to affirm". Such awareness can be also referred to as *reflexivity*, which "requires a sensitivity to the manner in which ways of knowing are generally accepted as common-sense and taken-for-granted" and facilitated through "attention to language and discourse" (Lupton, 1995, p. 13). We treat discourse here as "practices that systematically form the objects of which they speak", not as symbolic representations that designate elements of reality in textual form (Foucault, 1972, p. 49). Hence, according to the objective of our research to understand healthism in marketing, we turn to questioning discursive formations, i.e. regularities (order, correlations, positions and functionings, and transformations) between objects, types of statements, concepts, or thematic choices (Foucault, 1972, p. 38) by following the methodological approach of discourse analysis.

As we discussed earlier, discourse analysis is not a specific method, but rather a multidisciplinary family of methodological orientations that analyze social reality with the help of texts. The goal of discourse analysis, as opposed to language analysis, is more than identification of language rules and textual structures. Discourse analysis is rather concerned with observing texts and statements as networks of "discursive events" (i.e., unique happenings produced by the situation and producing the consequences) and with questioning, "How is that particular statement appeared? What are the specific conditions of its existence and distinct relations with other statements?" (Foucault, 1972, pp. 27–28, 99).

Only a few discourse analysis studies were conducted with the specific genre (Fairclough 2010) of academic marketing, and thus there are only a few examples we could look up to in our research design. Among them are research by Elizabeth Hirschman (1993) analyzing dominant masculine ideologies in consumer research publications in 1980 and 1990; Chris Hackley's (2003) analysis of marketing's rhetorical strategies employed in popular marketing textbooks; and Per Skålén, Martin Fougère and Markus Fellesson's (Fougère & Skålén, 2013; Skålén et al., 2008) analysis of managerialistic ideology of customerism in different marketing theory schools of thought (i.e., scientific sales management, marketing management, service-dominant)[15]. Despite conducting analysis of published research and occupying an insider position in regard to marketing discipline—which could qualify as meta-analysis[16]—these studies are different from more traditional research reviews or syntheses because they treat marketing publications as objects of the analysis and as forms of "cultural texts that encoded ideology of their authors[17]" (Hirschman 1993, p. 540), as opposed to being treated as an arranged corpus of knowledge. In addition, they view the role of marketing as a form of "political discourse invested with power rather than as a positive science" (Skålén et al., 2008, p. 14).

To sum up, in light of our final objective to examine underlying assumptions about health and its ideology in marketing, we turn to discourse analysis. This methodological approach requires handling research articles that talk about health as texts in their most broad meaning and applying a critical awareness/reflexivity position. However, the peculiarity of our data sources, which can also be treated as knowledge archives, compels us not to go straight towards critical analysis, but first conduct a study in the traditions of a systematic research synthesis from a more neutral position (i.e., a more mainstream literature review). This

[15] We do not include work by Stephen Brown (1999) in the list due to the fact that Brown analyzes individual discourses of two distinguished marketing scholars, Theodore Levitt and Morris Holbrook, primarily in literary terms, making Brown's approach to discourse different from the one chosen here. Similarly, Brown and Schau's (2008) more recent work on Russell Belk's personal writing style is not included on the same premise.

[16] A more general meaning of the term "meta-analysis" derives from the connotation of the prefix "meta-" as abstraction from the following concept, making "meta-analysis" stand for "analysis of analysis". However, the term has a more specific meaning in the context of statistical research methods. It stands for quantitative research procedures that combine results of earlier studies, or as described in 1976 by Gene Glass who is considered the father of the term: "the statistical analysis of a large collection of analysis results from individual studies for the purpose of integrating the findings" (Cooper et al., 2009, p. 6). Today statistical meaning of the term meta-analysis can be considered dominant.

[17] The term "authors" should not be considered literally as concrete individuals who create a specific written work, but "as unifying principle in a particular group of writings or statements, lying at the origins of their significance" (Foucault, 1972, p. 221)

intermediary step is especially useful because it helps full immersion into marketing research on food and health. In the following sections of this chapter we will discuss how the dual nature of our data sources determined the choices of the study design. We will do this by separating the steps of the process (i.e., data collection via sample generation, research review via data synthesis, and data analysis).

However, before turning to the steps of our research design, we'd like to dedicate a few more words to the discursive genre of academic marketing research and why we consider it an appropriate "semiotic point of entry" (Fairclough, 2010) for the critical study on healthism.

Going back to the social construction of reality discussion, it is knowledge that constructs the reality in the way we perceive and make sense of it, yet knowledge cannot be understood exclusively as "higher forms" of scientific knowledge. Instead "science functions in the element of knowledge" (Foucault, 1972, p. 184). Nevertheless, science and more formalized systems of knowledge have always been one of the most significant sources for analysis of structures of meanings, assumptions, and what could be said or thought of certain phenomena in a particular socio-historical setting. One of the reasons is that science's main job has always been to document ideas and know-hows, which makes it a valuable and accessible archive in which to assess knowledge. On the other hand, as Foucault (1972) explains, our (modern) cultures are characterized by the natural direction of any statement and knowledge moving towards more epistemologized forms, formalized as theories or sciences. This means that analysis in the "opposite direction"—just like in archeological analysis—can help get from more formalized science systems through their history, unities, and dispersions to the broader domain of knowledge as discursive formations. So, when it comes to the study of healthism in marketing, the choice of academic marketing publications as objects of research is dictated not only by the example set forward by Askegaard et al. (2014)'s work, but also by the logic of the sociology of knowledge (Berger & Luckmann, 1966; McCarthy, 1996) and the archeology of knowledge (Foucault, 1972) approaches.

Evidently in our perspective on knowledge, academic marketing discourse is an integral part of common reason/knowledge about health and social norms around health and eating. Thus, understanding knowledge formations (of marketing) works as both a critical assessment of marketing scholars' assumptions and ideologies (of healthism) that are routinely overlooked and as a stepping stone towards better understanding of how public discourse is shaped by and shaping social contexts (of markets and consumption).

Academic marketing discourse, besides representing an epistemologized form of marketing knowledge with a "higher status", is also becoming more and more inter-connected with other typologies or genres (Fairclough, 2003, 2010) of public discourses on health. Some of the new trends in academia (both official and not[18]), in fact, encourage (more) open access to scientific

[18] Public funding agencies in the EU, including Horizon 2020 research funds, for instance, start including the clause to constrain researchers, whose research they fund, to publish their works in the condition of "open access", with the costs sustained by the authors (from the allocated funds). Unofficially, there are several projects, often started by researchers themselves, to share and disseminate their research without paywall constraints using online systems similar to social networks (e.g. Academia.edu, ResearchGate, Mendeley) or online repositories (e.g. SSRN, Sci Hub), etc.

publications, making research output readily available to larger audiences, beyond scholars, students, or marketing professionals. Such a situation encourages researchers, more and more, to reframe research findings to make them more suitable for wider circulation: consider the example from the first issue of the *Journal of Association for Consumer Research* (JACR) dedicated to "The Behavioral Science of Eating". As part of the editorial, the first issue of JACR featured an infographic (see Figure 5.1) predisposed to be shared via social media for the obvious reason of spreading the word about the new publication venue. However, besides the format of the infographic itself, the choice of language and the use of "you" are especially interesting and revealing. In the majority of cases the pronoun "you" has referred to a collective consumer (e.g., "You overeat food called 'healthy' because you think it's less filling"; "Skip dinner if you are not hungry: Spikes in your blood sugar can lead to weight gain"; "The less fancy the plate, the less you'll eat. We may eat the least off paper plates"; "Forks over spoons make you overestimate calories") rather than to a researcher or a manager (e.g., "Avoid negative messages. Telling dieters 'Don't eat cookies' can double how much they eat. Use 2-sided messages instead"). This example shows how marketing discourse does not confine to the life "in ivory towers" of academia, but shapes reality of consumers and marketing managers "on the streets and in the boardrooms and meeting halls of many cities around the world" (Cayla & Peñaloza, 2011, p. 338) and openly participates in a public conversation on such vital social topics as health. Based on such spread and power of marketing discourse, it "must be fundamentally evaluated, critically analysed and reflected upon if we are to understand what they do or may do to societies and human beings" (Skålén et al., 2008, p. 14).

5.2. Research design

The design and steps of this research were determined by the dual nature of its data sources. On the one hand, the final objective is to assess marketing discourse and thus treat marketing research articles as texts in a broad sense of this word (Fairclough, 2003) that produce knowledge and social reality (Berger & Luckmann, 1966; Foucault, 1972). On the other, in a more conventional perspective, the sources of information that we treat here are research articles that can be reviewed and analyzed in a form of a research synthesis, which permits us to outline the knowledge capital collectively obtained by the researchers in a certain research field. This duality persistently guides the research design we are going to outline here, step by step, starting from procedures and instruments for data generation, and then proceeding to the methods of engaging with data on two levels. On the first level, which we will call "data synthesis", we treat data sources as academic research and thus the approach is rather inspired by methods of research synthesis or meta-reviews. On the second level, which we will refer to as "data analysis", we are concerned with critical analysis of marketing discourse, its underlying assumptions and ideological functioning, and thus we follow the methods and approaches associated with discourse analysis (Fairclough, 2010; Foucault, 1972; Lupton, 2010).

Figure 5.1. Infographic from *Journal of Association for Consumer Research* (JACR) volume 1, issue 1, "The Behavioral Science of Eating"

Source: Figure 2 in van Ittersum, K., & Wansink, B. (2016). The behavioral science of eating: Encouraging boundary research that has impact. *Journal of the Association for Consumer Research*, *1*(1), 5–14. http://doi.org/10.1086/684616; figure downloadable from http://www.journals.uchicago.edu/action/downloadFigures?doi=10.1086%2F684616&id=fg2

5.2.1 Data generation: Procedures for evidence-based systematic literature review

The objective of the data generation step of our research is to ensure the best possible pool and composition of marketing texts to help us conduct both a research review and a discourse analysis. As much as we had wished to collect and review every piece of marketing research about our topic of interest, the exhaustive coverage of an argument as broad as ours is unrealistic[19], and therefore we need to focus on a selective (Cooper, Hedges, & Valentine, 2009) and purposeful (Patton, 1990) sample generation instead. To maximize the analytical purposefulness of the sample yield, our main objective is to collect a corpus of texts that can be considered as more *common*[20] for research about health and food in marketing—paralleling the grounding idea from sociology of knowledge (Berger & Luckmann, 1966) that knowledge includes not only its "higher forms" (e.g., top-ranking or most specialized journals, higher researchers' and articles' quotation frequency, special issues), but everything that passes by knowledge in a marketing research community (i.e., any published and citable study).

So, such a corpus needs to be broad enough to account for the most common instances of food and health research in marketing, yet smartly selected to make it suitable for a more in-depth and targeted analysis. With this objective in mind, we chose to follow the systematic literature review method and, more specifically, evidence-based literature review procedures (Tranfield et al., 2003) to guide the process of collecting marketing research texts for our research.

5.2.1.1. Overview of systematic evidence-based review

A systematic literature review has been proposed as a solution to the criticism of narrative literature reviews (e.g. lack of critical assessment, individual researchers' biases, and singular descriptive narratives) prevalent in marketing and management (Tranfield et al., 2003, p. 208). The systematic approach first originated and become widely popular in medical research due to its transparent and replicable process, which guides selection of a specific number of relevant research publications from an inclusive electronic database of all (or nearly all) existing research (Cooper & Hedges, 2009). The same qualities of transparency and replicability make it attractive for management reviews as well. However, due to substantial differences between natural and social sciences, when applied in the management reviews, the systematic literature review method has a number of critical differences, as explained by Tranfield, Denyer, and Smart (2003, pp. 212–214). First, in natural sciences the research design and procedures are strictly pre-defined, but in social research they need to be more flexible. In medicine, for example, once the research protocol is set, it cannot be modified. In

[19] White (2009, p. 56) refers to the claims of exhaustive coverage in any literature review a "fiction", or rather a "useful fiction" – though impossible to achieve, the idea of covering all and every relevant research document on a certain topic drives considerable amount of research dedication and attempts, and thus is useful for analyzing what users want from document retrieval systems.

[20] We intentionally do not use the concept of representativeness, which can be highly problematic in case of systematic literature reviews or research syntheses as discussed in (Hedges, 2009).

management reviews, modifications to the protocol made during research are commonly acceptable. Second, in medical research, questions and procedures are developed and discussed by expert panels, while in management it is more common to define the research questions via a test scoping study. Third, when it comes to evidence data, medical research reviews usually rely on raw data, while in management these data are rarely accessible and therefore researchers are forced to either limit their research base or to use non-raw data instead. Finally, while it is possible to apply measurable criteria to evaluate higher vs. lower quality studies in medicine, in management reviews researchers need to rely on secondary and indirect quality assessments instead (e.g., journal ranking or the fit between research methodology and research questions).

Tranfield, Denyer, and Smart's recommendations, in fact, help us achieve the objectives of our sample generation. First, rigorous and transparent selection of relevant publications from electronic databases with abundant existing research helps us determine what is more (vs. less) common for research about health and food in marketing in general (via a test search). Second, thanks to the possibility to introduce additional screening criteria, we can also design a soft version of quality assessment in order to reduce the sample, but not minimize it only to "the top of the top" of the research field. Finally, a certain level of flexibility to modify the design and procedures depending on test results ensures high precision in terms of relevance of the collected sample.

5.2.1.2. Preparation of the review

The standard stages constituting a systematic literature review are: 1) planning the review (identification of the need for a review, preparation of a research protocol); 2) conducting a review (identification of research, selection of studies, study quality assessment, data extraction, data synthesis); 3) reporting and dissemination (Cooper, 1988; Randolph, 2009; Tranfield et al., 2003). Table 5.1 shows how the standard review steps and stages were applied for the purposes of this research. As a matter of fact, the steps were not as linear and sequential as presented in Table 5.1. Preparation was long and involved a lengthy process of adjusting procedures via trial and error. When a trial or test search revealed concrete or potential problems, the protocol was questioned and, if necessary, revised.

The remainder of the section will explain which procedures were followed to generate the definitive sample. For the sake of clarity, we will first focus on test search (stage 1), and then on final sample generation processes (stage 2 until step v. in Table 5). Methods for coding frame and data extraction and synthesis (step v. of stage 2) and reporting (stage 3) will be explained in the next section dedicated to data synthesis.

Table 5.1. Stages and steps of data generation and data synthesis

Stage	Actions
Stage 1	Preparation of the review: i. Test search to identify what is more common for marketing discourse about health and food ii. Identification and selection of keywords, keyword refinement (synonyms, different spellings, appropriate truncations, logical combinations) iii. Database search strategy identification (strings, filters)
Stage 2	Conducting a review following identified criteria: i. Database selection and search ii. Screening based on abstract reading iii. Screening based on quality assessment iv. Final selection of studies v. Coding frame and data extraction and synthesis
Stage 3	Reporting: i. Bibliographic overview of the evolution of research field ii. Categorization and mapping of the existing body of knowledge and research streams

Source: Author's own elaboration of research review methods (Cooper, 1998; Randolph, 2009; Tranfield et al., 2003) as adopted in this study.

5.2.1.3. Test search: Identification of most commonly used keywords

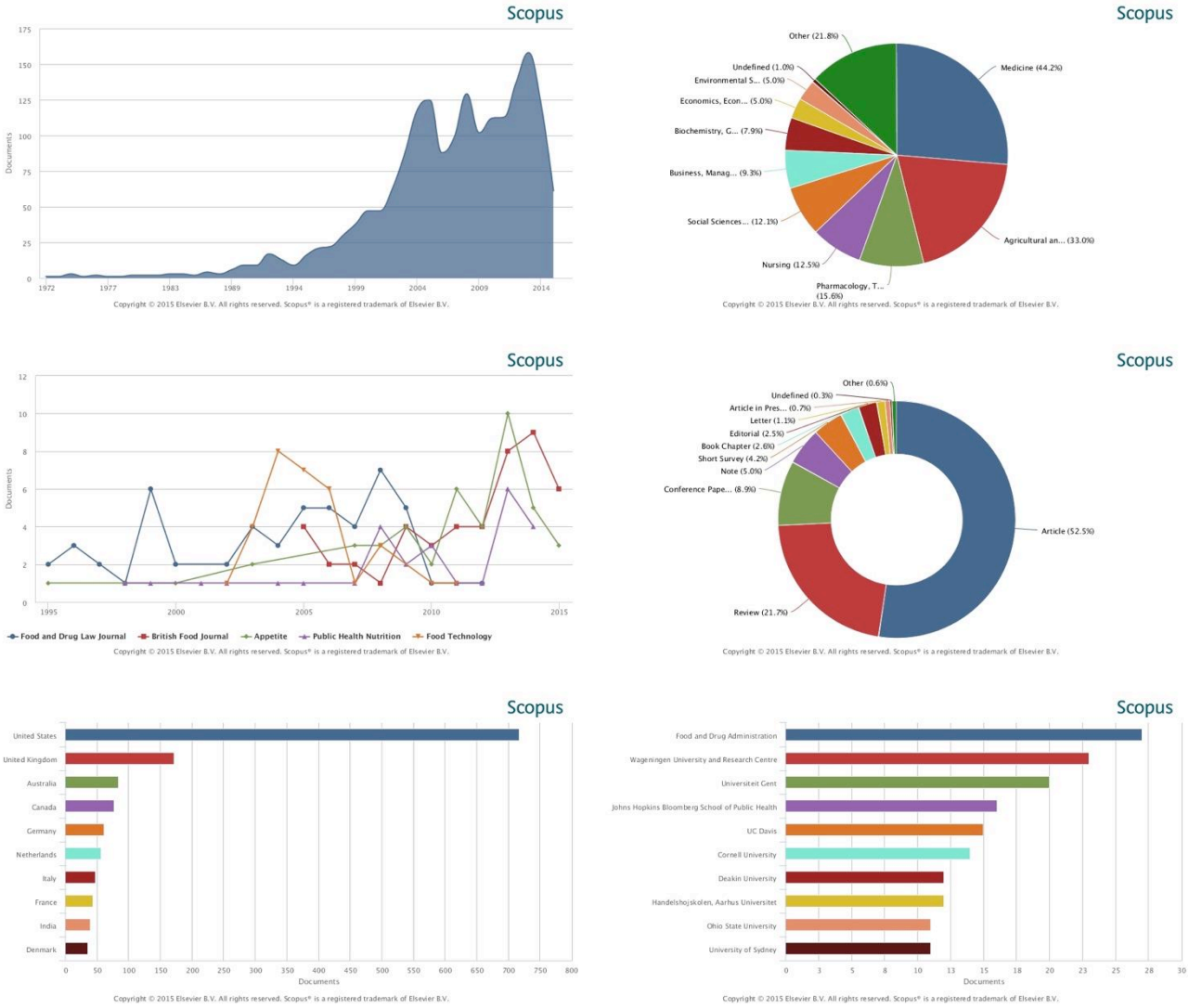
According to the objective to identify what can be considered as more common research in the field of health and food marketing, we conducted a test search on one of the largest electronic bibliographic databases: Scopus by Elsevier. The underlying logic of this test search was to start off with a very broad set of search criteria and, based on the results, to identify what topics can be considered more common and more frequent in marketing research about health and food. Author-supplied keywords served as indicators of the topics of the articles.

It is common practice in some disciplines (e.g., medical and pharmaceutical studies, education, etc.) to create so-called "controlled vocabularies" or taxonomies of search terms, which can be readily consulted to identify all synonyms, spellings, truncations, etc. Despite initiative by some electronic bibliographic databases (e.g., EBSCOhost), such vocabularies are not yet common in marketing and other management disciplines. Therefore, it was necessary to conduct our own search focusing on identifying most frequently used author-supplied keywords in consumer and marketing research publications about health and food.

The test search was conducted on Scopus database in July 2015. We searched for four keywords (united with Boolean AND) that represent key subject areas of this study—"health", "food", "marketing", "consumer" [21]—anywhere in the title, abstract, and keywords of indexed bibliographic items. No other filters were applied. The test search retrieved a total of 1830 results (see Figure 5.2).

[21] The keyword is necessary in order to exclude, as much as possible, medical and pharmaceutical marketplace topics.

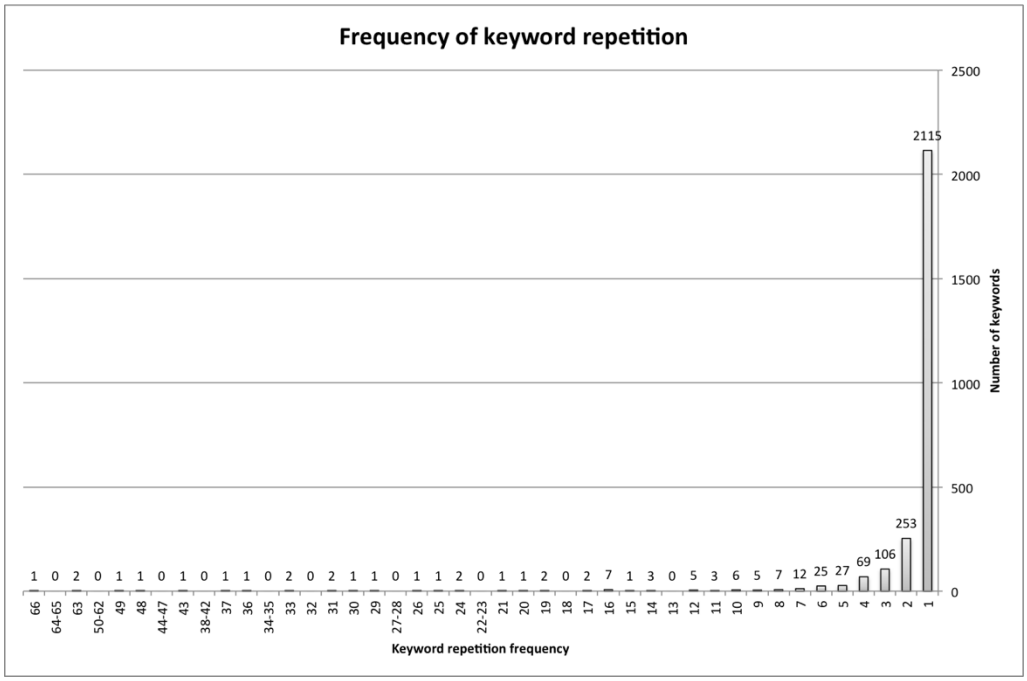
Figure 5.2. Results of test search on Scopus database (retrieved on July 5, 2015).



Source: Results of a test search on Scopus database. Retrieved on July 5, 2015

In order to assess the more common and frequent topics, the obtained results of the test search were examined in terms of author-supplied keywords. The 1830 test search results (incl. articles, reviews, conference proceeding, books, etc.) produced a total sample of 4811 keywords. After the exact matches, differences in spellings (e.g., with or without a "dash", American or British English variants), plural and singular forms of the same word, etc. were eliminated, the resulting list contained 2668 unique keywords. The most frequent keyword ("marketing") was used 66 times, and there were 2115 keywords that were used only once in the retrieved search results (see Figure 5.3).

Figure 5.3. Frequency of repeated keywords from test keyword search on Scopus database.



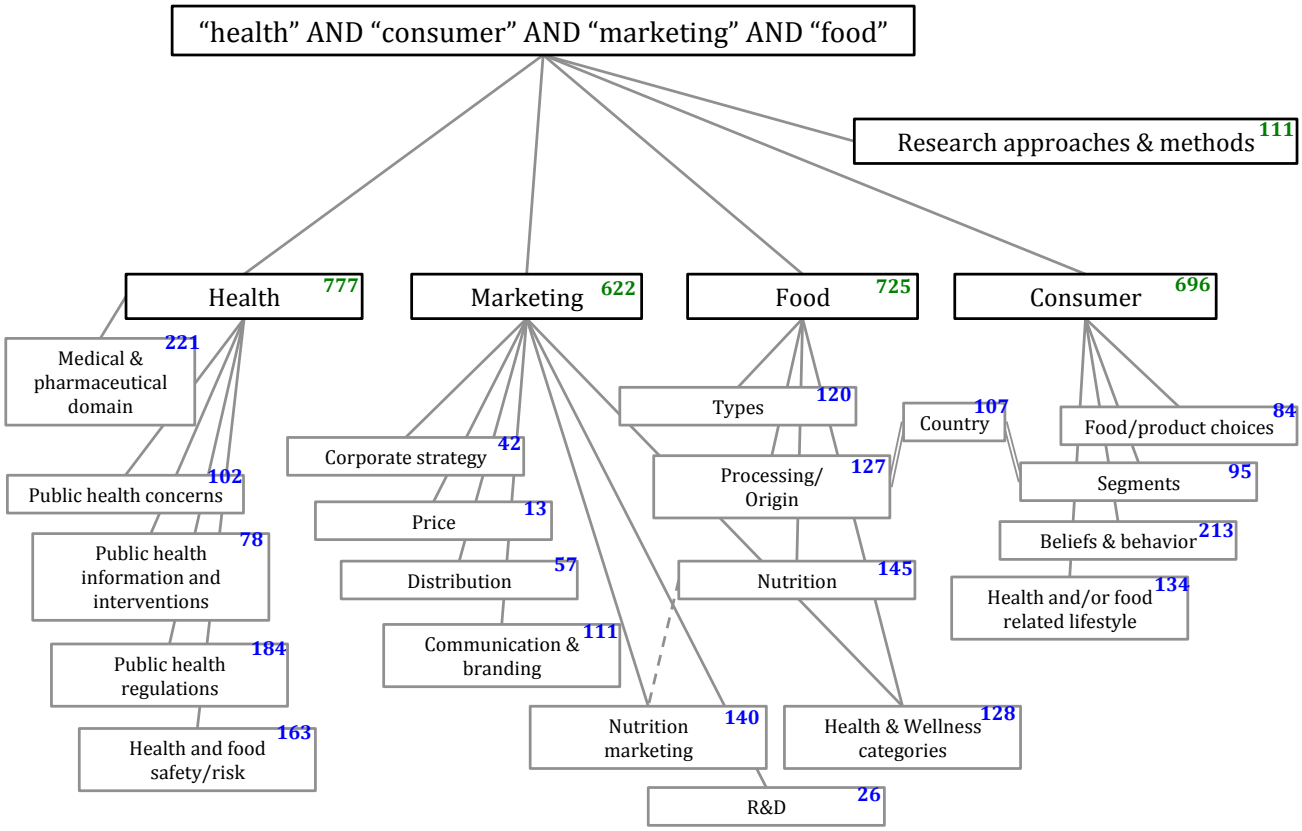
Source: Author's own elaboration of results of a test search from Scopus database (Retrieved on July 5, 2015)

Top 20 most frequent keywords in the test search results (with their corresponding frequency count) were:

1.	Marketing	66
2.	Consumer behavio(u)r	63
3.	Consumer(s)	63
4.	Functional food(s)	49
5.	Obesity	48
6.	Food(s)	43
7.	Organic food(s)	37
8.	Nutrition	36
9.	Advertising	33
10.	Food and Drug Administration (US FDA)	33
11.	Health	31
12.	Health claim(s)	31
13.	Food safety	30
14.	Regulation(s)	29
15.	Public health	26
16.	Child(ren)	25
17.	Direct-to-consumer advertising	24
18.	Label(ing)	24
19.	Dietary supplement(s)	21
20.	Food marketing	20

In order to ease navigation between various keywords, we conducted a thematic analysis of the keywords that were used at least twice (553 unique keywords accounting for 2696 out of 4811 of total keyword instances retrieved). A qualitative approach of categorizing and theming (Mayan, 2009) was used. The keywords were assigned a code (representing a thematic category and/or a subcategory), and by constant comparison (Glaser & Strauss, 2009) with every following keyword these thematic categories were refined. The final list of thematic categories revealed in the keywords analysis is presented in the form of a conceptual map in the Figure 5.4 below.

Figure 5.4. Conceptual map of keyword categories from test keyword search on Scopus database



Source: Author's own elaboration of the results of the thematic keyword analysis.

Each thematic category is displayed as a box—each with a number that stands for a sum frequency count, calculated as a sum of all individual frequencies of the keywords. Some individual subcategories (e.g., "country" and "health and wellness categories") make part of more than one category (e.g., "consumer" and "food", and "food" and "marketing" respectively), thus their sum frequencies are counted more than once on a superior level. Additionally, thematic categories include some general words (e.g., "marketing", "marketing strategy", "marketing mix") that are counted on the superior level, but are not included and not counted in the subcategories, which leads to some discrepancies between the sum of the subcategories and the category frequency counts. The complete list of keywords per category, including individual and sum frequencies, can be found in Appendix 1.

Based on the frequency of keywords in each subject area, we selected a number of most commonly used keywords and arranged them in a form of a logical search string (see Table 5.2). Four subject areas from the original search were considered keyword groupings (Frewer et al., 2016) and the most frequent keywords from each subject area were considered synonyms, therefore groupings were united with Boolean AND, while keywords were united with Boolean OR.

In the subject area "health", two viable synonyms found via the analysis of the keywords are "wellness" and "wellbeing". Moreover, it was decided to use "health*" with an asterisk to include all related forms of the word, including "healthy", "healthful", "healthfulness", "healthiness", etc. In the subject area "food", the three most frequently used synonyms were

"nutrition", "diet", and "eating". A few more terms were considered (e.g., "local", "organic", "functional", "fortified", "traditional", "natural"), but were eventually excluded due to the fact that they are all inevitably used together with the noun "food", which was already included in the search string. After analysis of the most common words used within the subject area "consumer", we decided not to add any synonyms due to the fact that the most meaningful and frequent keywords are used in concomitance with word consumer (e.g., "consumer perception", "consumer preferences", "consumer choice", etc.).

Table 5.2. Search string logic designed to apply to bibliographic database search.

	Search term group	**Logical operator**
<Search term group 1>:	(health* OR wellness OR wellbeing)	AND
<Search term group 2>:	(food OR nutrition OR eating OR diet)	AND
<Search term group 3>:	(consumer)	AND
<Search term group 4>:	(marketing OR advertising OR communication OR promotion OR claim *OR label OR brand OR halo*)	AND
<Language>:	English	AND
<Subject Area>:	Social Sciences & Humanities	

* Keywords in italics were added at the integration step

Source: Author's own elaboration.

Based on the analysis of the most frequent terms in the subject area "marketing", such related terms as "advertising", "communication", and "promotion" (i.e., keywords with higher individual frequency count of 10 or more within this category) were included in search term group 4. Term "claim" was taken as the most frequently used term from "nutrition marketing" subcategory. Initially, the term "label" was excluded based on the assumption that marketing discourse would focus more on persuasive communication lever (i.e., of claims) rather than on mandatory nutrition facts panels (i.e., labels) and that claims and labels are prevalently studied together. However, after we selected and read all the articles, we realized that the word label does not have only a normative meaning, but—in the word form labeling—is used for virtually any nutrition-related marketing practice. For this reason, in July 2016, we had to conduct an additional search (further referred to as "Integration") that included the term "label" and two more terms, "brand" and "halo", added for non-bibliographic reasons to ensure additional selection of some research streams gaining the status of common (i.e., approach promoted by MAPP research center in Aarhus, Denmark and labeled "health brand" and studies on "health halo" effect made prominent by Pierre Chandon and Brian Wansink).

Keywords belonging to other categories (i.e. "Research methods/approaches") were not considered due to a different research objective. Furthermore, two more filters were added: English as language for practical reasons, and Social Sciences & Humanities as a discipline or subject area (when or if possible) in order to obtain more targeted focus on marketing and consumer research. The resulting search string logic had to be adapted to the actual bibliographic database searches, which required slight modification of the syntax.

5.2.1.4. Final sample: Search and screening

The following stage of the review involved conducting a definitive search on electronic bibliographic databases, followed by a series of screenings and selections in order to define the final set of studies to be included in the review. Three electronic databases largely used by various social sciences and management and marketing disciplines were chosen in order to conduct the search: EBSCOhost, Scopus, and Web of Science. The same search string was fed into these databases and after several attempts using trial and error their syntax was adapted to the specificities of the databases as shown in Table 5.3 below.

One of the major challenges in adopting the search string to the database searches was related to the choice of fields. Initially the search string was intended to be applied to the field "author-supplied keywords"; however, we soon realized that a number of publications (e.g., *Journal of Consumer Research, Journal of Consumer Behavior, Journal of Advertising, Journal of Consumer Affairs, Psychology and Marketing, Journal of Health Communication*) did not list author-supplied keywords. In order to include research published in the journals without keywords we opted for: 1) abstract search in addition to author-supplied keywords on Scopus, 2) subject terms search in addition to keyword search on EBSCOhost, and 3) topic keyword search on Web of Science database. After exclusion of publications listed in more than one bibliographic database (39 articles present in both Scopus and Web of Science, 24 in both Scopus and EBSCOhost, and 1 in all three databases), the final set of retrieved articles amounted to 996.

Table 5.3. Definite search strings applied to bibliographic database search.

Database	Search string	Date of final search	Retrieved results
Scopus	ABS ((health* OR wellness OR wellbeing) AND (food OR nutrition OR eating OR diet) AND (consumer) AND (marketing OR advertising OR communication OR promotion OR claim OR label OR brand OR halo)) OR AUTHKEY ((health* OR wellness OR wellbeing) AND (food OR nutrition OR eating OR diet) AND (consumer) AND (marketing OR advertising OR communication OR promotion OR claim OR label OR brand OR halo)) AND SUBJAREA (mult OR arts OR busi OR deci OR econ OR psyc OR soci) AND (LIMIT-TO (LANGUAGE , "English"))	Nov 26, 2015 Integration: July 20, 2016	610 144
EBSCOhost	SU ((health* OR wellness OR wellbeing) AND (food OR nutrition OR eating OR diet) AND (consumer) AND (marketing OR advertising OR communication OR promotion OR claim OR label OR label OR brand OR halo)) OR KW ((health* OR wellness OR wellbeing) AND (food OR nutrition OR eating OR diet) AND (consumer) AND (marketing OR advertising OR communication OR promotion OR claim OR label OR brand OR halo)) Limiters: Scholarly (Peer Reviewed) Journals Language: English	Dec 10, 2015 Integration: July 20, 2016	58 19
Web of Science	TS= ((health* OR wellness OR wellbeing) AND (food OR nutrition OR eating OR diet) AND (consumer) AND (marketing OR advertising OR communication OR promotion OR claim OR label OR brand OR halo)) AND SU=social sciences Refined by: Databases: (WOS) AND LANGUAGES: (ENGLISH) Search language=English	Nov 26, 2015 Integration: July 20, 2016	216 15
		Total: (excluding double listings between databases)	996

Source: Author's own elaboration.

However, even the most careful selection of keywords does not necessarily create a clean and ready-to-use list of research articles (Randolph, 2009). For this reason, all the articles retrieved from the electronic bibliographic databases were subjected to a rapid content evaluation based on reading their abstracts. The abstract-based content screening logic is presented in Table 5.4 below. Only the articles that responded to all inclusion criteria qualified for the next step. Screening question 1 was designed to exclude non-consumer markets or domains, such as medical, pharmaceutical, or biochemical domains, or food and health research at the agricultural level. Screening question 2 was intended to exclude health-related research not concerned with food (e.g. tobacco, alcohol, herbal supplements, cosmetics, financial services, etc.). Finally screening question 3 was designed to exclude non-health related research, such as research on food safety[22] or research not specifically concerned with any issues around health or wellbeing.

Table 5.4. Rapid (abstract-based) content evaluation screening criteria.

Decision question	**Screening decision**
Judging from the abstract,	
Is the research primarily focused on consumer domain (not medical and patients or agricultural domains)?	If NO – then exclude
Is the research focused on food consumption or marketing practices (existing or potential)?	If NO – then exclude
Is it focused on the health-related aspects of food marketing or consumption?	If NO – then exclude
Not sufficient detail to answer the questions above	If NO – then exclude

Source: Author's own elaboration.

The next screening process involved assessing the quality of research using secondary indirect quality assessments, such as journal rankings of the publication venues. As we explained before, selecting only top publications in the most prestigious publication venues was not part of our objective; however, a quality check in a softer version was necessary in order to narrow down the selection and make it more suitable for a purposeful analysis. The underlying logic was to select not only the (few) most influential and most quoted marketing papers, but the (numerous) "common middle" of outlets where "average scholars" publish their work. Additionally, we wanted to focalize more on marketing discourse and thus select venues that are at least acknowledged and/or portrayed as valuable sources of knowledge for the marketing discipline.

For each journal title in our selection we retrieved four different ranking scores: 1) SJR index, 2) H index, 3) ABDC Journal Quality List ranking, and 4) ABS Association of Business Schools Academic Journal Quality Guide. The first two indices, SJR and H-index, are cross-disciplinary and permit obtaining rankings for virtually all academic journals. However, social sciences journals (including marketing and management publications) compared to natural or medical sciences obtain much lower rankings on both indicators (based on the amount of publications and scholars who work in the field of natural vs. social sciences). In order to counter-balance generally lower citation-based rankings of marketing and management publications, we

[22] Food safety refers to conditions and practices that preserve the quality of food to prevent contamination and foodborne illnesses. Any conventional food is subject to food safety measures of control. While certainly related to health, food safety is not within the scope of this research. We are rather concerned with the market shift towards foods promising some positive health-related benefit on top of the non-harm quality ensured by food safety.

added two business journal rankings for the purpose of our selection. Both of the selected rankings were quite recent (2013 for ABDC and 2015 for ABC), highly regarded in the Journal Quality List compiled and edited annually since 2000 by Prof. Anne-Will Harzing (2015), and provide rankings for a comparatively long list of publications. Adding rankings specific to business disciplines also helps to focus on marketing discourse by eliminating research texts published in the venues that are not institutionally recognized by marketing and management disciplines.

Following our selection objectives, we focused on screening out the articles with the lowest quality assessment rankings (as opposed to selecting only the highest rankings). In order to do so, we transformed each of four international rankings of each journal present in our selection into a binary coefficient (0 for lower or disqualifying characteristics or 1 for higher and qualifying characteristics) and then counted the combined score for each journal (min=0 and max=4). Only the journals with a combined score of 3 or 4 were considered eligible[23].

We used two different approaches to assign a coefficient 1 to journal titles in our sample: one for cross-disciplinary SJR and H-indexes, and another for ABDC and ABS business journal rankings. In the first case, the coefficient of 1 was assigned only to those publication outlets that could reach a pre-defined threshold of 0.400 for SJR index and 20 for H-index. The threshold was defined based on the range of SJR (min_{sjr}=0.1; max_{sjr}=11.150; M_{sjr}=0.845; SD_{sjr}=1.027) and H-indexes (min_{hindex}=0; max_{hindex}=560; M_{hindex}=42,57; SD_{hindex}=48,69) within the total sample of the publications we retrieved from the electronic databases. Guided by our objective of keeping the "common middle" of the articles, it was decided to disqualify (i.e., assign the coefficient of 0), based on either SJR index or H-index, only ca. 35% of the articles from the entire sample (n=996). With this in mind for both indexes it was decided to identify the closest "clean" number (i.e., up to first decimal place for SJR, and full rounded number for H-index), that would separate ca. 35% of the articles published in the journals with lower ranks (including titles without available SJR or H-index data) from ca. 65% of the articles published in the journals with higher ranks. Specifically, 36.7% of the articles from the total sample had SJR<0.400, and 36.35% had H-index<20, thus leading to the definition of the threshold for assigning a qualifying coefficient of 1 as SJR≥0.400 and H-index≥20.

In the case of ABDC and ABS business journal rankings we applied a different, non-bibliometric criteria. Both rankings are very specific to management publications and therefore we could not obtain ranking scores for all of the journals in our sample: ABDC scores were available for 103 (25%) and ABS for 85 (21%) of all journal titles (n_{titles_all}=410) in our sample. Additionally, in some cases ABDC and ABS produced some opposing results. In order not to exclude relevant publication outlets ranked by either of the quality lists, we decided to assign the coefficient of 1 in the presence of any ABDC or ABS score. In this way the final coefficient scores gained from rankings specific to management disciplines (i.e., ABDC and ABS) were intended to balance the international cross-disciplinary citation-based

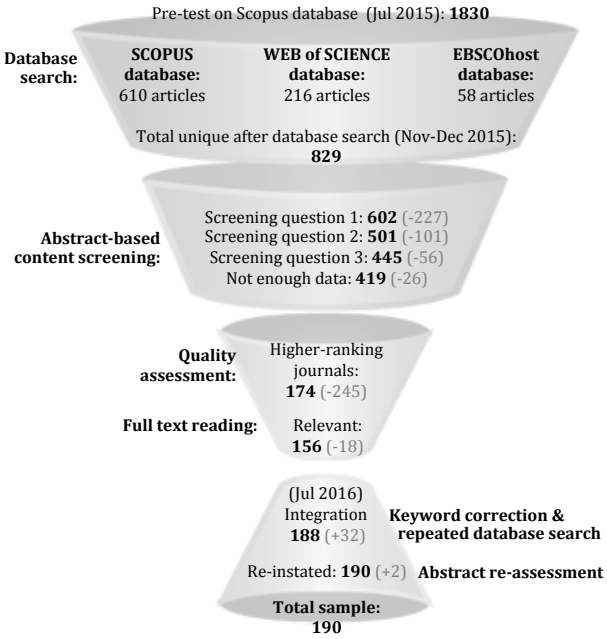
[23] The logic and general procedure were inspired by the Italian Academy of Management (AIDEA) journal ranking 2015-2016 (AIDEA, 2015)

rankings (i.e., SJR and H-Index). A complete list of publication outlets with their respective SJR, H-index, ABDC, ABS scores and the assigned coefficients can be found in Appendix 2.

Finally, the reading and data synthesis step itself resulted in exclusion of 18 articles because of their irrelevancy.

In similar systematic reviews it is common to supplement the selection of articles from electronic databases with manual searches, either through footnote chasing and review of references of already selected studies, browsing through titles and/or abstracts in a number of relevant journals, peer consultation and other retrieval approaches that help improve the quality of the yield and balance high recall of documents with high precision in terms of relevance (White, 2009). We opted not to conduct similar actions, because the objective of sampling generation in our research was not to get to an all-inclusive sample, but rather to a sample of what is more (vs. less) common. Therefore, we considered an additional manual search not indispensable. We are aware, however, that some studies, even highly relevant and very frequently cited studies, did not make it into the final sample as "false negatives" (White, 2009). And we consider it an observation on its own: with the academic world relying more and more on the abundance and inclusivity of electronic databases, they still may lag behind (individual or collective) "human judgment" of relevance. With the level of technological development (especially machine learning), however, the electronic bibliographic databases should evolve not only by ever-increasing the number of indexed publications, but also by better learning from scholars themselves how they conduct searches, how they judge the relevancy, and what exactly they look for when they type a particular keyword or a keyword combination in the process of refining their search requests. In other words, such electronic databases should learn how to be more intuitive and more responsive, as opposed to teaching scholars to think like a machine speaking in Boolean language.

Figure 5.5. Sample generation process, in chronological order



Source: Author's own elaboration.

All in all, the final sample was generated by rigorously following the steps and procedures outlined here. However, two significant protocol modifications took place that resulted in the addition of articles as opposed to exclusion. First, as we mentioned before, after we read all the articles, we had to run integration to database search with a keyword that was excluded in the first place on a faulty premise. Second, the abstract screening step was repeated after data synthesis step and two initially excluded articles were re-included in the final sample. Overall, the selection and screening process—as it actually took place in chronological order—is presented in Figure 5.5.

Because of the relatively flexible nature of the protocol (Tranfield et al., 2003, p. 208) and the iterative process, we do not have a perfect funnel. Instead the data generation process as it really took place can be visualized as several overlapping filters, each of them balancing and complementing each other.

5.2.2. Data synthesis: Literature review via content analysis

Stage 2 of the evidence-based systematic literature review (Tranfield et al., 2003) ends with a data extraction and data synthesis steps, which are outlined by the authors only in very general terms. What is intended under the term "data extraction" is documentation of all steps taken and recording of data deemed relevant according to research objectives in a form pre-defined by so called "data extraction form", which serves as a data depository system and an aid for subsequent data visualization. Despite different terminology, this approach represents an application of the method more commonly known as content analysis.

Widely applied across social sciences, content analysis is used for studying textual data, retrieving meaningful information from them, and identifying patterns and trends in its content. Both manual and automated forms of content analysis are extensively used in communication research (Krippendorff, 1989) and other social studies, including marketing and consumer research (Humphreys, 2014b). Mayan (2009) distinguishes between two types of content analysis: manifest or "bean counting" (i.e., quantifying the occurrence of certain words or ideas) and latent content analysis (i.e., identifying primary patterns of meanings in the data). It is the first type of content analysis, specifically, that often relies on coding frames (Cooper, 1998; Warde, 1997)—also known as coding forms (Evans, Blitstein, Hersey, Renaud, & Yaroch, 2008) or coding books (Randolph, 2009)—as tools for data categorization and structuring the process of textual analysis. The process indeed can be described as extraction of data: while reading the text a researcher registers occurrence of specific content (e.g., word or concept) and codes it accordingly for further quantification and making replicable and valid inferences (Krippendorff, 1989). The objective of content analysis is to scrutinize the manifested meanings or communicated messages based on the elements identifiable in the text (Lupton, 2010).

For the sake of producing a systematic literature review in this research we were interested precisely in capturing the manifest meanings. However, we did so on two levels: intra-textual

and inter-textual. On the first, we relied on a coding frame to extract the same data from all the articles in our sample, which we further aggregated and turned into descriptive statistics for the entire sample and its sub-groups. Each article was analyzed on its own in order to reveal a set of (comparable) characteristics. We focused here on the elements within each article (i.e., text), hence we used an intra-textual level of analysis. On the second, on the contrary, we shifted our attention to relationships, similarities and differences between articles, hence we used an inter-textual level of analysis.

5.2.2.1. Intra-textual level: Coding the extracted data

The use of some sort of coding frame for literature reviews has long become a common practice. In our research we have chosen to follow the format that has been used in a number of publications across marketing disciplines (see Table 5.5 for a summary). The authors of the very first research that used this format and published in 1998 and 2010, Leonidou and Katsikeas, were then joined by other scholars, which allowed applying the same format to the literature reviews in the fields of international marketing, importing and exporting, environmental and sustainability marketing, and strategic alliance business research. Unlike other literature reviews that use some kind of coding frame (e.g., Grunert & Wills, 2007; Javalgi & Russell, 2015; Kumar, Rahman, & Kazmi, 2013; Pisani & Ricart, 2016; Rana & Sharma, 2015; Sartor, Orzes, Nassimbeni, Jia, & Lamming, 2014), we find the approach developed by Leonidou and Katsikeas and their colleagues especially well structured, comprehensive and easily replicable, at least as a staring point of our research.

Table 5.5. List of studies using the (same) coding frame adopted for this research

Reference	Publication venue	Reviewed research field	Nr. of reviewed papers
(L. C. Leonidou, Katsikeas, & Piercy, 1998)	*Journal of International Marketing*	Managerial influences in exporting research	46
(L. C. Leonidou & Katsikeas, 2010)	*Journal of Business Research*	Export-related research	638
(C. N. Leonidou & Leonidou, 2011)	*European Journal of Marketing*	Environmental marketing and management research	530
(Andriopoulos & Slater, 2013)	*International Marketing Review*	Qualitative research in international marketing	79
(Aykol, Palihawadana, & Leonidou, 2013)	*Management International Review*	Firms' import activities research	212
(L. C. Leonidou, Barnes, Spyropoulou, & Katsikeas, 2010)	*International Marketing Review*	Research in international marketing	508
(Aykol & Leonidou, 2015)	*Journal of Small Business Management*	Research on green practices of smaller service firms	109
(Eteokleous, Leonidou, & Katsikeas, 2016)	*International Marketing Review*	Corporate social responsibility in international marketing research	106
(Gomes, Barnes, & Mahmood, 2016)	*International Business Review*	Strategic alliance research in management	805

Source: Author's own elaboration.

While collecting, reading, and coding our articles, the coding frame was revised and adapted to better describe the studies in our review. Some categories were not applicable; some others did not yield any value for our review and thus were eventually dropped out. The major modification concerned the organization of the sections. The final coding frame, together with descriptions of the coding logic can be found in Appendix 3.

Articles' coding produced a customized searchable database. Following the example of the studies we used as an inspiration for our coding frame, we have produced visualizations of coding results for the entire sample as well as for three chronological sub-samples in order to demonstrate the development of topics and contexts of marketing and consumer research about health and food. The results of this data synthesis are presented in Chapter 6.

5.2.2.2. Inter-textual level: Categorization of research streams

Another common approach to literature reviews is the categorization of studies into internally homogenous groups. This was our goal at the inter-textual level of analysis. A number of excellent literature reviews of this type already exist in the field of health and food marketing research. In particular, Chandon and Wansink (2010; 2012) focus on a review of negative outcomes of food marketing practices on consumer health and categorize studies into four groups according to more (vs. less) conspicuous marketing actions: price, marketing communication, product, and eating environment. Several literature reviews focus on the categorization of research about one specific health-related practice—nutrition labeling. Hieke and Taylor (2012) categorize such research into two groups: characteristics of nutrition labels (formatting and wording) and consumer characteristics (personal and socio-demographic) associated with nutritional label use. Grunert and Wills (2007) focus on research about European consumers' interaction with nutrition labels and categorize research by the steps involved into consumer decision-making, attitude formation, and attitude change. Kiesel, McCluskey, and Villas-Boas (2011) use a different organization principle and categorize studies on consumer choice in the presence of nutrition labeling according to the method of data collection: survey-based vs. revealed preference-based.

All of these reviews focus on the empirical results of the studies. In contrast, we chose to focus on articles in their entirety, including theoretical positioning, chosen problematizations and acts of constructing inter-textual coherence (Locke & Golden-Biddle, 1997), research approach, treated topics, and research implications. To do so, our process was guided by the constant comparative method (Glaser & Strauss, 2009). Following this method, the researcher focuses on identification of properties or dimensions that discern why particular instances are or are not alike and use such understanding to classify items under investigation into meaningful categories. Besides comparing incidents one to another in the context of categories that emerge, the constant comparison method often involves comparison of emergent properties to extant literature. The contribution of categorization achieved through constant comparison is clarification of central constructs and typology formations (Fischer & Otnes, 2006).

To implement constant comparison in our study, the entire sample was divided into six subsets of approximately 30-35 articles. The first comparison was performed only with one subset. After all articles in the first were read, they were grouped into several tentative categories based on similarities and differences in research questions, theoretical positionings, terminology, and methods. A few weeks later, an additional portion of articles was added and another round of reading and grouping by comparisons and contrasts was performed. The process was repeated until all subsets were analyzed altogether and a clearer picture of properties that determine category inclusion or exclusion was achieved.

Naturally, the composition and number of groupings changed according to the items included in the pool. Just like with quantitative cluster analysis (Visschers, Hartmann, Leins-Hess, Dohle, & Siegrist, 2013), the number and the internal composition of groupings are always determined by the sample itself. The main structure of groupings became fairly stable after four subsets were analyzed together, or when ca. 65% of the final sample was included. Only a few changes in sub-groups occurred after addition of subset 5. This means that we reached saturation and did not have to make any further changes in article categorization after ca. 80% of the articles were analyzed together.

We have made our best effort to assign articles to only one group. However, this was not possible in the case of two articles (Hieke & Taylor, 2012; Moorman, 1990), which ended in two different categories each because they treated two related topics to an equal degree. The outcome of this data synthesis resulted in identification of 10 main (and five minor) article groupings arranged into five meta-categories. The results of research categorization is presented and discussed in Chapter 7.

5.2.3. Data analysis: Critical discourse analysis

In the data analysis stage we switch from a more neutral analysis of academic marketing texts to a more critical take on marketing discourse about health and food. As Lupton (1995, 2010) and Fairclough (2003, 2010) explain, discourse analysis is an umbrella term for methodologies that treat linguistic signs as statements that are constructed by certain contexts and events and that construct social reality, which means that discourse analysis is a combination of a (more "local") textual or linguistic analysis with a (more sociological) contextual analysis concerned with the system of dominant ideas and meanings, and the social, political, and cultural functioning of discourse.

In our work, discourse analysis of academic marketing about health was guided by three significant elements, subject to more detailed outline in the following sections. First, the ideology of healthism provided a critical lens to the reading of marketing discourse. Second, Foucault's archeology of knowledge with its recommended attention to dispersions and differences in discursive formations guided identification of three interconnected yet different discourses within marketing and consumer research on health and food. Third, the analysis followed an iterative analytical process of deconstructing of abstract concepts and taken-for-

granted assumptions. It is extremely difficult to break up the elements involved in discourse analysis into successive and discreet phases like we did in case of systematic review stages. This "headwork" process has been long, iterative, dialectical, mostly manual with occasional application of auxiliary tools (including colored pencils and CAQDAS[24]), and thus instead of a logical or chronological account of steps taken, we will discuss the most critical issues we had to encounter and resolve.

5.2.3.1. Critical contextual analysis: Reflection on healthism in marketing research

In social sciences ideologies are often discussed with the use of a metaphor of transparency/opacity (Fairclough, 2010; L. Harvey, 1990; Lupton, 1995) to explain that, when naturalized, ideologies obtain the status of common sense knowledge and stop being visible as ideologies. Such invisibility means that ideologies are primarily located in the implicit prepositions, presuppositions, in the "already-said", or in the "unsaid" (Fairclough, 2010, p. 27). The function of research that adopts critical goals is "to denaturalize ideologies", which essentially means to "mak[e] visible the interconnectedness of things" (Fairclough, 2010, pp. 30, 39), "to unpack and make explicit assumptions and norms that might otherwise remain naturalised and therefore beyond critique" (Fitchett & Caruana, 2015, p. 9), "to shatter the illusion of observed 'reality'" (L. Harvey, 1990, p. 196), and "to suspend our natural attitude about our everyday reality and problematize what seems self-evident, natural and true" (Reynolds 1990 in Murray & Ozanne, 2006, p. 53).

As opposed to descriptive discourse analysis that aims to provide explanation only on the local level of immediate situations, such as the subjective goals of the speaker, critical discourse analysis requires a "global" explanatory framework and is concerned with discourse effects on (macro) social structures (Fairclough, 2010, p. 45). In our case the "global" explanatory framework applied to marketing discourse is the ideology of healthism (Crawford, 1980, 2004, 2006).

In the midst of concepts, lines of reasoning, and theoretical positions, the critical approach to discourse is particularly concerned with discursive ideological practices. As explained by Fairclough (2010, p. 8), "interpretations and explanations can be said to be ideological if they can be shown to be not just inadequate, but also necessary – necessary to establish and keep in place particular relations of power". With this principle in mind, in our analysis we searched to distinguish particular representations of social relationships (e.g., the concept of consumer, operationalization of healthy vs. unhealthy food, dichotomies between subjective knowledge and objective information) that attenuated health-related and moral differences, were used for legitimization of neoliberalism, further marketization of health and medicine, responsibilization of consumers, etc.

[24] CAQDAS is an acronym for Computer Assisted Qualitative Data AnalysiS, a range of software packages for assisting qualitative analysis research. We used ATLAS.ti at later stages of the analysis to aid document and quotation management.

5.2.3.2. Discursive practices: Archeology of health

It can be argued that our sample of publications spanning the period only from 1988 to 2015 does not provide a sufficient base for a deep historical analysis, yet it is, even if short, a history of how discourse about health and food comes together in academic marketing literature (literature prior to 1988 existed as shown on Figure 5.2, but was very sparse), develops, and changes within its own timeline. So we adopted several principles from Foucault's archeology of knowledge approach (1972) in order to guide our study.

First, the notion of discursive regularities and unities of discourse. Foucault recommends to start with already present, existing unity and use it as long as it's useful while continuing "to subject them at once to interrogation; to break them up and then to see whether they can be legitimately reformed; or whether other groupings should be made" (Foucault, 1972, p. 26). We have taken the unities worked out in the stages of data synthesis (i.e., research streams in chapter 7), yet continued interrogating their unities, similarities, interconnections, and differences at the discursive level (see Section 8.1), finding numerous overlaps between different research streams in terms of common assumptions, ideas, and meanings.

Second, the metaphor of a tree—a "tree of derivation of a discourse" (Foucault, 1972, p. 147)—helped to better visualize groupings and distinctions between upper-level discourse with its governing statement and deriving formations of "individualizable groups of statements" (Foucault, 1972, p. 80). The formation of concepts in the archeological perspective relies on forms of succession and forms of co-existence and thus looks for relations of analogy, opposition, and complementarity between individual concepts and between discourses. In our research, it was reflexivity about the meaning of the most essentialized concepts, such as health, food, and consumer, that helped identify that within a general domain of all marketing texts about health and food there were several "branches" of discourse, which we continued scrutinizing following another key principle from archeology: "differentiate differences instead of reducing them" (Foucault, 1972, p. 169).

Being essentially a comparative analysis, archeology "is intended to divide up their diversity [of discourses] into different figures [… and to uncover] the play of analogies and differences as they appear at the level of rules of formation" (Foucault, 1972, pp. 159–160). Through comparisons of positions and concepts across various marketing studies about food and health, we ended up identifying three dominant discursive formations characterized by particular configurations of discursive practices (especially of problematization in research impetus and relevance gap creation—see Chapter 8) and concepts (of health, food, and consumer—see Chapter 9). On a more abstract level these configurations help reveal the ideological functioning of health in marketing discourse (see Chapter 10).

5.2.3.3. Tools, strategies and process: Interpretation and deconstruction

When it comes to the practical level of doing critical inquiry, there is no step-by-step defined

method but a universal guiding principle known as deconstruction. Deconstruction seeks "to question that which is treated as taken for granted, self-evident, and given by nature" (Skålén, 2010). Furthermore, as Harvey (1990) explains, *de*construction is a dialectical process inter-related with *re*construction:

> Critical social research deconstructs and reconstructs. But this is not like taking a house apart brick by brick and building a bungalow using the same bricks[25]. […] Reconstruction is […] not rebuilding but reconceptualization. The nature of reconceptualization process emerges only as the illusion of the existing taken-for-granted structure is revealed. There is a shuttling back and forth between what is being deconstructed and what is being reconstructed. The nature of both emerges together. In short, critical social research is a dialectical process that cannot be broken down into successive, discreet stages. (L. Harvey, 1990, p. 209)

On the surface, interpretative steps involved in critical discourse analysis may appear similar to coding-categorization-theming steps involved in a standard content analysis of a qualitative or latent type (Mayan, 2009). However, the difference is fundamental. Content analysis, though iterative, is more concerned with building up a "big picture" theory out of elementary building blocks found in (or between the lines of) textual content; in other words, it moves from (more) concrete grounded observations to (more) abstract unified interpretations. Discourse analysis with its dialectical deconstruction process rather moves from the abstract to the concrete and examines the use of concepts, trying "to reveal underlying structures which specify the nature of the abstract concepts, but which have themselves been assimilated uncritically into the prevailing conceptualization" (L. Harvey, 1990, p. 21).

In practice, several first rounds of reading were focused on familiarizing ourselves with texts, extensive memoing, and annotating. Looking at the entire corpus of texts through the critical awareness lens, we identified a number of critical and contradictory issues (e.g., paradox of nutritionist and [absence of] other approaches to healthfulness judgments, of nutrition knowledge increase and unhealthy eating, of consumer education and (dis)empowerment, etc.) that relied the most on the "unsaid" assumptions (i.e., the meaning of health, conceptualization of what counts as healthy food, consumer (dis)empowerment and responsibility, risk, and the role of market and marketing in consumer health). The following readings of texts thus were focused on revealing the underlying meanings of abstract concepts and sets of interrelated, interdependent elements that constitute lines of reasoning about health and food in academic marketing, developing a "critical vocabulary" as Murray and Ozanne (2006, p. 53) put it. In uncovering implicit connotations we followed a semiotic approach (Mick & Oswald, 2006), examining the context of the use of concepts and, especially,

[25] Influenced by the connotations of deconstruction, the metaphor of "bricks", "building blocks", and "buildings" used in this quote is used in various other sources to explain the work of critical research, just like the metaphor of opacity/transparency is used for ideology. For instance, Anthony Giddens (as quoted in Murray & Ozanne, 2006, p. 48) compares social systems to "buildings that are at every moment constantly being reconstructed by the very bricks that compose them", which calls for the historic and social construction understanding of society to be able to produce critique and social change.

engaging with (binary) differences with other concepts[26] (e.g., health vs. taste, information vs. knowledge, healthy vs. unhealthy, healthy/ier vs. base etc.). More specifically, we applied an analytical tool of Greimas' semiotic square (Mick & Oswald, 2006; Oswald, 2015) to uncover the meanings of three fundamental concepts (i.e., consumer, food, and health) in light of three dominant discourses we identified within academic marketing about health and food (see Chapter 9). In other words, we not only deconstructed the concepts into their constitutive elements, but also reconstructed them back so that the structure of three sets of discursive meanings could be shown.

In order to better explain and delineate three discourses that came about in the iterative process of archeological excavation and deconstruction, we integrated qualitative analysis with elements of manifest per-article "bean counting" content analysis (extending on data synthesis methods explained earlier in Section 5.2.2.1). More specifically, we isolated the section of each text dedicated to what Locke and Golden-Biddle (1997) call "textual construction of opportunities for contribution"—a discursive practice normally found in the beginning of research paper (abstract, introduction, and/or background/positioning paragraphs) used to constructs the gap that the research paper intends to address. We identified the limits of this section as everything from the first lines of the article until a (symbolic or literal) "however" and/or statement of research objective. This is the part (often written in the very end) that summarizes the main research or marketing problem, defines key concepts, and explains the researchers' position. In other words, it explicitly addresses the connection between the micro-level of discourse (i.e., individual article) with the macro-level social structures, thus making it a fruitful source for critical discourse analysis. Based on these text segments only, for each article we coded and counted the presence of different discursive strategies of problematization in order to create visualizations and to understand co-occurrences of the most common problematizations adopted in marketing discourse about health and food (see Section 8.2 in Chapter 8 and Appendix 4). Similarly, we supplemented discussion about three discourses with some per-article manifest measures of what was identified as structuring dichotomies characteristic of each discourse for the sake of visualizing how individual articles and research streams are positioned in regard to identified discourses (see conclusions in Chapter 8).

In the actual analysis and its reporting in respective chapters, some data sources talk more than others and voices of some others may seem to be missing completely. Silencing some data is not so uncommon in either qualitative or quantitative research (Gummesson, 2003), yet it is often considered more problematic in the former. When choosing to quote one source more than others, we simply tried to provide stronger, more pronounced evidence of meanings that, in one way or another, are recurrent and present across a number of marketing texts. Adding an element of manifest content analysis, as described in the previous paragraph, was in fact an attempt to show the "massiveness" of certain conceptions and lines of reasoning in marketing discourse about health and food.

[26] These are listed by Harvey (1990, pp. 205–208) under an umbrella term "structuralist techniques" that includes semiotic approaches by Roland Barthes, Ferdinand de Saussure, Roman Jakobson, Claude Levi-Strauss, etc. as one of the strategies of doing critical social research, alongside critical ethnography, radical historicism, and critical case study.

Despite a clearly critical stance, we do not mean to produce criticism of singular authors or research papers. Nevertheless, we did not make our data sources anonymous because, being public or otherwise easily retrievable, the texts excerpts we use can be traced back to the authors with two clicks and therefore anonymizing would not serve its purpose anyway. In chapters discussing discourse, just like in research reviews (data synthesis) chapters, we use a numeric code (originally ascribed to papers included in the final sample) in square brackets in superscript to distinguish references of data sources from references used for analytical purposes.

Finally, even though analysis of discourse is strictly limited to academic marketing discourse, we familiarized ourselves with other genres of discourses that make part of public discourse on health and food marketing: e.g., legal (European Commission, 2001, 2006, 2015, FDA, 2006, 2013), public health (United Nations, 2009, 2015, WHO, 1948, 2016a), political economy (BEUC The European Consumer Organization, 2015; Eurobarometer, 2012; WEF, 2015), marketing consulting (Accenture-UN Global Compact, 2014; BBMG, GlobeScan, & SustainAbility, 2012; Euromonitor International, 2015a, 2015b; Gallup-Healthways, 2013; Grand View Research Inc., 2014; Havas Worldwide, 2012; Hudson, 2012, 2015; Mintel, 2014; Nielsen - NMI, 2014; Pullon, 2013; Watson, 2014), trade press (e.g., Anand, 2015; Winter, 2011; foodqualitynews.com; nutraingredients.com; foodnavigator.com; beveragedaily.com; foodbev.com etc.) and numerous mass media. In our perspective on knowledge, marketing discourse is an integral part of common knowledge and social norms around health that construct social reality around health and eating. So, contrast and comparison to other domains, on the one hand, helps better understand cross-fertilized and hybrid nature of some of the meanings around health. On the other, given that marketing is a potent global ideology in itself (Bandinelli & Arvidsson, 2013; Eckhardt et al., 2013; Fırat, 2013; Sherry, 2011; Skålén & Hackley, 2011), there is little doubt that marketing's mode of seeing the world and framing social relationships spills into other, directly related or (seemingly) more independent domains concerned with the issues of health. So looking into other genres of public discourse about health, beyond academic marketing, serves as a cross-sectional comparison to better understand the extent of marketing's meanings naturalization in other domains.

Since markets have become the key institution of culture (Sherry, 2011) and the context where individuals explore, identify, and experience the world around them (Fitchett et al., 2014), understanding how marketing discourse frames health may be one of the most important yet one of the most overlooked aspects of understanding the social reality shaped by and shaping healthism.

6. Bibliographic data synthesis: Emergence and development of health/food marketing research

This chapter presents the results of the first data synthesis that focused on data extraction with the help of manifest content analysis (Krippendorff, 1989; Mayan, 2009) using a tool of coding frame inspired by Leonidou and Katsikeas and their colleagues' literature reviews in various fields of marketing and management (Andriopoulos & Slater, 2013; Aykol & Leonidou, 2015; Aykol et al., 2013; Eteokleous et al., 2016; Gomes et al., 2016; C. N. Leonidou & Leonidou, 2011; L. C. Leonidou et al., 2010, 1998; L. C. Leonidou & Katsikeas, 2010). This bibliographic overview aims at synthesizing 30 years of marketing and consumer research in the field of health and food, accessing authorship and manuscript characteristics, revealing current status of research, and visualizing research trends in the field in terms of research methods and study characteristics. A brief overview identifying three chronological sub-segments will be followed by a detailed examination of the selected articles' (n=190) publication profile, research design characteristics, and topical areas, and will close with considerations about research's past, present and future.

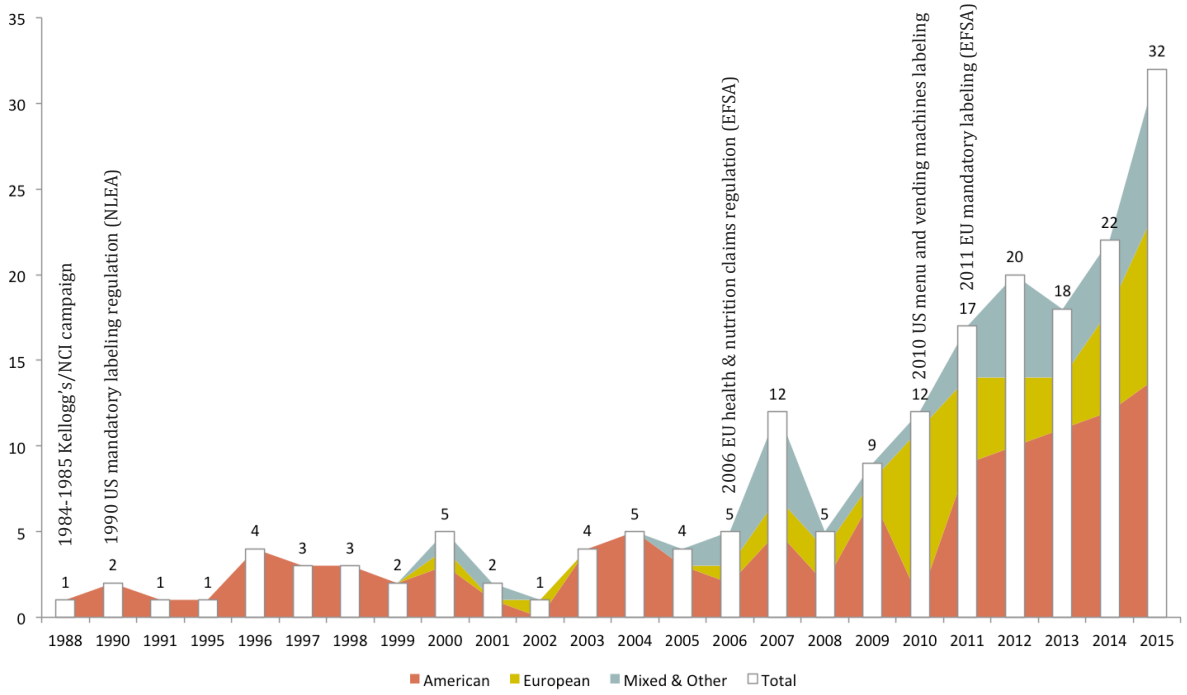
6.1. Overview of 30 years of health and food research in marketing

The growth of published marketing and consumption research about health and food has been exponential, which is a result of ever-growing interest in both health in general and in the health qualities of food in particular, and a recent overall growth of research articles, academic journals, and electronic databases as facilitated by the "digital revolution within academia" (Rekdal, 2014). Additionally, the timeline of research growth is also a reflection of the market and regulatory changes relative to health and food (see Figure 2.1 for the timeline of publications in our sample, generated according to the procedures explained in Chapter 5).

The very first publication in the sample dates back to 1988 and is a case study analyzing market-level effects of Kellogg's All Bran ad campaign of 1984-1985 (Freimuth, Hammond, & Stein, 1988 [4]), which advertised the benefits of a fiber-rich diet for reducing the risk of some types of cancer and, at the time, was considered disruptive for two reasons. First, Kellogg's campaign took place during the period in which the US Food and Drug Administration (FDA) had enacted a ban on all health claims made by food brands and was going through a controversy with the Federal Trade Commission (FTC), which was focused on endorsing freedom of speech rights for advertising. Second, Kellogg's chose a novel approach to demonstrating the credibility of their health claims by partnering with the US National Cancer Institute (NCI). NCI took an active role in wording the claim and overall publicly proclaimed Kellogg's initiative an "educational effort". The campaign was surprisingly "let go" by FDA and positively resonated with the public (Pappalardo & Ringold, 2000 [106]), leading to many more companies using fiber and other health claims following Kellogg's precedent (Freimuth et al., 1988 [4]; Ippolito & Mathios, 1995 [2]; Klassen, Wauer, & Cassel, 1991 [38]). The direct result of this unilateral action was the NLEA – Nutrition and Labeling Education Act of 1990, which

made nutrition fact panel (NFP) labeling mandatory for all packaged foods in the USA. Despite a series of modifications, the main NLEA principles are still in force in the US today. Since then "nutrition marketing"—or positioning the product on one or more nutrition and/or health attributes with the help of regulated claims and labels and/or other food marketing using health or nutrition information beyond minimum requirements (Colby et al. 2009, p.92 as cited in Bui, Kaltcheva, Patino, & Leventhal, 2013)—has become the main topic in health and food marketing research.

Figure 6.1. 30 years of health and food marketing and consumer research (n=190).



Source: Author's own elaboration.

As a matter of fact, in marketing discourse about health and food, Kellogg's case functions as a creation myth (Fitchett et al., 2014), especially relevant in the first decade of research. Health claims made by food brands have a very long history (Kolodinsky, 2012 [78]; Pappalardo & Ringold, 2000 [106]), yet it was Kellogg's role in challenging FDA and eventually transforming the market for everybody's benefit (i.e., creating information environment, increasing the brand's competitiveness, improving the overall nutritional quality of the products etc.) that served marketing researchers in the 1990s as an important "case study," or a narrative that allowed establishing the reasons why marketing (as opposed to public health) should be involved in research about health and food. This is why we count the history of health-related food marketing research starting from 1984-85 rather than from the first article's publication date.

In the first decade, the research on health and food was produced exclusively by scholars affiliated with North American universities or public institutions (e.g., FDA or FTC). On the one hand, this is a field-specific result: NLEA made it possible to define what is "health" in food and therefore made marketing and consumer research not only relevant, but also feasible. On the other hand, the result is predictable due to overall dominance of the US universities and publication outlets in the marketing discipline (and the fact that our sample

is made up of articles published in English). Only a very limited number of articles by non-American scholars appeared in the early 2000s. However, around 2006 the trend changed. European research and international collaborations mushroomed and become a consistent presence counter-balancing American knowledge creation in the field. The year 2006 is also—quite unsurprisingly—the year when the European Food and Safety Authority (EFSA) regulation of health and nutrition labels went into force. The trend has somewhat changed again after 2010, when the amount of publications skyrocketed thanks to the simultaneous growth of both US and European publications (and inter-continental collaborations). Once again it was most likely linked to some significant changes in regulation (i.e., 2010 US Menu and Vending Machine Labeling Requirements to enter into full force on a national level between 2016 and 2017, and 2011 regulation making the nutrition labeling of all packaged foods in EU mandatory). In addition, research funds (e.g., health branding project in Denmark in 2008-2012, or DISOPTIPOL optimal design of the agri-environmental policy project in Spain) were allocated more extensively in the late 2000s and in the 2010s.

The growth curve of publications is also similar to the growth of the so-called "health and wellness" market segment, which continuously outperforms, on a global level, the growth trends in other food industries such as "fresh food," "packaged food, and "foodservice" (Hudson, 2012). The only steady period with no substantial growth was the year of 2008, associated with the beginning of the recession (Euromonitor International, 2015b)—the year when the number of publications also dropped.

Following these trends, in our overview of 30 years of health and food marketing research we decided to look not only at the total body of publications, but also at three chronological sub-segments: 1) research between 1988 and 2005 (38 articles), 2) between 2006 and 2010 (43 articles), and 3) between 2011 and 2015 (109 articles). We will first discuss the characteristics and changing research trends with regard to the publication profile, research design, and objects of research, according to the structure of the final coding frame (see Appendix 3 for definitions and criteria used for manifest coding used throughout this chapter).

6.2. Publication profile

Under the umbrella of "publication profile" we will examine a combination of authorship characteristics, publication outlets, and bibliographic characteristics of the analyzed manuscripts. These features demonstrate how certain narrow (i.e., health and food) and general (i.e., marketing, management, academic world) tendencies shape the amount and nature of research and publications that become widely available as status quo knowledge to scholars all over the world.

6.2.1 Authorship profile

Just like in other fields of marketing and management, the research on health and food is a collaborative exercise (Bradshaw & Brown, 2008), where team-work skill is getting more and more important. As Table 6.1 shows, single-authored articles become less and less common

and research written by multiple-hands (87.4% total, max 89% in 2011-2015), on the contrary, has become a standard in academic research publishing[27].

Table 6.1. Authorship profile of health and food marketing and consumer research.

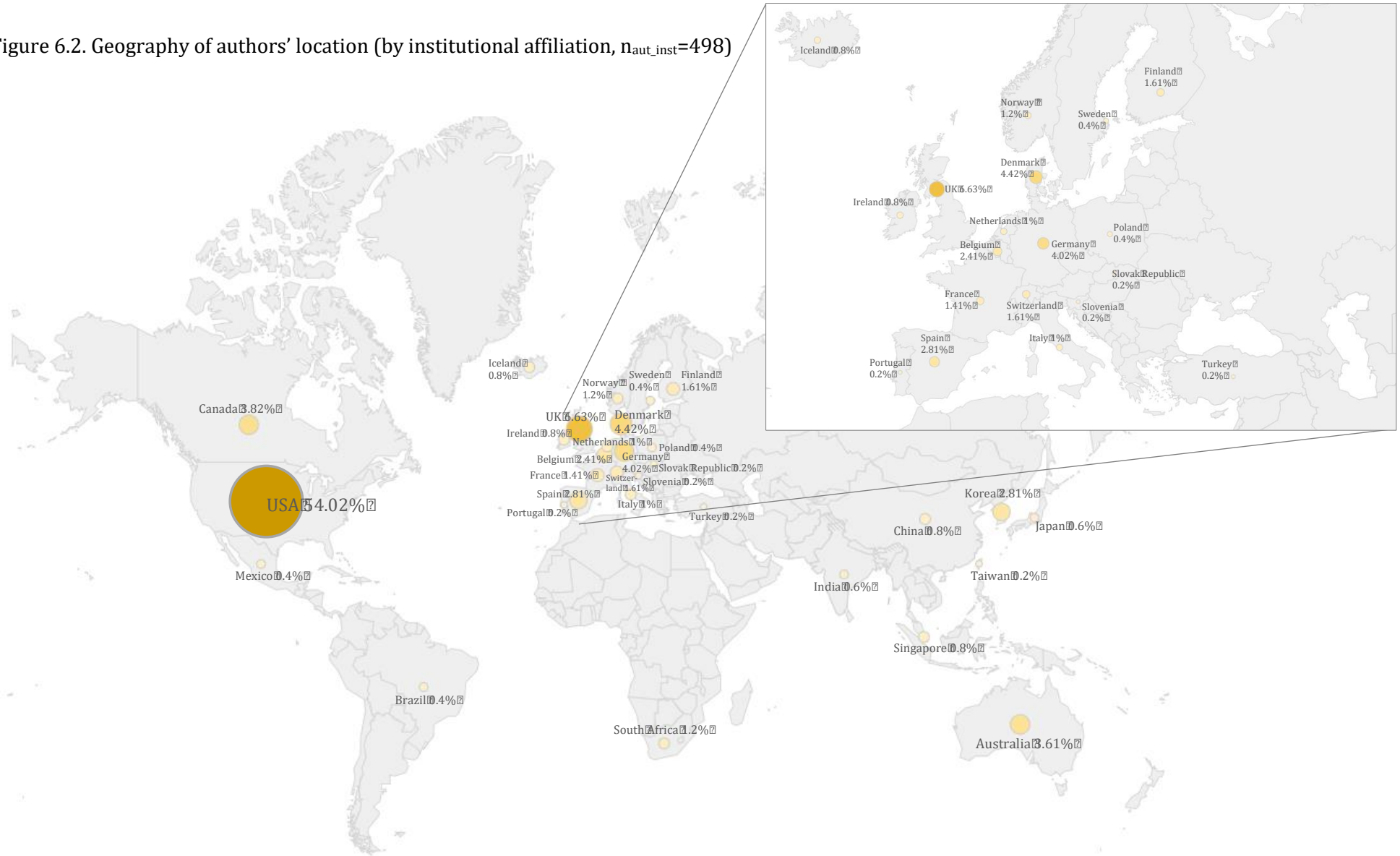
	Total n=190		**1988-2005** n_1=38		**2006-2010** n_2=43		**2011-2015** n_3=109	
	Mean	*%*	*Mean*	*%*	*Mean*	*%*	*Mean*	*%*
Number of authors								
1	24	12.6%	7	18.4%	5	11.6%	12	11.0%
2	73	38.4%	13	34.2%	20	46.5%	40	36.7%
3	60	31.6%	13	34.2%	11	25.6%	36	33.0%
4	22	11.6%	5	13.2%	4	9.3%	13	11.9%
5	8	4.2%	-	-	1	2.3%	7	6.4%
6	1	0.5%	-	-	-	-	1	0.9%
7	2	1.1%	-	-	2	4.7%	-	-
Number of institutions								
1	71	37.4%	18	47.4%	15	34.9%	38	34.9%
2	76	40.0%	14	36.8%	19	44.2%	43	39.4%
3	35	18.4%	6	15.8%	7	16.3%	22	20.2%
4	6	3.2%	-	-	1	2.3%	5	4.6%
5	2	1.1%	-	-	1	2.3%	1	0.9%
Number of countries								
1	148	77.9%	36	94.7%	31	72.1%	81	74.3%
2	35	18.4%	2	5.3%	10	23.3%	23	21.1%
3	4	2.1%	-	-	1	2.3%	3	2.8%
4	2	1.1%	-	-	-	-	2	1.8%
5	1	0.5%	-	-	1	2.3%	-	-
Location of authors' institutions*								
North America	225	62.0%	56	84.8%	38	45.8%	131	60.6%
Europe	102	28.1%	4	6.1%	39	47.0%	59	27.3%
Asia	23	6.3%	5	7.6%	2	2.4%	19	8.8%
Australia & Oceania	8	2.2%	1	1.5%	4	4.8%	3	1.4%
Africa	2	0.6%	-	-	1	1.2%	1	0.5%
South America	3	0.8%	-	-	-	-	3	1.4%
Type of discipline**								
Marketing	117	61.6%	25	65.8%	23	53.5%	69	63.3%
Agricultural economics (& other applied)	35	18.4%	6	15.8%	7	16.3%	18	16.5%
Nutrition sciences	18	9.5%	4	10.5%	6	14.0%	8	7.3%
Public health	10	5.3%	2	5.3%	3	7.0%	5	4.6%
Hospitality management	15	7.9%	-	-	2	4.7%	13	11.9%
Other business	10	5.3%	-	-	4	9.3%	6	5.5%
Other	9	4.7%	2	5.3%	5	11.6%	2	1.8%

* Total number of institutions taken as a base for %share visualization, mean refers to the count of institutions' location
** Articles may refer to more than one category.
Source: Author's own elaboration.

Interestingly, collaborations between scholars from different research institutions (62.6%), and even more so from different countries (22.1%) are less common than cases of co-authorship in general, showing a certain tendency to team up with university colleagues or otherwise researchers who are somewhat closer: linguistically, culturally, or geographically. Even with simplification of communication between international colleagues, same-country collaborations in the past 5 years have slightly increased (+2.2%) and the percentage of same-university collaborations has not changed at all, which probably shows that groups of researchers from the same place try to capitalize on local knowledge and local data sources to be competitive and to ensure uniqueness of their contribution on a global level. The map of researchers' institutions location can be found on Figure 6.2.

[27] A standard so overwhelming that, in order to keep up, research may even be published with addition of "virtual" authors (see Grundhauser, 2016)

Figure 6.2. Geography of authors' location (by institutional affiliation, n_{aut_inst}=498)



Source: Author's own elaboration.

Publications produced in North American institutions (62%) dominate in our sample overall, however three subsamples differ by the share of non-American studies. The first subsample covering most of the first two decades was almost exclusively written by scholars affiliated with institutions in the United States (84.8%). The second subset (the last five years of 2000s) is the only period when European scholars outnumbered American scholars, even by a very small margin (47% vs. 45.8%). In the third period North American publications prevailed with 60.6% of total publications, and another solid third (27.3%) came from European publications, with a slow yet steady growth of publications from other continents. All-in-all, despite an obvious "selection bias" of English language, the results—even when considering only the last decade—support the prevalence of Western-centric view in marketing (cf. Cayla & Peñaloza, 2011; Svensson, 2005; Varman & Saha, 2009).

Finally, our results confirm that the field of health and food research is multidisciplinary. Even though our selection process favored marketing and management disciplines above others, about 40% of articles can be classified as written by or in collaboration with scholars from such disciplines as agricultural economics, nutrition sciences, public health, hospitality management, and others.

6.2.2. Publication outlets

With the growth of marketing research about health and food, there has been an increase in the publication venues that host such research (see Table 6.2). Top 10 journals account for 62.6% publications overall, yet the ranking of the top venues is different for each period. The two largest outlets overall show the opposite trends: *Journal of Public Policy and Marketing* used to be the principle outlet in the first period until 2005 and has decreased in share since, while *Food Policy* has shown a steady growth. Both outlets are concerned with policy issues, but what is interesting is how a journal with a stronger affiliation with marketing started losing its leadership position to a more multidisciplinary journal, demonstrating how marketing topics and rhetoric expand into various disciplines and spheres of life (cf. Bandinelli & Arvidsson, 2013; Fırat, 2013; Hackley, 2003; Skålén & Hackley, 2011; Zwick & Bradshaw, 2016).

Among other important venues, *Journal of Consumer Affairs* demonstrates a downward trend, while *Journal of Consumer Marketing* – upward. The two outlets differ in how they view the main application of the research they publish. The first is concerned more with "the implications of private business practices and government policies for consumer's wellbeing" (JCA, 2016), while the latter – with "creating effective marketing strategies" (JCM, 2016). Therefore, the difference in growth directions of these journals could account for the growth of interest towards health and food not only from general perspective of consumer welfare, but as a marketing communication and market growth strategy for various sectors of food industry.

Table 6.2. Publication outlets of health and food marketing and consumer research.

		Total n=190		**1988-2005** n_1=38		**2006-2010** n_2=43		**2011-2015** n_3=109	
		Mean	*%*	*Mean*	*%*	*Mean*	*%*	*Mean*	*%*
Journal of Public Policy and Marketing	US	23	12.1%	11	28.9%	5	11.6%	7	6.4%
Food Policy	NL	19	10.0%	1	2.6%	6	14.0%	12	11.0%
Journal of Consumer Marketing	UK	17	8.9%	2	5.3%	3	7.0%	12	11.0%
Journal of Consumer Affairs	US	13	6.8%	7	18.4%	-	-	6	5.5%
International Journal of Hospitality Management	UK	11	5.8%	-	-	-	-	11	10.1%
International Journal of Consumer Studies	UK	9	4.7%	-	-	-	-	9	8.3%
Journal of Marketing	US	8	4.2%	1	2.6%	3	7.0%	4	3.7%
Journal of Marketing Communications	UK	5	2.6%	1	2.6%	3	7.0%	1	-
Psychology and Marketing	US	5	2.6%	-	-	1	2.3%	4	3.7%
Journal of Marketing Research	US	4	2.1%	1	2.6%	2	4.7%	1	0.9%
International Journal of Contemporary Hospitality Management	UK	4	2.1%	-	-	2	4.7%	2	1.8%
American Journal of Agricultural Economics	UK	3	1.6%	1	2.6%	-	-	2	1.8%
Journal of Consumer Research	US	3	1.6%	1	2.6%	2	4.7%	-	-
Social Science and Medicine	UK	3	1.6%	1	2.6%	2	4.7%	-	-
Qualitative Market Research	UK	3	1.6%	-	-	2	4.7%	1	0.9%
Journal of Business Ethics	NL	3	1.6%	-	-	1	2.3%	2	1.8%
Marketing Letters	US	3	1.6%	-	-	1	2.3%	2	1.8%
Journal of Business Research	US	3	1.6%	-	-	-	-	3	2.8%
Journal of Consumer Behaviour	UK	3	1.6%	-	-	-	-	3	2.8%
Journal of Consumer Policy	NL	2	1.1%	1	2.6%	-	-	1	0.9%
Journal of the Academy of Marketing Science	US	2	1.1%	1	2.6%	-	-	1	0.9%
European Review of Agricultural Economics	UK	2	1.1%	-	-	1	2.3%	1	0.9%
Health Communication	UK	2	1.1%	-	-	1	2.3%	1	0.9%
International Journal of Advertising	UK	2	1.1%	-	-	1	2.3%	1	0.9%
Journal of Macromarketing	US	2	1.1%	-	-	1	2.3%	1	0.9%
Journal of Marketing Management	UK	2	1.1%	-	-	1	2.3%	1	0.9%
Canadian Journal of Agricultural Economics	UK	2	1.1%	-	-	-	-	2	1.8%
European Journal of Marketing	UK	2	1.1%	-	-	-	-	2	1.8%
Journal of Consumer Psychology	US	2	1.1%	-	-	-	-	2	1.8%
Marketing Science	US	2	1.1%	-	-	-	-	2	1.8%
American Economic Review	US	1	0.5%	1	2.6%	-	-	-	-
American Journal of Public Health	US	1	0.5%	1	2.6%	-	-	-	-
International Journal of Retail and Distribution Management	UK	1	0.5%	1	2.6%	-	-	-	-
Journal of Advertising Research	UK	1	0.5%	1	2.6%	-	-	-	-
Journal of Law and Economics	US	1	0.5%	1	2.6%	-	-	-	-
Journal of Retailing and Consumer Services	UK	1	0.5%	1	2.6%	-	-	-	-
Journal of Rural Studies	UK	1	0.5%	1	2.6%	-	-	-	-
Marketing Intelligence and Planning	UK	1	0.5%	1	2.6%	-	-	-	-
Social Choice and Welfare	US	1	0.5%	1	2.6%	-	-	-	-
Agricultural Economics	UK	1	0.5%	-	-	1	2.3%	-	-
Consumption Markets and Culture	US	1	0.5%	-	-	1	2.3%	-	-
Environment and Planning A	UK	1	0.5%	-	-	1	2.3%	-	-
Journal of Agricultural Economics	UK	1	0.5%	-	-	1	2.3%	-	-
Sociology of Health and Illness	UK	1	0.5%	-	-	1	2.3%	-	-
Annual Review of Resource Economics	US	1	0.5%	-	-	-	-	1	-
Cornell Hospitality Quarterly	US	1	0.5%	-	-	-	-	1	0.9%
International Journal of Industrial Organization	US	1	0.5%	-	-	-	-	1	0.9%
International Journal of Research in Marketing	NL	1	0.5%	-	-	-	-	1	-
International Marketing Review	UK	1	0.5%	-	-	-	-	1	0.9%
Journal of Advertising	US	1	0.5%	-	-	-	-	1	0.9%
Journal of Behavioral and Experimental Economics	US	1	0.5%	-	-	-	-	1	0.9%
Journal of Experimental Psychology: Applied	US	1	0.5%	-	-	-	-	1	0.9%
Journal of Family and Economic Issues	US	1	0.5%	-	-	-	-	1	0.9%
Journal of Retailing	NL	1	0.5%	-	-	-	-	1	0.9%
Service Industries Journal	UK	1	0.5%	-	-	-	-	1	0.9%
Social Studies of Science	UK	1	0.5%	-	-	-	-	1	0.9%

Source: Author's own elaboration.

Two outlets are absolute breakthroughs in the past 5 years. *International Journal of Consumer Studies* is a young journal (published since 2011) open to a wide range of consumer research publications, yet its specific focus favors health-related topics and everything else about "how consumers can enhance their security and well being [sic]" (IJCS, 2016). While *International*

Journal of Hospitality Management started publishing on the topics of food and health so extensively due to a recent regulatory change in the US (announced in 2010, entering in force gradually, to be adopted on national level by 2016-2017), obliging restaurants to reveal nutrient content on their menus, making the topic highly relevant for the hospitality industry not only from a consumer interest perspective, but also for business compliance requirements.

6.2.3. Manuscript characteristics

The absolute majority of articles in our sample are of empirical nature (see Table 6.3), confirming a clear trend in marketing research at large (Svensson, 2006; Svensson & Wood, 2006). After all, a practical orientation, achievable via empirical work, is one of the key features of marketing as a discipline (Fitchett et al., 2014; Skålén et al., 2008; Tadajewski, 2010a). The dominance of empirical studies and the underrepresentation of theoretical or conceptual works is a symptom of a certain standard of academic marketing discipline being simultaneously an "a-theoretical practice" and a "practical theory" (Hackley, 2003) – the standard that persists over time, based on our data.

Table 6.3. Publication outlets of health and food marketing and consumer research.

	Total n=190		**1988-2005** n_1=38		**2006-2010** n_2=43		**2011-2015** n_3=109	
	Mean	*%*	*Mean*	*%*	*Mean*	*%*	*Mean*	*%*
Nature of article								
Empirical	165	86.8%	34	89.5%	37	86.0%	94	86.2%
Conceptual	6	3.2%	1	2.6%	4	9.3%	1	0.9%
Review	19	10.0%	3	7.9%	2	4.7%	14	12.8%
Number of pages								
1-9	44	23.2%	6	15.8%	12	27.9%	26	23.9%
10-14	71	37.4%	13	34.2%	13	30.2%	45	41.3%
15-19	48	25.3%	14	36.8%	13	30.2%	21	19.3%
20-24	16	8.4%	1	2.6%	5	11.6%	10	9.2%
25-30	6	3.2%	2	5.3%	-	-	4	3.7%
more than 30	5	2.6%	2	5.3%	-	-	3	2.8%
Number of citations (Google scholar)*								
0-9	61	32.1%	-	-	3	7.0%	58	53.2%
10-29	51	26.8%	5	13.2%	12	27.9%	34	31.2%
30-49	24	12.6%	4	10.5%	9	20.9%	11	10.1%
50-99	24	12.6%	8	21.1%	12	27.9%	4	3.7%
100-199	21	11.1%	16	42.1%	3	7.0%	2	1.8%
more than 200	9	4.7%	5	13.2%	4	9.3%	-	-

* Retrieved on August 5, 2016 for all articles.
Source: Author's own elaboration.

The change in health and food articles' length shows a tendency for shorter articles overall. However, this observation might be hard to demonstrate because various publication outlets simply use different fonts and layouts (single column vs. two-columns), which makes comparisons hard and inconclusive. With no surprises, the number of Google Scholar citations per article increases with publication maturity; the older the article is, the more it is cited. Despite our effort, we did not manage to allocate citation indices for individual articles that

would weigh a given articles' citation against its age to allow for a better comparison in a historical overview like ours[28].

6.2.4. The studies' theoretical positioning

The overwhelming empirical orientation of the articles is related to one of the most interesting results with regard to the articles' theoretical positioning. In 36.3% of cases we could not allocate or name a framework or concept or model that served as the main theoretical grounding[29] (see Table 6.4). The articles without explicitly stated theoretical positioning, are either studies building on the findings of previous research and united by a specific research object (e.g., organic food, young consumers' label reading behavior, attitudes towards color green in communication etc.) or relying on a combination of previously verified measuring scales (e.g., Gould's health consciousness, Moorman's motivation to process nutrition information, or Andrew's nutritional knowledge). In either case, they somewhat spare the discussion of underlying middle-range or grand theory in favor of emphasizing aggregations of previous studies' findings with lower levels of conceptual abstraction, i.e.,

[28] Proposals for weighted citation indexes exist (Yan & Ding, 2010), yet we did not locate any implementation of such initiatives on a scale large enough to retrieve indices for all publications in our sample.
We made our own, very approximate estimation of citations per year based on Google Scholar total scores divided by the articles' age, counted as 2016 minus the year of publication for all articles (see below). Note that this count can be considered only as a very rough estimate, because Google Scholar citation data were collected in August 2016, so the year 2016 was not complete by 4 months. We also could not take into account whether articles were published in the beginning or in the end of the declared year, making the comparisons and estimates quite arbitrary.

	Total n=190		**1988-2005** n_1=38		**2006-2010** n_2=43		**2011-2015** n_3=109	
Average citations per year (based on Google scholar)								
less than 1	14	7.4%	1	2.6%	2	4.7%	11	10.1%
≥1 and ≤3	46	24.2%	9	23.7%	9	20.9%	28	25.7%
≥ 3 and ≤5	36	18.9%	3	7.9%	9	20.9%	24	22.0%
≥5 and ≤10	59	31.1%	16	42.1%	12	27.9%	31	28.4%
≥10 and 20	24	12.6%	7	18.4%	5	11.6%	12	11.0%
more than ≤20	11	5.8%	2	5.3%	6	14.0%	3	2.8%

Our rough estimations, however, indicate that on average articles in our sample produce more or less 7 citations per year in all time periods. The articles that have the most citations overall are also predominantly the same that produce the most citations per year, with a few exceptions (in gray below). The articles that account for the most citations overall (i.e., more than 200 as of 5 August 2016) and the most citations per year (i.e., more than 20 per year, approximately) are:

	Total Google citations (as of 5 August 2016)	Approx. citations per year
(Chandon & Wansink, 2007b [75])	460	51.1
(Raghunathan et al., 2006 [84])	435	43.5
(Kozup et al., 2003 [81])	430	33
(Ilbery & Kneafsey, 2000 [113])	364	22.75
(Roe et al., 1999 [108])	322	18.9
(Moorman, 1990 [76])	319	12.27
(Mathios, 2000 [217])	231	14.44
(Garg et al., 2007 [83])	211	23.44
(Moore & Rideout, 2007 [109])	201	22.33
(Chandon & Wansink, 2007a [95])	195	21.44
(Wier et al., 2008 [190])	185	23.13
(van Doorn & Verhoef, 2011 [33])	109	21.8
(Paul & Rana, 2012 [58])	104	26
(Graham et al., 2012 [189])	85	21.25

[29] Previous literature reviews in the field (Grunert & Wills, 2007) have also stated that it's not uncommon to find research papers on health and food marketing, including those published in high-ranked scientific journals, that do not specify any theoretical framework.

what Craig (1993, p. 27) calls "isolated empirical generalizations" or "sets of laws."[30] When documentation of empirical studies' evidence is presented in the form of theorization, we end up with numerous "practical theories" (e.g., restaurant label, organic food, nutrition label format etc. "theories"), flexibly assembled by scholars on case-by-case basis, unless they are given a good name (i.e., "branded" name), that ensures the life of a conceptual model or a framework in the future studies. Compared to "practical theories" without any name, there are only a few "branded" models (often carried on by the members of the same research group) in our sample: e.g., "health branding" (Anker et al., 2011 [41]; Chrysochou, 2010a [90]; Chrysochou et al., 2010; Grunert et al., 2008; Krystallis & Chrysochou, 2011 [91]), or "food wellbeing" (Block et al., 2011; Bublitz et al., 2011, 2013; Bublitz & Peracchio, 2015 [42])[31]). The advantage of the latter is that not introducing your own "brand" and using a more generic description might be more practical, because it maximizes the opportunity to be found and cited, as a whole or only partially, by more researchers from multiple fields and theoretical traditions.

In the remaining cases, when theoretical background is explicitly stated and discussed by the authors of food and health research, the intellectual origins of those theories range from various schools of psychology to economics, from behavioral theories to social sciences. Marketing's "conceptual kleptomania" (Hackley, 2003, p. 1344) is well evident in this case of research about health and food. As a matter of fact, theories that can be classified as marketing theories in a stricter sense are less prevalent (6.8%) than theories adopted from psychology or economics.

The family of so-called dual process theories that view processing of inputs in two distinct ways – in implicit/automatic/fast/heuristic/unconscious or explicit/controlled/slow/ deliberate/rational/conscious manner – is one of the more prominently used groups of theories in food and health marketing research (14.7%). A related group of models (5.8%) comes from theories typically used by cognitive psychologists[32]. Such approaches most typically try to establish how consumers make their health-related judgments about food, using either a rational and deliberate information processing route (i.e., reading and comprehending labels and other health-related information) or fast "rule of the thumb" decisions.

Theory of Planned Behavior (and its earlier version called Theory of Reasoned Action) (Ajzen, 1991) results as the single most frequently used theory (7.4%) in our sample, which in its

[30] In his study of popular marketing management textbooks, Hackley (2003, p. 1333) claims that marketing texts are "embarrassed by the Theory word" and "often use words like 'tool', 'framework' or 'concept'" instead. Similarly, academic marketing texts about health and food may leave the word "theory" out and substitute it for more "practical" terms, including, besides the most obvious "literature review", "background", "hypothesis development", "model specification", "conceptual framework" and, less frequent "research issues" (Howlett et al., 2009 [74]; Mitra et al., 1999 [97]), "conceptual rationale" (Garretson & Burton, 2000 [100]; Kozup et al., 2003 [81]), "research context" (G. Armstrong et al., 2005 [118]), etc.

[31] Not all of these studies make part of our sample, yet they overlap and provide a good illustration of how an assemblage of documented evidence with a good branded name attached can successfully continue its life beyond one research.

[32] I thank Sydney Levine, a friend and a former colleague, who has recently defended her PhD in moral psychology at Rutgers cognitive psychology lab, for her useful feedback on groupings of psychological theories presented here.

turn belongs to the group of behavioral theories (11.6%). This theory focuses on predicting behavior from personal subjective or social norms, attitudes, and strength of perceived control over behavior and its outcomes (Costa, 2013 [151]). The theory has a long history of application in health behavior research, which makes it especially suitable for health and food research, yet marketing and consumer research seems to have discovered it only in the last five years. Social psychology theories (12.1%) focusing around issues of other people's influence (whether actual or perceived) on individual consumers' actions and issues of self-control and of shared values are also applied quite frequently and have grown considerably in terms of citation frequency over 30 years.

Table 6.4. Theories employed in health and food marketing and consumer research.

	Total* n=190		**1988-2005*** n_1=38		**2006-2010*** n_2=43		**2011-2015*** n_3=109	
	Mean	*%*	*Mean*	*%*	*Mean*	*%*	*Mean*	*%*
DUAL PROCESS THEORIES	**28**	**14.7%**	**6**	**15.8%**	**6**	**14.0%**	**16**	**14.7%**
Information processing	8	4.2%	4	10.5%	1	2.3%	3	2.8%
Elaboration likelihood model	4	2.1%	-	-	-	-	4	3.7%
Inference-making	3	1.6%	1	2.6%	1	2.3%	1	0.9%
Confirmatory bias	2	1.1%	1	2.6%	1	2.3%	-	-
Dual processing (no model specified)	2	1.1%	-	-	-	-	2	1.8%
Halo effect	2	1.1%	-	-	-	-	2	1.8%
Nudge theory	2	1.1%	-	-	-	-	2	1.8%
Assimilation & contrast effect	1	0.5%	-	-	1	2.3%	-	-
Averaging bias	1	0.5%	-	-	1	2.3%	-	-
Heuristic-systematic model of processing	1	0.5%	-	-	-	-	1	0.9%
Inferences & biases	1	0.5%	-	-	-	-	1	0.9%
Selective accessibility	1	0.5%	-	-	1	2.3%	-	-
COGNITIVE PSYCHOLOGY	**11**	**5.8%**	**2**	**5.3%**	**3**	**7.0%**	**6**	**5.5%**
Information overload, ambiguity & confusion	2	1.1%	-	-	-	-	2	1.8%
Magnitude estimation (psychophysics)	1	0.5%	-	-	1	2.3%	-	-
Steven's power law (psychophysics)	1	0.5%	-	-	1	2.3%	-	-
Contrast effects	1	0.5%	1	2.6%	-	-	-	-
Cueing theory	1	0.5%	-	-	-	-	1	0.9%
Knowledge: subjective vs. objective	1	0.5%	-	-	1	2.3%	-	-
Metacognition	1	0.5%	-	-	-	-	1	0.9%
Priming – goal theoretic framework	1	0.5%	-	-	-	-	1	0.9%
Cognitive dissonance	1	0.5%	1	2.6%	-	-		
BEHAVIORAL THEORIES	**22**	**11.6%**	**2**	**5.3%**	**3**	**7.0%**	**17**	**15.6%**
Theory of planned behavior	14	7.4%	-	-	2	4.7%	12	11.0%
Behavioral perspective model	1	0.5%	-	-	-	-	1	0.9%
Food perception model	1	0.5%	-	-	-	-	1	0.9%
Moderated mediation model	1	0.5%	-	-	-	-	1	0.9%
Pender's health promotion model	1	0.5%	1	2.6%	-	-	-	-
Stages of change model	1	0.5%	-	-	-	-	1	0.9%
Norm activation theory	1	0.5%	-	-	-	-	1	0.9%
Protection motivation theory	1	0.5%	-	-	-	-	1	0.9%
Health belief model	1	0.5%	1	2.6%	-	-	-	-
SOCIAL PSYCHOLOGY	**23**	**12.1%**	**2**	**5.3%**	**3**	**7.0%**	**18**	**16.5%**
Self-regulation/self-control	4	2.1%	-	-	1	2.3%	3	2.8%
Regulatory focus theory	3	1.6%	-	-	-	-	3	2.8%
Anticipated emotion	2	1.1%	-	-	-	-	2	1.8%
Construal level theory	2	1.1%	-	-	-	-	2	1.8%
Social judgment theories	2	1.1%	-	-	-	-	2	1.8%
Schwartz values	2	1.1%	-	-	-	-	2	1.8%
3m model of motivation	1	0.5%	-	-	1	2.3%	-	-
Attribution theory	1	0.5%	-	-	-	-	1	0.9%
Emotional ability	1	0.5%	-	-	-	-	1	0.9%
Kahle's values	1	0.5%	1	2.6%	-	-	-	-
Categorization flexibility	1	0.5%	-	-	-	-	1	0.9%
Rokeach values	1	0.5%	-	-	-	-	1	0.9%
Self-construal	1	0.5%	-	-	-	-	1	0.9%
Social norms	1	0.5%	-	-	-	-	1	0.9%
Social learning theory	1	0.5%	1	2.6%	-	-	-	-
ECONOMIC THEORIES	**31**	**16.3%**	**7**	**18.4%**	**5**	**11.6%**	**19**	**17.4%**
Information asymmetry & market failure	6	3.2%	2	5.3%	-	-	4	3.7%
Utility maximization theory	5	2.6%	-	-	2	4.7%	3	2.8%
Information economics	4	2.1%	2	5.3%	1	2.3%	1	0.9%
Random utility theory	4	2.1%	1	2.6%	-	-	1	0.9%

	Total* n=190		1988-2005* n_1=38		2006-2010* n_2=43		2011-2015* n_3=109	
	Mean	*%*	*Mean*	*%*	*Mean*	*%*	*Mean*	*%*
Bounded rationality	2	1.1%	1	2.6%	-	-	1	0.9%
Hedonic pricing	1	0.5%	-	-	-	-	1	0.9%
Hyperbolic discounting	1	0.5%	-	-	-	-	1	0.9%
Information costs	1	0.5%	-	-	-	-	1	0.9%
Information search theory	1	0.5%	-	-	-	-	1	0.9%
Lancastrian demand theory	1	0.5%	-	-	1	2.3%	-	-
Law of demand	1	0.5%	-	-	-	-	1	0.9%
Nonlinear pricing	1	0.5%	-	-	-	-	1	0.9%
Political economy	1	0.5%	-	-	1	2.3%	-	-
Regulation theory	1	0.5%	1	2.6%	-	-	2	1.8%
Stakeholder theory	1	0.5%	-	-	-	-	1	0.9%
MARKETING & COMMUNICATION THEORIES	**13**	**6.8%**	**1**	**2.6%**	**4**	**9.3%**	**8**	**7.3%**
Means-end theory	4	2.1%	1	2.6%	-	-	3	2.8%
Health branding	2	1.1%	-	-	1	2.3%	1	0.9%
New Product Development: stage-gate model	1	0.5%	-	-	1	2.3%	-	-
Positive marketing	1	0.5%	-	-	-	-	1	0.9%
Emphasis framing effect	1	0.5%	-	-	-	-	1	0.9%
Persuasion knowledge model	1	0.5%	-	-	-	-	1	0.9%
Identity based motivation	1	0.5%	-	-	-	-	1	0.9%
Skepticism towards advertising	1	0.5%	-	-	1	2.3%	-	-
Source credibility	1	0.5%	-	-	1	2.3%	-	-
SOCIAL & CULTURAL SCIENCES	**10**	**5.3%**	**1**	**2.6%**	**4**	**9.3%**	**5**	**4.6%**
Foucault's governmentality	4	2.1%	-	-	1	2.3%	3	2.8%
Social theories of food (Fischler's gastro-anomy; Warde's antinomies of taste)	1	0.5%	-	-	1	2.3%	-	-
Bourdieu's habitus	1	0.5%	-	-	-	-	1	0.9%
NEP/New Ecologic paradigm	1	0.5%	-	-	-	-	1	0.9%
Responsibilization	1	0.5%	-	-	1	2.3%	-	-
Social constructivism	1	0.5%	1	2.6%	-	-	-	-
Science & technology studies	1	0.5%	-	-	1	2.3%	-	-
NO THEORY EXPLICITELY SPECIFIED	**69**	**36.3%**	**19**	**50.0%**	**18**	**41.9%**	**32**	**29.4%**

* Articles may refer to more than one category.
Source: Author's own elaboration.

Theorizations about health and food that are guided by grand social theories are less common (5.3%), slowly growing in number, but not in share across 30 years of research, demonstrating how the field of consumer behavior research is rather linked to psychological tradition than anthropology or other social disciplines that see consumer behavior in the light of its cultural context (Arnould & Thompson, 2005).

Classical economic theories are more frequently applied (16.3%), especially the economic model of information search, utility maximization, and conceptualization of market failure (as information asymmetry condition or spill-over adverse effects on citizens not directly involved in market transaction).

6.3. Research design characteristics

Examining methodological choices and research design features helps us understand how researchers operationalize their concepts and how they arrive at their conclusions. The choice of research design is shaped not only by the best fit to the research question, as a perfect science would prescribe, but also by the overall academic trends and requirements for publicability. Therefore, studying health and food marketing research design characteristics (i.e., empirical methods, research geography, sampling design, analytical techniques applied to analyze data) helps clarify what is actually studied when researchers study health in the light of (changing) marketing research trends.

6.3.1. Research approach

More than half of the articles (58.9%) rely on a formalized research design, with a hypothesis that is well-defined and based on previous research, about a third (27.9%) are exploratory, and the remaining 13.2% are non-empirical (see Table 6.5). The proportion of exploratory studies diminishes over time, of formalized studies increases, while that of non-empirical studies remains largely unvaried. This, in its turn is connected to the prevalence of studies with statistical scope (72.6%) that use some form of quantitative methods. It does appear that in the field of food and health, just like in marketing and consumer research at large, it's necessary to report on quantitative findings to seek publication success (Hirschman, 1993; Svensson, 2006; Svensson & Wood, 2006). A somewhat anti-tendency appeared during the period dominated by European research between 2006-2010, when the proportion of qualitative studies was a considerable 18.6%, well above the proportion in both the earlier and the later period, suggesting a correlation between the orientation of statistically-driven studies and the prevalence of US-authored publications. As a matter of fact, out of articles with qualitative topical scope, only 1 is authored by scholars working in the US and 1 - in Canada.

Cross-sectional studies (74.2%) overall prevail over longitudinal studies (11.1%), which show a dramatic decrease from the earlier period (31.6%) to the latest 5-year period (7.3%). This result is somewhat counter-intuitive, considering that longitudinal studies may benefit more from longer research history and longer presence of certain phenomena on the market and in the research literature.

Table 6.5. Research approach of health and food marketing and consumer research.

	Total n=190		**1988-2005** n_1=38		**2006-2010** n_2=43		**2011-2015** n_3=109	
	Mean	*%*	*Mean*	*%*	*Mean*	*%*	*Mean*	*%*
Problem crystallization								
Exploratory	53	27.9%	15	39.5%	16	37.2%	22	20.2%
Formalized	112	58.9%	19	50.0%	21	48.8%	72	66.1%
Non-empirical	25	13.2%	4	10.5%	6	14.0%	15	13.8%
Topical scope								
Statistical	138	72.6%	30	78.9%	26	60.5%	82	75.2%
Qualitative	19	10.0%	1	2.6%	8	18.6%	10	9.2%
Mixed	3	1.6%	-	-	2	4.7%	1	0.9%
Case study	5	2.6%	3	7.9%	1	2.3%	1	0.9%
Non-empirical	25	13.2%	4	10.5%	6	14.0%	15	13.8%
Time dimension								
Cross-sectional	141	74.2%	22	57.9%	35	81.4%	84	77.1%
Longitudinal	21	11.1%	12	31.6%	1	2.3%	8	7.3%
Mixed	3	1.6%	-	-	1	2.3%	2	1.8%
Non-empirical	25	13.2%	4	10.5%	6	14.0%	15	13.8%
Number of studies								
1	117	61.6%	31	81.6%	26	60.5%	60	55.0%
2	21	11.1%	-	-	6	14.0%	15	13.8%
3	14	7.4%	3	7.9%	-	-	11	10.1%
4	9	4.7%	-	-	5	11.6%	4	3.7%
5	3	1.6%	-	-	-	-	3	2.8%
7	1	0.5%	-	-	-	-	1	0.9%
Non-empirical	25	13.2%	4	10.5%	6	14.0%	15	13.8%

Source: Author's own elaboration.

Additionally, there is a clear tendency toward increasing complexity in terms of the number of studies reported in a single article. In our sample, we had articles that reported on results of

up to 7 studies (Khare & Chowdhury, 2015 [73]). Overall, 190 articles report on 259 empirical studies: 40 studies in 1988-2005, 58 studies in 2006-2010, and 161 studies in 2011-2015.

6.3.2. Research geography

A very low proportion of cross-country research designs (5.3%) could be a symptom of global health orientation, which assumes that health is a universal value and food's health has a universal definition and mechanism for measuring nutritional value (Coveney, 2006; Scrinis, 2008).

Table 6.6. Research geography of health and food marketing and consumer research.

	Total n=190		**1988-2005** n_1=38		**2006-2010** n_2=43		**2011-2015** n_3=109	
	Mean	*%*	*Mean*	*%*	*Mean*	*%*	*Mean*	*%*
Market emphasis								
Domestic	168	88.4%	38	100.0%	35	81.4%	95	87.2%
Cross-country	10	5.3%	-	-	4	9.3%	6	5.5%
Generic/Not specified	12	6.3%	-	-	4	9.3%	8	7.3%
Research focus region								
North America	107	56.3%	34	89.5%	18	41.9%	55	50.5%
Europe	51	26.8%	3	7.9%	16	37.2%	32	29.4%
Asia	11	5.8%	1	2.6%	1	2.3%	9	8.3%
Australia	5	2.6%	-	-	4	9.3%	1	0.9%
Africa	1	0.5%	-	-	-	-	1	0.9%
Central America	1	0.5%	-	-	-	-	1	0.9%
Cross-continental	2	1.1%	-	-	-	-	2	1.8%
Not specified	12	6.3%	-	-	4	9.3%	8	7.3%
Research focus country*								
USA	107	56.3%	34	89.5%	19	44.2%	54	49.5%
UK	14	7.4%	3	7.9%	6	14.0%	5	4.6%
Germany	9	4.7%	-	-	4	9.3%	5	4.6%
Spain	7	3.7%	-	-	5	11.6%	2	1.8%
Denmark	6	3.2%	-	-	3	7.0%	3	2.8%
Australia	5	2.6%	-	-	4	9.3%	1	0.9%
Korea	5	2.6%	-	-	-	-	5	4.6%
Canada	5	2.6%	-	-	2	4.7%	3	2.8%
Other	38	20.0%	1	2.6%	9	20.9%	28	25.7%
Not specified	12	6.3%	-	-	4	9.3%	8	7.3%

* Articles may refer to more than one category
Source: Author's own elaboration.

While research designs continue to favor data about consumers' behavior or market peculiarities obtained in the USA (56,3%), the proportion is much lower than that reported by Svensson (2006), who focused exclusively on top marketing journals. Our sampling approach focused on inclusion of "middle" tier journals as well. There is a greater range of research geography in the publications outlets not classified at the top. With every period, researchers embrace more regional diversity and research geography continues to spread.

6.3.3. Study and sampling design

Out of 259 empirical studies (see Table 6.7), 71.4% employed a non-probability sampling design. This approach to sampling has changed dramatically over the past 30 years. While from 1988-2005 the probability and non-probability sampling designs were well balanced

(52.5% vs. 47.5%), over time the difference has grown rather wide (19.3% vs. 77.0% in the most recent 2011-2015 period).

Trends of data collection modes have changed less drastically. The survey remains the principal tool for data collection (74.5%), followed by collection of secondary data (9.3%), interviews (6.9%), and observations (4.2%). A large proportion of surveys (56%) use one or more tasks (e.g., label evaluation task, preference ranking task, choice task, etc.) as an integral part of their designs, and show an upward growing trend.

Table 6.7. Sampling design of health and food marketing and consumer research: empirical studies.

	Total		**1988-2005**		**2006-2010**		**2011-2015**	
	n_{emp}=259		n_{emp1}=40		n_{emp2}=58		n_{emp3}=161	
	Mean	*%*	*Mean*	*%*	*Mean*	*%*	*Mean*	*%*
Sampling design								
Probability	66	25.5%	21	52.5%	14	24.1%	31	19.3%
Non probability	185	71.4%	19	47.5%	42	72.4%	124	77.0%
Not enough information	8	3.1%	-	-	2	3.4%	6	3.7%
Data collection mode								
Survey	193	74.5%	27	67.5%	38	65.5%	128	79.5%
Interview	18	6.9%	1	2.5%	5	8.6%	12	7.5%
Observation	11	4.2%	3	7.5%	4	6.9%	4	2.5%
Secondary	24	9.3%	9	22.5%	6	10.3%	9	5.6%
Mixed	13	5.0%	-	-	5	8.6%	8	5.0%
Recruitment/communication mode								
Field	95	36.7%	22	55.0%	21	36.2%	52	32.3%
Lab	78	30.1%	4	10.0%	22	37.9%	52	32.3%
(Paid) online panel	45	17.4%	-	-	5	8.6%	40	24.8%
(Paid) offline panel	6	2.3%	4	10.0%	-	-	2	1.2%
Database/document	25	9.7%	10	25.0%	6	10.3%	9	5.6%
Other (mixed or not specified)	10	3.9%	-	-	4	6.9%	6	3.7%
Sample type								
Consumers	139	53.7%	23	57.5%	26	44.8%	90	55.9%
Students	72	27.8%	4	10.0%	19	32.8%	49	30.4%
University staff/University affiliated	8	3.1%	-	-	3	5.2%	5	3.1%
Experts	3	1.2%	1	2.5%	-	-	2	1.2%
Households	4	1.5%	-	-	1	1.7%	3	1.9%
Companies	1	0.4%	1	2.5%	-	-	-	-
Points of sale	6	2.3%	3	7.5%	2	3.4%	1	0.6%
Brands/products	13	5.0%	4	10.0%	3	5.2%	6	3.7%
Advertising	4	1.5%	2	5.0%	2	3.4%	-	-
Other & mixed	9	3.5%	2	5.0%	2	3.4%	5	3.1%
Consumer sample size								
≤100	24	9.3%	1	2.5%	8	13.8%	16	9.9%
101-250	43	16.6%	7	17.5%	7	12.1%	28	17.4%
251-400	25	9.7%	4	10.0%	4	6.9%	17	10.6%
401-800	26	10.0%	5	12.5%	4	6.9%	17	10.6%
>800	21	8.1%	6	15.0%	7	12.1%	12	7.5%
Student sample size								
≤100	20	7.7%	1	2.5%	5	8.6%	16	9.9%
101-200	30	11.6%	2	5.0%	8	13.8%	20	12.4%
200-300	17	6.6%	1	2.5%	8	13.8%	8	5.0%
>300	5	1.9%	-	-	-	-	5	3.1%
Brands/products sample size								
≤20	4	1.5%	1	2.5%	2	3.4%	1	0.6%
21-100	3	1.2%	-	-	1	1.7%	2	1.2%
100-500	2	0.8%	1	2.5%	-	-	1	0.6%
>500	4	1.5%	2	5.0%	-	-	2	1.2%

Source: Author's own elaboration.

Data for empirical research about health and food in the earlier period used to be collected primarily in the field (55%). In the last period, however, 89.4% of sample recruitment methods are distributed almost equally between three groups: field (32.3%), lab (32.3%), and

(paid) online panels (24.8%). After an era of vast application of student and WEIRD samples[33] (Henrich, Heine, & Norenzayan, 2010), academic marketing research seems to have merged with commercial market research practices and tapped into technical knowledge and resources of the private sector. On the one hand, this ensures a quicker turn-around, more heterogeneous human samples, and more advanced technological know-how that helps implement more intricate research designs and process more complex data. On the other hand, this also means a trend towards professionalization of informants, who would very literally work (Cova et al., 2011; Zwick et al., 2008) long hours and for very little money ($2/hour on average in the US) (Williamson, 2016), responding to researchers' surveys and tasks. Besides important ethical issues, such professionalization in its turn may lead to less reliable results, which were produced by consumers who respond in a way to maximize their own earnings as opposed to producing sincere and usable responses. A quick Google search on tips on how to earn money by doing online surveys explains how to create multiple fake profiles, how to increase chances of being selected, how to avoid giving undesirable responses to screening questions, etc. Another potential hindrance could be that with the increased level of professionalization (e.g., on Amazon MTurk, the largest and most popular online panel, 80% of tasks are performed by 20% of MTurkers (Williamson, 2016)) respondents learn how to "read" intentions behind surveys and tasks and give predictable answers, that are then replicated across multiple studies.

A number of different sample types are used for health and food research, with consumers being the most (53.7%) common. In the majority of cases (around 60%), such samples do not specify the requirements for sample selection, implying that virtually anyone qualifies, since everyone is a consumer (Hackley, 2003), especially of such an everyday product as food. In the remaining cases, primary food shoppers are specified as the eligible consumer segment (17.2% of consumer samples) and used with equal frequency along various chronological periods of consumer research. Naturally, such a requirement legitimizes a sample composed almost exclusively of female consumers. Hospitality-focused publications typically specify food-away-from-home consumers as descriptor of consumer sample (7% of consumer samples), but even such specification is often omitted based on the overwhelming social trend that has dramatically increased consumption of food-away-from-home, turning virtually anyone into (more or less frequent) food-away-from-home consumer. Other, more specific consumer samples, were selected according to specific studies and ranged from demographic-specific requirements (e.g., over 40, over 45, parents), experience with a specific product (e.g., beef, coffee, olive oil, seafood, organic food, functional food), specific behavioral and attitudinal requirements (e.g., label-readers, meaning-makers, taste-valuators, vegetarians, dieters), and health status (e.g., obese, chronically ill, at risk of bowel disease, diabetes-diagnosed, diagnosed with cardiac condition).

In terms of frequency of use, consumer samples are followed by student (27.8%) and other convenience samples that use university staff or alumni for recruitment (3.1%). The

[33] WEIRD is an acronym introduced by Henrich, Heine, & Norenzayan (2010) to expose the fact that behavioral and psychological research findings, which determine scientific theories of human behavior in most general and fundamental terms, are overwhelmingly based on samples from Western, Educated, Industrialized, Rich, and Democratic (WEIRD) societies, most notably the US and composed of easily recruitable undergraduate students.

persistence of student samples, despite an extensive criticism in consumer and more generally psychology research, is now justified in the articles more extensively, using such arguments as sample homogeneity (especially for experimental designs) or the market potential of Millenials (i.e., the largest generation entering into workforce and forming their market preference for the years to come). Among non-human informants, samples composed of real-market brands and/or products are employed in 5% of articles. Size distributions of each of the three sample types, are summarized in Table 6.7. Other samples variations included industry experts, companies, retail points of sale, and advertisements.

6.3.4. Methods and analytical techniques of empirical studies

A bit more than a half of the empirical research about health and food has relied on experimental control of variables (57.9%) as opposed to ex-post facto designs (42.1%), with the gap widening in the past five years (see Table 6.8). Study designs with causal variable associations (81.1%) also prevail, showing the dominance of not only quantitative approaches, but of inferential statistics able to prove or demonstrate cause-effect relations. The distribution of data analysis techniques are summarized in Table 6.8, which shows how statistical methods get more sophisticated over time, in line with developments in marketing and management research (Svensson, 2006; Svensson & Wood, 2006).

Table 6.8. Analytical techniques employed in empirical marketing studies on health and food.

	Total n_{emp}=259		**1988-2005** n_{emp1}=40		**2006-2010** n_{emp2}=58		**2011-2015** n_{emp3}=161	
	Mean	*%*	*Mean*	*%*	*Mean*	*%*	*Mean*	*%*
Control of variables								
Ex-post facto	109	42.1%	19	47.5%	29	50.0%	61	37.9%
Experiment	150	57.9%	21	52.5%	29	50.0%	100	62.1%
Variable association								
Causal	210	81.1%	30	75.0%	43	74.1%	137	85.1%
Descriptive	49	18.9%	10	25.0%	15	25.9%	24	14.9%
Analytical technique								
Descriptive statistics	17	6.6%	4	10.0%	9	15.5%	4	2.5%
Non-parametric sample tests	13	5.0%	3	7.5%	3	5.2%	7	4.3%
ANOVA	55	21.2%	6	15.0%	11	19.0%	38	23.6%
MANOVA	18	6.9%	9	22.5%	1	1.7%	8	5.0%
ANCOVA	10	3.9%	1	2.5%	1	1.7%	8	5.0%
MANCOVA	4	1.5%	2	5.0%	1	1.7%	1	0.6%
Factor analysis	4	1.5%	1	2.5%	-	-	3	1.9%
Cluster analysis	7	2.7%	2	5.0%	-	-	5	3.1%
Conjoint analysis	2	0.8%	-	-	0	0.0%	2	1.2%
Regressions & econometric models	88	34.0%	9	22.5%	21	36.2%	58	36.0%
SEM	14	5.4%	-	-	1	1.7%	13	8.1%
Qualitative	27	10.4%	3	7.5%	10	17.2%	14	8.7%

Source: Author's own elaboration.

6.4 Topical areas

A more detailed thematic analysis would follow in chapter 7, yet here we will present the overall and period-specific distribution of some general topics covered by health and food marketing and consumer research.

6.4.1. Food as research object and/or research stimulus

The majority of articles concerned with issues of health and food in marketing focus on packaged food industry (46.3%), but foodservice (14.2%) and the so-called "health and wellness" category (11.6%, functional and organic combined) are also showing solid growth in 30 years of research. The fresh food industry (5.3%) is studied less, yet is a constant presence due to the long-standing focus of nutritionists on the health benefits of fruits and vegetables (see Table 6.9).

When food products are specified as either a research object or a research stimulus (i.e., carefully chosen by researchers as the embodiment of the key concept of investigation), a few of them appear repeatedly. Some products are routinely chosen as examples of healthy food products. Among them are yogurts and diary (8.9%), cereal (6.3%), fruits (4.7%) and vegetables (3.7%), soy (3.2%). Some others are used as examples of potentially unhealthy food choices, such as sugared beverages (3.2%), read meats (4.2%) and some condiments (7.4%).

Snacks, both sweet (9.5%) and not (16.3%), seem like one of the most frequently chosen objects of investigation. A social trend towards increased snacking is considered one of the symptoms of increasing food individualization and overall gastro-anomy, a loss of social and cultural rules in regard to food (Fischler, 1988; Lupton, 1996; Warde, 1997). Focus on restaurant meals (8.9%) and away-from-home ready-to-eat meals (8.9%) complements that of snacking in tracking some of the most significant cultural changes in regard to the (absence of) rules of meal consumption. These are ambivalent categories, where neither common sense, nor expert advice (e.g., public health, nutritionists, doctors, alternative health, home remedies etc.) can produce a clear and definite verdict. Therefore, choosing such foods as research objects or stimuli makes perfect sense, yet the meanings that both consumers and researchers attach to such food examples need to be subjected to careful consideration.

When research instead of food product or meal occasion focuses on one or several food constituents, fat (17.9%) and calories (14.2%) account for the top two most commonly used examples. In line with growing complexity of nutrition advice (Lupton, 1996, 2005), marketing and consumer research single out more and more nutrients over time. Fat is a good example of fragmentation, growing complexity, and demonization of certain food constituents (Askegaard et al., 1999): in 1990s research was concerned with fat in general, in 2000s – with fat's most evil hypostasis, the saturated fat, and in 2010s – the new demon of trans fats.

Food products that are "demonstrated to beneficially affect one or more target functions in the body beyond adequate nutritional effects in a way that is relevant to either an improved state of health and well-being or a reduction of disease risk" (Pravst, 2012, p. 165), or what is colloquially referred to as "healthy foods," can be distinguished by more specific information than nutrients, specifically health claims. While various countries invest most of their resources in regulating health claims, only a very few studies in our sample focus on one or more health claims as research object. This situation mirrors consumer perception of health

claims, which are perceived positively but are undistinguished from nutrition claims or health symbols (Chrysochou & Grunert, 2014; de Boer & Bast, 2015 [171]; Hieke & Taylor, 2012 [198]).

Table 6.9. Research objects and research stimuli in marketing research on health and food.

	Total n=190		**1988-2005** n_1=38		**2006-2010** n_2=60		**2011-2015** n_3=92	
	Mean	*%*	*Mean*	*%*	*Mean*	*%*	*Mean*	*%*
Industry*								
Food (in general or unspecified)	35	18.4%	6	15.8%	9	20.9%	20	18.3%
Packaged	88	46.3%	25	65.8%	19	44.2%	44	40.4%
Foodservice	27	14.2%	3	7.9%	4	9.3%	20	18.3%
Functional	11	5.8%	1	2.6%	4	9.3%	6	5.5%
Organic	11	5.8%	-	-	2	4.7%	9	8.3%
Fresh	10	5.3%	2	5.3%	1	2.3%	7	6.4%
Other	13	6.8%	3	7.9%	5	11.6%	5	4.6%
Food product focus *, **								
Snack	31	16.3%	4	10.5%	8	18.6%	19	17.4%
Sweet snack	18	9.5%	1	2.6%	5	11.6%	12	11.0%
Away from home meal	17	8.9%	4	10.5%	6	14.0%	7	6.4%
Ready to eat meal	17	8.9%	8	21.1%	-	-	9	8.3%
Yogurt & diary	17	8.9%	3	7.9%	4	9.3%	10	9.2%
Condiment	14	7.4%	9	23.7%	-	-	5	4.6%
Cereal	12	6.3%	4	10.5%	2	4.7%	6	5.5%
Fruit	9	4.7%	-	-	2	4.7%	7	6.4%
Red meat	8	4.2%	1	2.6%	3	7.0%	4	3.7%
Vegetable	7	3.7%	1	2.6%	1	2.3%	5	4.6%
Beverage	6	3.2%	1	2.6%	-	-	5	4.6%
Salad meal	6	3.2%	-	-	6	14.0%	-	-
Soy	6	3.2%	2	5.3%	-	-	4	3.7%
Bread	4	2.1%	-	-	1	2.3%	3	2.8%
Fish & seafood	4	2.1%	-	-	2	4.7%	2	1.8%
White meat	4	2.1%	1	2.6%	1	2.3%	2	1.8%
Dessert	3	1.6%	1	2.6%	1	2.3%	1	0.9%
Panel/multiple	17	8.9%	5	13.2%	3	7.0%	9	8.3%
Other	4	2.1%	1	2.6%	1	2.3%	2	1.8%
Nutrition focus *, **								
Fat	34	17.9%	14	36.8%	3	7.0%	17	15.6%
Calorie	27	14.2%	4	10.5%	4	9.3%	19	17.4%
Sodium	17	8.9%	6	15.8%	1	2.3%	11	10.1%
Saturated fat	11	5.8%	4	10.5%	1	2.3%	6	5.5%
Cholesterol	10	5.3%	6	15.8%	1	2.3%	3	2.8%
Fiber	8	4.2%	3	7.9%	1	2.3%	4	3.7%
Protein	7	3.7%	1	2.6%	1	2.3%	5	4.6%
Sugar	7	3.7%	-	-	1	2.3%	6	5.5%
Pro & prebiotics	4	2.1%	-	-	2	4.7%	2	1.8%
Carbohydrates	3	1.6%	-	-	1	2.3%	2	1.8%
Omega-3	3	1.6%	-	-	2	4.7%	1	0.9%
Trans fat	3	1.6%	-	-	-	-	3	2.8%
Vitamins	3	1.6%	-	-	2	4.7%	1	0.9%
Fatty acid	2	1.1%	1	2.6%	1	2.3%	-	-
Panel/multiple	9	4.7%	3	7.9%	-	-	6	5.5%
Other	13	6.8%	1	2.6%	6	14.0%	6	5.5%
Health claim focus *, **								
Cardiovascular health	14	7.4%	7	18.4%	4	9.3%	3	2.8%
Bone & joint health	10	5.3%	-	-	1	2.3%	9	8.3%
Cancer risk reduction	7	3.7%	2	5.3%	1	2.3%	4	3.7%
Digestive health	7	3.7%	-	-	-	-	7	6.4%
Cholesterol risk reduction	6	3.2%	-	-	1	2.3%	5	4.6%
Beauty	4	2.1%	-	-	1	2.3%	3	2.8%
Brain activity & memory	4	2.1%	-	-	1	2.3%	3	2.8%
Energy	4	2.1%	-	-	1	2.3%	3	2.8%
Immune support	4	2.1%	-	-	2	4.7%	2	1.8%
Weight management	4	2.1%	-	-	1	2.3%	3	2.8%
Blood sugar & diabetes benefits	2	1.1%	-	-	-	-	2	1.8%
Eyesight	2	1.1%	-	-	1	2.3%	1	0.9%
Other	13	6.8%	-	-	2	4.7%	11	10.1%

* Article may refer to more than one category;
** Only articles manifesting the themes are reported
Source: Author's own elaboration.

We found it reasonable to combine several classification systems in regard to health claims for our categorization (see table 6.9). European legislation distinguishes between three types of health claims: 1) function health claims, 2) risk reduction claims, and 3) claims referring to children's development[34] (European Commission, 2006). The rough equivalent of risk reduction claims is called health claims in the US[35] (FDA, 2013). Much more pragmatically, market intelligence and observatory firms rely on the key promoted health benefit in their classification (Euromonitor International, 2015a; Nielsen, 2015).

Cardiovascular health (7.4%) and cancer risk reduction (3.7%) claims can be considered classics among researched health claims (the only two found in 1988-2005 research) and are linked to the health benefits of reducing fats and sugar and increasing fiber intake (direct connection with Kellogg's and other cereals). Other claims, such as bone and joint health (5.3%), digestive health (3.7%), and cholesterol risk reduction (3.2%), appear later on in 2011-2015.

6.4.2. Marketing (practice) focus

The key marketing practice associated with health and food is nutrition marketing, defined as "any marketing (including food labels and health claims) of food or beverages using health or nutrition information beyond minimum requirements" (Colby et al., 2009, p.92 cited in Bui et al., 2013). More than half of the articles in our sample are focused on some form of nutrition marketing that uses labeling as its multifunctional lever (see Table 6.10). Nutrition is not only a universal language of public health information and education (Coveney, 2006; Lupton, 1996), it's also a principle tool of marketing communication and promotion, of establishing competitive advantage (Caswell, Ning, Liu, & Mojduszka, 2003 [213]; Moorman, 1996 [202], 1998 [96]), reputation building (Kemp & Bui, 2011 [61]), increasing repurchase and consumer loyalty (Krystallis & Chrysochou, 2011 [91]), communicating higher quality and premium-price as a heuristic tool (Loureiro, Gracia, & Nayga, 2006 [186]) etc.

The share of research into marketing communication practices, such as advertising (5.8%), branding (1.6%) or other forms of communication (5.8%), is slightly higher than research into marketing actions focused at product level, such as product composition quality (4.2%),

[34] *Function health claims* refer to the growth, development and functions of the body, or to psychological and behavioral functions in adults (e.g., "Iodine contributes to normal cognitive function" or "Melatonin contributes to the alleviation of subjective feelings of jet lag"). *Risk reduction claims*, as the name implies, focus on reducing risk factors for developing a disease (e.g., "Calcium helps to reduce the loss of bone mineral in post-menopausal women. Low bone mineral density is a risk factor for osteoporotic bone fractures".) The last category treats health claims exclusively referring to *children's growth and development* (e.g., "Calcium and vitamin D are needed for normal growth and development of bone in children"). Currently 256 (11%) out of 2282 submitted for revision health claims are authorized by EFSA: 14 are authorized risk reduction claims, 11 - for children's development, the rest (231) – general function health claims (European Commission, 2006, 2015).

[35] *Health claims* under FDA need to have two essential components: 1) a substance (whether a food, food component, or dietary ingredient) and 2) a disease or health-related condition. Contrary to the European (EFSA) definition, health claims in the US refer exclusively to food, food component or ingredient, and do not cover food categories. For instance, a claim such as "Water contributes to the maintenance of normal physical and cognitive functions" is considered a health claim under EFSA and merely a dietary guidance under FDA (FDA, 2013).

product quantity, packaging size, shape, or other psychophysical properties (4.2%), and new product development (2.6%). The shares of research on both marketing communication and product strategies peaked during the 2006-2010 period: it more than doubled compared to the previous period, and declined by almost 50% in the following years.

Among other practices, pricing (2.1.%) and distribution (4.2%) as key articles' topics are only marginally present in our selection of food and health marketing research, even though the two topics are present as important moderating factors in many studies in our sample.

Research on health-focused social marketing communication (3.7%) and corporate social responsibility (1.6%) strategies start appearing in the last decade. Research concerned with consumer segmentation (3.7%) and market creation and growth (7.9%) have been present quite evenly across different periods, but has seen a lot of transformation and fragmentation over time. Thus, earlier consumer segmentation studies tried to identify the profiles of health consumers (and those who need to be educated about how to become such) on a very general level (Divine & Lepisto, 2005 [55]; Granzin et al., 1998 [112]). On the contrary, more recent research tends to focus more on consumers of specific foods (Nasir & Karakaya, 2014 [59]), regional consumer profiles (Horska & Sparke, 2007 [1]) or very specific demographics such as seniors (M. Kim, Lee, Gon Kim, & Kim, 2013 [135]). Similarly, industry and regional specialization drive growth and differentiation in research on market creation and growth.

Table 6.10. Marketing practice focus in research on health and food.

	Total* n=190		**1988-2005*** n_1=38		**2006-2010*** n_2=43		**2011-2015*** n_3=92	
	Mean	*%*	*Mean*	*%*	*Mean*	*%*	*Mean*	*%*
Nutrition marketing								
Labeling	80	42.1%	21	55.3%	15	34.9%	44	40.4%
Menu labeling	12	6.3%	1	2.6%	2	4.7%	9	8.3%
Nutrition marketing (multiple & unspecified)	15	7.9%	5	13.2%	4	9.3%	6	5.5%
Marketing communication								
Advertising	11	5.8%	3	7.9%	3	7.0%	5	4.6%
Branding	3	1.6%	-	-	1	2.3%	2	1.8%
Marketing communication	11	5.8%	1	2.6%	4	9.3%	6	5.5%
Product								
Product quality	8	4.2%	-	-	2	4.7%	6	5.5%
Product quantity & packaging	8	4.2%	-	-	4	9.3%	4	3.7%
R&D & new product development	5	2.6%	1	2.6%	2	4.7%	2	1.8%
Pricing & distribution								
Pricing	4	2.1%	-	-	-	-	4	3.7%
Distribution (retail & eating environments)	8	4.2%	1	2.6%	1	2.3%	6	5.5%
Other marketing practices								
Social marketing communication	7	3.7%	-	-	1	2.3%	6	5.5%
Corporate social responsibility	3	1.6%	-	-	1	2.3%	2	1.8%
Market creation/growth (organic and other specialty food product)	15	7.9%	1	2.6%	2	4.7%	12	11.0%
Consumer segmentation	7	3.7%	3	7.9%	1	2.3%	3	2.8%
Other	3	1.6%	1	2.6%	-	-	2	1.8%

* Article may refer to more than one category
Source: Author's own elaboration.

6.5. Conclusions: Past, present and future of research

The results of content analysis of health and food marketing and consumer research provide a bibliographic synthesis of 30 years' methodological and thematic evolution. Overall, the research has always been highly empirical, strongly linked to market and regulatory changes in the field on one hand, and compelled to follow more general marketing research and academic trends to ensure successful publicability, on the other. Most likely the research will continue to be driven by all of these trends, which help establish not only research relevance (for companies, policymakers, and academic institutions), but also—to some extent at least—attain research funds.

With the global health and wellness market worth some US$750 billion in 2014 and its continuous upward trend outperforming other categories of food and drink industries (Euromonitor International, 2015b), and a considerable growth of sales and consumer interest in emerging markets, especially China and Brazil (Hudson, 2015), marketing research will most likely see more geographical and industrial specialization. The latter will depend on new product research and development (e.g., medical foods produced by large food companies such as Nestlé, PepsiCo, Danone rather than pharmaceutical companies), new advice on nutrition, and new food risks concerns. Regardless of the methodological or conceptual novelty of the studies promoting either type of specialization (i.e., replication or not), different contexts are useful in generating different and unique data under the pretext of gaps in marketing communities' understanding of certain phenomena. Narrowing down or shifting the context of empirical enquiry in geographical or product category terms is a commonly used research technique that rhetorically establishes more (theoretical) gaps to fill in contemporary marketing research (Brownlie & Saren, 1997; Locke & Golden-Biddle, 1997).

The a-theoretical nature of a large share of the research has been reported in virtually every literature review that used a similar coding protocol, in fields as diverse as international marketing (L. C. Leonidou et al., 2010), exporting (L. C. Leonidou & Katsikeas, 2010), green and environmental marketing (Aykol & Leonidou, 2015; C. N. Leonidou & Leonidou, 2011), CSR (Eteokleous et al., 2016), etc. In this light, we believe that a linear/developmental explanation—that the earlier stages of research rely on exploratory observations and accumulation of findings that lead to the formation and more extensive use of theories in later stages of research—is not sufficient. In our sample the proportion of studies that did not explicitly identify their theoretical framework did not change much over time, and it does not seem to be connected to the amount of exploratory vs. formalized research designs. Therefore, the situation requires an entirely different reading. That being said, our research is different in that it does not focus on a literature review of a body of research seeking to be established as a uniform paradigm (unlike, e.g., sustainability marketing). With the exception of the Food Well-Being paradigm (Bublitz et al., 2011, 2013) and healthy branding (Anker et al., 2011; Chrysochou, 2010a, 2010b; Chrysochou et al., 2010; Grunert et al., 2008), there are no current propositions in marketing research on health and food to establish a more integrated and uniform approach. Nevertheless, the consistency of the trend across so many different subject areas of marketing research suggests the need to think about the issue on a

more theoretical level. It has likely more to do with the epistemic ideology of marketing discipline as such, that constantly balances between practical relevance and the need to recall the rhetoric of theoreticism (Hackley, 2003), by borrowing grand theories and conceptual tools from other disciplines (MacInnis & Folkes, 2010) or using extreme technicality of statistical language and methods (Addis & Podestà, 2005) in order to produce "practical theories" of both scientific and managerial relevance (Brownlie, 2013; Skålén et al., 2008; Tadajewski, 2010a).

Based on the established trends in terms of methodology, research will likely continue to be driven by more sophisticated statistical methods. We can only hope that such a trend will not overpower the formulation of research problems and questions, which need to be driving method selection, not vice versa. A tendency toward an increased number of studies per article, due to the amount of time necessary for field studies, longitudinal studies, or qualitative research designs, certainly favors a concomitant increase of research reliance on "professional" respondent samples, more advanced technological tools for data collection, and survey-based or one-task data collection approaches with experimental designs. The research however might benefit from a larger representation of conceptual works, longitudinal investigation, more convergence on theoretical frameworks to help comparability and incremental growth of individual studies' results, etc.

Prevalence of research concerned with causality, whether we talk about the choice of inferential statistics designs or (excessive) use of causative language or (over)stating the evidence to describe the associations, is in fact a common feature of academic research at large. This implies that research on health and food is (or very soon will be) a subject to the same methodological debate as has afflicted research in statistics, psychology or natural sciences, and, more specifically, such concerns as (un)replicability[36] (Engber, 2016; Open Science Collaboration, 2015; The Economist, 2013), positive results publication bias (Fanelli, 2012; Ioannidis, 2005), "legitimate" forms of statistics manipulations such as p-hacking (Aschwanden, 2015; Muller, 2016) and HARKing (Kerr, 1998), biased research reporting (A. W. Brown, Bohan Brown, & Allison, 2013), and other issues (see J. Cohen, 1990 for an insightful overview).

Naturally, our findings depend on the nature and composition of our sample. A different choice of key words at the selection stage might have produced a radically different picture. However, we were driven by the idea to identify what's more common in health and food marketing research and our hope is that we've achieved it: the (indirect) proof is the consistency of our findings with more general trends in other subject areas of marketing research. Further studies might increase the base of selected articles (e.g., different keywords, additional databases, languages other than English, studies before 1988 or after 2015, more loose selection criteria) and, by using the same coding frame and protocol, compare and contrast the results with the findings presented here.

[36] One of the most prominent studies in our sample (Raghunathan et al., 2006 [84]), for instance has been subject to several replications and did not produce the same results (Mai & Hoffmann, 2015 [160]; Werle et al., 2013).

7. Data synthesis by subject categorization: Mapping research streams

Maps, whether geographic or not, have always served two interconnected purposes: to depict a large and intricate object and the relationships between its elements in a simpler legible manner and to be used as guidance in further navigation, whether in the literal sense of the word or not. Thirty years of research in the field of health and food have created thousands of research articles, books, and trade publications written by not only researchers in marketing and consumer behavior, but also by food and nutrition scholars, medical scientists and practitioners, agricultural economists, public health educators, etc. Considering the amount of information generated, it has become very difficult to navigate such knowledge, even if we take into consideration just the research produced in the field of marketing and consumer studies and collected as part of this study's sample. Hence, the need to map various streams of research in order to, on the one hand, ease the navigation and produce a guide for those who are interested in this topic, and, on the other hand, to reduce the complexity by identifying central meaningful concepts and their connections within the existing research.

The main objective of this chapter is to present and explain the structure of 30 years of marketing and consumer research on health and food. Starting from an overview (the conceptual "map") of meta-categories and groupings of research that constitute our sample, we will move on to discussing each category in more detail by summarizing individual and collective findings of each research stream, their declared rationale and theoretical underpinnings, and connections to other research streams. References marked with a number in square brackets in the superscript refer to the articles included in the analysis. This number is merely a code that was assigned internally for the purposes of data handling.

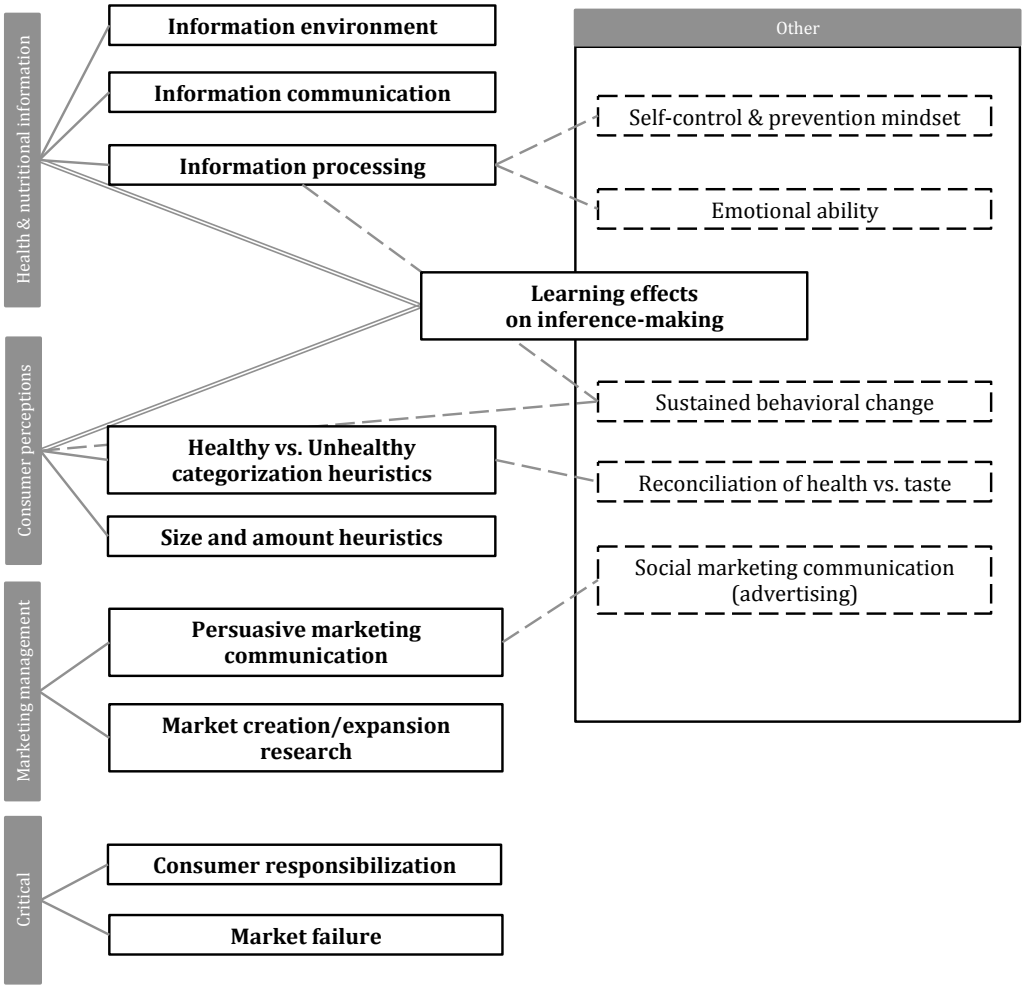
7.1. Map overview

Through categorization of research articles, we have identified 10 main and 5 minor article groupings (i.e., research streams), which could be arranged on a higher-level in 5 meta-categories (see Figure 7.1). The categorization criteria took into consideration not only the reported research results as most previous literature reviews in the field (Chandon, 2010; Chandon & Wansink, 2012; Grunert & Wills, 2007; Hieke & Taylor, 2012 [198]; Kiesel et al., 2011 [232]), but a combination of theoretical positioning of the research, articulation of research problem, research approach, treated topics, and research implications.

Some of the groups are more numerous than others, thus roughly 81.6% of research articles belong to the first three meta-categories: "health and nutritional information" (38.9%), "consumer perceptions" (17.4%) and "marketing management" (25.3%). These three meta-categories remain the most substantial across the periods we identified in the Chapter 6 bibliographic synthesis (see Table 7.1), yet their timelines are different (see Figure 7.2). Two

remaining meta-categories are convenience groupings of 1) research with a more critical orientation, and 2) other research. The latter category groups together minor research approaches that develop as an opposition or alternative to the more mainstream categories.

Figure 7.1. Map of marketing and consumer research streams about health and food.



Source: Author's own elaboration.

Chronologically, the earliest streams of research belong to the "health and nutritional information" meta-category and focus on two main issues: the market-level effects of information ("information environment" stream of research) and how to communicate health-related information most effectively ("information communication" stream). Research typical of the "consumer perceptions" and "marketing management" meta-categories start appearing in 1997-1999 as either critique and evolution of "information communication" approaches (Mitra, Hastak, & Ford, 1999 [97]; Nayga, Lipinski, & Savur, 1998 [47]) or as a more pragmatically-driven investigations following evident market changes (Childs & Poryzees, 1997 [60]; Granzin et al., 1998 [112]).

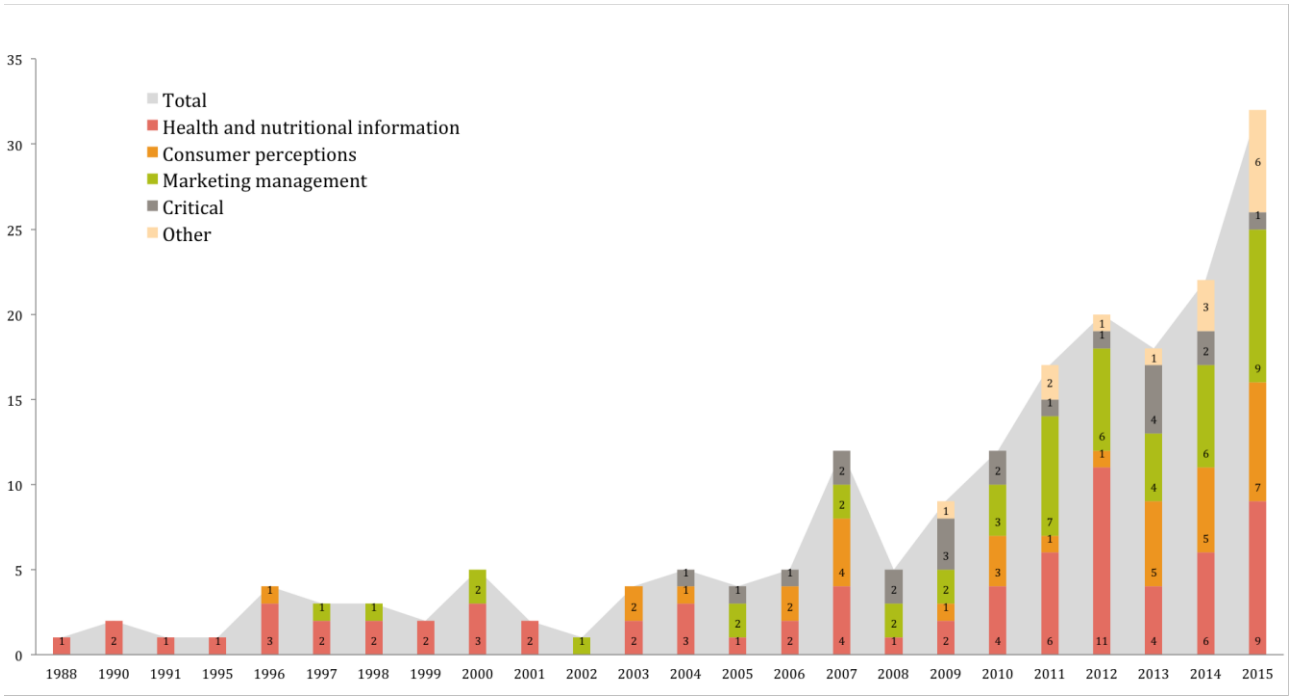
Table 7.1 Research groupings frequency and chronological distribution

	Total n=190		1988-2005 n_1=38		2006-2010 n_2=43		2011-2015 n_3=109	
	Mean	*%*	*Mean*	*%*	*Mean*	*%*	*Mean*	*%*
Health and nutritional information	**74**	**38.9%**	**25**	**65.8%**	**13**	**30.2%**	**36**	**33.0%**
Information environment	29	15.3%	14	36.8%	3	7.0%	12	11.0%
Information communication*	28	14.7%	8	21.1%	5	11.6%	15	13.8%
Information processing*	19	10.0%	4	10.5%	5	11.6%	10	9.2%
Consumer perceptions*	**33**	**17.4%**	**4**	**10.5%**	**10**	**23.3%**	**19**	**17.4%**
Categorization heuristics	23	12.1%	4	10.5%	7	16.3%	12	11.0%
Size heuristics	2	1.1%	-	-	2	4.7%	-	-
Learning & heuristics	6	3.2%	-	-	1	2.3%	5	4.6%
Marketing management	**48**	**25.3%**	**7**	**18.4%**	**9**	**20.9%**	**32**	**29.4%**
Persuasive communication	12	6.3%	1	2.6%	2	4.7%	9	8.3%
Market creation	36	18.9%	6	15.8%	7	16.3%	23	21.1%
Critical	**21**	**11.1%**	**2**	**5.3%**	**10**	**23.3%**	**9**	**8.3%**
Market failure	13	6.8%	2	5.3%	5	11.6%	6	5.5%
Responsibilization	8	4.2%	-	-	5	11.6%	3	2.8%
Other	**14**	**7.4%**	**-**	**-**	**1**	**2.3%**	**13**	**11.9%**
Dieting & prevention mindset	4	2.1%	-	-	1	2.3%	3	2.8%
Emotion	3	1.6%	-	-	-	-	3	2.8%
Health-taste reconciliation	3	1.6%	-	-	-	-	3	2.8%
Sustained change	2	1.1%	-	-	-	-	2	1.8%
Social advertising	2	1.1%	-	-	-	-	2	1.8%

* Two articles make part of both research streams, hence the difference between a total and individual categories counts.
** Two articles were included in the upper-level category, but not into individual research streams on a lower level.
Source: Author's own elaboration.

Starting from the early 2000s, research on consumers' bounded rationality and inference making in regard to food and health (i.e., "consumer perceptions" meta-category) started proliferating, while information-focused research temporarily stalled until a new wave began in the 2010s. Additionally, "health and nutritional information" research got redirected from a more economic and market-centered focus on information environment to more consumer-centric topics such as more successful modes of information communication (i.e, "information communication" research stream) and factors contributing to efficient (or intended) information use (i.e, "information processing" research stream).

Figure 7.2. Research timeline by research streams.



Source: Author's own elaboration.

Research that belongs to the "marketing management" meta-category focuses on applied problems of marketing professionals, producing publications intended to inform communication, market creation or expansion strategies. Starting from the late 1990s such research has been gradually taking up more and more space, such that in the 2010s it accounted for a solid third of all published articles in our sample.

In the rest of the chapter we will focus on each meta-category and each stream of research individually in order to sum up its content, its reason of being, key problems and research motivations, collective findings[37], limitations, and further research directions.

7.2. Health and nutritional information research

This first meta-category (in chronological and proportional terms) is characterized by its extensive focus on labeling and nutrition marketing practices (91% of articles in this meta-category vs. $56.3\%_{all}$[38] of all articles in the sample) and is strongly grounded in the idea of economics of information and conventional marketing theories.

Conventional economic logic of marketing states that marketing is primarily an "informational [tool] that help[s] meet the perfect information condition of perfect markets by telling consumers about product characteristics or by signaling reputability of the supplier" (Slater, 2011, p.34), the tool that can be used both creatively and strategically in order to reduce the information asymmetry between producer and consumer. The notion of information asymmetry, very simply, stands for the condition when sellers have more information than consumers, which leads to inefficient markets where consumers make imperfect, disadvantageous or even potentially harmful purchasing decisions and where sellers offer inferior products and exploit consumers with the help of inadequate communication to make extraordinary profits (Kolodinsky, 2012 [78]).

There are several perspectives on how information asymmetry can be fixed in the case of food products. On one hand, the industry can provide information voluntarily, guided by potential benefits of such disclosure to the firms and thus activating *industry self-regulation mechanisms*. On the other, legislation for *mandatory information disclosure* can help balance the gap between firms and consumers in the name of fair competition and consumer protection, because, according to the widely accepted belief, the industry's reason of being (i.e., business profitability) often leads to opportunistic decisions against consumers' health and wellbeing (Ludwig & Nestle, 2008; Nestle, 2013; Seiders & Petty, 2004 [174]). The specific aim of mandatory information disclosure regulations is to help "consumers make informed food choices by increasing consumer knowledge about the importance of nutritional information in maintaining healthy dietary practices" (Howlett, Burton, & Kozup, 2008, p. 83

[37] Individual findings of each research are summarized in table format throughout the chapter, so in the text we'll focus on discussing research approaches and findings on a collective, research stream or meta-category level.

[38] In this Chapter we'll use $\%_{all}$ to refer to the share of articles with certain characteristics in the entire sample (n=190) and $\%_{all\_emp}$ to the share of empirical studies (n_{emp}=259).

[103]). Most of markets rely on a combination of both approaches in managing the asymmetry and finding the "balance between information provision by industry and consumer use of that information" (Kolodinsky, 2012, p. 193 [78]).

Information asymmetry issues imply the view in which foods with health benefits are conceptualized as "credence goods," or products whose quality and benefits cannot be fully and objectively verified by consumers neither at the moment of purchase (unlike search goods), nor at the moment of consumption (unlike experience goods) (Karstens & Belz, 2006 [23]; Kiesel et al., 2011 [232]). Since, by definition, credence qualities of goods cannot be tangibly verified, the challenge becomes to implement a system of signaling mechanisms that would either turn credence goods into (quasi-)search goods (Karstens & Belz, 2006 [23]) or communicate overall credibility towards the product and claims made. Health-related information research is concerned with various aspects of food as credence good, e.g., effects of more (vs. less) or voluntary (vs. mandatory) information disclosure on welfare, obstacles to consumer trust, better tools of communication, etc.

To sum up, the health and nutritional information meta-category of research is composed of marketing and consumer studies that see healthy food as a credence good, that are centered around (voluntary or mandatory) information disclosure policies and their effects on markets and consumer welfare.

This large meta-category is composed of three distinct research streams[39]: "information environment" research (29 articles, see section 7.2.1) which are primarily concerned with macro-level effects of labeling and information provision on the market or on the consumer welfare; "information communication" research (28 articles, section 7.2.2) is mostly concerned with the forms in which health and nutritional information can be most efficiently communicated; and "information processing" research (19 articles, section 7.2.3) is concerned with various aspects of consumer engagement (perceiving, reading, comprehending and using) with health and nutritional information.

7.2.1. Information environment: Market level effects of information research

The very first research article (Freimuth et al., 1988 [4]) of this research stream (and of the entire sample) is dedicated to the case of 1984-85 Kellogg's All Bran campaign in collaboration with the US National Cancer Institute (NCI) , who publicly proclaimed the advertising campaign an important educational effort. The joint effort of Kellogg's and NCI can be regarded the beginning of nutrition marketing research era. Reportedly Kellogg's case "opened the gates to health claims in food marketing" (Pappalardo & Ringold, 2000, p. 79 [106]) and greatly contributed to an introduction of the mandatory Nutrition Labeling Educational Act (NLEA) in 1990. NLEA is viewed in health and food marketing research as the start of an

[39] Such division corresponds to how Hieke and Taylor(2012 [198]) view marketing research on labeling. Despite mentioning three types of labeling research, they report on result of only two of them: label formats and consumer factors associated with label use. These two have been the core two categories in health and nutritional information research since Moorman's (1990 [76]) seminal work that established some of most frequently used definitions and measuring scales.

era of a firm-driven and information-rich environment on the one hand, and on the other, as the period when the credibility of such information became subject to extensive scrutiny. This research stream is dominated by the US-market focus (70% of the articles in this research stream vs. 56.3%$_{all}$), which is understandable considering that the US NLEA was the first international precedent for mandatory nutrition disclosure and one of the first countries that started regulating health and nutrition claims on food products. Additionally, "information environment" research notably over-indexes on reliance on economic theories (41% vs. 16.3%$_{all}$), secondary data collection (39% vs. 9.3%$_{all}$), longitudinal study designs (41% vs. 11%$_{all}$), and on non-empirical publications (24% vs. 13.2%$_{all}$).

The primary contribution of this stream of research is establishing a connection between market-provided information and broad benefits for all market players involved, and thus creating a solid justification for multiple research agendas for marketing (see Table 7.3 for individual articles' overview). First and foremost, the research focuses on specifying benefits of firm-supplied (vs. public health) information *for consumers*. The research collectively shows that market-provided information improves consumer knowledge about health and nutrition (Jun & Yeo, 2012 [77]) far better than public health information campaigns alone (Ippolito & Mathios, 1990 [72], 1995 [2]); increases consumer demand for nutritional information (Klassen et al., 1991 [38]); improves consumer choices and purchases of more nutritious foods (Ippolito & Mathios, 1990 [72], 1995 [2]; S.-Y. Kim, Nayga, & Capps, 2001 [49]; Mathios, 2000 [217]); leads to reduced consumption of unhealthy items (Lacanilao, Cash, & Adamowicz, 2011 [199]) or to substitution across food categories to maintain the same health risk level, but increase on the overall food consumption utility (Teisl, Bockstael, & Levy, 2001 [185]). After having established this connection, marketing research could claim its active role in consumer education—the role that was previously exclusively assigned to "neutral" food and nutrition scientists and public policy initiatives. This has eventually lead to a situation where the credibility of company-supplied information become indistinguishable from that of public information campaigns (Mazis & Raymond, 1997 [46]).

Secondly, research shows that the provision of market-driven information results in substantial benefits *for public authorities*. Some of the clear benefits include increasing the consumer's ability to use information for healthier dietary choices without creating deception and thus providing an effective regulatory solution to information asymmetry (Ippolito & Mathios, 1995 [2]; Mathios, 2000 [217]); cutting costs by tapping into resources of the private sector to promote healthier diets (Ippolito & Mathios, 1990 [72]); establishing more fair competition between firms (Caswell et al., 2003 [213]; Moorman, 1998 [96]); increasing the overall nutritional quality of entire food categories (Freimuth et al., 1988 [4]), and improving the population's diet quality which would eventually lead to reducing costs of healthcare (S.-Y. Kim et al., 2001 [49]), etc. In other words, the research collectively establishes that, for public health authorities, losing the monopoly on health information does not lead to the feared detrimental effects, but on the contrary improves market conditions in terms of information asymmetry, creates value through educating and thus empowering consumers, and redistributes the costs of consumer education between public and private players. This

branch of research additionally helps justify the contribution of marketing research to public policies evaluations and (re)design.

Finally, research finds and establishes a number of benefits of increased flow of health and nutritional information *for the firms*, such as using information as an additional instrument to satisfy pressing consumer demand (Klassen et al., 1991 [38]) and to improve competitiveness (Burke, Milberg, & Moe, 1997 [98]; Moorman, 1998 [96]; Moorman, Ferraro, & Huber, 2012 [122]); enabling brands to occupy distinct strategic positions in the market and be prepared to exercise a range of options in the future based on consumer and competitive response to information disclosure (Moorman, 1998 [96]); justifying price premiums for products with higher (i.e., beyond legally required) levels of information disclosure (Loureiro et al., 2006 [186]); exploiting health-related advertising campaigns even of one product to increase sales for the entire categories (Burke et al., 1997 [98]; Freimuth et al., 1988 [4]), etc. This research in its turn establishes wide managerial relevance of health and nutritional information appeals and creates justification for nutrition marketing in strategic marketing terms.

Table 7.2. Summary of changes in earlier vs. more recent perspectives on information environment in marketing and consumer research

	Earlier perspectives	**More recent perspectives**
Benefits of information provision	Intended by theories of information remedies: closing up on information asymmetry	Unintended: widened differences in favor of unhealthy products information acquisition and marketing
Purpose of richer information environment	Prevention of misperception and inaccurate information	General consumer protection and regulation; decision aid to favor more nutritious food choices
Information flow	"Free-flowing", market-driven	Restricted and regulated
Caution against	Misleading claims	Credibility of information providers
Effects on population	Pervasive; aimed at reducing individual differences with regard to information acquisition	Limited and segment-based; increased role of individual differences
Information environment	Relatively simple	Complex, with multiple sources of information
Role of information	Tool for consumer education/protection	Instrument of market competition
Information regulation	Beneficial for all stakeholders involved	Overly complex and inefficient

Source: Author's own elaboration.

After the initial period of marketing claiming involvement in the field of health and nutritional information provision, research questions and problems evolved (see Table 7.2 for a recap). Some researchers, for example, moved from analyzing positive beneficial market-level effects of information to analyzing the unintended outcomes. Moorman's research (1996 [202]) was the first critical "reality check" claiming that "nutrition is increasingly likely to become a basis for competition in unhealthy product categories" and that it favored consumers' information acquisition behavior in unhealthy, rather than healthy product categories. Other unintended consequences include lower nutrition quality (as a side-effect of improved taste) of food products across multiple categories (Moorman et al., 2012 [122]); increased information asymmetry (Kolodinsky, 2012 [78]; Smith, 2004 [130]) that might result in regulatory oversight (Hobbs, Malla, & Sogah, 2014 [170]) and consumer welfare loss (Bonanno, Huang, & Liu, 2015 [9]); decreasing sales of more nutritious alternatives within certain segments due to signaling

less preferred qualities such as poorer taste (Berning, Chouinard, & McCluskey, 2010 [183]); widening (instead of reducing) the differences between consumers in terms of how much health and nutritional information can be actually acquired and used as intended (Alexander, O'Gorman, & Wood, 2010 [134]; Burton & Kees, 2012 [101]; Moorman, 1996 [202]); and unnecessarily complex regulatory environments across global markets with little relevance to consumers (de Boer & Bast, 2015 [171]; Kolodinsky, 2012 [78]), substantial restrictions for international trade (de Boer & Bast, 2015 [171]; Hobbs et al., 2014 [170]), and some "gray areas" in regulation (MacDonald & Whellams, 2007 [40]).

In most cases, "information environment" research assumes fairly simple information conditions, where consumers are exposed to two types of information that, thanks to mandatory nutrition disclosure, become somewhat equivalent (e.g., Mazis & Raymond, 1997 [46]). Labeling and public health campaigns aside, consumers are often represented as living in an information vacuum. A more recent approach has evolved into a more realistic assessment of complexity of the information environment with multiple channels that vary in terms of consumer preference (Visschers et al., 2013 [187]) and consumer trust and suitability for different kinds of information needs (Nocella, Romano, & Stefani, 2014 [25]). Overall, the complexity and variety of information sources increase consumer confusion and drives individual choices toward information that is perceived as more appealing, but not necessarily less ambiguous (Spiteri Cornish & Moraes, 2015 [164]), hence research on "information communication," as related and complementary to the "information environment" stream of research, is highly relevant both for the earlier and more recent perspectives.

7.2.2. Information communication: Labeling format research

In the standard view of communication, such as the Shannon-Weaver transmission model (but essentially also Jacobson's signification model from structural linguistics) (Cobley, 2008), the act of communication is seen as a message transmitted from a sender to a receiver. A successful communication depends on how well the message can travel from the sender to the receiver without (completely) losing its intended meaning. The "information communication" stream of marketing and consumer research about health and food is primarily concerned with the *sender's perspective* and how the "message" is framed. More specifically, it attempts to identify how to best transmit information from food producers to consumers to achieve better results: i.e., that information is communicated with less interference and is eventually used as intended, thus overcoming the information asymmetry problem and helping consumers deal with the credence status of healthy foods.

Table 7.3. Health and nutritional information environment research.

	Study / reference	Country of research	Research context	Information environment conditions	Results
[4]	(Freimuth et al., 1988)	USA	Impact of Kellogg's/ NCI campaign	1984-85 Kellogg's/NCI innovative campaign and its influence on consumer and industry behavior, followed by a health regulatory policy change	Kellogg's/NCI campaign had significant impact on consumers' behavior (knowledge, attitudes, and practices regarding consumption of fiber), sales (brand in short-term and high-fiber cereals category in short and longer term), fiber-focused food marketing (new product introductions, various high-fiber food promotions, health benefit advertising turns), and health regulatory policies (creation and introduction of health claims regulation by FDA).
[72]	(Ippolito & Mathios, 1990)	USA	Ready-to-eat cereal market	Producer-supplied information improves consumer knowledge and food consumption choices to a larger degree than public and general health information alone.	Based on the analysis of ready-to-eat cereal market, public and general information sources appear to have some (limited) effect on consumers' understanding of the relationship between diet and health, while augmenting this information flow with producer advertising resulted in dramatic increases in knowledge (of the fiber-cancer link) and in consumption (of fiber cereal). Tapping the resources of the private sector to promote products based on scientific relationships can play an important role in providing this information and encouraging innovations based on these discoveries.
[38]	(Klassen et al., 1991)	USA	Women-targeted food advertising	Consumer demand-driven increase in the proportion of health and weight-loss claims in food print advertising in 1980s	Compared to the past decades (1960s & 1970s), in the 1980s food manufacturers significantly increased the number of health and weight-loss claims in the food advertisements in women's housekeeping magazines, reflecting an increase in consumers' pressing demand for information – even if it's too sophisticated and unlikely to be used.
[2]	(Ippolito & Mathios, 1995)	USA	Fat & saturated fat consumption	Without creating deception, the producer-supplied health information about food influenced fat and saturated fat consumption behavior.	Based on the comparison of two periods (1977-85 vs. 1985-90), advertising and producer-provided information seem to have added information to the market, leading to a consumer behavior change in terms of fat and saturated fat) consumption more than just government and general information.
[202]	(Moorman, 1996)	USA	Introduction of mandatory nutrition disclosure	Intensification of consumer differences with regard to the use of nutrition labels	Consumers acquired and comprehended more nutritional information following the introduction of the new labels. Mandatory nutrition disclosure (NLEA) did not, however, always influence these outcomes irrespective of individual consumer differences, so it was only partially successful in facilitating consumers' use of nutritional information for all consumers (without accounting for their individual processing capabilities). The new labels appeared to widen consumer differences in terms of how much nutritional information was actually acquired; more motivated consumers and less skeptical consumers acquired more information after the NLEA was passed. Finally, consistent with the NLEA's apparent ability to reduce comprehension differences, the new labels narrowed comprehension differences across healthy and unhealthy products. In contrast, the NLEA widened differences in nutritional information acquisition in favor of unhealthy product categories. This means that nutrition is increasingly likely to become a basis for competition in unhealthy product categories.
[46]	(Mazis & Raymond, 1997)	USA	Food advertising vs. product labels	Health claims made on product labels and in advertising are perceived as equally believable by consumers	There are practically no differences in consumer perceptions of skepticism towards health claims when the source is identified as a printed food ad or a food label

Table 7.3. Health and nutritional information environment research. [Continued]

	Study / reference	Country of research	Research context	Information environment conditions	Results
[98]	(Burke et al., 1997)	USA	Hollow health claims (naturally cholesterol-free food)	Usefulness and benefits of (hollow) health claims in narrow vs. broad category context	In case of "hollow" health claims (i.e., health claims made when the claim is inherent to the product category but has not been mentioned previously in advertisements and/or packaging), displaying common but previously neglected attributes has both brand-level and product-level category effects. Thus, such claims may be misleading in a narrow product category definition context, but broader claims applied to the category help improve the knowledge, yet create less competitive advantage to individual brands within a category.
[96]	(Moorman, 1998)	USA	Brand strategies pre- & post-mandatory nutrition disclosure act	NLEA and nutrition disclosure regulation have an important impact on firms' strategic decisions about base brand reformulations, brand extensions and price promotion activities, enabling brands to occupy distinct strategic positions in the market.	Through a longitudinal quasi-experiment, the market-perfecting benefits of information are demonstrated to be more strategic in scope than previously theorized; compulsory nutritional info disclosure under NLEA prompted firms to make strategic decisions about brand positioning and product line management by changing the quality of base brands (added positive nutrients) and their brand extensions (removed negative ingredients) in unique and opposite ways that enabled brands to occupy distinct strategic positions in the market, thus influencing the nature of competitive rivalry by shifting price promotion levels depending on the healthy positioning of the brands. Though risk-averse and strategically conservative, this approach gave firms the opportunity to exercise a range of options in the future depending on consumer and competitive responses.
[106]	(Pappalardo & Ringold, 2000)	USA	Regulatory environment	Interactive role of science, its acceptance by public and private institutions, and consumers in the overall nutrition/health information environment 40-year evolution leading to NLEA	The dramatic increase in heart disease-related claims in food advertising in the 1980s was a part of an interactive process, reflecting a change in regulatory environment as well as changes in public health groups' acceptance of the underlying science. In other words, a longitudinal view suggests that such increase was not solely a direct result of a "newfound interest in diet in health" by consumers.
[217]	(Mathios, 2000)	USA	Salad dressing market	Mandatory labeling impact on consumer behavior and consumer welfare	While voluntary unraveling of information is an important market mechanism, it only provides partial information disclosure. The move to mandatory regulation can effectively change consumer choices in markets and thus can, in some circumstances, be an effective regulatory solution to incomplete information. In the case of the salad dressing market, only low-fat options voluntarily provided labels, while high fat did not. After mandatory labeling was introduced, products with the highest fat levels experienced a significant decline in sales.
[185]	(Teisl et al., 2001)	USA	Labels with simplified nutrient information	Substitution and health effects of nutritional information provision leads consumers to switch their consumption away from "unhealthy" products to more "healthy" alternatives	Labeling of food products with respect to their nutritional characteristics along with an information campaign to educate consumers can significantly affect consumer behavior and therefore consumer welfare. Providing nutrient information on food products may have two types of effects—a substitution (when health-related information increases the consumer's ability to substitute across food categories so as to maintain an overall health risk while increasing utility associated with other food attributes such as flavor) and a "health" effect (when health-related information causes the consumer to reduce his net intake of some "unhealthy" nutrients and increases his purchases of "healthy" products). If this substitution effect is large, then nutrition labeling programs can have significant welfare effects even if the net consumption of "healthy" products (and the resulting health risk) changes little.

Table 7.3. Health and nutritional information environment research. [Continued]

	Study / reference	Country of research	Research context	Information environment conditions	Results
[49]	(S.-Y. Kim et al., 2001)	USA	Label use	Improvement in the American population's diet as a result of food label use	Food labels (including nutritional panels, serving sizes, nutrient content claims, ingredient lists) provide measurable benefits by improving diet quality of Americans by as much as four to six points on a 100-point Healthy Eating Index scale, based on the data from the 1994 to 1996 Continuing Survey of Food Intakes for Individuals (CSFII) and the accompanying Diet and Health Knowledge Survey (DHKS).
[213]	(Caswell et al., 2003)	USA	Pre and post mandatory nutrition disclosure regulation	Impact of mandatory labeling on the use of voluntary claims by food producers	The percentage of products that make nutrient-content claims decreased somewhat after the introduction of mandatory information disclosure (NLEA), and the major effect was a redistribution of claim activity among product categories. Products that make health and healthy claims increased, but these claims remained relatively rare.
[130]	(Smith, 2004)	USA	Food industry in general	Information that signals food quality is manipulated by food producers	Human evolution in the distant past resulted in an elegant solution to the problem of search for a suitable diet in an uncertain environment. In modern environments, however, the signals that formerly provided information in the consumer's search problem are subject to manipulation by food-producing firms. In light of emerging evidence from the medical and behavioral sciences about consumers' ''diet problem,'' it's necessary to re-evaluate the welfare economics of the food industry.
[186]	(Loureiro et al., 2006)	Spain	Possibility of future mandatory nutrition disclosure	Consumers' wiliness to pay premium for nutritional disclosure	On average, the mean willingness to pay (WTP) for a box of cookies with a nutritional label is estimated to be about 11 per cent above the price of the box of cookies without a nutritional label. Consumers' health status has a discernible effect on WTP and there is a considerable difference between the WTP of the group suffering from diet-related health problems (13 %) and that of the rest of the sample (9 %).
[40]	(MacDonald & Whellams, 2007)	Canada	Genetically modified foods	Voluntary disclosure of ambivalent information issues of unilateral action and ethically mandatory labeling	At the current time the issue of labeling GM foods has none of the key characteristics that, if present, might well make such labeling ethically mandatory for individual agrifood companies. Given the lack of government intervention, the lack of collective action on the part of the industry, and the lack of clear evidence of risk to human health, individual companies cannot reasonably be expected to take unilateral action (which is currently the situation under the legislation) - so long as they are marketing, in good faith, a legal product that they feel poses no threat to the public.
[134]	(Alexander et al., 2010)	UK	Fine dining restaurant	Consumer attitudes towards nutritional labeling in restaurants	While some consumers might welcome the introduction of nutritional labeling, it is context-dependent and without an appropriate education the information provided may not be understood. Restaurants have many obstacles to overcome in order to produce accurate nutritional information for each menu item and there is no evidence that consumers in fine-dining desire such information anyway.
[183]	(Berning et al., 2010)	USA	Shelf nutrition claims, microwavable popcorn	Positive nutrition labels affixed to grocery store shelves tend to decrease purchases of products that merit positive nutrition claims.	This research provides a modest example of the unintended effects generated by a specific type of nutrition label for a specific type of product. Nutrition labels decrease sales of healthy products (i.e., microwavable popcorn) and increase sales of unhealthy product varieties of popcorn across all stores that participated in the shelf experiment. While nutrition labels can reduce search costs for healthier foods, they may also signal less-preferred taste.

Table 7.3. Health and nutritional information environment research. [Continued]

	Study / reference	Country of research	Research context	Information environment conditions	Results
[199]	(Lacanilao et al., 2011)	Canada	Fat tax	Fat tax combined with warning labels highlighting the tax induce different groups of consumers to avoid unhealthy food items in response to the higher price or warning information, or both.	Three distinct consumer groups that differ in their response to a fat tax and warning label intervention: "Warning Label Heeders," "Unhealthy Snack Avoiders" (more sensitive to price when a warning label is present), and "Price Sensitive Class." If a joint fat tax and labeling intervention results in both higher prices and warning labels for the less healthy snack food products, each class would respond similarly by avoiding the targeted food items, whether it is in response to the higher price, warning label or both.
[101]	(Burton & Kees, 2012)	USA	Menu labeling	The potential benefits from a restaurant menu labeling policy are most likely to be limited to specific population segments and specific menu item types only	Several potential obstacles to a restaurant menu labeling initiative having pervasive, population-based benefits exist. Although it may not have a substantial impact in the short run on the broad population of restaurant diners, specific segments should benefit, and there potentially will be reductions in purchases of less healthy items for which the expectations of calorie-conscious consumers have been inaccurate.
[122]	(Moorman et al., 2012)	USA	Standard mandatory nutrition labels	NLEA increased the availability and truthfulness of nutritional information, yet resulted in lower brand nutrition overall	Firms responded to NLEA in an unintended manner, resulting in lower brand nutrition and improved brand taste. However, there were a set of category, firm, and brand conditions under which the NLEA produced a positive effect on brand nutritional quality: i) low firm risk and introduction of a new brand or a brand extension, ii) low firm power and lower market share, iii) low-health category vs. high-health category, and iv) small-portion vs. large-portion category.
[77]	(Jun & Yeo, 2012)	Korea	Supplements & processed food labeling	Allowing health claims on processed foods (in addition to supplements) would lead to enhanced consumers' label use and trust and higher level of knowledge.	Based on the evaluations of consumers and experts in Korea, the allowing health claims to be placed on processed foods (after strict, scientific review) would help consumers to use health claims more often and to trust them, and would also enhance consumers' knowledge level. Systematic devices should be created in order to protect consumer right to access information and to enhance consumer knowledge and health.
[78]	(Kolodinsky, 2012)	USA	Food labeling historical development	Increased information asymmetry despite over a century of regulatory efforts and considerable changes in information flow	Based on the overview of US food labeling legislation combined with a contemporary food labeling practices, information asymmetries did not go away as expected, but persisted and become more complex. The food environment and processing methods are changing quickly, regulators often clash with themselves and industry, business keeps focusing primarily on its bottom line, and consumers are unwilling or unable to comprehend and use label information to make choices that maintain and improve their health.
[187]	(Visschers et al., 2013)	Switzer-land	Multiple sources of nutritional information: label, Internet, dieticians	Various consumer segments use different sources of nutritional information	In the environment where multiple sources of information are easily accessible, consumers differ in terms of preferences for nutritional information sources. Four segments are: Official Information Users (13.9%, use nutrition tables, official websites, brochures, mainly women, with a relatively high BMI), Internet Users (21%, lower levels of health consciousness, younger age, higher education level), Moderate Users (34,7%, relatively high health consciousness and interest in nutritional information, older age), and Uninterested (27,7%, least health conscious, mainly men, older age).
[170]	(Hobbs et al., 2014)	Canada, USA, EU, Japan, Australia & New Zealand	International markets	Information asymmetry in information disclosure regulations across international markets	Two rationales exist for policies to correct demand-side market failures in the functional foods and supplements sector. The first, and primary, motive for regulatory over-sight is asymmetric information. In the absence of credible labeling information, consumers are expected to under-consume healthy foods or over-consume unhealthy foods. Furthermore, health claims that are later shown to be false or misleading can weaken consumer confidence in the product category in general, weakening demand and damaging the collective reputation of firms in the sector.

Table 7.3. Health and nutritional information environment research. [Continued]

	Study / reference	Country of research	Research context	Information environment conditions	Results
[25]	(Nocella, Romano, & Stefani, 2014)	Italy	Multiple channels of nutritional information	Despite a plethora of food information, consumers selectively chose it based on their trust of the publishers	Trust regarding food information disseminated by public bodies, especially for food safety and risk communication, is higher than that observed for private bodies. However, different consumer segments demonstrate various levels of trust based on the type of publisher of the food information.
[164]	(Spiteri Cornish & Moraes, 2015)	UK	Social marketing	Consumer confusion about multiple sources of information	Consumers are likely to acquire their nutritional information from a variety of sources, many of which are unreliable. Inadequate nutritional information derived from unreliable sources, flawed baseline nutrition knowledge, and poor nutrition literacy hinder consumers' efforts to eat healthily. Inconsistent, incomplete, and contradictory information leaves many consumers feeling confused about how to implement healthy eating. Further, a lack of ability to differentiate between credible and unreliable sources of nutritional information means that many participants blame their confusion on policymakers, and express frustration and cynicism toward vague and often contradictory communications. This, in turn, increases participants' reliance on food advertisements, product labels, and other commercial sources of ambiguous yet appealing information.
[171]	(de Boer & Bast, 2015)	Inter-national	Regulatory environment	Different types and subtypes of nutrition or health information claims present on various international markets elicit the same consumer response	Based on the review of current international pieces of legislation on nutrition and health claims, there are critical differences across markets and although various approaches have positive points, no optimal approach to regulate nutrition and health claims has been implemented yet. Since the different types of nutrition and health claims permitted or prohibited in the various jurisdictions do not seem to elicit differing consumer responses according to consumer studies, it can be questioned whether a strict legal separation between the types of claims is required.
[9]	(Bonanno et al., 2015)	Italy	Food labeling regulation	False (truthful) claims approval (denial) and resulting welfare losses	In the presence of false claims, consumers may experience considerable welfare losses, and since only parts of these losses are transferred to producers, deadweight losses occur. On the other hand, if truthful claims are denied, consumers are always worse off. The industry as a whole may not be affected if only specific claims are rejected, as profits will redistribute across manufacturers. If functional alternatives carrying truthful health claims disappear from the market, both consumers and producers appear to be worse off. Overall, in presence of false claims, consumer losses are larger than those experienced if true claims were denied, even though total welfare losses are larger in the latter case.

Source: Author's own elaboration.

The content and framing of health and nutritional information is the topic at the intersection of objectivity and truthfulness concerns of the scientists and public officials on the one hand, and consumer comprehensibility, on the other. In general, health or nutrition claims need to reflect generally accepted scientific data and be clear to the average consumer. The conflict between the two is more than obvious and extensive work is done to make sure that the worlds of science, food production, and consumers' reality meet. While juridical work is focused on science-consumer reconciliation with the purpose of ensuring consumer protection from unsubstantiated claims (Berhaupt-Glickstein, Nucci, Hooker, & Hallman, 2014 [20]), the work of marketing scholars is rather concerned with the information's consumer-friendliness (see Table 7.4 for individual articles' overview). Two of the main topics here (which can be either complementary or contradictory) are information simplification and information credibility.

Concerns about *information simplification* derive from the view that acquisition of health and nutritional information is a complex and effortful task, too demanding for the majority of consumers. The economics of information logic guides most of the research in this stream. Deriving from work by the US economist and Nobel Prize winner George J. Stigler (1961), economics of information explains that in their decision making consumers continue to search for and evaluate information as long as the costs of acquisition and processing (i.e., time, effort, alternative activity sacrificed) are lower than additional benefits (i.e., better, more nutritious diet) (Nayga et al., 1998, p. 108 [47]). Therefore, research on labeling formats is primarily concerned with information simplification as a means of increasing information comprehension by lowering the costs of information acquisition.

Generally speaking, research finds that simpler, shorter and more contextualized presentations of nutrition and health information tend to outperform longer (Roe, Levy, & Derby, 1999 [108]; Wansink, Sonka, & Hasler, 2004 [15]), more elaborate scientific formats (Berhaupt-Glickstein et al., 2014 [20]) that use absolute measures without reference points (Barone, Rose, Manning, & Miniard, 1996 [158]; A. Levy, Fein, & Schucker, 1996 [161]), that combine several nutrition claims (Barreiro-Hurlé, Gracia, & De-Magistris, 2010b [39]; Kiesel & Villas-Boas, 2013 [232]) and require consumers to undertake complex mathematical calculations (Hieke & Newman, 2015 [197]). Not only wording, but also visual presentation format can be used to lower consumers' effort and thus increase the ability to use information to make healthier food choices. Among various visual aids and iconic formats that persuade consumers to make more accurate nutrition evaluations (Effertz, Franke, & Teichert, 2014 [71]; France & Bone, 2009 [119]), the Traffic Light Label format merited multiple positive performance evaluations (Andrews, Burton, & Kees, 2011 [104]; Koenigstorfer, Groeppel-Klein, & Kamm, 2014 [102]; Trudel, Murray, Kim, & Chen, 2015 [216]; Yepes, 2015 [229])[40]. Moreover, interactivity (Yepes, 2015 [229]), visual clarity (Gomez, 2013 [204]), and other visual enhancements such as label location and size, reduction of visual clutter, and improvement in

[40] Other reviews in the industry focused on labeling arrive to the same conclusion about superiority of Traffic Light label (Hawley et al., 2013).

label saliency and simplicity (Graham, Orquin, & Visschers, 2012 [189]; Kiesel et al., 2011 [232]) enhance information communication through design.

The issue of *credibility*, however, is as important as comprehensibility for information communication research, even though "credibility engineering" (Penders & Nelis, 2011) through labels may sometimes contradict the simplification approach based on lowering the costs of information acquisition. So, research reveals that simple labels are more credible when an additional level of informational complexity is added, such as labels with higher level of detail placed on the shelf (Hoefkens, Veettil, Van Huylenbroeck, Van Camp, & Verbeke, 2012 [188]) or at the back of the package (Wansink, 2003 [209]), supplementary self-declarations, personal or corporate brands (Karstens & Belz, 2006 [23]), or endorsements from an independent certification body (Roe & Teisl, 2007 [16]). Additionally, familiar (Hoefkens et al., 2012 [188]; Wansink & Cheney, 2005 [172]; Zepeda, Sirieix, Pizarro, Corderre, & Rodier, 2013 [225]) and culturally-meaningful information (Zepeda et al., 2013 [225]), and information perceived as more relevant to a particular consumer or segment or a situation (Garretson & Burton, 2000 [100]; Wansink & Cheney, 2005 [172]) helps increase credibility. Labels perceived as more credible by consumers are not necessarily better understood (Moorman, 1990 [76]), but credibility certainly helps attract attention, increase preference, and eventually impact sales and food consumption.

In the majority of "information communication" research, performance tends to be measured in a comparative setting, thus answering the question of which format of information presentation works better/best [41] (given that the "information environment" stream established that it works). This is also evident from the fact that this research stream is more likely to control the variables via experimental design (86% vs. 57.9%$_{all}$). Performance itself is estimated using several different measures (reviewed in Hieke & Taylor, 2012 [198]), such as making healthier food choices (Graham et al., 2012 [189]; Hieke & Newman, 2015 [197]; Kiesel et al., 2011 [232]; Kiesel & Villas-Boas, 2013 [32]; Koenigstorfer & Groeppel-Klein, 2010 [127]; Koenigstorfer et al., 2014 [102]; Moorman, 1990 [76]; Newman, Howlett, & Burton, 2014b [111]); information comprehension (Berhaupt-Glickstein et al., 2014 [20]; France & Bone, 2009 [119]; A. Levy et al., 1996 [161]; Moorman, 1990 [76]; Trudel et al., 2015 [216]); consumer attitudes and positive product beliefs (Garretson & Burton, 2000 [100]; Newman et al., 2014b [111]; Wansink et al., 2004 [15]); product nutrition quality evaluation (Andrews et al., 2011 [104]; Barone et al., 1996 [158]; Roe et al., 1999 [108]); higher purchase intention (Effertz et al., 2014 [71]; Gomez, 2013 [204]) and/or actual purchasing behavior (Kiesel & Villas-Boas, 2013 [32]); self-declared trust and belief in claims (Garretson & Burton, 2000 [100]; Karstens & Belz, 2006 [23]; Roe & Teisl, 2007 [108]; Wansink, 2003 [209]); and self-declared preference (Barreiro-Hurlé et al., 2010b [39]; Hoefkens et al., 2012 [188]; Yepes, 2015 [229]; Zepeda et al., 2013 [225]).

[41] In Table 7.4, the format identified by the research as a clear(er) winner in a comparative setting is underlined.

Table 7.4. Information communication research on food label formats (wording, style, credibility, novelty etc.)

	Study / reference	Country of research	Research context	Examined label characteristics	Results
[76]*	(Moorman, 1990)	USA	Nutritional information (Margarine & hot dogs)	Consequence information vs. Reference information	Both consequence information and reference information influence information processing and decision quality. Reference information affects only the consumers' comprehension levels, while consequence information (the more it is arousing and specific in its instructions) influences consumer motivation and ability to process information, elaborate upon it to a greater extent, and make better decisions, but it doesn't affect information comprehension.
[158]	(Barone et al., 1996)	USA	Nutrition facts panel (on cereal)	Daily Values (in %) vs. Average-brand reference points	Average-brand reference points better facilitate consumer discernment between healthy and less healthy products than either the Daily Value (DVs) measures currently mandated by the NLEA or no reference information at all. DVs have a potential to cause consumers to form incorrect conclusions about a product's nutritiousness.
[161]	(A. Levy et al., 1996)	USA	Nutrition label	Metric vs. Metric with interpretational aid vs. Percentage format of nutritional label	Some tasks, particularly dietary management, are performed by consumers better in the presence of formats that display nutrient amounts in percentages than for those that display nutrient amounts in metric units, even when interpretational aids were included on the metric formats. However, the two most preferred formats were metric formats with an interpretational aid (summary indicators of nutrient levels; percent declarations) -- those that reduced the processing effort demanded by the tasks in the situation
[108]	(Roe et al., 1999)	USA	Consumer information search in a supermarket setting	FOP label (health or nutrient content claim) vs. Nutrition facts panel	Results of a mall intercept study suggest that the presence of health and nutrient-content claims on food packages induces respondents to truncate their information search to the front panel of packages, resulting in consumers giving greater weight to the information mentioned on front-of-the package claims than to the information available in the Nutrition Facts panel.
[100]	(Garretson & Burton, 2000)	USA	Frozen meal with low fat vs. high fiber claim	Higher vs. Lower diagnosticity	Perceived diagnosticity refers to the consumers' perceptions of the usefulness of the nutrient information in reaching a specific judgment or choice. More diagnostic information is low in cost and high in relevance for decisions. Therefore, information about ingredients with higher diagnosticity claims (e.g., low fat) has a greater effect on consumer attitudes, evaluations, perceptions, and credibility than about those with lower diagnosticity (e.g., high fiber). Claims are less credible than information on nutrition facts panel.
[209]	(Wansink, 2003)	USA	Front of package claims (soy products)	Short health claims (front of package) combined with a full health claim (back of package)	Combining short health claims on the front of a package with full health claims on the back of the package leads consumers to more fully process and believe the claim.
[15]	(Wansink et al., 2004)	USA	Front of package claims (soy products)	Shorter vs. longer claims	Shorter health claims on the front of the package (in combination with a more complete claim on the back) leads consumers to generate more attribute-specific thoughts about the product and fewer general evaluative thoughts compared to longer health claims, leading to more favorable beliefs about the product and to a more positive image of the product.
[172]	(Wansink & Cheney, 2005)	USA	Successful FDA claims	Target a specific population segment; received significant media attention; highlight quantitatively measured health benefits; and become personal	Based on the analysis of the varying degrees of success of existing FDA health claims, the more successful claims—that future brands should learn from—use a combination of principles (e.g., targeting specific segment, attract media attention, highlight quantitatively measured health benefits, make claims personal etc.) with tactics (education & marketing mix).

Table 7.4. Information communication research on food label formats (wording, style, credibility, novelty etc.) [Continued]

	Study / reference	Country of research	Research context	Examined label characteristics	Results
[23]	(Karstens & Belz, 2006)	Germany	Sustainable food products	Quasi-search signaling instruments: labels, self-declarations, brands etc.	Information asymmetry implies use of the complex of signaling instruments (beyond labeling alone) aimed at transforming credence qualities of healthy food into quasi-search qualities. The transformation of credence qualities into 'quasi-search' qualities uses signaling instruments, such as labels, self-declarations, product brands, corporate brands, personality and Internet presence. It is a complex phenomenon and the selection of the different signaling instruments does not seem to be dependent on the particular food industry. Yet, family businesses in particular seem to be able to create credibility with regard to socio-ecological product qualities slightly better than others.
[16]	(Roe & Teisl, 2007)	USA	Genetically modified ingredients	Simple vs. FDA-certified	Simple claims that a product contains GM ingredients are viewed as most credible while simple claims of non-GM content are viewed as most adequate (increased if the reason for GM use is stated). Label claims certified by the US Food and Drug Administration (FDA) are, in general, viewed as most credible and adequate and products with FDA certified claims are perceived to have fewer long-term health problems.
[119]	(France & Bone, 2009)	USA	Barley food and supplements	Iconic vs. Comparative symbols/displays vs. Verbal (communication of strength of science)	Two types of strength of science communication (iconic and comparative displays) both appear to have the ability to communicate differences in strength of science better than the verbal-only disclaimers since they present information in a manner that is easier to process due to relevant pictorial information (as in the case of the icons), or they provide explicit reference points (as in the comparative display).
[127]	(Koenigstorfer & Groeppel-Klein, 2010)	Germany	Front of package labels	Use and relevance at point of purchase vs. point of consumption	By putting nutritional information on food packaging, especially on the front of the package, manufacturers and retailers enable consumers to make faster and healthier decisions at the point of purchase, i.e., as long as the consumers notice, understand, trust, and like the labeling and use it in making their final decision. Front-of-package labels are of less relevance at the point of consumption.
[39]	(Barreiro-Hurlé et al., 2010b)	Spain	Plain yogurt (healthy) & pork sausages (less healthy product)	Combination of multiple vs. single claim	Although consumers attach positive utility to most of the individual health labels (especially for less healthy products), the simultaneous presence of more than one label or claim has negative utility impact.
[104]	(Andrews et al., 2011)	USA	Frozen meals	Smart choice icons vs. Traffic lights icon vs. No front-of-package icon	Smart Choices icon (often used in USA) can lead to positive (and potentially misleading) nutrient and product healthfulness evaluations when compared with the Traffic Light–Guideline Daily Amounts icon (used in UK) or no-FOP icon control. When the Nutrition Facts Panel is not available, the Traffic Light–Guideline Daily Amounts icon results in substantially greater nutrition accuracy evaluations than other icon types.
[232]	(Kiesel et al., 2011)	USA	Review of research on labeling	Nutritional information presentation: complexity, specificity, credibility, location on the package, ink color.	On the basis of our review, we conclude that label use has the potential to improve dietary quality, but the magnitude of these improvements is relatively small. The record for nutritional labeling is mixed. The presentation of nutritional information may significantly affect the manner in which consumers actually use such information in the marketplace. Although consumers generally view nutritional information as useful, they prefer short, succinct wording over long and complex claims and believe that the government should approve claims. Consumers often do not clearly distinguish between nutrient content claims, function claims, and health claims.

Table 7.4. Information communication research on food label formats (wording, style, credibility, novelty etc.) [Continued]

	Study / reference	Country of research	Research context	Examined label characteristics	Results
[188]	(Hoefkens et al., 2012)	Belgium	Student canteen	Information insufficiency vs. Information complexity vs. Familiarity	Consumers value the presence of nutrition labels on canteen meals and showed a preference for more detailed formats. Yet a decreasing marginal utility can be experienced from the combinations of the two simple label formats (information insufficiency) as well as from the two detailed formats (information overload). In order to satisfy most canteen users' information needs, a nutrition label that contains basic Guideline Daily Amount (GDA)-type of numerical information in combination with familiar visual aids like stars and color codes is proposed to be used in university canteens.
[189]	(Graham et al., 2012)	N/A	Review of nutrition label use studies (using eye tracking)	Label enhancements via persuasive design of presentation format	Label enhancements (label location, position of nutrients on label, visual clutter surrounding label, label size, label saliency, anchor lines, label simplicity) increasing ability (rather than motivation) in inducing positive healthier changes in lifestyle. Whereas motivation can be difficult to increase meaningfully, ability is relatively easy to manipulate via improvements to situational barriers and distractions via persuasive label design.
[198]*	(Hieke & Taylor, 2012)	N/A	Review of research on labeling	Label formatting & wording	Changes to the nutrition label format improve consumers' processing ability. Detailed nutrient info is preferred over summary ratings or adjectival descriptions for comprehension. Yet complex labels are useful for highly-literate consumers, but not for the less-literate. In some cases, both too much nutritional info and too generalized claims may actually deter subjects from using this info. Short claims on the front combined with more detailed labels on the back are better for consumer comprehension and belief in the healthfulness of the product. The negative information (e.g., high sugar) leads to higher purchases of same-category foods (e.g., low(er) in sugar). Low-fat, low-carb wordings are effective, but the effect is linked to well-known health information (high level of moderation due to knowledge of the nutrient in question). %DailyValue claims are not especially successful in moderating consumer consumption, qualitative information (e.g., high/low), has several advantages for consumer evaluation of food product healthiness over quantitative (serves as an instrument of interpretation facilitation).
[225]	(Zepeda et al., 2013)	France, Spain, Quebec, USA	Labels with organic, origin, fair trade, nutrition/ health and environmental claims.	Label-consumer interaction (personal and cultural values fit, past experience, trust and skepticism towards labels)	Consumers in different nations value different labels and label characteristics and show different preferences for label message, design and source, and how that fits with (or interacts with) the consumer's own values and characteristics. Consumers respond to labels on at least four levels: via personal values, cultural values, whether they tend to be skeptical or trusting and whether they have past experience with the labels.
[32]	(Kiesel & Villas-Boas, 2013)	USA	Micro-wavable popcorn	Simple vs. Combined nutrition claims	In the context of additional shelf-labels in a real supermarket experiment, a combination of various claims into one label treatment increases information costs and does not affect sales significantly, preventing consumers from making healthier food choices. Simple claims that either repeat information already available on the Nutrition Facts Panel in a more uniform format (e.g., no trans fat), or transform quantitative statements into relative statements (e.g., low fat, low calorie) reduce information costs by allowing consumers to directly compare alternatives on a relative scale within the targeted product category.
[102]	(Koenigstorfer et al., 2014)	Germany	Ready to eat meals & snack	Traffic Light Guideline Daily Amounts icon vs. Plain Guideline Daily Amounts icon	Consumers (with low self-control, but not those with high self-control) make more healthful food decisions in response to the color-coding on nutrition panel food labels as compared to labels without color-coding. The implicit meaning of the traffic light colors transfers to the food context and helps low-self-control consumers make healthful food decisions.

Table 7.4. Information communication research on food label formats (wording, style, credibility, novelty etc.) [Continued]

	Study / reference	Country of research	Research context	Examined label characteristics	Results
[111]	(Newman et al., 2014b)	USA	Retail	Evaluative vs. Reductive labels	Evaluative systems are generally more beneficial to consumers when they are engaged in a comparative processing mode, whereas reductive systems typically may be more effective when shoppers non-comparatively evaluate a single product for purchase. The use of both evaluative and reductive systems simultaneously could offer a "win-win" outcome for both shoppers and retailers, by empowering a retailer to assist its customers with making healthier decision and deliver value to the firm (i.e., more positive retailer attitudes, higher perceptions of retailer concern, and increased patronage).
[20]	(Berhaupt-Glickstein et al., 2014)	USA	Regulation of qualifying health claims	Consumer vs. Court/legislative language	In the case of emerging science and corresponding qualifying health claims, the health claims regulatory system is ineffective due to a serious disconnect between the complex language required by the courts and consumer understanding of such claims.
[71]	(Effertz et al., 2014)	Germany	Food for children & adolescents	Warning labels in presence of vs. absence of visual cues	The effects of warning claims on attitudes and purchase intention of children and adolescents are mitigated by accompanying advertising elements - a single positive visual cue is sufficient to provoke purchase intentions. Distraction from health warnings peaks in the youngest age groups and decreases with age.
[197]	(Hieke & Newman, 2015)	N/A	Nutrition facts panel	Fixed vs. varying base formats	Consumers' food choices are likely to be healthier when nutrition label information is presented on a fixed baseline. Fixed baselines (e.g., 100 g/ml) allow consumers to make direct, relative comparisons of products, while varying baselines (e.g., portion size) often require consumers to undertake complex mathematical calculations.
[204]	(Gomez, Werle, & Corneille, 2015)	N/A	Nutrition facts panel (snacks)	Clarity: easily readable simplified nutritional information	Holding information content and comprehensibility constant, providing consumers with easier-to-process nutritional information increases purchase intentions for food products. The effect occurs not only for healthy but also, and more ironically so, for unhealthy food products. In addition, the latter fluency effect is found to be stronger among people scoring low in nutrition knowledge.
[216]	(Trudel et al., 2015)	USA	Traffic light color-coded (TLC) labels	Traffic light label as a decision aid for dieters vs. non-dieters	Traffic-light color-coded label works for consumers with different self-regulatory goal (dieters vs. non-dieters) through different routes, yet work equally well in communicating product healthfulness and influencing food choices. With such decision aids dieters are better able to recall information from the product label and process label information in greater depth. At the same time, non-dieters have lower levels of recall and use such labels as a more direct guide for their evaluations of foods' health quality (consistent with the "stop" and "go" logic behind the traffic light labels).
[229]	(Yepes, 2015)	Switzer-land	Fine-dining restaurants, millennial-aged consumers	Simple informative vs. Interactive (traffic light with graphic aid, context of daily calorie requirements)	The labeling format with traffic-light color coding combined with a graphic summary of the meal's calorie count (compared with the daily recommended intake) are the most attractive for millennial consumers and has the most influence on their food choices. The use of mobile technology to provide detailed nutritional information on menus is a useful tool for food and beverage industry seeking to communicate nutritional quality better and increase customer satisfaction.

* Articles make part of two research streams each.

Source: Author's own elaboration.

Different formats may perform better depending on the mode of food choice and information processing: evaluative formats are more suitable for a comparative choice situation, while reductive systems are suitable for single product evaluations (Newman et al., 2014b [111]); reference information is more suitable to increase comprehension levels, while arousing and specific consequence information formats are suitable to influence consumer motivation and more profound elaboration, but not necessarily comprehension (Moorman, 1990 [76]). Similarly, individual consumer characteristics determine whether a given format is comprehensible or not, and the consumer's resultant decision quality, all of which give rise to a closely-related stream of research[42] that we call "information processing."

7.2.3. Information processing: Consumer knowledge and literacy research

This research stream is concerned with the *receiver's end* of the communication process and, more specifically, with consumer characteristics that help or hinder the intended use of the information in order to make healthier food choices. The indisputable premise of this research stream (see Table 7.5 for individual articles' overview) is that consumer knowledge improves the ability to process health and nutritional information correctly, i.e., with the same ability of food and nutrition experts. Therefore, eaters of healthy food are envisioned as knowledgeable consumers who apply their knowledge to perform "eating calculus" (Roberto, Pomeranz, & Fisher, 2014 [155]) or "dietary calculus" (A. Levy et al., 1996 [161]) and to "think more nutritiously" (Wansink & Love, 2014 [143]) overall. Less than sufficient knowledge does not allow one to "decode" the message in the same manner as it was originally intended by the food producer or nutrition expert that has set the information communication standards. In this way of thinking, information and knowledge constructs are put in a dialectic relationship, and are used as binary oppositions.

Most research on information processing, following Moorman (1990 [76]), identifies a combination of knowledge ability and motivation to engage in information processing as the two most important consumer characteristics that help consumers understand and use health and nutritional information. *Motivation* is defined as an "enduring disposition or willingness to attend to nutritional information reflecting a goal-directed arousal" (Moorman, 1990, p. 31 [76]), and is evaluated either by means of general "health-consciousness" (Barreiro-Hurlé, Gracia, & De-Magistris, 2010a [12]; Mai & Hoffmann, 2012 [54]; Naylor, Droms, & Haws, 2009 [99]) or more specific health concern with particular disease management or disease risk (Gracia, Loureiro, & Nayga, 2007 [192]; Hansen, Mukherjee, & Uth Thomsen, 2011 [56]; Howlett, Burton, Tangari, & Bui, 2012 [233]; Jordan Lin, Lee, & Yen, 2004 [227]; Kempen, Bosman, Bouwer, Klein, & van der Merwe, 2011 [226]). *Ability*, on the other hand, is reflected in health and nutrition knowledge and is defined as familiarity and/or expertise with health and nutritional information (Moorman, 1990, p. 31 [76]). Research tends to measure knowledge by

[42] Format label features and consumer characteristics are often studied and reviewed together as two integral parts of labeling research (Grunert & Wills, 2007; Wills et al., 2012). As we mentioned before, we made our best effort to separate articles between the groups so that each article was part of only one grouping, but we did not manage to do so in case of the review by Hieke & Taylor (2012 [198]) and the work by Moorman (1990 [76]) that first established and defined this duality.

evaluating the ability to perform nutrition-related "calculus" tasks successfully (Burton, Garretson, & Velliquette, 1999; Mitra et al., 1999 [97]; Moorman, 1990 [76]) and estimate the gap between objective (i.e., expert) knowledge and subjective comprehension of health and nutrition facts (Yoon & George, 2012 [142]). Alternatively, it may rely on consumers' perception of their self-confidence (Tan & Tan, 2007 [87]) or self-efficacy (Mai & Hoffmann, 2012 [54]) with health and nutritional information. The consumers' voice in this research stream is more likely to be captured via (paid) online panel recruitment (39% vs. $17.4\%_{all}$).

In some studies knowledge is deemed as more important (Howlett et al., 2008 [103]), in others, motivation is prioritized (Gracia et al., 2007 [192]; Yoon & George, 2012 [142]), but the majority agree on the strong inter-relationship between the two (Hieke & Taylor, 2012 [198]; Jordan Lin et al., 2004 [227]; Mai & Hoffmann, 2012 [54]; Naylor et al., 2009 [99]; Tan & Tan, 2007 [87]). Based on this strong inter-relationship, it was recently proposed that the notion of consumer knowledge about food health and nutrition be replaced with the more suitable concept of food literacy that includes, besides conceptual or declarative knowledge, also procedural knowledge, motivation to process information, and the ability and opportunity to turn knowledge into actual behavior. As Block et al. (2011, p. 7) put it, "food literacy [is] more than knowledge; it also involves the motivation to apply nutritional information to food choices. Whereas food knowledge is the possession of food-related information, food literacy entails both understanding nutritional information and acting on that knowledge".

Additionally, research focused on *demographic factors* related to more successful information acquisition and comprehension finds correlations with older age (Nocella & Kennedy, 2012 [14]; Tan & Tan, 2007 [87]), female gender (Nocella & Kennedy, 2012 [14]), parental status with pre-adolescent children and/or more than two people in a household (K. Lee, Lee, & Kwon, 2015 [141]), higher level of education (Nayga et al., 1998 [47]; Nocella & Kennedy, 2012 [14]), and higher socio-economic status (Jordan Lin et al., 2004 [227]; Nocella & Kennedy, 2012 [14]), or unemployment status that permits people to spend more time on label evaluation while shopping (Nayga et al., 1998 [47]).

Overall, health and nutritional information research is abundant (and will most likely continue to grow, being pushed by advances in food labeling regulation), but the results are somewhat inconclusive. We've found a lot of convergence in the reported research findings, which can be traced back to the commonalities in chosen frameworks (i.e., economics of information, information asymmetries), yet despite 30 years of research into information and knowledge the understanding of whether or not information works (as intended) in the actual food choice and food consumption setting is limited and inconclusive, to say the least. As Rotfeld (2009, p. 375) sums it up, "Labels can help some people sometimes in some cases, if they have the knowledge or motivation to use the information, which may or may not be in the format they can understand."

Table 7.5. Knowledge and literacy research on consumer factors moderating successful health & nutritional information processing

	Study / reference	Country of research	Research context	Moderating factors of information processing	Results
[76]*	(Moorman, 1990)	USA	Nutritional information (margarine & hot dogs)	Familiarity and enduring motivation	Enduring motivation influences both information acquisition (consumer search) and use of nutritional information. Familiarity causes consumers to evaluate themselves as more able to process information, however, it does not improve their actual acquisition, elaboration, and comprehension of that information, or the quality of their decisions (breeds an illusion of being more informed and therefore reduces further processing). Therefore, presentation of nutritional information in a suitable format can enhance information utilization regardless of consumers' prior knowledge levels, thus being a powerful tool of information design.
[47]	(Nayga et al., 1998)	USA	Nutrition facts panel	High level of health motivation, unemployed, high education level	Unemployed individuals and those with higher motivation to use nutrition labels are more likely to use labels (likely because they spend more time on grocery shopping per visit). Additionally, education has a positive impact on the likelihood of using labels at home. Individuals who use the media (e.g., books, magazines, radio, TV, and newspapers) as primary sources of information are less likely to use labels while shopping and when comparing brands than individuals who use the labels as their primary source of nutritional information.
[97]	(Mitra et al., 1999)	USA	Nutrition facts panel on frozen meals	Level of nutrition knowledge	Consumers are able to interpret the FDA-mandated nutrition facts panel, even in the presence of a contradictory implied health claim and this pattern holds even for less educated consumers (who display lower levels of nutrition knowledge). However, the data do not suggest that consumers can interpret the nutrition facts panel with complete accuracy.
[227]	(Jordan Lin et al., 2004)	USA	Fat, saturated fat & cholesterol information	Dietary intake, nutrition knowledge, motivation, perceived self-efficacy	Search for total fat, saturated fat, and cholesterol information on food labels is less likely among individuals who consume more of the three nutrients. The search is also related to perceived benefits and costs of using the label, perceived capability of using the label, knowledge of nutrition and fats, perceived efficacy of diets in reducing the risk of illnesses, perceived importance of nutrition in food shopping, perceived importance of a healthy diet, and awareness of linkage between excessive consumption of the nutrients and health problems. The probability of searching for information on food labels is also higher among respondents who were on a special diet, with higher household income, and with better nutrition knowledge.
[192]	(Gracia et al., 2007)	Spain	Mandatory nutrition disclosure	Health status	Individuals who suffer some health problems related to food intake are more knowledgeable about nutritional labels. Further, those who are more knowledgeable about nutritional labels are more likely to use nutritional labels, and nutritional label users are more likely to consider mandatory nutritional labeling as beneficial.
[87]	(Tan & Tan, 2007)	Singapore	Health claims	Consumer experience, self-confidence, and motivation to process nutritional information	Singaporean consumers, like their Western counterparts, are skeptical about health claims, but the effect is moderated by consumers' experience (operationalized as age) and self-confidence (in information acquisition, identification of product alternatives, and getting recognition from others about purchase decisions) and motivation to process nutritional information.
[103]	(Howlett et al., 2008)	USA	Nutritional information	Combination of consumer knowledge and motivation to process nutritional information	In case of consumers who are at risk for heart disease, product perceptions and purchase intentions are influenced by the interplay among consumer knowledge, product qualities (trans fats), and motivation to process nutritional information. In the absence of knowledge—and even in the presence of motivation—consumers tend to misinterpret the nutrient information.

Table 7.5. Knowledge and literacy research on consumer factors moderating successful health & nutritional information processing [Continued]

	Study / reference	Country of research	Research context	Moderating factors of information processing	Results
[99]	(Naylor et al., 2009)	USA	Functional claims on snacks	Level of health consciousness	Driven by a confirmatory bias, consumers with higher health consciousness do not reduce their likelihood of choosing a functional food when confronted with conflicting information, while those with lower health consciousness are particularly sensitive to conflicting information about the validity of a functional food health claim.
[12]	(Barreiro-Hurlé et al., 2010a)	Spain	Nutrition facts panel; nutrition & health claims	Motivation orientation (health-conscious vs. interest in specific nutrient vs. interest in general health issues vs. price-conscious vs. interest in hedonic lifestyle)	The use of nutritional information (fact panel or claim labels) by consumers influence their choice of healthier food products to the same extent, although different types of consumers use the various types of labels considered: the informed and health/nutrition-conscious consumers are more likely to use the nutrition label; price-conscious consumers, concerned with general health issues, are more likely to use claims. Consumers more interested in specific nutrient intake will use the nutrition facts panel, those concerned with general health issues or hedonistic life-style are more likely to use the claim label instead.
[226]	(Kempen et al., 2011)	South Africa	Label reading	Health awareness, health situation, health risks, quality perceptions	Not all information is essential to the label readers when buying food products, so food labels may act on either an influential and/or consideration level. Several indirect consideration factors such as situational factors (e.g., family), extrinsic (e.g., price) and intrinsic (e.g., taste) may contribute to label readers' choices.
[56]	(Hansen et al., 2011)	Denmark	Nutritional claims	Anxiety and individual product attitudes	Anxiety during food choice increases information search in various product categories (e.g., ready dinner meals, salad dressing, biscuits, and cakes). The positive effect of anxiety on information search is stronger when consumers have a less favorable attitude towards nutritional claims on the product label.
[14]	(Nocella & Kennedy, 2012)	EU	Health claims	Socio-demographic characteristics, familiarity, knowledge, claim wordings, and attitudes towards processing information	Consumer understanding of health claims is influenced by several factors such as socio-demographic characteristics, familiarity, knowledge, claim wordings, and attitudes toward processing information, thus making the notion of "average consumer" used in information disclosure regulation inadequate. The ''average consumer'' can be replaced by the more specifically targeted ''intended consumers,'' i.e., consumers in search of specific benefits contained in health claims capable of satisfying their needs.
[142]	(Yoon & George, 2012)	USA	Restaurant	Nutritional knowledge and motivation to process	Consumer motivation to process the provided nutritional information significantly moderates the effect of nutritional information disclosed. Neither objective nor subjective nutritional knowledge alone significantly moderates this effect, but the interaction between the nutritional information levels and motivation to process nutritional information significantly influences nutritional perception and overall food attitude.
[198]*	(Hieke & Taylor, 2012)	N/A	Review of research on labeling	Personal consumer factors, Socio-demographic factors	The enduring importance of nutrition is a significant positive predictor for consumer search and use of nutritional info. Subjective knowledge significantly affects nutrition search. Socio-demographic factors that influence information search and processing are: age (elderly), family size (larger household, esp. the presence of small children), higher level of education, higher income, occupation (unemployed people have more time to read and compare labels while shopping).
[233]	(Howlett et al., 2012)	USA	Sodium disclosure	Health status	Hypertension status has a significant effect on consumers' attention to sodium on the Nutrition Facts panel and moderates the influence of sodium disclosure on perceived cardiovascular disease risk and purchase intentions for restaurant items

Table 7.5. Knowledge and literacy research on consumer factors moderating successful health & nutritional information processing [Continued]

	Study / reference	Country of research	Research context	Moderating factors of information processing	Results
[54]	(Mai & Hoffmann, 2012)	Germany	Nutrition facts panel	Combination of motivation (health-consciousness) and ability (nutrition self-efficacy)	Consumer segments that differ in the way they consider health-related and health-unrelated food properties when making food choices (taste lovers and nutrition fact seekers, both have soft and heavy segments) can be determined based on the combination of consumers' level of health consciousness (i.e., motivation) and nutrition self-efficacy (i.e., ability).
[31]	(E. Kim, Ham, Yang, & Choi, 2013)	Korea	Casual-dining restaurant	Consumer attitude, subjective norm, and perceived behavioral control toward nutritional labeling at the point-of-purchase	Consumers' behavioral intentions to read nutritional labeling at point of purchase (i.e., casual dining restaurants) correlates positively with their evaluations of the consequences of attitude toward behavior, perceived social pressure from important referents, and perceived control factors for reading nutritional labeling. The variable of attitude acts as a mediator in the relationship between subjective norm and behavioral intention.
[141]	(K. Lee et al., 2015)	Korea	Parents' choices in restaurant context	Level of knowledge and trust in nutritional information	Consumer-parents who do not perceive nutritional information as being highly credible perceive restaurants providing numerical values only as more healthful and trustworthy. However, parents who do perceive nutritional information as being highly credible perceive restaurants as more healthful and trustworthy when both numeric values and low-calorie symbols are presented and have more positive perceptions overall.
[221]	(Dharni & Gupta, 2015)	India	Nutrition facts panel	Knowledge (information comprehension and perceived usefulness)	Comprehension of label information leads to increase in its perceived usefulness. Further, increased perceived usefulness facilitates better label use resulting in healthier food choice.

* Articles make part of two research streams each.

Source: Author's own elaboration.

7.3. Consumer perceptions research

A pure version of the informational approach to health-related food consumer behavior is clearly limiting (Holbrook & Hirschman, 1982; Slater, 2011; Zwick & Cayla, 2011) since consumers' perfect expertise about nutrition that would allow zero information asymmetry gaps is an over-idealization (Kolodinsky, 2012 [78]), food consumption is much more than a label-reading/nutrients-counting experience (Belk, 2012; Block et al., 2011; Lupton, 1996; Warde, 1997) and consumers have many more strategies toward food-related wellbeing than sticking to nutritional advice (Bouwman, te Molder, Koelen, & van Woerkum, 2009; Kristensen et al., 2013, 2010), etc. However, among various non-informational (or rather not purely informational) approaches, those of behavior economics and the heuristics-based view of consumer choices has become especially prominent. While not the most numerous stream (17.4% of our sample), "consumer perceptions" research could be considered "elite" due to the number of publications in some of the most prestigious top-level marketing journals, such as *Journal of Marketing* (6 out of 8 in our sample), *Journal of Consumer Research* (2 out of 3), *Journal of Marketing Research* (2 out of 4) and *Journal of the Academy of Marketing Science* (2 out of 2).

Heuristics are the mental "shortcuts" in problem solving that allow making sufficient, yet not perfectly rational or optimal decisions. In the context of healthy food, this means that as an alternative to applying an information processing approach to food-related decisions, consumers tend to follow their "faster" stereotypical beliefs or food associations (e.g., fresh food is healthy - preserved is not, organic is healthy - processed is not, green is healthy – red is not, etc.). Sometimes consumer associations are referred to as laypeople understandings (Bucher, Müller, & Siegrist, 2015; Jauho & Niva, 2013; Verbeke, Scholderer, & Lähteenmäki, 2009) and are contrasted with the rational and scientific nutritionism, which makes heuristic thinking appear as a form of faulty thinking. This is an approach shared in many—if not most—marketing and consumer research when it comes to health-related food choices. Yet, as psychological theories in decision-making state (Kahneman, 2011; Tversky & Kahneman, 1974), heuristics are adaptable mechanisms that ensure low consumption of mental resources, especially in the situations of uncertainty, which means that decisions based on heuristics cannot be viewed as entirely "wrong" or "faulty", but as perfectly functional or sufficient, as they help consumers achieve satisfaction especially in situations with ambivalent goals. The overall objective of "consumer perceptions" research is to learn the mechanisms and conditions when consumers make their choices based on heuristic-thinking and inference-making. As its theoretical framework, research in this meta-category, more than others, relies on the family of dual process theories (43% vs. 14.7%$_{all}$) and cognitive psychology models (15% vs. 5.8%$_{all}$). Knowledge produced by such research might be used for either marketing or policy purposes and act on consumers by influencing the environment (e.g., restrictions of food marketing to children, healthier environmental designs, restricted portion sizes) rather than knowledge or motivation to acquire information (Guthrie, Mancino, & Lin, 2015 [123]; Just & Payne, 2009; Roberto et al., 2014 [155]) This is an empirically driven meta-category (99% vs. 86.8%$_{all}$), with every empirical study being statistical and the majority of them being experiments (85% vs. 57.9%$_{all\_emp}$). Additionally, this research is more

likely to derive its results from lab studies (57% vs. 30.1%$_{all\_emp}$) with student samples (50% vs. 27.8%$_{all\_emp}$).

This meta-category is composed of 3 research streams. The first and largest (23 articles, see section 7.3.1) stream brings together research about quick heuristic judgments of food healthfulness (healthy vs. unhealthy) and resulting inferences and behavioral outcomes. The second (2 articles, section 7.3.2) is a related stream of research that does not focus on healthfulness judgments, but on various aspects of decisions about food size (if packaged) and amount (if unpackaged). This research relies on a branch of psychology known as psychophysics that studies relationships between physical stimuli and the perceptions they produce for consumers. The last group (6 articles, section 7.3.3) looks at how consumers' heuristic-based decisions are affected by nutritional learning and therefore how information efforts can complement environmental strategies, and vice versa.

7.3.1. Healthy vs. unhealthy: Categorization and inferences research

One of the turning points towards behavioral economics and heuristics research has been a finding by Roe, Levy and Derby (1999 [108]) that simplified or descriptive claims on the front of the package lead consumers to truncate further information search. This makes consumers give disproportionally greater weight to such claims, resulting in overly positive judgments about food healthfulness, i.e., a so-called halo or magic bullet effects. Concern with halos and other inferences and what kinds of stimuli trigger them is the key theme in categorization and inferences research. Such halo effects in the context of health-related food judgments become known as "health halos" thanks to extensive research by Pierre Chandon and Brian Wansink (Chandon, 2010, 2013, Chandon & Wansink, 2007a, 2007b, 2012; Wansink, 2003; Wansink & Chandon, 2014; Wansink & Love, 2014) that was widely cited inside and outside academia.

In order to better summarize and structure findings from this research stream, we borrowed two organizing concepts from the field of cognitive psychology used in the studies of inference learning and classification learning: two ways in which people form mental categories, determine category membership, and establish common features among category members. In *classification learning*, people tend to use diagnostic information to determine category membership. In *inference learning* people rely on prototypical information that predicts the most likely features given category membership (Chin-Parker & Ross, 2004; Yamauchi & Markman, 1998). So, in our overview of categorization and inference research we look at two aspects of research findings: 1) which diagnostic information leads to (mis)perception of food as healthy vs. unhealthy, and 2) which prototypical inferences consumers tend to make once food is identified as healthy vs. unhealthy (see Table 7.6).

Among *diagnostic features* that lead to positive or negative healthfulness judgments (that may be justified or not) are health and nutrition claims (Aschemann-Witzel & Hamm, 2010 [89]; Ford, Hastak, Mitra, & Ringold, 1996 [159]; Kozup, Creyer, & Burton, 2003 [81]; Lähteenmäki et al., 2010 [18]; Ono & Ono, 2015 [63]; Zank & Kemp, 2012 [48]); product category image (Orquin,

2014 [52]; Orquin & Scholderer, 2015 [11]); product package design features such as color (Schuldt, 2013 [218]) or size (Payne, Niculescu, & Barney, 2014 [223]); environmental cues such as eating context (Geyskens, Pandelaere, Dewitte, & Warlop, 2007 [107]) or menu alternatives (Burton & Creyer, 2004 [51]; Hur & Jang, 2015b [138]; Wansink & Love, 2014 [143]); or corporate communication, CSR, and cause marketing cues (Minton & Cornwell, 2016 [50]; Peloza, Ye, & Montford, 2015 [110]).

Among the observed *prototypical inferences* about food's healthfulness status, research finds that positive healthfulness judgment leads—paradoxically—to unfavorable sensory expectations (Lähteenmäki et al., 2010 [18]; Orquin & Scholderer, 2015 [11]); calorie underestimation (Chandon & Wansink, 2007b [75]; Peloza et al., 2015 [110]) or even negative calorie count (Chernev & Gal, 2010 [93]); conclusion that it's safe to consume even larger amounts (Ma et al., 2013 [82]; Payne et al., 2014 [223]); and association between food consumption and boosted self-image and emotional satisfaction (Garg, Wansink, & Inman, 2007 [83]; Geyskens et al., 2007 [107]). Most of the inferences here lead to consumers feeling that food with a healthy status gives them a license to eat without prudence and/or feeling of guilt or to even overeat. Negative healthfulness judgments, on the contrary, are associated with more enjoyable and indulgent consumption (Desai & Ratneshwar, 2003 [115]; Garg et al., 2007 [83]; Poor, Duhachek, & Krishnan, 2013 [80]; Raghunathan, Naylor, & Hoyer, 2006 [84]). In this perspective, any food, healthy or unhealthy, "makes us fat" (Chandon, 2010).

This research stream heavily relies on a distinction between healthy and unhealthy foods and hence, as we mentioned before, preference for experimental control of variables (92% vs. $57.9\%_{all\_emp}$). Interestingly, most research about categorization and inference studies such distinction in the context of foods with ambivalent health profiles, such as snack foods (Desai & Ratneshwar, 2003 [115]; Garg et al., 2007 [83]; Geyskens et al., 2007 [107]; Minton & Cornwell, 2016 [50]; Payne et al., 2014 [223]; Peloza et al., 2015 [110]; Schuldt, 2013 [218]), ready-to-eat frozen dishes (Ford et al., 1996 [159]) and restaurant meals (Burton & Creyer, 2004 [51]; Chandon & Wansink, 2007b [75]; Hur & Jang, 2015b [138]; Kozup et al., 2003 [81]; Wansink & Love, 2014 [143]), or functional foods (Aschemann-Witzel & Hamm, 2010 [89]; Lähteenmäki et al., 2010 [18]; Ono & Ono, 2015 [63]; Zank & Kemp, 2012 [48]). These categories, as we discussed earlier, are also symptomatic of food contexts characterized by growing individualization and gastro-anomy (Fischler, 1988; Lupton, 1996; Warde, 1997). In many cases information that consumers use to make health-related judgments is truthful, yet could be somewhat misleading (see Hastak & Mazis, 2011 for typology of truthful but deceptive claims) because consumers do not think of individual products and their ad hoc features, but about categories and common features among category members. Yet, with increasing fragmentation of available categories (e.g., think of unsaturated fat as a "good" side of "bad" fat, or light but processed salad dressings, or flavored/sugared milk, etc.) (Askegaard et al., 1999; Lupton, 1996, 2005), it's quite understandable that heuristic-based category judgments - at least in some contexts - are destined to lead to overly positive or overly negative and not perfectly justified healthfulness judgments.

Table 7.6. Heuristics research on health categorization biases.

	Study / Reference	Country of research	Research context	Classification: healthy vs. unhealthy diagnostic features	Prototypical features of healthy vs. unhealthy categories	Results
[159]	(Ford et al., 1996)	USA	Frozen meal	Health claim		Health claims create expectations about healthfulness on all four health-related beliefs even when the nutritional information is unfavorable. Health claims do not interact with nutritional information when both sources of information are available, rather health claims and nutritional information have independent effects on consumer beliefs.
[115]	(Desai & Ratneshwar, 2003)	USA	Snack foods		Unhealthy = tasty	Positioning a snack brand on an atypical attribute of low fat creates mixed consumer responses, yet when the atypical health-related (low fat) positioning attribute is perceived unfavorably, there is an inference of more favorable perceived taste, which in the end balances the net positive effect for brand equity on purchase likelihood.
[81]	(Kozup et al., 2003);	USA	Health claims and nutritional information placed on restaurant menus	Favorable health claims		Favorable nutritional information leads to more positive attitudes toward the product, nutrition, and purchase intentions, in addition to the belief that the product reduces disease risk (i.e., confirmatory bias).
[51]	(Burton & Creyer, 2004)	USA		Contrast with restaurant's menu nutritional context		Context and non-target items on the menu have even stronger influence: when consumers evaluate a target menu item in the unfavorable context (unhealthy non-target items), they have more positive nutrition evaluations, product attitudes and greater purchase intentions for the target item.
[84]	(Raghunathan et al., 2006);	USA	Multiple		Unhealthy = more enjoyable, tasty, and preferable	When information pertaining to the assessment of the healthiness of food items is provided, the less healthy the item is portrayed to be, 1) the better is its inferred taste, 2) the more it is enjoyed during actual consumption, and 3) the greater is the preference.
[107]	(Geyskens et al., 2007)	Belgium	Snack foods	(indirect/implicit or incidental) health references	Healthy = boosted self-image and feeling closer to ideal weight (thus enhancing consumption)	Health references have a consumption-increasing effect for snack products that are explicitly labeled as low fat due to the effect of leading consumers to report that they were closer to their ideal weight and more satisfied with their current weight, which paradoxically may lead to eating more.
[75]	(Chandon & Wansink, 2007b)	USA	Fast food meals		Healthy = calorie underestimation (leading to overconsumption)	Consumers are more likely to underestimate the caloric content of main dishes and to choose higher-calorie side dishes, drinks, or desserts when fast-food restaurants claim to be healthy compared to when they do not (e.g., sandwiches coming from Subway are perceived to have up to 35% less calories than similar items coming from McDonald's).

Table 7.6. Heuristics research on health categorization biases. [Continued]

	Study / Reference	Country of research	Research context	Classification: healthy vs. unhealthy diagnostic features	Prototypical features of healthy vs. unhealthy categories	Results
[83]	(Garg et al., 2007)	USA	Hedonic snack foods		Unhealthy = (over)consumption to improve mood Healthy = (over)consumption to preserve happy mood	People eat larger amounts of hedonic foods (buttered popcorn and M&M's) when they are in a sad state than when they are in a happy state and that this effect is attenuated when nutritional information is present. In contrast, they tend to eat larger amounts of a less hedonic product (raisins) when they are in a happy state than when they are in a sad state.
[18]	(Lähteenmäki et al., 2010)	Finland, Denmark, Norway, Sweden, Iceland	Functional /fortified foods	Health claim [unexpected negative evidence]		Health claims (unless it was a claim with an earlier market presence) had a moderate but mostly negative impact on the perception of other product attributes, thus not creating the expected health halo.
					Healthy/fortified = decrease in perceived naturalness	The most significant impact of a health claim was a decrease in perceived naturalness, possibly due to a conflict between functional benefits and modification of the product in order to include that additional health component.
[89]	(Aschemann-Witzel & Hamm, 2010)	Germany	Multiple: functional yoghurt and breakfast cereal, 'neutral' pasta	Health and nutrition claims		People choosing a product with a claim are more likely to regard such products as healthier than the alternatives without claims; consumers thus seem to infer general healthiness on the basis of the specific claim. And such inference makes them prefer such products over products without claims. This increase in preference/choice can be around 10% of the sales volume or 20% should consumers' attention to the claims be gained.
[93]	(Chernev & Gal, 2010)	USA	Combinations of vice and virtue foods		Healthy = negative calorie equations (for summary of calories in meals)	Consumers' estimates of the calorie content of a meal are a function of the vice/virtue categorization of its individual components. As a result, when people's calorie estimates are based exclusively on their perceptions of a meal's healthiness, adding a virtue to a vice can actually decrease, rather than increase, the perceived calorie content of the combined meal.
[48]	(Zank & Kemp, 2012)	USA	Products with fiber claims	Popular nutrition claims (e.g., fiber)		Consumers perceive products with fiber claims as more nutritious and more effective at promoting good health than those without fiber claims, irrespective of the information included in the nutrition facts panel.
[218]	(Schuldt, 2013)	USA	Candy bar	Green label color		Green labels increase perceived healthfulness, especially among consumers who place high importance on healthy eating.

Table 7.6. Heuristics research on health categorization biases. [Continued]

	Study / Reference	Country of research	Research context	Classification: healthy vs. unhealthy diagnostic features	Prototypical features of healthy vs. unhealthy categories	Results
[80]	(Poor et al., 2013)	USA	Multiple (naturally healthy vs. unhealthy)		Unhealthy = tasty; Indulgent consumption acceptability	Exposure to consummatory images of unhealthy (vs. healthy) foods increases taste perceptions relative to food images, likely due to the fact that seeing an image of someone else indulging in an unhealthy food reduces conflict associated with the consumption of unhealthy foods.
[82]	(Ma et al., 2013)	USA	Consumption in diabetes households		Healthy = Safe to eat in large(r) amounts	Households with higher education and nutrition interest consume fewer calories, sugar, and total carbohydrates, whereas those with higher self-control consume more, because they offset their lower intake of "unhealthy" categories (e.g., soft drinks) with higher intake of health halo biased categories (e.g., cereal, milk, yogurt).
[143]	(Wansink & Love, 2014)	USA	Restaurant menus	Menu psychology; physical shape of menu; availability of children's menus; "greener" restaurant ambience		Menu engineering strategies that (1) shift attention, (2) enhance taste expectations, and (3) increase perception of value guide consumers to purchase more of the healthier, high margin items that the restaurants offer. Other promising areas of menu engineering enhancing health perceptions are physical shape of menu (e.g., tall and narrow as opposed to short and wide), availability of children's menus, and "greener" restaurant ambience (e.g., adding plants or making the lighting more natural).
[223]	(Payne et al., 2014)	USA	Snack foods	Small packages (99 or 100 calories)	Healthy= regulatory success for those who are dietary restrained; decreased vigilance and a license to consume more	Because regulatory control has been assigned to the marketing device (i.e., smaller packaged snack) instead of to the self, consumers who are highly dietary restrained intend to consume more. The more dietary-restrained consumers are, the more they intend to consume when provided with more healthy food (i.e., almonds) when front-of-packaging emphasizes trivially lower calories (i.e., 99 or 100).
[52] [11]	(Orquin, 2014); (Orquin & Scholderer, 2015)	Denmark	Diary products (yogurt, cheese, butter, milk)	Food category		Healthfulness judgments of particular products are based on the perceived healthfulness of the general category to which a product belongs, which is directly transferred to all exemplar products in that category.
					Unfavorable sensory expectations (healthy = less enjoyable)	Health and nutrition claims bypass explicit healthfulness judgment and go directly to form a detrimental taste/sensory judgments and purchase intentions for the carrier product.

Table 7.6. Heuristics research on health categorization biases. [Continued]

	Study / Reference	Country of research	Research context	Classification: healthy vs. unhealthy diagnostic features	Prototypical features of healthy vs. unhealthy categories	Results
[110]	(Peloza et al., 2015)	USA	Snack foods	Company's CSR reputation	Healthy = calorie underestimation leading to overconsumption	When consumers evaluate food products marketed by firms with strong corporate social responsibility reputations, they underestimate the calorie content, demonstrating the existence of a health halo resulting from corporate social responsibility activities. Furthermore, this calorie underestimation can lead to overconsumption.
[138]	(Hur & Jang, 2015b)	USA	Quick service restaurants	Perceived healthiness of anchor item in a menu bundle		Even if bundles have the same calories, consumers differently evaluate the healthiness of a bundle anchored by the healthy feature of a main item. When healthy and unhealthy menu items are combined, the evaluation of a bundle is mainly influenced by consumers' first impressions of an anchor.
[50]	(Minton & Cornwell, 2016)	USA	Snack foods	Cause cues (especially, matching health-cause cue)		Adding health-related non-food cues (i.e., information other than nutrition facts) to a food package significantly increases product health perceptions, product attitude, and purchase intentions.
[63]	(Ono & Ono, 2015)	Japan	FoSHU foods	FoSHU seal/symbolic mark		Food health evaluations are significantly affected by the FoSHU seal. In the presence of non-FoSHU products with a similar package, health claims can have external effects on evaluations of non-FoSHU products.

Source: Author's own elaboration.

Table 7.7. Heuristics research on psychophysical biases influencing health-related food decision-making.

	Study / Reference	Country of research	Research context	Heuristics	Results
[79]	(Chandon & Wansink, 2006)	USA	Household food storage	Inventory estimate bias: inventory estimates, not actual inventory levels, drive subsequent purchase incidence	Consumers anchor their estimates on their average inventory and fail to adjust sufficiently (possibly leading to waste and overconsumption); adjustments follow an inelastic psychophysical power function, leading to overestimations of low levels of inventory and underestimations of high levels; and adjustments are more elastic and, thus, more accurate when inventory is salient.
[95]	(Chandon & Wansink, 2007a)	USA	Fast food meals	Meal size estimations: Calorie underestimation is caused by meal size, not body size	The meal size estimations follow a compressive power function of actual meal size: the estimations exhibit diminishing sensitivity to meal size changes as the size of the meal increases. The estimations of low- and high-BMI consumers follow the exact same psychophysical function, whether they are made before or after intake, for self-selected or randomly selected meals.

Source: Author's own elaboration.

7.3.2. Size and amount heuristics research

A minor grouping of size and amount heuristics research (see Table 7.7), just like its bigger brother, "categorization heuristics" research, focuses on how consumer (mis)perceptions based on heuristic judgments may lead to over-consumption. The difference, however, is that such research does not involve inferences made from healthfulness judgments, but from (mis)evaluation of food amount. By applying approaches from psychophysics, the research finds that perceptions of meal size increase follow a compressive power function, making estimations beyond a certain point less and less sensitive (Chandon & Wansink, 2007a [95]), which is a bias shared equally by people with low and high BMI. Also, estimations of inventory are often biased, which might lead to over-purchasing and consequent overeating or food waste (Chandon & Wansink, 2006 [79]). In both cases, environmental modification strategies are recommended to avoid overeating, which might derive from psychophysical biases.

7.3.3. Research on information disclosure and learning effects on heuristics

While information disclosure has been the norm for packaged foods for several decades in the US (where most research in this stream is produced), other food industries (fresh foods, meat, foodservice), until recently, were not subject to intensive nutritional information campaigns. Changing regulation in regard to labeling of previously unlabeled foods has given rise not only to information communication research, but to the off-spring of research on consumer heuristics, which looks precisely at how novel nutritional information disclosure affects consumers' healthfulness judgments which would otherwise be made based on gut feelings, associations, common knowledge, i.e., heuristics in other words.

The underlying topic of this research stream is the interplay of nutritional information with perceived healthfulness and their joint effect on consumer behavior. To some extent both the research on information processing and on heuristics talk about this joint effect, yet only in this stream the main focus is *precisely* on the interplay of categorical healthfulness judgments with nutritional information disclosure.

Up to now, the findings of this research stream are somewhat inconclusive (see Table 7.8 for individual articles' overview). Unsurprisingly, research finds that nutrition content expectations or taste-based evaluations without nutritional information disclosure are rarely accurate, even in the case of health conscious consumers (Bates, Burton, Huggins, & Howlett, 2011 [201]; Mai & Hoffmann, 2015 [160]). Overall, nutrition disclosure in a novel context improves the evaluation of food attributes and nutrition choices (L. A. Cook, Burton, & Howlett, 2013 [105]) and may influence purchase intentions and even subsequent food consumption (Howlett, Burton, Bates, & Huggins, 2009 [74]), but only when favorable unexpected nutritional information is revealed (Burton, Cook, Howlett, & Newman, 2015 [114]). In the opposite case, when positive health-related expectations are disconfirmed, consumer choices either are not significantly affected (Burton et al., 2015 [114]), or marginally improved, but at the price of experiencing a greater sense of conflict (Wei & Miao, 2013 [194]).

Table 7.8. Information remedies and learning effect on consumer health-related inference-making.

	Study / Reference	Country of research	Research context	Cognitive learning effects on inference-making	Results
[74]	(Howlett et al., 2009)	USA	Away from home food consumption	Expectations of product calorie content	In the context of away-from-home food consumption, consumers' calorie expectations interact with the provision of objective calorie information to influence two measures with important health implications: perceived weight gain and diet-related disease risk. The provision of objective calorie and nutrient information interacts with consumers' product evaluations and influences purchase intentions and even subsequent food consumption (within the same day).
[201]	(Bates et al., 2011)	USA	Chain restaurant menu	Effects of nutrition disclosure on consumers' (under) estimation of calories	The results indicate that as meal calorie, fat, and sodium levels increase, the level of consumers' underestimation of calories and nutrients increases. Consumers generally need the help of nutrition labeling to identify the content of menu items. Furthermore, there is an effect of perceived item healthfulness on repurchase intentions, and this effect is strengthened by disclosure of nutritional information. However, even after nutrition disclosure, the strength of the effect of taste perceptions on repurchase intentions dominates the effect of meal healthfulness.
[105]	(L. A. Cook et al., 2013)	USA	Retail setting: ground beef	Novel setting: Nutrition facts panel on ground beef packaging in food retail/point-of-purchase setting	Consumers' internal reference points do not correspond to the objective low level of calories, fat, and saturated fat found in lean ground beef (unexpected due to overall negative perception of ground beef in general). Novel objective nutritional information disclosure improves attribute evaluations and choices.
[194]	(Wei & Miao, 2013)	USA	Quick service restaurants	Restaurant's perceived healthfulness and calorie information disclosure	The effect of calorie information disclosure interplays with the perceived healthfulness of restaurants to jointly affect consumers' food choices and underlying psychological processes. Upon exposure to calorie information, consumers in restaurants perceived as healthful made healthier choices (less calories), while consumers in restaurants perceived as unhealthful tended to choose menu items with higher calorie counts (although difference was quite small, almost negligible). Upon exposure to calorie information, consumers reported a greater sense of conflict experienced at healthful restaurants while the sense of conflict was subdued at unhealthful restaurants.
[114]	(Burton et al., 2015)	USA	Labels in retail: beef & chicken	Expectations of category healthfulness [in food retail/point-of-purchase setting]	Discrepancies between prior healthfulness expectations and objective information disclosures (un)favorably influence consumers' product evaluations, health risk perceptions, purchase intentions, and choices when negative (vs. positive) health-related expectations are disconfirmed.
[160]	(Mai & Hoffmann, 2015)	Germany	Yogurt; multiple healthy vs. unhealthy products	Potential of health consciousness to resolve the so-called unhealthy = tasty intuition (UTI)	Unhealthy=tasty intuition partly works implicitly and independently of health consciousness, so policy strategies based on health consciousness are unlikely to work. Increasing the consumers' health consciousness primarily influences cognitively shaped and inference-based evaluations (healthiness), whereas this motivation cannot override implicitly processed evaluations (tastiness).

Source: Author's own elaboration.

7.4. Marketing management research

The uniqueness of the academic marketing discipline is its hybridity (Applbaum, 2011; Sherry, 2011; Slater, 2011) and practice-theory dualism (Brownlie, 2013; Hackley, 2003; Skålén et al., 2008; Tadajewski, 2010a). Managerial interests and practical orientation, even though evident in all other streams of research about health and food, become especially salient in this ample (25.3% of the entire sample) and most internationally diverse meta-category (61% non-US markets researched vs. 43.7%$_{all}$).

The health-related food segment is (and has been for a while) a highly profitable and attractive market (Accenture-UN Global Compact, 2014; Euromonitor International, 2015b; Hudson, 2012; Hueltenschmidt, Olsen, & Vishwanath, 2013; Mintel, 2014; Nielsen, 2015; WEF, 2015), so it's quite self-evident that marketing management research has moved its inquiry in the context of constantly growing, a-typically successful (i.e., growth even despite economic recession) health and wellness food market.

On the other hand, marketing management research about health and food is subject to a *big opportunity rhetoric*, as if the academic world feels compelled to produce a contribution of managerial relevance specific to the health-related food marketplace. A good illustration of the point is one of the earliest articles (Granzin et al., 1998 [112]) in this meta-category. It uses the rationale of "enormous potential" to articulate the need to inform marketers about how to make marketing management of the health-related food segment more efficient and profitable:

> The enormous potential of this market means that marketers need comprehensive yet adaptable conceptual devices for identifying and characterizing those market segments they can most profitably serve. This need suggests that academic researchers can make an important contribution to marketing practice by providing practitioners with such conceptual devices. (Granzin et al., 1998, p. 131 [112])

While larger food companies can and do invest in customized or syndicated commercial market research, smaller players often cannot afford it. So, in a way academic research in this stream tries to reduce the knowledge inequality gap between various market players and provide practically-oriented studies applicable in managerial marketing work.

Another common characteristic of research in this meta-category is the strength of researchers' focus on *consumer demand* and on how much consumer demand for health necessitates market changes. Not satisfying such demand is deemed a lost opportunity and a marketing failure.

Two distinct agendas of marketing research in our sample are "persuasive communication" (12 articles, see section 7.4.1) focusing on advertising, branding, and other aspects of persuading consumers to choose products positioned on a health-related benefit, and "market creation and growth" research (36 articles, see section 7.4.2) that focuses on aggregations of marketing indicators in relation to a particular sub-segment of health-related foods (e.g., functional, organic, locally-grown) and/or a particular geographic market.

7.4.1. Persuasive marketing communication research

Though quite heterogeneous in its internal composition, the persuasive marketing communication research stream (see Table 7.9) focuses on applied studies of advertising (Jeong & Jang, 2015 [140]; Krishen & Bui, 2015 [22]; Liaukonyte, Rickard, Kaiser, Okrent, & Richards, 2012 [149]), branding (Chrysochou, 2010a [90]; Kemp & Bui, 2011 [61]), social media marketing (Brennan, Dahl, & Eagle, 2010 [92]; Liu & Lopez, 2016 [120]), and various aspects of integrated communication (Bublitz & Peracchio, 2015 [42]; Kang, Jun, & Arendt, 2015 [144]; Krystallis & Chrysochou, 2011 [91]; Ye, Cronin, & Peloza, 2015 [145]).

Research focuses on four key topics in health-related consumer persuasion: fit with personal and social values (Baker, Thompson, & Palmer-Barnes, 2002 [88]; Chrysochou, 2010a [90]; Kang et al., 2015 [144]; Ye et al., 2015 [145]); credibility-building (Chrysochou, 2010a [90]; Kemp & Bui, 2011 [61]); emotional and experiential appeal (Bublitz & Peracchio, 2015 [42]; Krishen & Bui, 2015 [22]); and time framing of health consequences between the immediate and the long-term (Jeong & Jang, 2015 [140]; Kees, 2011 [45]). Additionally, most research talks about the careful choice of communication strategies regarding specific consumer segments based on consumer age (Brennan, Dahl, et al., 2010 [92]) or psychographics and health-related values (Baker et al., 2002 [88]; Jeong & Jang, 2015 [140]).

7.4.2. Market creation and expansion research

Given that producing healthier food is "an ethical reality as well as a business opportunity" (Gillette 2010, p.9 in Schleifer, 2013 [228]), the food industry has seen several innovations that produced new or expanded existing markets. Several food product categories have been affected by consumers' "newfound interest in diet and health" (Pappalardo & Ringold, 2000 [106]). The fortified, better-for-you, or functional food market is perhaps the best example of the market segment created (through product reformulations and legislation regulating health claims) in response to consumer demand for health. Organic and local food markets follow closely as examples of market expansion driven not only (or not as much) by the evident concern for environmental sustainability, but by belief in the health benefits of more natural foods. Other food industries, including foodservice, fresh food produce, naturally healthy foods, and foods with ambivalent health profiles, have also embraced marketing opportunities derived from health-related positioning. The "market creation and expansion" research stream is made of studies that investigate specific food markets (often in specific geographies) reportedly driven by consumer demand for health(ier) foods.

This stream is characterized by its distinguished preference to report on results of only one study per publication (88% vs. 61.6%$_{all}$). Compared to other streams, research in "market creation and growth" stream is more likely to be exploratory (47% vs. 27.9%$_{all}$), report on variables controlled ex-post (75% vs. 42.1%$_{all\_emp}$) in a descriptive (not causal) manner (36% vs. 18.9% $_{all\_emp}$).

Table 7.9. Health-related persuasive marketing communication research.

	Study / reference	Country of research	Research context	Focus of health/food marketing communication	Results
[88]	(Baker et al., 2002)	UK	Meat consumption	Value based approach to communications strategy	The underlying motivations of three groups (meat eaters, meat reducers, and vegetarians) to consume meat are all guided by health. Yet, the largest differences are found in their terminal values or end-states, which need to guide persuading consumer communication strategies, suggesting the need for segmentation of communication strategies driven by various health-related consumer values.
[90]	(Chrysochou, 2010b)	Denmark	Healthy brands	Marketing mix elements; external and internal factors	The selection of marketing mix elements for a health branding strategy to be successful should be adapted to internal (brand name, corporate branding, physical product, brand concepts) and external factors (health claims regulation) that influence the degree to which a healthy image is conveyed. Public discourse needs to be taken into account since it serves an important role on the overall formulation of how the brand image is conveyed.
[92]	(Brennan, Dahl, et al., 2010)	UK	Communi-cation targeting young consumers	New media & personalized communication channels	Commercial food marketers increasingly perceive healthy products to be a key growth market that can influence and persuade private consumers, particularly young consumers, to make more healthy-eating choices in their day-to-day consumption, using insights into the behavior of the targeted consumer segments. Mass media are not a reliable vehicle for bringing about the desired behavioral changes to younger consumers. The new media, such as the Internet and text messaging, should be used to deliver tailored messages to individuals, particularly younger consumers.
[61]	(Kemp & Bui, 2011)	USA	Brands perceived as healthy	Brand credibility, commitment, connection	In the brand-building process for brands perceived as "healthy," brand credibility, commitment, and connection are essential. A credible brand minimizes risk and increases consumer confidence. When consumers believe that a brand is credible and repeatedly purchase it, a commitment to the brand can develop. Finally, the brand can imbue such meaning that the consumer uses the brand to help construct and cultivate a desired self-image or self-concept.
[91]	(Krystallis & Chrysochou, 2011)	Greece	Diary products with nutrition claims	Low-fat claims as a communication tool enhancing brand loyalty	On average, brands with a low-fat claim perform better in the market compared with their high-fat counterparts. Moreover, in comparison with other health-related attributes the fat content attribute exhibits slightly higher loyalty, signifying the importance of the low-fat claim as a means of communication.
[149]	(Liaukonyte et al., 2012)	USA	Fruits & vegetables	Broad-based advertising programs	There are two types of advertising used to promote consumption of fruit and vegetables, defined generically: (1) ''commodity-specific'' programs for individual fruits and vegetables, and (2) ''broad-based'' programs that promote the consumption of all fruits and vegetables collectively. Broad-based advertising (i.e., generic advertising for the entire fruit and vegetable category) increases consumer willingness to pay by an average of 24.6%. The simulation model shows that broad-based advertising for fruits and vegetables, either alone or as a hybrid with individual commodity-specific campaigns (e.g., apple advertising), would reduce average caloric intake per person by approximately 1800 kcal per year.

Table 7.9. Health-related persuasive marketing communication research. [Continued]

	Study / reference	Country of research	Research context	Focus of health/food marketing communication	Results
[120]	(Liu & Lopez, 2016)	USA	Carbonated soft drink market	Social media & word of mouth impact on consumer purchasing behavior	Consumer exposure to word of mouth (WOM) on various social media sites can be a significant driver of consumer purchasing behavior. Consumers' conversations about brands and nutritional aspects of carbonated soft drinks have a significant impact on their preferences. However, the volume of WOM rather than the sentiment is what matters the most.
[140]	(Jeong & Jang, 2015)	USA	Quick service restaurants	Advertising messages: long-terms benefits vs. immediate benefits of a healthy diet	In terms of healthy menu promotions in a restaurant setting, customers focused more on the hedonic value of their restaurant experience, such as emotional pleasure, might be more effectively persuaded when the benefit of the healthy menu item is framed in the distant future, which represents an abstract description of the healthy menu's benefits. Conversely, customers focused more on the utilitarian value of the restaurant experience, such as detailed service offerings or product attributes, might be more effectively persuaded when the benefits of the healthy menu item are framed in terms of the immediate future, which represents a concrete description of the health benefits.
[144]	(Kang et al., 2015)	USA	Restaurants	Consumers' health values	In establishing creative marketing strategies to motivate customer interest in healthy menu items and emphasize benefits of their healthy food items, restaurant managers should consider the psychological aspect of the customers' food choice process beyond the functional elements of food choices, such as nutritional information and menu labeling. Health value is the key element that inspires customer interest in healthy eating and arouses hedonic and positive outcome expectations, which in turn enhance intentions to purchase healthy food items.
[145]	(Ye et al., 2015)	USA	Restaurants	Restaurant's corporate social responsibility (CSR) strategy	The relationship between consumer attitudes toward the disclosure of nutritional information and their subsequent evaluation of the food provider is impacted by CSR-related initiatives. Engaging in CSR activities in a consistent manner (i.e., having strategic fit) is important to consumer satisfaction and value perceptions, so sending coherent messages to customers is critical for organizations that pursue CSR as a marketing strategy. Yet, when the ''fit'' of a firm's CSR orientation and marketing strategies is unexpected (e.g., fast-food restaurants), the impact is accentuated.
[22]	(Krishen & Bui, 2015)	USA	Indulgent vs. non-indulgent food	Fear vs. Hope advertising	Across two experiments, findings demonstrate that the type of advertisement (fear versus hope) and food type (indulgent vs. non-indulgent) interact to determine goal-related choice focus such as subsequent indulgence intention or intention to implement an exercise health goal. Implications suggest that properly executed fear-primed advertising with non-indulgent food offerings can satisfy the notion that 'One good health decision can lead to another.'
[42]	(Bublitz & Peracchio, 2015)	USA	Healthy foods (alternatives to hedonic foods)	Applying hedonic foods marketing communication methods to healthy foods	The examination of the promotional efforts of hedonic foods (sensory experience, pleasure, indulgence, act on impulse) as compared to healthy foods (informational advertising, nutrition focus, health benefits) reveals that adopting successful industry practices of hedonic foods to healthy food alternatives may promote a healthy shift in the eating habits of consumers and allow businesses that produce healthy products to grow the bottom line.

Source: Author's own elaboration.

Despite considerable variations between research agendas relevant for individual markets, the "market creation and expansion" stream of research focuses primarily on three topics for all market and product typologies: 1) enablers and barriers of market expansion (and/or further growth of consumer demand), 2) consumers' purchasing motives, desired product attributes and willingness to pay premium, and 3) identification of consumer segments. For individual articles' overview see Table 7.10.

For all market segments and food product categories, "market creation and expansion" research accentuates the importance of consumer trust (Annunziata, Vecchio, & Kraus, 2015 [24]; Childs & Poryzees, 1997 [60]; M. Kim et al., 2013 [135]; K. H. Lee, Bonn, & Cho, 2015 [28]; Wier, O'Doherty Jensen, Andersen, & Millock, 2008 [190]) and availability (Altintzoglou et al., 2010 [69]; Annunziata et al., 2015 [24]; G. Armstrong, Farley, Gray, & Durkin, 2005 [118]; Hamzaoui Essoussi & Zahaf, 2009 [128]; Paul & Rana, 2012 [58]) for *(un)successful market expansion*. Other topics of market expansion are more product and market-specific. The research demonstrates that the main barriers for functional food expansion are unclear terminology (Childs & Poryzees, 1997 [60]) and lack of awareness (G. Armstrong et al., 2005 [118]), high price (Annunziata et al., 2015 [24]); claim-carrier (in)compatibility (P. Williams, Ridges, Batterham, Ripper, & Hung, 2008 [10]) or unavailability of desired health claims (Darian & Tucci, 2011 [67]; Kraus, 2015 [26]); uncertainty of the food's long-term benefits (Klerck & Sweeney, 2007 [126]; Subrahmanyan & Cheng, 2000 [200]) deriving from anti-natural, artificial image of this category (Childs & Poryzees, 1997 [60]). When it comes to the organic foods market, the research on barriers to further market expansion focuses on consumer satisfaction (Paul & Rana, 2012 [58]; Wier et al., 2008 [190]); product quality (Ilbery & Kneafsey, 2000 [113]; Vega-Zamora, Torres-Ruiz, Murgado-Armenteros, & Parras-Rosa, 2014 [124]); fit with the virtue category image (van Doorn & Verhoef, 2011 [33]); and the brand's fit with consumer value priorities (Hamzaoui Essoussi & Zahaf, 2009 [128]; Zhou, Thøgersen, Ruan, & Huang, 2013 [68]). In other market segments, market expansion barriers range from such broad topics as emotional loyalty (M. Kim et al., 2013 [135]) and high price (Altintzoglou et al., 2010 [69]) to more specific issues, for instance low convenience for naturally-healthy seafood segments (Altintzoglou et al., 2010 [69]; McManus, Hunt, Storey, McManus, & Hilhorst, 2014 [222]); absence of nutritional information in restaurant settings (Josiam & Foster, 2009 [133]); poor placement of fruits and vegetables at the point of purchase (Sigurdsson, Larsen, & Gunnarsson, 2011 [129]); high levels of processing of meats (S. N. Ahmad & Richard, 2014 [5]); or lack of experience with a considerably new product such as soy protein (Chang, Moon, & Balasubramanian, 2012 [234]; Moon, Balasubramanian, & Rimal, 2011 [17]).

Research on consumers' *purchasing motives* produces extensive lists and hierarchies of product attributes that are most desired by consumers, justify price premiums, and drive sales and therefore can be used as a guidance for product developments and other marketing mix elements. Unsurprisingly, research collectively finds that health is the primary desired benefit and key purchasing motive for functional (Darian & Tucci, 2011 [67]; Horska & Sparke, 2007 [1]; Kraus, 2015 [26]) and organic (Bauer, Heinrich, & Schäfer, 2013 [44]; Hamzaoui Essoussi & Zahaf, 2009 [128]; Kareklas, Carlson, & Muehling, 2014 [37]; K. H. Lee et al., 2015 [28]; Nasir & Karakaya, 2014 [59]; Paul & Rana, 2012 [58]; Thøgersen, de Barcellos, Perin, & Zhou,

2015 [36]; Vega-Zamora et al., 2014 [124]; Wier et al., 2008 [190]) foods alike, as well as other food products such as fresh meats (S. N. Ahmad & Richard, 2014 [5]; Van Wezemael, Caputo, Nayga, Chryssochoidis, & Verbeke, 2014 [13]); fruits and vegetables (Darian & Tucci, 2013 [154]); gluten-free snacks (N. L. W. Wilson, 2012 [182]), etc. The remaining hierarchy of desired product benefits is market and product-specific. Convenience and quality (Horska & Sparke, 2007 [1]; Kraus, 2015 [26]) are important purchasing motives for functional foods; taste (Bauer et al., 2013 [44]; K. H. Lee et al., 2015 [28]; Thøgersen et al., 2015 [36]; Wier et al., 2008 [190]), environmental safety (Bauer et al., 2013 [44]; Hamzaoui Essoussi & Zahaf, 2009 [128]; Kareklas et al., 2014 [37]; K. H. Lee et al., 2015 [28]; Thøgersen et al., 2015 [36]) combined with other social and ethical concerns (Hamzaoui Essoussi & Zahaf, 2009 [128]; K. H. Lee et al., 2015 [28]; Nasir & Karakaya, 2014 [59]), quality and authenticity (Vega-Zamora et al., 2014 [124]) for organic foods; and taste (S. N. Ahmad & Richard, 2014 [5]; Altintzoglou et al., 2010 [69]; Chang et al., 2012 [234]; Darian & Tucci, 2013 [154]) and convenience (Altintzoglou et al., 2010 [69]; Darian & Tucci, 2013 [154]; McManus et al., 2014 [222]) are reported for various other food categories competing for health positioning.

Finally, *consumer segmentation* studies and their results are proposed as strategies of market research that can be applied to health-related market expansion. Research here focuses not only on psychographic differences between consumer segments (Liang & Lim, 2011 [29]; Nasir & Karakaya, 2014 [59]; Zhou et al., 2013 [68]), but also explores variations in consumer segments in specific geographic locations, primarily in developing markets (Horska & Sparke, 2007 [1]; Paul & Rana, 2012 [58]; Thøgersen et al., 2015 [36]). Additionally, some specific segments are subject to close-up investigation, such as senior consumers (Annunziata et al., 2015 [24]; M. Kim et al., 2013 [135]), health and nutrition-conscious consumers (Divine & Lepisto, 2005 [55]; Granzin et al., 1998 [112]; Josiam & Foster, 2009 [133]), and typical organic or local produce consumers (Hamzaoui Essoussi & Zahaf, 2009 [128]; Stanton, Wiley, & Wirth, 2012 [70]; Wier et al., 2008 [190]). The common objective of segmentation studies, as we can see, is either to uncover the next potentially profitable market segment that currently is not satisfied or exploited enough (e.g., senior consumers who are not only more numerous in ageing societies but also have considerably higher purchasing power or developing markets such as Brazil, India or China), or try to learn as much as possible from the current frequent or heavy consumers in order to apply such knowledge in order to better serve non-frequent or light consumer or convert non-users into users.

Table 7.10. Creation or expansion of health-related food markets research.

	Study / reference	Country of research	Research context/ market	Levers for market creation/expansion	Results
Functional foods market					
[60]	(Childs & Poryzees, 1997)	USA	Nutraceu-ticals	Consumer attitudes towards an emerging food category	According to the survey of consumer concerns, three critical areas for future market development of nutraceuticals: (1) product development issues and especially the delivery of nutritionally- enhanced foods; (2) communications issues and, in particular, combating the "anti-science" prejudice (and tendency to chose more "natural" foods) held by many consumers through the right name (e.g., nutritional food is preferred), (3) regulatory concerns such as food labeling and availability of medicines or medicine-type products.
[118]	(G. Armstrong et al., 2005)	UK	Fortified dairy products	Consumer awareness, perceptions, and attitudes	There is potential for the added-value and health-enhancing food products industry to expand further. One barrier to wider adoption is a general lack of awareness of the health-enhancing food concept and the level of health benefits of such products, as well as the consumer perception that these products do not offer value for money. Therefore, a pre-requisite for further industry growth is development of enhanced consumer segmentation and product positioning strategies.
[67]	(Darian & Tucci, 2011)	USA	Functional foods	Attributes hierarchy for product benefits marketing	The single most important health benefit influencing purchase intentions is high nutritional value. If two health benefits are to be promoted, the most effective combination would be high nutritional value and the potential to reduce cancer, followed by high nutritional value and proven to reduce the risk of heart disease. However, for those respondents with less than a college education, the most effective combination would be high nutritional value and the potential to reduce arthritis.
[1]	(Horska & Sparke, 2007)	Germany, Poland, Spain, England	Functional foods	Consumer segmentation for further expansion of the category	The functional foods market reflects two trends: health and convenience. Five segments of buyers are: enlightened and convinced (15%), hesitating unmotivated (20%), reasonable health-oriented (11%), impressed testers (16%), and enthusiastic beauty-oriented (11%), Three groups of non-buyers are: enlightened and ignoring (5%), mistrustful skeptical (9%), cost-conscious prevented (13%).
[10]	(P. Williams et al., 2008)	Australia	Functional foods	Compatibility of health claims and base products affecting purchasing decision	Claims and carriers independently had a significant effect on ratings of attractiveness and intention to try but the carrier was a more important predictor of intention to purchase than the claim, which is based on prior beliefs of the nutritional quality of the carrier. Claims about serious diseases were rated more attractive, and increased the likelihood of trying the product more so than claims for psychological or appearance benefits. Attractiveness, credibility, and uniqueness of the food concept accounted for only 56% of the likely intention to try.
[24]	(Annunziata et al., 2015)	Italy	Cholesterol-lowering yogurt	Consumer awareness and preference; perception of health benefits, symbols and claims by older consumers	Health claims on functional foods influence older consumers' perceptions of the healthiness of products, yet they experience difficulties reading and interpreting nutritional information and health claims on food labels. Significant barriers to functional food acceptance and use by older consumers include price sensitivity, availability, and general skepticism of the reliability of the information provided by food manufacturers.

Table 7.10. Creation or expansion of health-related food markets research. [Continued]

	Study / reference	Country of research	Research context/ market	Levers for market creation/expansion	Results
[26]	(Kraus, 2015)	Poland	Functional foods	Product characteristics, properties hierarchy, preference for carriers influencing purchasing decisions	Preference for functional foods is influenced by such features as: quality attributes (safe, natural, healthy), organoleptic attributes (good taste), packaging and labeling attributes (expiration date, healthful properties information), healthful properties (immune strength, risk of certain cancers reduction, risk of cardiovascular diseases reduction, body weight maintenance, eyesight strength, memory improvement, and physical condition improvement), functional components (vitamins, minerals, omega-3 fatty acids, dietary fiber), base products (bread, dairy, cereal, mixtures of fruits and vegetables, meat products), functional consequences (improvement of health, needs of the organism, healthy eating), psychological consequences (conscious choice, health promotion), autotelic values (good health and long life, health safety, inner harmony, self-respect and self-confidence, responsibility for health, care for health).
Organic foods market					
[190]	(Wier et al., 2008)	UK, Denmark	Mature markets of organic foods	Consumer perceptions and priorities, labeling schemes, and sales channels	Most organic food on both markets is produced and processed by large-scale industrialized units and distributed through mainstream sales channels, consumer confidence being sustained at present by organic labeling schemes that appear to function well. However, a parallel market, based on the supply of goods through various direct sales channels to heavy users, prevails. Organic food purchase decisions are primarily motivated by 'private good' attributes such as freshness, taste and health benefits, attributes that may be perceived as being compatible with modern production, and sales structure. Mature markets for organic foods nevertheless appear to be vulnerable to consumer dissatisfaction, particularly among frequent consumers of organic food products.
[128]	(Hamzaoui Essoussi & Zahaf, 2009)	Canada	Organic foods	Purchasing motives, trust orientation, and barriers to larger demand	Typical organic product consumers have a defined purchase scheme in terms of retail store selection and price, as well as values and trust orientations. They identify health as their primary motivation to consume organic foods, along with concern for the environment and support for local farmers. Health motivation is mainly based on avoidance of chemical residues, antibiotics, hormones, genetically modified organisms, and diseases. Distribution, certification, country of origin, and labeling are all related to consumers' level of trust when consuming organic foods.
[33]	(van Doorn & Verhoef, 2011)	Nether-lands	Organic foods	(Un)willingness to pay for virtue vs. vice food categories	Respondents with a very high environmental concern would pay up to 13% more for organic virtue products. In the vice food categories, organic claims are associated with lower quality, which seems to be only partly compensated by their higher pro-social benefits. The lower-quality perceptions translate into a decreased consumer willingness to pay, which is confirmed by actual purchase data showing that market shares of organic food are indeed lower for vice categories of organic food.
[58]	(Paul & Rana, 2012)	India	Organic foods	Attitude and purchase intentions	Health, availability, and education (as a demographic factor) positively influence the consumer's attitude toward buying organic food. The overall satisfaction of consumers with organic food is higher than with inorganic food however the satisfaction levels vary.

Table 7.10. Creation or expansion of health-related food markets research. [Continued]

	Study / reference	Country of research	Research context/ market	Levers for market creation/expansion	Results
[44]	(Bauer et al., 2013)	Germany	Organic cereal	Purchasing motives for global, local, and private brands	Healthiness, alongside hedonism, environmental friendliness, and food safety are the key motivational drivers of organic food purchasing behavior. The use of an organic label leads to an improvement in global, local, as well as private brand perception. The organic label has a strong positive effect on purchase intention and leads to a significant increase in the consumer's willingness to pay a price premium for the brand. Compared to global and local brands, private brands are likely to benefit more from the use of organic labels.
[68]	(Zhou et al., 2013)	China	Organic foods	Personal values as antecedents of purchase intentions	Self-transcendence (universalism, benevolence) values moderate the relationship between antecedent (attitude towards organic) and behavioral intention (perceived behavioral control). Marketers should adapt their marketing plans to different value segments and especially to focus on consumers whose value priorities fit the product.
[124]	(Vega-Zamora et al., 2014)	Spain	Organic foods	Meaning and interpretations of the term "organic" as guiding consumption behavior	Regardless of the official meaning of the term "organic," the consumers' interpretation of it can vary significantly, as this is a process of individual, subjective de-coding that involves the person's values and attitudes. To put it simply, "organic" carries meanings that are coherent with the values of some consumers. It is the evocative power of the word, the interpretation they put on it, and the promise of experiences that it holds out to many consumers that constitute the difference they perceive compared to any other product. In the majority of cases, opinions and behavior regarding organic food might not be the direct result of pro-environmental attitudes. Organic is not an end in itself, but a means to achieve a more important goal: health, quality, and authenticity.
[37]	(Kareklas et al., 2014)	USA	Organic foods	Purchasing motives in the light of self-construal theory	Both egoistic factors (e.g., the belief that organic food is healthier than conventional food) and altruistic factors (e.g., perceptions that organic food production is more environmentally friendly) concurrently predicted consumers' attitudes and purchase intentions toward organic food. Results show that a combination of both egoistic and altruistic appeals produces more favorable responses, and are equally effective as a purely altruistic appeal.
[59]	(Nasir & Karakaya, 2014)	EU	Organic foods	Consumer segments and their attitudes to organic consumption	The cluster analysis indicated that there are three segments based on consumer attitudes toward organic foods: favorable, neutral, and unfavorable. The results show that compared to others the consumer segment with more favorable attitudes toward organic foods exhibits higher levels of health orientation and socially responsible consumption behaviors.
[36]	(Thøgersen et al., 2015)	Brazil, China	Organic vegetables	Purchasing motives in emerging economies	The reasons why Brazilian and Chinese consumers buy organic food are strikingly similar to what is found in Europe and North America. Consumers' attitude toward buying organic food is strongly linked to beliefs about its healthiness, taste, and environmental friendliness. Also, consumer attitudes toward buying organic food are positively related to Schwartz's "universalism" values as found in all studied cultures.
[28]	(K. H. Lee et al., 2015)	Korea	Organic coffee	Consumer environmental concern and price sensitivity as predictors of purchasing intentions	Consumer concerns with health, trust, and environmental protection are predictors of organic coffee purchase attitudes. The motives of trust, sensory appeal, and environmental protection affected subjective norms, and the latter – environmental protection – was also considered a predictor of perceived behavioral control. In addition, ethical concern and price sensitivity play significant moderating roles upon organic coffee purchasing behavior.

Table 7.10. Creation or expansion of health-related food markets research. [Continued]

	Study / reference	Country of research	Research context/ market	Levers for market creation/expansion	Results
Naturally healthy foods market					
[113]	(Ilbery & Kneafsey, 2000)	UK	Local specialty food products	Quality attribute as constructed, regulated and marketed in specialty foods segment	Quality is a complex and contested notion, the meaning of which is socially constructed and thus variable according to different socio-cultural contexts. In terms of the marketing indicators of quality, producers emphasize those of specification (production methods) and attraction (consumer desires) rather than certification (official quality marks) and association (connection to geography or tradition and culture).
[69]	(Altintzoglou et al., 2010)	Denmark, Norway, Iceland	Seafood	Consumption barriers by young adults and parents of young children	Seafood products are generally perceived as either healthy or convenient (concerns about the amount of effort required to prepare it). These concerns resulted in an expression of their need for products that are attractive, healthy, palatable, and convenient. In particular, the newly developed products should be accompanied by clear advice on preparation methods and materials. An increase in seafood availability coupled with lower prices would encourage consumers to add seafood to their diet.
[129]	(Sigurdsson et al., 2011)	Norway	Fruits and vegetables, retail	In-store interventions	While consumers have a very positive attitude towards in-store interventions leading to increasing their fruit and vegetable purchase and consumption, the real-world in-store experiment of placing fruits and vegetables in more salient areas in the store fails to change consumers' buying behavior.
[17]	(Moon et al., 2011)	USA	Soy	Consumption intention by users vs. non-users	Non-soy users and infrequent soy users who were exposed to either FDA health claims or general health claims are significantly more likely to eat soy-based food products, which have become known as a healthier protein substitute for meat. FDA or general health claims, however, did not change the behavioral intentions of regular soy users. These results suggest that soy consumption status moderates the impacts of health claims on behavioral intentions. However, the impact of the FDA health claim did not differ from that of general health claims, indicating that the word 'FDA' did not add any additional information to consumers beyond the general health claim.
[234]	(Chang et al., 2012)	USA	Soy	Consumers' willingness to pay for soy products' attributes (taste, soy protein content, health claim, and price)	Consumers have widely varying preferences for soy-based food products. While taste is the dominating attribute that drives consumers' WTP for soy food products, consumers do respond to the information provided in the health claim. Yet, consumers do not seem to be recognizing soy protein as the link to health benefits of soy foods.
[154]	(Darian & Tucci, 2013)	USA	Vegetable market segment	Product attributes that influence consumption	For food in general, nutrition and impact on weight are more important than value for money, ease of preparation, and taste. However, for vegetables, while the nutrition and weight benefits are very positive factors, taste, cost, and ease of preparation inhibit consumption. The results of a cluster analysis suggest that marketing strategies should be adapted for different consumer segments.
[222]	(McManus et al., 2014)	Australia	Fresh and frozen seafood	Consumer perceptions and preferences	The top categories of seafood most frequently purchased reflect the desire of consumers' preferences for convenience and the dominance of planned rather than impulse purchases, respectively. There was significant confusion among respondents about what constitutes 'fresh' seafood (seafood caught that same day or the accepted definition of never frozen). There is significant potential for the development of regulations for labeling of unpackaged seafood in order to allow consumers to make informed decisions about their purchases.

Table 7.10. Creation or expansion of health-related food markets research. [Continued]

	Study / reference	Country of research	Research context/ market	Levers for market creation/expansion	Results
Foods with ambivalent health profile market					
[200]	(Subrahmanyan & Cheng, 2000)	Singapore	Genetically modified foods	Consumer perceptions and attitudes	Although the US and Europe account for 90 percent of the world's biotechnology activities, their biggest markets are destined to be in Asia. The major concerns that Asian consumers have about GM foods are related to health issues, specifically to the absence of scientific studies about the long-term health effects of eating GM foods and that such foods may be harmful for children. A very large percentage would like GM foods to be labeled.
[126]	(Klerck & Sweeney, 2007)	Australia	Genetically modified food	Consumers' objective and subjective knowledge of the perceived risk associated with GM food	Increased knowledge about the history, process, and scientific risks and benefits of GM foods seems to reduce concerns about the taste and quality benefits, as well as allay feelings of anxiety about the purchase of GM foods. In other words, objective knowledge about GM food significantly reduces performance and psychological risks, whereas subjective knowledge reduces physical risk, the impact of which depends on the level of the consumer's objective knowledge.
[29]	(Liang & Lim, 2011)	N/A	Specialty foods	Differences of consumers with different food-related lifestyles related to online buying behavior	With regard to their online purchasing behavior consumers, can be classified into two food-related lifestyle segments: (1) traditionalist consumers and (2) adventurous and health-conscious consumers. Adventurous and health-conscious consumers are younger, are more likely to enjoy tasting new things, spend less time browsing specialty food websites, and bought specialty food at a higher frequency than traditionalist consumers.
[5]	(S. N. Ahmad & Richard, 2014)	Canada	Processed seafood & chicken	Desired product attributes and their perceived value	Branding and other quality and convenience attributes positively affect price increase. However, not all positive attributes are valued equally. Combinations of product form, brand, and package size have the greatest impact on the retail price paid by consumers. Overall, consumers show higher preferences for perceived "natural" and health attributes over products with higher degrees of processing. The results further indicate that the process of adding value to food products is intricate and dependent on multiple other indicators of product quality (e.g., brand, convenience, package size, product form, processing), not the least of which is health.
[13]	(Van Wezemael et al., 2014)	Belgium, France, Netherlands, UK	Beef with health & nutrition claims	Consumer preferences and willingness to pay for food products with health & nutrition claims	The results generally suggest that consumer valuation of nutritional and health claims made on beefsteaks varies across countries. In Belgium, the Netherlands and France, nutrition and health claims on saturated fat yielded higher utilities than claims on protein and/or iron, while the opposite was found among consumers in the UK.
[182]	(N. L. W. Wilson, 2012)	USA	Gluten-free snacks	Consumer preferences for product attributes	To improve the ranking of such non-traditional products as gluten-free cookies (whose market is seeing growth not only thanks to gluten intolerances, but due to people interested in cutting gluten from their diets for health-related beliefs) the product should have a relatively low price, be relatively low fat, be gluten free, have no partially hydrogenated oils, and not be organic.
Food away from home and restaurants					
[133]	(Josiam & Foster, 2009)	USA	Full-service restaurant	Consumer demand for and attitudes toward nutritional information (on menus)	Some market segments would dine out more often in restaurants if nutritional information was made available. Segments concerned about nutritional information are females, those aged 35 to 65, and those belonging to the higher income and college-educated strata. Consumers eating healthy food at home are more likely to use nutritional information in restaurants, as are those who dine out as a necessity. Nutrients that consumers are most concerned about are fat, saturated fat, and trans-fat.

Table 7.10. Creation or expansion of health-related food markets research. [Continued]

	Study / reference	Country of research	Research context/ market	Levers for market creation/expansion	Results
[135]	(M. Kim et al., 2013)	Korea	Vegetable & soy-based restaurant meals	Health-oriented senior and non-senior diners' attitude, trust, healthy choices, and emotional loyalty	The senior group is one of the most promising market segments and provides significant revenues for health-oriented restaurants. The senior market segment differs from the non-senior market segment in the following ways: the magnitude of impact of LOHAS (i.e., lifestyle of health and sustainability) on healthy food choices is much stronger for senior diners than for non-senior diners and the impact of LOHAS on trust and emotional loyalty is greater for seniors than non-seniors.
Segmentation					
[112]	(Granzin et al., 1998)	USA	Health-promoting lifestyle consumers	Market for health-related offerings based on consumers' involvement with health-promoting behaviors	A cluster analysis of consumers' participation in 29 health-promoting behaviors identified six consumer segments. Four segments appear to be viable targets for marketers, based on their positive association with various combinations of exercise and nutrition behaviors and related attitudes and other descriptive characteristics. Two other segments lack the interest in health-promoting behavior or their participation in health-repressing behaviors, and may be targeted by public health promotion initiatives instead.
[55]	(Divine & Lepisto, 2005)	USA	Healthy lifestyle consumers	Demographic, personal values, and psychographic characteristics of healthy lifestyle consumer segment	Consumers who are most likely to maintain a healthy lifestyle tend to be female, older, more educated, place less importance on the value of "excitement," have a greater tendency to plan ahead, and tend to experience less role overload.
[70]	(Stanton et al., 2012)	USA	Locally grown foods	"Locavores" market segments of a population that purchases locally grown produce	This paper profiles the segment of locavores in terms of marketing relevant criteria (attribute, trial and usage). The attribute "local" was significantly more impactful in changing preference than "organic." It was also found that there were three segments of locavore consumers: those that most valued the quality, a second that was most interested in price, and a third most interested in the health and/or lifestyle attributes such as local and organic attributes. Large differences were found between locavores and non-locavores on such criteria as price sensitivity, outlet preferences, and media characteristics preferences.

Source: Author's own elaboration.

7.5. Critical research

This meta-category, composed of two distinct research streams, can be considered a convenience category of two research approaches that share a generally critical outlook and offer a wider institutional, societal, and systems perspective on health-related food marketing. The first research stream, "market failure" (13 articles, section 7.5.1) is concerned with economic and social analysis of unintended and (potentially) dangerous outcomes of marketing practices on consumer health and welfare. The second research stream, "responsibilization" (8 articles, section 7.5.2), draws from social theories and focuses primarily on the analysis of social construction of a responsible consumer subject.

7.5.1. Market failure research

According to a widely held belief, one of the main reasons for growing health problems (WEF, 2015; WHO, 2014) and the ever-decreasing quality of diet despite a steady increase in healthy food education and consistent growth in consumption of healthy foods, is simply that consumption of unhealthy foods—heavily promoted and supported by the food industry—does not decline, but continues to grow, sometimes faster than consumption of healthy foods (Friedrich, 2015; Imamura et al., 2015). In other words, food marketing is held accountable for detrimental effects on consumer health and wellbeing (Ludwig & Nestle, 2008; Nestle, 2013; Varey & Pirson, 2014). The stream of research we refer to as "market failure" is concerned precisely with clashes of societal benefit of health with the interests of marketing. In their review Seiders and Petty (2007 [162]) sum up the need to examine market failures as following:

> In addressing a societal problem, the importance of examining possible causes and remedies is obvious, but the need to assess possible market failures is less commonly acknowledged. The imperative to consider market failures is derived from the widely held belief in the United States that the "free market" is the best way to allocate resources and that government should not interfere with the free market without an explicit justification. The term "market failure" is somewhat of a misnomer because it suggests that the market is broken. Indeed, a market failure is any difference between actual market behavior and performance and that predicted by economic models of perfect competition. Although economic models are highly useful, they are based on simplifying assumptions about market operations, including transactions costs, the availability of information, and human behavior. […] These are not "failures" that must be fixed, but rather, they are simply differences between economic models and real-world market behavior. (Seiders & Petty, 2007, pp. 237–238 [162])

One type of market failure, information asymmetry, is part of the "information environment" research discussion. Other types of (potential) adverse effects on consumer health provoked by market functioning are grouped here (see Table 7.11), and can be divided into research about (potentially) harmful marketing practices and research about consumers who are especially vulnerable to marketing spillover effects. Similar to the information environment

research stream, market failure research is more likely than research in other streams to be non-empirical (46% vs. 13.2%$_{all}$) and rely on economic theories (38% vs. 16.3%$_{all}$).

Among *marketing practices* that may result in a serious threat to public health the most researched is package (or portion) size and the practice of supersizing (Jain, 2012 [121]; Quilliam, 2006 [64]; Seiders & Petty, 2004 [174]) and the complementary practice of nonlinear supersized pricing (Talukdar & Lindsey, 2013 [85]), which not only leads to impulsive purchases and consumption of larger amounts of food, but also switches consumers' focus from health value towards an alternative financial value of wise spending. Additionally, research finds undesirable asymmetric patterns to price increases (vs. decreases) for health vs. unhealthy foods (Haws & Winterich, 2013 [86]). Price and supersizing failure are followed by regulatory design failures, such as openness of regulation to the influence by food firms' interests (Redmond, 2009 [173]) and overly complex legislation that "grew more complicated for industry to comply with, consumers to navigate, and regulators to regulate" (Kolodinsky, 2012, p. 198 [78]). Additionally, product formulations that are attractive to the senses, but unnecessarily high in calories and fat (Carrete & Arroyo, 2014 [165]; Seiders & Petty, 2004 [174]); lack of available food alternatives for some consumers (Lavin, 2005 [35]; Seiders & Petty, 2004 [174]); and excessive promotion and advertising of unhealthy but convenient foods are subject to the market failure criticism in marketing research (Moore & Rideout, 2007 [109]; Seiders & Petty, 2004 [174]; Stitt & Kunkel, 2008 [150]).

Moreover, research finds that the very practice of healthification of product offerings (which is done according to current "best practices" and regulations by adding a beneficial component or removing a harmful nutrient) does not only lead to consumers' perception biases and increased energy intake overall (Chandon, 2010 and other research on consumer inferences, see "categorization heuristics" research stream), but is also ethically problematic (Anker et al., 2011 [41]). Potential ethical problems include creation or exploitation of irrational health concerns, consumer pathologizing, distortions of knowledge, stereotyping, and symbolic medicalization leading to overall health desensitization.

Among *consumers* deemed especially susceptible to potential health harm, research identifies lower income households (Lavin, 2005 [35]; Talukdar & Lindsey, 2013 [85]), younger consumers (Carrete & Arroyo, 2014 [165]; Talukdar & Lindsey, 2013 [85]), and particularly children (Moore & Rideout, 2007 [109]; Newman, Howlett, & Burton, 2014a [43]; Seiders & Petty, 2007 [162]; Stitt & Kunkel, 2008 [150]) who have become a special concern in the light of growing childhood obesity concerns (WHO, 2014) and their ambiguous consumer status (J. Henderson, Coveney, Ward, & Taylor, 2009 [169]; Seiders & Petty, 2007 [162]) between a passive vulnerable innocent, subject to parents' decisions (in need of protection through special policies) and active agents exercising "pester power" (in need of education).

Table 7.11. Macro-marketing research on health-related market failures.

	Study / reference	Country of research	Research context	Marketing practices contributing to (or subject of) market failure	Results
[174]	(Seiders & Petty, 2004)	USA	Food industry as a whole	Influence of food marketing practices on obesity and associated policy issues	Some food marketing practices may pose a serious threat to public health: e.g., product formulation and package size unnecessarily high in fat and/or calories and sold in excessively large servings; complex or uneven (not in restaurants) disclosure of nutritional information; advertising and promotion practices esp. targeting children. Resulting market failures (lack of disseminated information on the causes and consequences of obesity; probabilistic and deferred nature of obesity-related harms; lack of accessible and usable nutritional information related to obesity; the lack of alternative food choices for some consumers) influencing consumer food choices are moderated by existing informational and regulatory policies in the forms of indirect (education, information) and direct (financial incentives, restrictions on certain marketing practices) remedies, public and private costs of reducing obesity with related medical costs).
[35]	(Lavin, 2005)	USA	Food deserts	Access to healthy foods by lower income households in case of food deserts	The presence of a large supermarket provides residents of a low-income area with important access to the foods necessary for a healthy diet. The allocation of space to nutritious foods and to those with minimal nutritional value as well as the pricing and promotion of those goods at the Pathmark Harlem store is similar to that of suburban supermarkets. Large chain supermarkets may be uniquely positioned to improve access to healthy foods in lower-income urban areas.
[64]	(Quilliam, 2006)	USA	Packaging practices	Brand extensions based on supersizing	Brand extensions that are based solely on introducing larger sizes may meet consumer needs and benefit organizations in the short term, but at the risk of diluting brand equity and compromising society's long-term health goals.
[109]	(Moore & Rideout, 2007)	USA	Children-targeted advertising	Online food marketing to children of concern to public policy makers	Based on the systematic content analysis of food marketers' web sites that either target children directly or contain content of interest to them, 11 online marketing practices of public policy relevance were identified: i) unhealthful brand nutritional profiles, ii) persuasion potential of "advergames", iii) ethics of viral marketing, iv) no limits on advertising exposure, v) limited use of "ad breaks", vi) opportunities for corporate research abound, vii) information for parents is available, viii) children's online privacy protections, ix) direct inducements to purchase, x) a new venue for licensing and host selling, xi) learning potentials and pitfalls.
[162]	(Seiders & Petty, 2007)	N/A	Review of research findings	Childhood obesity risks attributed to food-marketing practices	Although packaged food marketers are setting their own voluntary restrictions on products to be marketed during entertainment content targeted at children, the impact of such restrictions is limited because children are substantial viewers of general entertainment content. More prominent nutrition disclosure oriented toward obesity concerns for both packaged foods and fast-food restaurants should be more fully considered. Further, increased marketing research is needed, with such particularly promising research areas as (1) understanding children as consumers, (2) assessing the role of parents as gatekeepers, (3) exploring diverse consumer segments, and (4) evaluating regulatory options.

Table 7.11. Macro-marketing research on health-related market failures. [Continued]

	Study / reference	Country of research	Research context	Marketing practices contributing to (or subject of) market failure	Results
[150]	(Stitt & Kunkel, 2008)	USA	Food advertising to children	Advertising low-nutrient, high-calorie food products to children as a contributor to the epidemic of childhood obesity	Food advertising accounts for nearly half of all commercial messages on children's programs. An average hour includes 11 food ads that account for 4:25 of total ad time. Broadcast channels deliver more food advertising than cable channels, although the types of food products marketed on both channels are highly similar. The overwhelming majority of food ads directed to children are for high-calorie, low nutrient food products that should not be part of a regular diet. Three categories dominate the food advertising targeted at children: fats/sweets (38.7%), breads/cereals (34.4%), and fast foods/restaurants (20.8%) collectively account for more than 9 out of every 10 food commercials shown.
[173]	(Redmond, 2009)	USA	Food labeling regulation	Dynamics and roots of food marketing failure in the perspective of political economy	Regulation of food labeling is governed by internal food market rules and value-systems/interests (i.e., information power & influence, legitimacy). In the case of packaged foods, regulatory failure may be viewed as resulting from a combination of food firms' strategic interests in shaping the control system and the openness of the regulatory process to such influence. In the case of packaged food marketing, the root of market failure is a failure to apply the marketing concept (i.e., success of any business is how well it serves the customers, if a business does not serve the interests of consumers it's not justified); it is an improper elevation of corporate interests relative to consumer interests possibly resulting in harm to the consumers.
[41]	(Anker et al., 2011)	n/a	Food branding	Healthy branding ethics to be considered in application of health brand elements (functional claims, processing claims, health symbols)	There is a number of potential ethical problems in health branding related to the application of three health brand elements (i.e., functional claims as narrow claims, inference-based process claims, stereotyping, symbolic medicalization leading to desensitization resulting from health symbols) and to health branding (i.e., brand extensions from healthy to unhealthy products, pathologizing, exploiting of existing irrational concerns, distortion of knowledge).
[121]	(Jain, 2012)	n/a	Food packaging	Small vs. large package sizes and profitability vs. consumer health/self-control	Firms can help consumers avoid overconsumption of food by offering small packages. However, the resulting substitution of large packages with small packages poses a risk for the firms in that it can reduce total unit sales and thereby a firm's profits. Introducing small packages can increase firms' profits only when a small fraction of consumers have overconsumption problems or when small packages can bring in new customers. Competition can sometimes reduce the incentives for firms to introduce small packages. This is particularly true when a large fraction of consumers is attracted to small packages. The firms' profits can sometimes decrease if they produce healthier alternatives of their goods.
[85]	(Talukdar & Lindsey, 2013)	USA	Healthy vs. unhealthy food categories	Effect of price increase/decrease on consumer demand for healthy vs. unhealthy food	Consumers exhibit undesirable asymmetric patterns of demand sensitivity to price changes for healthy and unhealthy food. For healthy food, demand sensitivity is greater for a price increase than for a price decrease. For unhealthy food, the opposite holds true. The research further shows that the undesirable patterns are attenuated or magnified for key policy-relevant factors that have been shown to decrease (e.g., peer/social network, fear) or increase (e.g., lower income, younger age) impulsive purchase behavior, respectively. The undesirable demand patterns are magnified for younger and lower-income participants—groups that have shown a tendency to consume more impulsively than older and higher- income consumers.

Table 7.11. Macro-marketing research on health-related market failures. [Continued]

	Study / reference	Country of research	Research context	Marketing practices contributing to (or subject of) market failure	Results
[86]	(Haws & Winterich, 2013)	USA	Snacks	Supersized pricing	Supersized pricing is a context in which an immediately consumable food product is priced nonlinearly such that the price per unit decreases as the overall quantity increases, resulting in a larger quantity for a disproportionately small increase in price. Supersized pricing increases purchase (and consumption) size through a decreased focus on health importance and enhanced focus on financial value (justification for a larger purchase). On the positive side, health cues can overcome the tendency to favor financial value over health in the presence of super- sized pricing: if the immediate environment contains health cues, consumers will be less likely to supersize their unhealthy snacks.
[165]	(Carrete & Arroyo, 2014)	Mexico	Consumers in emerging economy	Drivers and inhibitors of healthy diet behavior (change)	Perceived low self-efficacy and high costs prevent change of behavior. Meanwhile, low vulnerability and severity among younger consumers adds to the low intention to adopt a healthier diet. In general, the sensory attributes of products, such as texture, flavor, color, smell, and appearance, prevail over nutritional attributes.
[43]	(Newman et al., 2014a)	USA	Eating environment	Fast food concentration and pre-school aged childhood obesity	Higher levels of fast food restaurant saturation are associated with increased levels of childhood obesity in both urban and poor areas, with the largest negative effect of fast food availability on obesity occurring in more economically disadvantaged, urban areas.

Source: Author's own elaboration.

7.5.2. Responsibilization and social construction of health research

The only research stream with notable preference for qualitative research designs (62.5% vs. 10%$_{all}$), non-American research setting (87.5% vs. 43.7%$_{all}$) and inspired by social theories (75% vs. 5.3%$_{all}$), primarily by Foucault's governmentality (2001a), this stream of research examines how food industry, scientists, public authorities and governments use the idea of responsible consumers to construct healthy foods as marketable objects (see Table 7.12).

The food marketing complex, from product (re)formulation and innovating on functional ingredients (Weiner, 2010 [131]), corporate social responsibility initiatives (Colls & Evans, 2008 [7]; Herrick, 2009 [132]), advertising (Schneider & Davis, 2010a [6]), to regulation of advertising (J. Henderson et al., 2009 [169]), and voluntary information disclosures (Schleifer, 2013 [228]), is organized to promote the notion of individual consumer responsibility for health, which includes a moral obligation to be autonomous, self-motivated and self-reflective, the duty for self-control, discipline and self-regulation in eating, and the requirement to use the market (even in apparent market resistance) to exert and materialize such responsibility through consumption. Alternatively, the responsibility extends past the individual and becomes a responsibility for the significant other, a child (Colls & Evans, 2008 [7]) or, generally, a family member (Costa, 2013 [151]; J. M. Cronin et al., 2015 [8]; Schneider & Davis, 2010a [6]). At the same time, the "imagined" responsible consumer also governs how food industry players anticipate consumer response to market offerings (e.g., through projected measurements of consumer demand, consumer trust, desired product attributes, and unmet needs) and formulate a suitable marketing strategy (Colls & Evans, 2008 [7]; Schleifer, 2013 [228]). In this sense, health food has been socially constructed over the decades based on the neoliberal ideal of individualization of consumer responsibility for health, both produced by and exercised through the context of free markets.

7.6. Other research streams

The remaining groupings of research aggregated in this section represent minor research agendas in health and food marketing and consumer research. The feature they all have in common is that they stem from one (or several) main research streams, but use a different perspective in approaching the same problem.

"Self-control and prevention mindset" research (4 articles, Table 7.13) stems from "information processing" research and offers a different perspective on the issue of motivation and health-consciousness. By focusing on individuals with prevention mindset, those focusing on health goals and practicing discipline and restrictions on food choices, this research stream shows that chronic self-control is exhausting (Walsh, 2014 [57]) and may eventually negatively influence otherwise healthy perspectives or choices (Bui & Krishen, 2015 [125]; Khare & Chowdhury, 2015 [73]). This research stream shares many premises with "categorization heuristics" research stream yet differs in explicit focus on self-control from the perspective of models and theories in social psychology.

Table 7.12. Research on consumer responsibilization and social construction of healthy food.

	Study / reference	Country of research	Research context	Mechanics of consumer responsibilization	Results
[7]	(Colls & Evans, 2008)	UK	Food retailers' CSR strategies	Individual vs. Collective responsibility for children's food choices	The process by which food retailers engage into negotiation of responsibility for the health of consumers , e.g., through provision of private label 'healthy' food, is governed through its corporate social responsibility (CSR) strategies. 'Placing' of responsibility for children's 'healthy' eating by supermarkets is problematic because it depends on a notion of responsibility that is placed upon certain actors (parents) and not others (supermarkets, society). This notion of individual responsibility is reflective of wider debates about responsibility for children's health, which seek to place 'blame' on individual people, companies, or groups. Responsibility as contained within the individual, is unhelpful because of its exclusivity, suggesting the need to establish a collective notion of responsibility instead.
[132]	(Herrick, 2009)	USA, UK	Food industry CSR strategies	Shifting blame through corporate social responsibility and strategic use of health practices	CSR strategies by the global food and drink industry may lead to a number of problematic sociological consequences: i) health and wellbeing are being used to secure brand value and consumer goodwill at a time when mounting obesity rates demand new levels of accountability from the food industry; ii) promotion of a narrow epidemiological understanding of obesity, shifting blame from 'foods' to 'diet' and from 'diet' to 'sedentarism', iii) CSR reporting and its associated practices have enabled the food industry to assume some responsibility for obesity prevention, thereby problematizing the state's role in addressing its own 'public health' crisis.
[169]	(J. Henderson et al., 2009)	Australia	Media reports on childhood obesity	Decentralization of responsibility for food regulation and individualization of responsibility for health	Media reports of regulation of fast food advertising in the Australian print media identified three positions in relation to responsibility for regulation: governmental regulation, industry self-regulation, and personal responsibility for fast food consumption. All sides of the debate reflect and promote the ideals of neoliberalism evident in the decentralization of responsibility for regulation, the codification of practice standards and individualization of responsibility for health, promotion of the importance of a self-reflective, self-regulating collective or individual subject, capable of practicing the necessary ethics required to fulfill their moral obligations. This subject, either as an individual or a collective, is at the heart of modern government practices where the mentality of government, as explicated by governmentality, rests less on state reprimand, and more on self-remonstration as form of effective control.
[131]	(Weiner, 2010)	n/a	Phytosterols & functional foods	'Configurating' responsible consumers within biomedical research and writing on new functional substances	Within biomedical research and writing on the topic, users of phytosterols are constituted variously as: autonomous, self-motivated consumers; the general public needing advice; people resistant to pill use; and practitioners looking for something to offer their patients. The imagined uses of the products are configured as: healthy/holistic; lazy/busy/contemporary; and incompetent use. These imagined uses are embedded in research, recommendations and regulation through their attempts to prescribe: the amounts of product to be consumed; the overall nature of users' dietary and lifestyle habits; users' relationships to their health care practitioners and customary medication; and the specific groups for whom the product is suitable.

Table 7.12. Research on consumer responsibilization and social construction of healthy food. [Continued]

	Study / reference	Country of research	Research context	Mechanics of consumer responsibilization	Results
[6]	(Schneider & Davis, 2010a)	Australia	Health food market segment	Media representations of health food at the nexus of gastro-anomy and antinomies of taste	Using a historical perspective, it's shown that in promoting health foods (i.e., foods encouraging consumption through the promise of health benefit) over 5 decades in Australia, food "experts" form an advisory nexus in an increasing context of "gastro-anomy" (loss of social norms and traditions in rules of eating) and, in the context of advertising, the anxiety and risks associated with food consumption are built up and allayed as per antinomies of taste (novelty with tradition, care with convenience, health with indulgence, economy with extravagance).
[151]	(Costa, 2013)	Nether-lands	Cooking	Social and particularly personal (responsibility) norms affecting consumers' dietary patterns	A sense of duty to cook household meals on a daily basis still underlies the bulk of many consumers' views on meal preparation today. Consequently, many also anticipate experiencing guilt and other negative emotions when they consider resorting to the use of home meal replacements instead. Consumers also seem to hold strong, positive beliefs about the consequences of cooking hot meals every day, and hence equally strong, negative beliefs about the results of the regular use of home meal replacements, both to their well-being as well as that of significant others. Also, a sense of responsibility to care for the physical and emotional well-being of oneself and significant others, by putting at least some degree of time and effort into meal preparation, comes clearly forward in the last measure extracted. Therefore, four psychometric measures can be considered to identify consumer segments according to attitudes toward meal preparation: 1) personal norms about cooking, 2) awareness of the psychological consequences of ready meal use, 3) awareness of the health consequences of ready meal use and 4) ascription of responsibility for cooking.
[228]	(Schleifer, 2013)	USA	Trans-fat labeling regulation	Regulatory requirements for nutrient information categorization, quantification, and labeling	Quantifying information on commercial product labels was not only intended to govern individual consumption but was also intended to govern production in anticipation of individuals governing their consumption
[8]	(J. M. Cronin et al., 2015)	UK	Restricted food consumption (families with a member diagnosed with diabetes)	Creation of discipline practices and strategies by which people manage and exert control over what they consume in the context of food	By exploring how the chronically ill generate different strategies in managing what they eat and how they think about it, four analytical areas are identified in marketing and health-related research: "the Individual", "the Other", "the Market" and "the Object". The results signal to policymakers the aspects of health promotion that can be enhanced to improve self-management amongst consumers in the pursuit of well-being.

Source: Author's own elaboration.

"Emotion as health behavior enhancement" research (3 articles, Table 7.14), also stemming from "information processing," claims that the ability to process emotional information effectively and use that information to accomplish a goal known as emotional ability (Kidwell, Hasford, & Hardesty, 2015 [94]) and the ability to reflect on anticipated emotions (Hur & Jang, 2015a [137]; Y. J. Kim, Njite, & Hancer, 2013 [136]) can improve consumer health-related food choices as much as (or even more than) rational objective knowledge about nutrition.

"Reconciliation of health and taste" research (3 articles, table 7.15) takes off from one of the prototypical inferences in "healthfulness categorization heuristics" research, more specifically from "unhealthy=tasty intuition" (Raghunathan et al., 2006 [84]). Research in this stream shows that health and taste do not necessarily conflict in consumer expectations or perceptions (Thunström & Nordström, 2015 [215]), can very peacefully co-exist as a result of an interaction between product qualities and consumer characteristics (Luomala et al., 2015 [66]), and in some categories are demanded by consumers "in bulk" as a desire to "have it all" (Cornish, 2012 [53]).

"Sustained behavior change" research (2 articles, table 7.16) stems primarily from "consumer behavior and inferences" (but also from other approaches that intend to produce insights into how to change unhealthy food consumption habits) and approaches food consumption from a long-term perspective going far beyond individual food purchases. Building on health behavior theories, this mini-stream looks at consumers with chronic health issues that require lifelong diet modification and tracks the process leading to a sustained change of eating habits (J. Cronin, McCarthy, Brennan, & McCarthy, 2014 [147]; Logie-MacIver & Piacentini, 2010 [157]).

Finally, "social marketing communication" research (2 articles, table 7.17) stems from "marketing communication" research, but discusses topics typical of persuasive communication research in the context of social communication as opposed to commercial marketing campaigns. These articles (Kees, 2011 [45]; Rusmevichientong, Streletskaya, Amatyakul, & Kaiser, 2014 [21]), more specifically, discuss advertising typologies that can be more successful in persuading consumers to improve the quality of their diets, showing the tendency of public health to capitalize on insights from commercial marketing communication.

Table 7.13. Consumer dieting behavior and self-control research.

	Study / reference	Country of research	Research context	Means and moderating factors of self-control	Results
[62]	(Sun, Horn, & Merritt, 2009)	USA	Dieting market segment	Self-control through public self-consciousness (cultural value dimension)	Based on the assumption that health behavior is a consequence of public self-consciousness (i.e., concern about self-presentation in front of others), individualism, and uncertainty avoidance have negative impacts on public self-consciousness, while power distance and masculinity positively affected public self-consciousness, which in turn had a positive influence on consumers' intention to eat a healthy diet. The cultural dimension variables, when combined, explained 12 percent of the variance of public self- consciousness, which in turn explained 26 percent of the variance for the intention to take a healthy diet.
[57]	(Walsh, 2014)	USA	Snacks with health claims	Self-control and depletion	Depletion hurts self-control, and priming words related to a healthy eating goal facilitate it. However, priming health-related words has no impact on preference when consumers are depleted; implying that marketers of healthy food products should place their product at the beginning of a consumer shopping experience, when resources are most available. In other words, the decision to associate a brand with health-related claims must be strategically coordinated with retail location decisions to maximize its effect on consumer choice.
[125]	(Bui & Krishen, 2015)	USA	Food for dieting	Prevention mindset (regulatory orientation) combined with proximity to ideal weight	Individuals' food decisions are calibrated in terms of their health goals: when they are far away from their ideal weight, they want to eat healthier and exercise. But prevention orientation reverses this effect. So, chronic predisposition to a prevention mindset can negatively influence an otherwise healthy perspective or choice.
[73]	(Khare & Chowdhury, 2015)	USA	Food situation associations	Categorization flexibility increases preference for and consumption of hedonic foods in prevention mindset	People are motivated by either a prevention or a promotion focus. Those with a prevention focus stress safety, duties, responsibility, and failure avoidance and display an overall vigilant mind-set; conversely, those with a promotion focus stress hopes, accomplishments, aspirations, success-seeking, and ideals and display an overall eagerness mind-set. For those in prevention mindset (i.e., who exercise more self-control), a categorization flexibility's prohedonic effect may occur. Food categorization flexibility characterized by openness for atypicality and greater ability to see similarities between objects and categories facilitates hedonic (but not utilitarian) food preference. Hence consumers' health will be better served if consumers develop fewer, more beneficial food-situation associations and mitigate categorization flexibility.

Source: Author's own elaboration.

Table 7.14. Role of emotions in healthy food consumption research.

	Study / reference	Country of research	Research context	Role of emotions in healthy food consumption	Results
[94]	(Kidwell et al., 2015)	USA	Healthy vs. unhealthy snacks	Mindful eating as trainable health enhancing practice	Emotional ability is trainable and it can improve food choices beyond a nutrition knowledge training program. Emotional ability training increases goal-relevant emotional thoughts and reduces reliance on the unhealthy=tasty intuition, both of which mediate mindful eating effects. Emotional ability trained people lose more weight in a three-month period than a control group and a nutrition knowledge training group (i.e., long-term effect). Together, these findings suggest that consumers can gain control of their food choices through the enhancement of emotional ability.

Table 7.14. Role of emotions in healthy food consumption research. [Continued]

	Study / reference	Country of research	Research context	Role of emotions in healthy food consumption	Results
[137]	(Hur & Jang, 2015a)	USA	Quick service restaurants	The role of anticipated emotions in healthy food consumption	Anticipated emotions can stimulate cognitive processing (e.g., health-related information) and encourage cautious choices (e.g., eating healthy foods). Previous studies have identified that anticipated emotions are stronger predictors of behaviors compared to experienced or current emotions and promote safer choices as well. Anticipated pleasure positively influences behavioral intentions and mediates the relationship between perceived healthiness and behavioral intentions, whereas anticipated guilt does not influence behavioral intentions. Additionally, the effect of anticipated pleasure is stronger for the low dietary concerns group compared to the high dietary concerns group.
[136]	(Y. J. Kim et al., 2013)	USA	Eco-friendly restaurant	Consumers' anticipated emotions and intentions to engage in ecological behavior as predictors of dining at eco-friendly restaurants	Anticipated emotion provides significant impetus for consumer intention formation and serves as important motivators in decision-making. Therefore, theory of planned behavior is not sufficient to explain consumers' ecological behavior, and can be enhanced by addition of anticipated regret.

Source: Author's own elaboration.

Table 7.15. Research on reconciliation of health-taste conflict.

	Study / reference	Country of research	Research context	Aspects of taste and health reconciliation	Results
[66]	(Luomala et al., 2015)	Finland	Light foods; convenience foods; functional foods	Inclusivity vs. Exclusivity of health and taste in food perceptions	Healthiness and tastiness can combine in consumers' minds, but it is a result of a complex and dynamic interaction between their personal characteristics and product qualities. There are multiple sources for consumers' health and taste perceptions including product type (e.g., the comments such as "fish is healthy" and "sausages are never healthy"), ingredients (e.g., the comments concerning fat, sugar, salt, and additives content), level of processing (e.g., the discussion revolving around the un/naturalness of food) and marketing cues (e.g., the discussion regarding packaging solutions). Consumers' dieting status, health motives and food values shape the perception of inclusivity and exclusivity of health and taste of light, convenience, and candy products.
[215]	(Thunström & Nordström, 2015)	Sweden	Snacks, bread	Consumers' experienced taste of the non-intrinsic value of healthy labels	When not controlled for taste, consumers value healthy labeled foods higher than non-labeled food. When controlled for taste, the healthy label significantly lost in importance as a determinant for food demand. Overall, consumers do not have prejudice that healthy labeled food tastes worse than its substitutes.
[53]	(Cornish, 2012)	UK	Functional foods	Compensatory consumption (based on guilt and justification) in using functional foods to assuage guilt resulting from unhealthy eating patterns	Consumers are more likely to choose foods offering both nutrition and taste than those offering only one characteristic. Functional foods play an important role in this desire to 'have it all'—both hedonic pleasure and health—but consumer inability to distinguish between different variants results in the consumption of both healthy and unhealthy functional foods. Many consumers often use functional foods as substitutes for (untasty) healthy foods and the nutrients therein to assuage any guilt resultant from unhealthy eating patterns. Functional foods are thus used to boost unhealthy diets as an alternative to more substantial dietary overhaul.

Source: Author's own elaboration.

Table 7.16. Process and mechanisms of behavioral change

	Study / reference	Country of research	Research context	Mechanisms of behavioral change	Results
[157]	(Logie-MacIver & Piacentini, 2010)	Scotland	Consumers at risk of bowel disease	Sustained behavioral change of diet	This research focuses on people who received a test for cancer (resulted negative, yet requiring caution) and who were then advised by health professionals on the dietary changes that would lead to improved health. The way that people respond to the initial disease test, and hence the extent to which this is a trigger of change, relates to three main factors: (1) knowledge about the relationship between diet and bowel health; (2) perceptions of the consequences of any attempts to change or take responsibility for change; and (3) the presence and nature of social support networks, especially partners. Thus, maintainers were characterized by a distinct drive toward behavioral change, comprising a commitment to change and a strong self-belief in their ability to make the change, and were supported by their social network. Relapsers tended to have low confidence in their health-related knowledge, and typically had a history of poor diet in childhood and early adulthood. The no-change group demonstrated very limited change to their dietary behavior and attitudes over the study period. An important theme with regard to this group related to their reluctance to accept or reflect on the links between their diet and their health.
[147]	(J. Cronin et al., 2014)	Ireland	Obese individuals' life stories	Instrumental and symbolic functioning of food for obese individuals	For obese individuals food plays an important role as part of identity formation and habitual socio-cultural conditioning over the life course. Food behaviors leading to weight gain are enmeshed in participants' biographies and everyday experiences across the arenas of identity (relational identities and obesity as an unwanted accompaniment), environment (everyday social structures played a central role in embedding habits with respect to overeating and choosing particular types of foods in given contexts) and the body (uncontrollable "urges" and cravings – or rather "body calls" sometimes resulting in almost addictive food behaviors). Transposable dispositions are formed across these arenas and frame how individuals use food in day-to-day life and in response to significant life occurrences.

Source: Author's own elaboration.

Table 7.17. Social marketing communication research.

	Study / reference	Country of research	Research context	Tools of social marketing communication	Results
[45]	(Kees, 2011)	USA	Social marketing advertising	Proximal vs. promotional message framing	Framing effects in the eating and exercise context can have varying levels of effectiveness based on differences in individuals' time orientation (i.e., low vs. high consideration of future consequences). Framing a persuasive health message in proximal terms or promotion terms can have a positive impact on consumers who have difficulty considering the future consequences of their behaviors without adversely affecting consumers who do typically take into account the future consequences of their behaviors.
[21]	(Rusmevichientong et al., 2014)	USA	Social marketing advertising	Food advertising type (healthy food, unhealthy food, and anti-obesity)	The results indicate that healthy, anti-obesity, and mixed food advertising reduced intakes of total calories, fat, sodium, and carbohydrates. Similarly, anti-obesity, healthy, and mixed food advertising results in increasing the probability of selecting more healthy items and fewer unhealthy items from a menu. Healthy food advertising has a stronger impact than anti-obesity or mixed food advertising.

Source: Author's own elaboration.

7.7. Conclusions

The categorization approach to a literature review we presented here sheds light on the current state and evolution of knowledge in the field of health and food marketing research, and brings attention to the issues considered fundamental by marketing researchers to address and (try to) resolve. We ended up sorting the research into a total of 15 groupings, which represent 5 meta-themes (or meta-categories) in health and food marketing and consumer research. For each research stream, collectively, we identified a number of unifying themes and common theoretical and methodological approaches.

We considered the beginning of 30 years of research to be the events of 1984-85 Kellogg's campaign as reported in the first article of our sample that was published in 1988, and the end to 2015, the moment of the definitive download of the articles included in the final sample. Clearly there were other publications about health-related food marketing issues before as well, but it was not until Kellogg's campaign resulting in the US NLEA legislation that the "critical mass" of research interest was achieved and legitimacy for marketing involvement in public health debate was established. Policy issues around health and nutritional information have been integral to the marketing research agenda in this field since its inception and are still going strong, even though many more alternative approaches exist today. The future will probably bring further categorization complexity to this field, yet the information approach will most likely continue to drive scholarly research in the years to come as the main tool of food policies, which simultaneously restricts and controls marketing practices and gives life to new strategic levers that enhance brands' competitiveness.

Among not purely informational approaches to health-related consumer behavior, research favors behavioral economics approaches, perception bias models, and experimental studies on healthfulness categorization and inferences. This category of research is not as numerous as information or marketing management research, but with a different, more conventional, sampling approach to a literature review that takes into consideration primarily top publication outlets, this research stream would have most likely resulted as the most prominent, while marketing management category (currently a solid third of the sample) – would have been most likely underrepresented.

Despite numerous different conversations within academic marketing on health and food, we can conclude that micro issues such as managerial questions of profitability, market expansion, communication efficiency, and policy issues of consumer education and information credibility prevail over research about macro-relationships between marketing practices and consumer health: only three research streams ("market failure," "consumer responsibilization," and "information environment") offer wider perspectives on macro issues on societal and institutional level. Also, research prioritizes healthy food over healthful eating: health is approached in the context of product choice or purchase rather than actual consumption experience or lifespan of experiences (and hence prevalence of cross-sectional rather than longitudinal research designs as shown in Chapter 6).

Similar to other literature reviews categorizing research articles in a qualitative manner (e.g., Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007; McDonagh & Prothero, 2014), this work runs the risk of subjective categorizations, which means that some papers could have been categorized differently by other researchers following different criteria for categorization. Naturally, the composition of our research sample has largely predetermined the obtained results. At the same time, however, we believe such composition is our results' strength as much as possible limitation. No previous research, to our knowledge, has attempted to aggregate and categorize marketing and consumer research about health and food in general. It's mostly research on labeling ("information communication" and "information processing" streams in our study) that was subject to a number of meta-analysis and literature reviews. Our approach, on the other hand, builds on a systematically generated sample of publications with a moderate level of selectivity, thus offering a sample large enough to perform a broad-range thematic assessment of 30 years of research, yet not too extensive to ensure application of a more detailed-oriented qualitative analysis. On the other hand, transparent and (potentially) replicable mode of sample generation opens possibilities for comparison and contrasts with future research. A larger and more inclusive sample can be applied to test the big picture of categorizations proposed here. Also, more specific, hand-picked samples can help better define the internal structures of research streams and the connections between them.

8. Discourse analysis: Dominant marketing discourses about health and food

In this chapter, we move from more neutral accounts of findings produced by marketing research about health and food toward the main objective of our work: accessing and discerning discursive conventions and assumptions, or ideologies, about health that are routinely overlooked. Previously we discussed the particular discursive device of problematization, which helped us identify (ir)regularities between thematic choices, objects and concepts in various marketing texts. Now we present the key outcome of our analysis – the identification of three dominant discourses about health and food, which we labeled "nutri/edu" discourse, "simple solutions" discourse, and "win-win" discourse. A reflective analysis of the discourses' key themes, coupled with the "unsaid" consequences of their positions, will help "to understand what they do or may do to societies and human beings" (Skålén et al., 2008, p. 14).

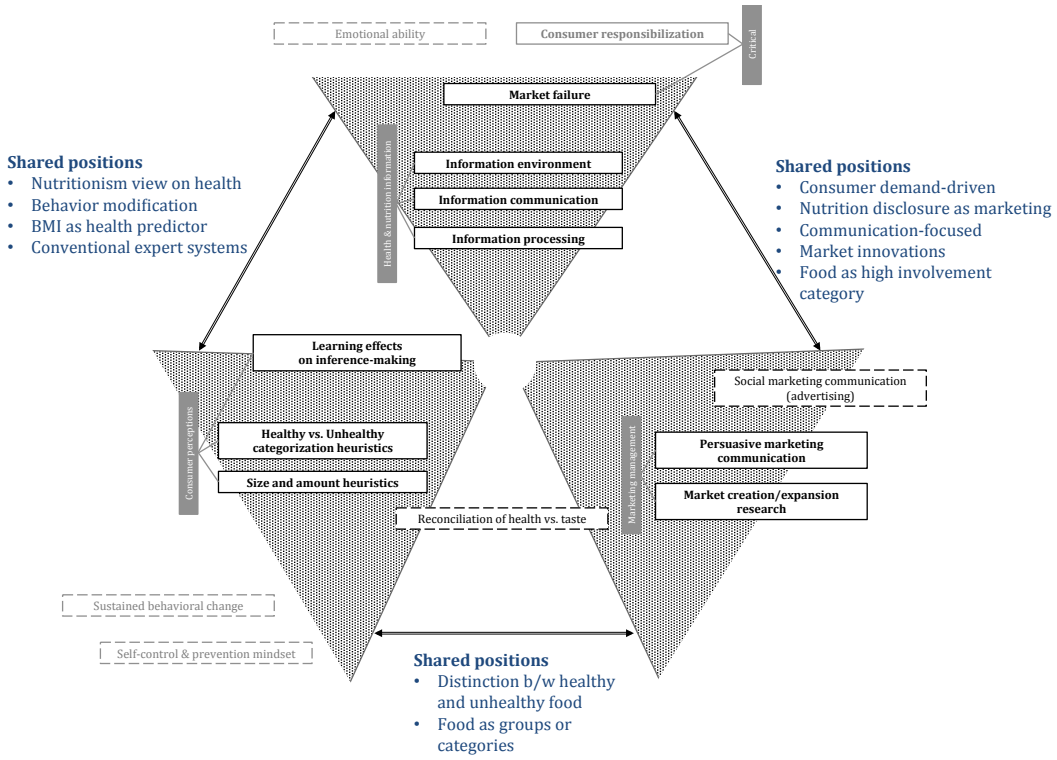
8.1. Beyond research streams

Different research streams that make up the entirety of marketing discourse about health and food follow very different theoretical traditions. Some, as we've shown in the research map (Chapter 7), are more focused on macroeconomic analysis. Others focus on micro-level technicist and pro-management research, still others focus on understanding consumer behavior, and some, even if minor, focus on interpreting subjective consumer experiences. Some are more normative and prescriptive in their nature, some more critical. Some are grounded in the economic logic of utility maximization and credence quality of (healthy) food products, while others deny the applicability of informational approaches and call for fast-thinking tactics based on psychological insights from heuristics. Some deny any differences between health-related and health-unrelated approaches to marketing and consumer behavior. In short, many differences exist between individual research streams.

Categorization by research stream already provides an account of meaningful differences and similarities in terms of theoretical and methodological traditions, but on a deeper level of meanings, common assumptions, sentiments, and values, research streams do not provide enough differentiation. To illustrate the point, we've "opened up" the research map (see Figure 8.1) and placed research streams on the flaps according to their meta-categorizations and intellectual proximity. Then we asked ourselves: What do meta-categories on the "flaps" have in common? What common themes and positions do they share? The open version of the map served as a tool for brainstorming because such disposition is useful in moving away from a two-dimensional image of a map (Figure 7.1) to a more three-dimensional mode of seeing connections and thinking about order and correlations. This was done following an example of the Food Well Being paradigm proposed by Block et al. (2011), depicted as a visual

of a pinwheel. This form provides a tool for the analysis of individual components, but it can also be closed as a 3-D cylinder to represent the unity of the components.

Figure 8.1. Opening up the "research map": searching for higher-level differences and similarities.



Source: Author's own elaboration.

When the unity of the components is considered, we identify many positions shared among two, but not necessarily all meta-categories. For example, both "health and nutritional information" and "consumer behavior" (but not "marketing management" and other streams) equally rely on nutritionism and its experts for food healthfulness judgments and use BMI as an indicator of success (vs. failure) of healthy diets. Further, "health and nutritional information" and "marketing management" (but not "consumer perceptions") equally embrace the premise that the constantly-evolving health market (as products or information) is driven by consumer demand and focus on communication (either of the persuasive commercial or public health variety). Finally, "consumer perceptions" and "marketing management" (but not "health and nutritional information") both acknowledge the existence of the opposition between healthy and indulgent foods at the level of food groups or categories. So is there a better way to look at these similarities and overlaps?

Starting from the structures of research streams (primarily the three main meta-categorizations that constitute more than 80% of publications in our sample), but not limiting ourselves to the limits of these structures, we continue our reflexive "process of excavation" (Murray & Ozanne, 2006, p. 48) by zooming in on a particular segment of texts that embody a discursive practice typical of academic writing – "problematization," or rhetorical practices that construct opportunities for contribution (Locke & Golden-Biddle, 1997).

8.2. Strategic discursive device of problematization

Why zoom in on only one segment of academic marketing texts? How do the portions of articles dedicated to problematization help our understanding of underlying assumptions about health and food in marketing? Before showing the results of our analysis, we first will explain why the opening paragraphs of academic papers can be considered strategic devices.

The text that frames "problematizations" is typically the first (or even the only) thing that the reader reads, but the last thing that the author (re)writes. Introductions (and/or supporting sections of background, positioning, abstracts etc.) are charged with a number of important strategic functions, such as grabbing readers' attention, motivating them to read, establishing a "common ground" or a shared understanding between reader and writer, emphasizing research significance (Booth, Colomb, & Williams, 2003), and last but not the least, establishing novelty and creating an opportunity for contribution (Locke & Golden-Biddle, 1997). It's so significant that many writers find it the hardest, the most time-consuming section to write and revise.

According to Booth, Colomb, & Williams (2003), introductions are not merely an academic convention, but can be considered proper tools for research thinking: "by forcing yourself to work through a full statement of your problem, you have to explore what your audience knows, what they don't, and, in particular, what they should" (Booth et al., 2003, p. 235). The work behind structuring and writing introductions is a concise summation of the whole cycle of research "craft" from asking questions to finding answers.

While styles vary across disciplines, all (efficient) problematizations/ introductions have the same rhetorical pattern of "simple grammar," consisting of three elements: 1) contextualizing background, 2) a statement of the problem, and 3) (a promise to find) a solution. Such openings – whether original and attention-grabbing or cliché-based, quick (for specialized readers) or slow (for a more general reader) – destabilize "happy" and unproblematic contexts and turn them into problematic, unresolved issues, which carry elevated costs of not fully understanding them (Booth et al., 2003).

Similarly, Locke and Golden-Biddle (1997) refer to two elements of common rhetorical structure typical of introductory sections: 1) legitimization and construction of intertextual coherence and 2) problematization. First, formal texts (re)present and establish the context of research and state consensus in terms of theoretical orientation or statements of importance and relevance by employing some typical textual acts (e.g., synthesized coherence, progressive coherence, or non-coherence) – a discursive act of "mak[ing] friends to define enemies" (Myers, 1993 p. 258 in Locke & Golden-Biddle, 1997, p. 1057). Second, the presented context is subverted or problematized via acts of incompleteness, inadequacy, or incommensurability problematizations. This process introduces the topic of investigation in its uniqueness, and in this way, opens a space to advance knowledge with an original contribution. In academic marketing, some space-clearing literary devices are standardized as various "gaps," "lack," "silence" or "lacuna" tropes (S. Brown, 1999).

Contextualization and problematization, thus, always go hand-in-hand and are inevitably manifested in introductions of research articles, balancing the tension between the need to acknowledge and ground work in the existing context (i.e., establish significance and relevance) and the ambition to disrupt this context and create a unique and original knowledge input (i.e., contribution). In his "index of interesting," Davis (1971) elaborates on this tension by showing that "interesting" science is not judged against its revelatory truthfulness: "A theorist is considered great, not because his theories are true, but because they are *interesting*. […] In fact, the truth of a theory has very little to do with its impact, for a theory can continue to be found interesting even though its truth is disputed – even refuted" (Davis, 1971, p. 309).[43] On the contrary, theory is assessed as "interesting" based on how well it moves from the subject of phenomenology (i.e., the taken-for-granted world) to the subject of ontology (i.e., more profound, more real explanation that gets closer to the "truth"). Neither of two elements can be considered dispensable: without some link to taken-for-granted world the new proposition will be rejected, while a confirmation of existing presumptions without attempts to get to the new "truth" will be dismissed as a trivial "that's obvious." Both of these cases are extreme strategies of saying nothing (S. Brown, 1999). Therefore, problematizations that bridge taken-for-granted presumptions to interesting contributions, solutions or promises of solutions are some of the most significant discursive strategies that shape research work.

8.2.1. Problematization vocabulary about health and food marketing

When it comes to marketing and consumer research about health, our analysis has found a number of recurrent problematization strategies[44] located in the opening sections of papers. The "simple grammar" (Booth et al., 2003) of introductions about health and food does not only rely on the common syntax (i.e., opening context – intertextual coherence – problem – promise of response), but uses largely the same *vocabulary of problematization statements*. It's a particular combination of such statements that produces research significance, relevance and opportunity for a contribution. In the attempt to capture the entire vocabulary of problematization statements that link food marketing research to the topic of health, we conducted a content analysis and, for each article, coded all problematization statements (see Appendix 4).

[43] Rekdal (2014) provides an analysis of case how an interesting theory (that researchers misplaced a decimal sign) that was negating a previous interesting theory (that spinach is an incredibly good nutritional source of iron) can be based on a false premise, but due to a number of factors can circulate so widely in (and beyond) academic writings to become an "academic urban legend." As a quote from one of the "authors" of the urban legend concludes, "Now some fascinating research by Mike Sutton has found out the whole truth behind the decimal point and the iron in spinach myth and I am pleased to be able to say that I was right about spinach being useless as a source of iron, but utterly wrong about why the myth has taken hold. … The moral of this story is that a good story is not necessarily a true story." (Hamblin, 2010 in Rekdal, 2014, p. 649)

[44] From here on, we'll use the term "problematization strategy" for a combination of context description and its disruption, given that the two tend to go hand in hand in research work and writings (Booth et al., 2003; Davis, 1971; Locke & Golden-Biddle, 1997).

Starting from open observation and analysis of the content of problematizations, we found a vocabulary composed of 16 common themes. Four of them ("obesity epidemic," "costs of obesity," "obesogenic environment," "poor diet") are more typical of grounding the context into social concerns about population's health status with a special focus on obesity and consequences of increased weight for individual health (e.g., risk of lifestyle and non-communicable disease) or for social welfare (e.g., higher costs of medical care, rise of sick unemployable population etc.). While highly interrelated, these themes differ in the health problems that they stress and the rhetoric they use (see Table 8.1 for examples).

"Obesity epidemic" problematization statements typically state unexpected, even shocking statistics that highlight the epidemic proportions of food-related health problems. The alarming and distressing terms (Gard & Wright, 2005, p. 174) justify any effort to address this issue and possibly contribute to change. "Obesogenic environment" problematization focuses on contributing factors to obesity, such as sedentary lifestyle, reduction of physical activity, the trend toward convenience, pervasive food advertising, increased frequency of eating out, the overwhelming presence of food cues in the environment, nonlinear pricing favoring consumption of larger portions and so on.

On the other hand, "costs of obesity" problematization focuses on the consequences of the obesity epidemic, which can be medical, economic or social. These include economic loss from increased healthcare costs for an increased population of obese people, costs involved in consumer education and promotion of dietary changes aimed at curbing obesity rates, or immaterial costs connected to social stigma or discrimination. "Poor diet" problematization also focuses on consequences, but grounds the presented arguments in medical and scientific findings about the link between diet and health. Statistics, facts and figures sourced from trustworthy (but not necessarily scholarly) sources are commonly employed in all four of these problematization themes.

Table 8.1. Examples of problematization themes: health problems.

	Examples from research papers
"Obesity epidemic"	"The United States has the **highest obesity rate of any country in the world with 26.7% of the population being classified as obese**[45] (OECD Health Data, 2005; Doheny, 2010). Moreover, **obesity rates have significantly increased**: nearly **doubling in adults and tripling in children in the past 30 years** (Cutler et al., 2003; Hill et al., 2003; Grady, 2010). Some have called this increase a medical crisis (Hensrud and Klein, 2006). Medical science has shown that **being obese or overweight poses significant health risk** for serious diseases such as diabetes, heart disease, hypertension, stroke, and certain types of cancer (Andreyeva et al., 2004)." (Liaukonyte et al., 2012, p. 543 [149]) "Consumers worldwide face **serious health problems in the form of increasing rates of obesity and incidence of obesity-related diseases, such as Type 2 diabetes.** According to the Centers for Disease Control and Prevention (CDC), **one-third of U.S. adults are obese** (Flegal, Carroll, and Ogden 2010), and **one in ten people has been diagnosed with diabetes**, a rate **predicted to increase to one in three by 2050** (CDC 2010). Similar trends mark consumers in countries such as India and China as they adopt more Westernized diets." (Ma et al., 2013, p. 101 [82]) "According to the US Centers for Disease Control and Prevention **64 percent of adults are overweight** (CDC, 2005); **15 percent of children aged six to 19 are considered obese** (Galvez et al., 2003). Obesity has been linked to a number of medical problems, including diabetes and heart disease (Saul, 2005). Tommy Thompson, former US Secretary of Health and Human Services, **called obesity a "crucial health problem,"** and Dr Julie Gerberding, director of the CDC, pointed to **"the epidemic of overweight among today's youth"** (NARC, 2004)" (Quilliam, 2006, p. 123 [64]) "[…] today**, more than 50% of U.S. adults are overweight, and 12% of school-aged children are obese, twice the number reported 20 years ago** (Liebman and Schardt 2001; Spake 2002). It is estimated that in the United States, **more than 300,000 deaths per year (14% of all deaths)** are directly related to conditions and diseases associated with being overweight and obese (Centers for Disease Control and Prevention 2002)." (Kozup et al., 2003, p. 19 [81])

[45] Here, as well as everywhere in this and following chapters, texts' highlighting in bold is ours and is used to highlight pieces of text best corresponding to the points of discussion.

	Examples from research papers
"Obesogenic environment"	"During the past century, **how Americans eat has changed dramatically**. Americans have moved from an agricultural economy, to an industrial economy, and further to a service economy. The physical demands of work have also shifted; **most Americans are substantially less physically active than their ancestors** (United States Department of Agriculture, 2005). However, the caloric intake of the average American has increased dramatically from the early 1900s to today (Allred, 1995). Furthermore, **with changing lifestyles, Americans are eating much more food that has been prepared away from home**, which is generally less healthy than foods prepared at home. Increasing portion sizes of restaurant meals is another factor leading to an increase in calories consumed by the average person. The number of Americans who are classified as overweight or obese has increased considerably, alarming many health experts (Center for Disease Control, 2004). The obesity issue in the USA is a prime health concern, and has superseded the issue of tobacco-related health problems (Allen, 2004; Martinson, 2004)." (Josiam & Foster, 2009, pp. 876–877 [133]) "**The obesity crisis has been fueled by reductions in physical activity,** as well as by **over-consumption of foods high in fat and sugar** (Institute of Medicine [IOM], 2006)." (Rusmevichientong et al., 2014, p. 59 [21]) "Do you usually pack a lunch and eat at your desk or do you dine at a nearby quick service or table service restaurant? For dinner, do you prepare a home-cooked meal every evening or frequently depend on restaurant take-out food to meet your family's consumption needs? **If you are like the majority of Americans, food prepared outside the home makes up an increasingly large portion of your weekly diet.** In the past 30 years, the percentage of food dollars spent on food purchases outside the home has risen 20%, and it now accounts for almost one-half of American's total yearly expenditures on food (Lin, Frazaˆo, and Guthrie 1999). Consumers now spend more than $500 billion annually on quick service (fast food) and table-service restaurant pur- chases (National Restaurant Association 2007). **As consumer spending at restaurants has increased, the prevalence of overweight and obese individuals within a number of different consumer segments (e.g., children) has also increased**. […] The positive association between the rise in consumption of food prepared outside the home and the increasing prevalence of obesity has led some health care advocates, policy makers, and consumer welfare proponents to question whether **America's weight problem may be at least partially caused by an overreliance on restaurant food.** (Howlett et al., 2009, p. 494 [74]) "The concerns which have mounted against contemporary food consumption have resulted in professionals labelling our societies **as becoming increasingly more "obesogenic"** (Swinburn et al., 2011). Despite climbing levels of obesogenecity, however, obesity itself is positioned as a risky, abnormal and stigmatized condition, which can bring about the marginalization of people who are obese and eclipse the truths behind their actual food choices and preferences". (J. Cronin et al., 2014, p. 1559 [147])
"Costs of obesity"	"Obesity in the United States has become **a serious health and economic problem**. As reported in 2012, 34% of the population was obese and over 67% could be classified as overweight (WHO, 2011). **A study by Lillis (2010) put the cost of this problem in terms of increased health care at $150 billion per year."** (Rusmevichientong et al., 2014, p. 59 [21]) "Currently, more than 35.7% of US adults are considered obese, according to the Centers for Disease Control and Prevention (CDC 2012). Even though **a considerable amount of resources continue to be committed** to reducing overweight and obesity statistics (United States Department of Agriculture, USDA 2012), its prevalence throughout affluent countries in the world continues to rise - **with obesity medical-related costs estimated in the billions each year.** Despite intensified efforts by the government and consumer welfare advocate organizations to provide ongoing social marketing health campaigns and national weight-management programs, along with other obesity reduction intervention initiatives, the problem persists rather than improves over time. Speaking to the critical nature of the obesity epidemic, academics in multiple disciplines also conduct ongoing research in the area (Dooley, Deshpande and Adair 2010; McDermott et al. 2006). **Given the immense costs associated with the advertisement expenditures of fighting obesity in the United States**, it is important to understand how health advertisements impact consumer lifestyle choices." (Krishen & Bui, 2015, p. 1 [22]) "There is widespread concern that consumers are making inappropriate decisions about what they eat, leading to a growing incidence of obesity and chronic illness**, which will strain public-health budgets and damage economic competitiveness**." (Brennan, Dahl, et al., 2010, p. 635 [92]) "The direct costs of diet-related diseases account for an enormous proportion of the total health expenditures in the world—diabetes mellitus type 2 alone accounts for 11% of the total costs worldwide (International Diabetes Federation 2013). Without successful prevention, **health care systems will soon collapse under the economic burden of diet-related diseases**." (Mai & Hoffmann, 2015, p. 63 [160])
"Poor diet"	"It is **well documented that good nutrition and diet can contribute to the prevention** of some illnesses (cardiovascular, some cancers, diabetes, etc.) and premature death (Bush and Williams, 1999). In fact, in Europe, cardiovascular disease is one of the main causes of death, accounting for 49% of all deaths (European Heart Network, 2002). To prevent and mitigate the prevalence of such illnesses, policies that have an impact on the type of food produced (i.e., food composition standards, school and workplace nutrition standards) and/or may influence the types and quantities of foods consumed by Europeans (i.e., nutrition labeling legislation, nutrition education) may be helpful and pertinent (European Heart Network, 2002). (Gracia et al., 2007, p. 161 [192]) "**Regular consumption of fish and seafood has been linked with health benefits** relating to coronary heart disease, heart failure, sudden death, some cancers, rheumatoid arthritis, neurological development, dementia, Alzheimer's disease and depression. Seafood consumption in Australia has demonstrated an upward trend, with an estimated annual per capita consumption of 25 kg; however, **levels still do not reflect the dietary recommendations of two serves of seafood per week.** In order for Australians to meet the recommended food group intakes, fish consumption would need to increase by more than 40%." (McManus et al., 2014, p. 146 [222]) "**Numerous studies linking diet and health have been publicized over the past ten years** and consumers are demanding more information on how to achieve health benefits through food and vitamins. In fact, the 1994 Food Technology Trend Report names the "increasing role of food and food ingredients in self-medication and disease prevention" as the number one top trend facing the food industry in the next year (Sloan, 1994)." (Childs & Poryzees, 1997, p. 433 [60]) "**Healthy eating plays a fundamental role in the promotion and maintenance of good health throughout the entire life course**. It has been said to be related to a number of common chronic diseases including cardiovascular disease (Rimm et al. 1996; Trichopoulou et al. 2003; Ulbricht and Southgate 1991), certain cancers (Doll and Peto 1981; Trichopoulou et al. 2003), hypertension (Miura et al. 2004; Schulze and Hu 2002), diabetes (Schulze and Hu 2002; Williams et al. 1999), overweight and obesity (Nicklas et al. 2001; World Health Organization 2007) and a number of other diseases (World Health Organization 2003)" (Chrysochou, 2010b, p. 69 [90])

Source: Author's own elaboration.

The next four problematization themes ("information environment," "regulation change," "regulation criticism" and "information asymmetry") are more concerned with public policy (see Table 8.2 for examples). "Information environment" problematization draws on the common understanding that provision of information about health and nutrition improves consumer decisions. This problematization examines the information available to consumers about food, nutrition and health.

Table 8.2. Examples of problematization themes: policy issues.

	Examples from research papers
"Information environment"	"The Nutrition Labeling and Education Act (NLEA) **sought to eliminate untruthful nutrition claims and to improve consumers' abilities to access and process nutrition information** at the point of sale. It required manufacturers to provide a "Nutrition Facts" label displaying standardized information on all nutrients, recommended daily values, and an ingredient list on food products by May 1994 (Federal Register 1993). Health claims making diet–disease links or using terms such as "light" were also regulated for truthful content. **Before the act,** nutrition labels were required only when manufacturers made an explicit nutrition claim in advertising or on the package (e.g., low sodium) or when the product was fortified with additional nutrients (Federal Register 1973). As a result, **prior to the NLEA, most food products did not disclose nutrition information, making comparisons within and across categories difficult for consumers**. Furthermore, even those products providing nutrition information did not list recommended daily values for important nutrients such as fat, sodium, and cholesterol. Theory suggests that the NLEA's required labels should promote consumer search and, in turn, stimulate competition to improve brand nutrition levels (e.g., Salop 1976, Stigler 1961). As noted by the Federal Trade Commission (1979, p. 14), "**Information remedies have the direct benefit of improving the free flow of truthful commercial information.** Informed consumer decisions then give sellers an economic incentive to improve the quality and selection of their marketplace offerings." This logic may be compelling, but we still do not know if the NLEA improved nutrition quality. Studies focusing on select categories or nutrients generate mixed results (e.g., Balasubramanian and Cole 2002, Ippolito and Pappalardo 2002)." (Moorman et al., 2012, p. 717 [122]) "It has long been observed that **information influences both individual consumer activities and market-level outcomes**. As a field, marketing generally has focused on individual consumer outcomes associated with information. Originating in the economics literature, investigations into the market-level effects of information suggest **that information flows can promote firm responses, such as improved product quality or lower prices, that increase the competitiveness and efficiency of the entire market** (Beales et al. 1981; Salop 1976. 1977; Schwartz and Wilde 1985; Stigler 1961; Stiglitz 1979). " (Moorman, 1998, p. 82 [96]) "In addition, although prior research has effectively examined **how health claims and nutrition labels influence health beliefs and purchase intentions** (Balasubramanian and Cole 2002; Kozup, Creyer, and Burton 2003; Moorman et al. 2004), a pressing issue for the Food and Drug Administration (FDA; 2003) is **whether such information can realistically influence food intake** on a single eating occasion. Given the U.S. obesity epidemic, understanding how incidental affect influences food intake and whether its influence can be **moderated through warnings or nutritional labeling** is an important topic." (Garg et al., 2007, p. 194 [83]) "This law aims to increase consumers' use of nutritional information, and help them choose healthier foods on the basis of the provided information (Burton and Andrews, 1996). This approach is supported by several previous studies, which show that food healthiness is one of the important components considered by consumers when making food choices, and that **consumers are more likely to purchase healthful foods when nutritional information is provided on the menu** (Burton and Creyer, 2004; Hwang and Lorenzen, 2008; Stubenitsky et al., 2007). Thus, **it seems clear that providing nutritional information has a positive effect on healthy eating behavior**." (Yoon & George, 2012, p. 1187 [142])
"Regulation change"	"A key impetus for this research is a **U.S. Department of Agriculture (USDA) ruling that recently mandated retailers to provide calorie and nutrient information** found in the Nutrition Facts panel (NFP), either on product packaging or through POP materials (e.g., posters), for major cuts of meat and poultry". (Burton et al., 2015, p. 240 [114]) "**With the enactment of Regulation (EC) No. 1924/2006,** 20 December 2006, 'On nutrition and health claims made on foods' several **health claims can no longer be used** on food products in European markets." (Bonanno et al., 2015, p. 500 [9]) "**Against the background of this conflict, the regulation (EC) No. 1924/2006 on nutrition and health claims** (called claims in the following) has been developed by the EU legislature (EU 2006). This regulation is intended to ensure that all claims are scientifically substantiated and not misleading, while the regulatory background for the claims is well defined and harmonised. **It implicates a change in the regulatory environment of the EU food market** (Bech-Larsen and Scholderer 2007). Although references to nutrition and health effects of foods have been made in the EU for some time now, it is still an emerging trend as against the United States food market (Nestle 2002) or Japan (Shimizu 2002)." (Aschemann-Witzel & Hamm, 2010, p. 47 [89]) "**Section 4205 of the U.S. Patient Protection and Affordable Care Act, enacted on March 23, 2010, requires chain restaurants** throughout the United States to provide nutrient content information for standard menu items. This national legislation requires chains with 20 or more locations doing business under the same name and offering substantially the same menu items to disclose calorie information on restaurant menus and menu boards. In addition, the chains must have additional nutrition information (e.g., fat, saturated fat, sodium, sugar) available on request from consumers. The act also requires "a succinct statement concerning suggested daily caloric intake" that is "designed to enable the public to understand, in the context of a total daily diet, the significance" of the calorie information (Federal Register 2010). **In contrast to many local and state requirements, this legislation will also require labeling of food items in buffets, self-service outlets, and vending machines.**" (Burton & Kees, 2012, p. 232 [101])

	Examples from research papers
"Regulation criticism"	"Americans have been gaining weight in recent years, and there is significant long-term disease risk associated with this trend. **The Nutritional Labeling and Education Act of 1990 (NLEA) was expected to help curtail this trend by providing information to assist consumers in making more healthful food choices. Yet today, more than 50% of U.S. adults are overweight, and 12% of school-aged children are obese, twice the number reported 20 years ago."** (Kozup et al., 2003, p. 19 [81]) "Despite widespread support for adequate nutrition information and its use, **20 years of research indicates that this goal has not been achieved**." (Moorman, 1990, p. 362 [76]) "Debate over the use of nutrition and health information in food marketing has raged for decades (Calfee and Pappalardo 1989, 1991; Cooper, Frank, and O'Flaherty 1990; Hutt 1986; Silverglade 1991). Forty years ago, information about diet and health, including specific fat content information, was prohibited on food labels. Because of the Nutrition Labeling and Education Act of 1990 (NLEA; 104 Stat. 2353), some fat content information is now mandatory, and limited information about specific diseases (health claims) is now allowed. Although many questions regarding food marketing have been resolved over time, one key issue that continues to generate controversy is the level of authority necessary to substantiate health claims. **Debate also continues** over fat labeling — particularly the labeling of trans-fatty acids (see Willetl and Ascherio 1994). **Tension over health claim substantiation** is reflected in the FDA Modernization Act of 1997 (Public Law No. 015- 115), which expands the Food and Drug Administration's (FDA's) ability to authorize health claims (Food Labeling and Nutrition News 1998a, b). **Another sign of tension** is a recent U.S. Court of Appeals decision overturning the FDA's health claim review process for dietary supplements {Pearson v. Shalala 1999). Among other things, the appeals court raised concerns that the FDA's "significant scientific agreement" requirement for health claims unnecessarily restricts the flow of useful information about diet and health and violates First Amendment protection for commercial speech. Legal experts believe that Pearson v. Shalala will eventually affect the FDA's significant scientific agreement standard for foods {Food Labeling and Nutrition News 1999, pp. 10-11). **The jury is still out on the ultimate effects of the NLEA**, its implementing regulations, revisions emanating from the FDA Modernization Act of 1997, and recent court decisions related to the First Amendment protection of commercial speech." (Pappalardo & Ringold, 2000, p. 74 [106])
"Information asymmetry"	"**Finding the optimum balance between information provision by industry and consumer use of that information becomes increasingly complicated** as the food system becomes more industrialized, product differentiation increases, more sellers vie for the consumer's dollar, and government regulations become more complex. Early food labeling legislation grew out of food safety concerns and a need for fair competition. However, contemporary arguments have expanded to health claims, production practices, and the amount and placement of label information. Information asymmetry is defined as sellers having more information than consumers, leading to inefficient markets (Caswell and Mojduszka 1996; Golan et al. 2001). Consumers ''vote with their dollar,'' revealing preferences through purchases. **Imperfect information leads** to imperfect consumer purchasing decisions, or adverse selection, resulting in inferior product offerings, extraordinary profits, competitive barriers to entry, inadequate consumer-oriented communication, and decreases in consumer satisfaction (Akerlof 1970; Harris and Carman 1983; Mishra, Heide, and Cort 1998; Redmond 2009; Scherer 1970). These consequences raise **the question of how to remedy imperfect or inadequate information. Finding solutions is complicated** by the fact that while consumers want succinct information conveyed in simple terms, industry must balance the costs of providing information with business profitability (Childs and Childs 2001; Gardner 2006; Gorski 1997)". (Kolodinsky, 2012, p. 193 [78]) "Manufacturers use health claims to signal higher product quality, relying on consumers' higher willingness to pay for food with health-enhancing features (e.g., West et al., 2002; Markosyan, McCluskey and Wahl, 2009) to recover the costs of developing these products. However, as functionality is a credence attribute (Grunert, 2005), **information asymmetry between producers and consumers may lead to consumers' distrust of these products' beneficial properties** (e.g., Verbeke, 2005a, 2005b). In markets characterised by information asymmetry, manufacturers may have an incentive to claim higher quality levels, resulting in consumers' welfare losses." (Bonanno et al., 2015, p. 500 [9]) "Firms typically have more information about the quality of their products than do consumers, **creating a situation of asymmetric information.** It is prohibitively costly for most consumers to acquire nutritional information independently of firms. Firms can use this information to signal their quality and to receive quality premiums. However, firms that sell less nutritious products prefer to omit nutritional information. In this market setting, firms may not have an incentive to fully reveal their product quality, may try to highlight certain attributes in their advertising claims while shrouding others (Gabaix & Laibson 2006), or may provide information in a less salient fashion (Chetty et al. 2007)." (Kiesel et al., 2011, p. 142 [232])

Source: Author's own elaboration.

Similarly, the "regulation criticism" theme explores information and its complexity to accuse public policies of inefficiency. The "regulation change" theme elaborates on regulatory changes with implications for consumers and marketers alike, rhetorically stressing the recency or extent of a change. Finally, the "information asymmetry" theme looks at the gap in information availability between various market actors. This theme is characterized by the rhetoric of the consumer's right to know and companies' moral responsibility to close the gap rather than to exploit it. These themes frequently list regulations in force, their ostensible purposes, the reasons the regulations were issued and their impact on the marketplace.

Two more themes ("literacy" and "imperfect/bounded rationality") use the context of consumer characteristics to introduce research and open it to doubt with a research question (see Table 8.3 for examples). The "literacy" theme discusses consumers' knowledge and

(in)capacity to understand health and nutritional information as intended by the experts (e.g., nutritionists, food producers, food scientists and public officials). Along with an expanded understanding of food knowledge as literacy (Block et al., 2011, p. 7), this theme also employs arguments about motivation (or skepticism) to apply conceptual and procedural knowledge to actual food-related behavior. The "imperfect/bounded rationality" theme focuses on the alternative to a perfectly rational information-processing approach and contextualizes the problem within consumers' inherent tendency to use relatively simple decision rules (e.g., rules of the thumb, inferences, biases) in making food-related decisions.

Table 8.3. Examples of problematization themes: consumer characteristics.

	Examples from research papers
"Literacy"	"This limited response to the extensive promotion of the health benefits of eating a nutritious diet could be partly attributable to **lack of knowledge and confusion about specific benefits of foods**. Research indicates that even when consumers are interested in nutritional information **they often do not know how to use this information effectively** (Moorman, 1990), and **general knowledge is often poor** (Chase, 1995)." (Darian & Tucci, 2013, p. 427 [154])
	"Research has established **that consumers' knowledge of the linkage between diet and health is a significant determinant of their dietary choices** (Chern et al., 1995; Variyam et al., 1998; Chern, 2002; Brown and Schrader, 1990). Recent studies confirmed this finding specifically in the context of soy-based foods." (Moon et al., 2011, p. 480 [17])
	"For almost a decade, FDA has attempted to meaningfully convey the strength of science supporting health claims made on food and dietary supplement packages. Yet, consumer studies using different subject pools, methodologies, health claims, and nutrients show that **consumers cannot reliably distinguish between different strength of science qualifiers** (Derby and Levy 2005; IFIC 2005; Murphy et al. 1998; Murphy 2005)." (France & Bone, 2009, p. 386 [119])
	"Consumer concerns about GM food raise questions about **what consumers know about GM food and to what extent this knowledge translates into their evaluations of GM products**. […] Clearly, perceptions of GM food **differ significantly among laypeople and experts;** expert views, which focus on scientific principles, generally do not include risk perceptions. However, such perceptions are critical for consumers when they form their reactions and choose their behavior (Frewer, Howard, & Shepherd, 1995). In particular, psychological risk perceptions likely are paramount in determining consumer behavior (Bredahl, 1999; Frewer et al., 1995)." (Klerck & Sweeney, 2007, pp. 170–171 [126])
	"Existing research documents consumers' **general understanding** of the link between food consumption and health, and widespread interest in the provision of nutritional information on food labels (e.g., Williams, 2005; Grunert and Wills, 2007). However, consumers cannot verify this information at any point from purchase to consumption. Instead, **they base their product choice on beliefs arrived at by way of a labyrinth of information printed on food packages**" (Kiesel & Villas-Boas, 2013, p. 153 [32])
"Imperfect/bounded rationality"	"**Because consumers can make inferences from small amounts of product information** (Ross and Creyer, 1992), it may be the case that a small amount of the right information can still go a long way in influencing the inferences a person makes about a product (Wansink, 1994)" (Wansink et al., 2004, p. 660 [15])
	"**Consumers' inability to accurately assess nutritional content of certain foods is well known**. One method consumers frequently use to determine nutritional content is inference making. **The process of inference making** is well established in the literature, with studies examining its influence in areas such as product names (Irmak, Vallen, and Robinson 2011), labeling techniques (Kozup, Creyer, and Burton 2003), and content claims (e.g., "low fat"; Chandon and Wansink 2007a). Inference making is best described as the process by which consumers **use information about one attribute to infer information about another attribute that is either unknown or not readily apparent.**" (Peloza et al., 2015, p. 19 [110])
	"However, given the information complexity of nutrition labels, **even the simplest strategy for processing the label requires several cognitive operations** (for an overview, see Schulte-Mecklenbeck et al., 2013). First of all, the label information must attract sufficient visual attention to enter working memory where it must lead to an adjustment in the representation of the food nutrients (Graham et al., 2012). Second, given an adequate representation of the nutrient values, the consumer must now compare the product under consideration with a competing product or with a threshold value for the important nutrients. Finally, the consumer must choose the product with the most favorable nutrition values or in the case of a single product accept or reject it based on whether it is above the threshold value (Schulte-Mecklenbeck et al., 2013). If the healthfulness judgment is to adequately reflect the intention behind the nutrition label, one could furthermore add that the judgment must be compensatory, that is, the consumer must take into account more than one nutrition value and if necessary trade off between these values. The number of cognitive operations is typically higher for compensatory compared with noncompensatory processing strategies (Gigerenzer and Gaissmaier, 2011), which suggests that making healthfulness judgments from nutrition labels is a rather effortful process (Johnson and Payne, 1985). The effort associated with reading nutrition labels should be familiar to anyone who has ever tried to compare the nutrition values of two or more products in the supermarket. **The question is, of course, whether consumers can be expected to go through such an extensive process.**" (Orquin, 2014, p. 270 [52])
	"Though the study of genetics, the examination of how environment shapes behavior and other causes of obesity are valuable to study, the current research focuses on the psychology of self-control failure. People are often faced with decisions like: Should I make dinner at home, or buy fast food? Should I choose the fruit salad for a desert, or the chocolate cake? Arguably, deciding to make dinner at home (and avoiding the salty fast food), and choosing the salad (and avoiding the sugary cake) requires a significant amount of psychological effort. Consistent with this notion, prior research in social psychology finds that **when people have limited effort, they are more likely to give into temptation, resulting in self-control failure** (Baumeister et al., 1998; Shiv& Fedorikhin, 1999). Using this understanding of self-control failure, one could argue that another cause of becoming overweight or obese is related to the fact that these people may not have enough effort to exercise self-control." (Walsh, 2014, p. 126 [57])

Source: Author's own elaboration.

Finally, the remaining six themes ("market potential," "market trend," "consumer demand," "market differences," "sustainability" and "special consumer groups") refer to market-specific contexts and problems (see Table 8.4 for examples). The "market trend" theme examines past statistics of the food market, rhetorically stressing how the market has been changing, what innovations and successes (or failures) it has witnessed, and how massive and influential such tendencies are or will be for the research and market players. Similarly, "market potential" stresses change and market dynamics, but explicitly examines future and potential benefits for marketers. Such benefits could be completely material, such as profit increase, market expansion and higher competitiveness, or more immaterial and intangible, such as brand or company reputation, image, equity and consumer loyalty.

Table 8.4. Examples of problematization themes: marketing issues.

	Examples from research papers
"Market trend"	"The intensified relationship between diet and health **changes contemporary food consumer behaviour at a fast pace** (WHO 2003). Lately a strong demand for food products with health protecting or enhancing properties has emerged (Leeflang and van Raajj 1995; Grunert and Wills 2007). One type of such food products are those with a low calorie content or simply low-fat foods. **The production of low-fat foods worldwide has increased to such an extent that it is now considered a multi-billion e market**. The Mintel Global New Products Database (2009) reveals that during the last six years launches of new products within the dairy sector in Europe **are dominated by claims related to the fat content** (see Table 1)**. The growing rate** at which light products are introduced in the market indicates an extensive investment on behalf of the food industry. Therefore, investigating the **market structure and reasons behind success** of light products in the market is an issue worth investigating". (Krystallis & Chrysochou, 2011, p. 213 [91])
	"Modern food production has afforded consumers a tremendous amount of food choices. Recently, given the growing interest consumers have in maintaining healthy lifestyles, many foods promulgating heart-healthy benefits, good digestive health and increased energy levels **are winning favor in the marketplace** (Nielsen Media 2009). As a result, many foods, including margarines and sugary cereals that were once viewed as unhealthy, **are being reformulated and repositioned as healthier alternatives**. The industry calls these products "nutraceuticals" or "functional foods," which are foods purported to have health-promoting or disease-preventing properties (Marchione 2009). For example**, a number of companies have added fiber** to their existing products or **launched new products** touting fiber. In 2009, 6.5% of new foods included fiber-enriched claims (Horovitz 2009). This is **an increase of almost 65% since 2005** (Packaged Facts 2010). Currently, these foods **account for more than $27 billion in sales a year** and future growth is expected to range from 8.5% to 20% per year (Marchione 2009)". (Zank & Kemp, 2012, p. 333 [48])
	"Over the past half century, **consumers in Australia have increasingly been confronted with a plethora of health food products**. The willingness to try new foods and thus to make changes to one's diet that may lead to new dietary habits has been addressed by Claude Fischler, a French sociologist." (Schneider & Davis, 2010a, p. 31 [6])
	"As the **most frequently consumed beverage in the world** (Baker et al., 2004), **coffee has become the most important exported commodity** for many developing countries and, consequently, the most valuable item for these countries regarding their international trade (Cailleba and Casteran, 2009). This is especially true for organic coffee, which is mainly produced in Brazil, Ethiopia, Mexico and Peru (Van der Vossen, 2005). **Global organic coffee sales reached 148 million pounds in 2006**, and more than 44 per cent of all total organic coffee grown in 2008 was imported into North America to produce organic coffee products (OTA, 2012). More recent trends document that **international sales of organic coffee in the USA grew nearly 30 per cent in just one year, jumping from $15.2 million in 2011 to $19.7 million in 2012** (OTA, 2013)." (K. H. Lee et al., 2015, pp. 1157–58 [28])
"Market differences"	"**The wide cultural differences in food habits and food related beliefs among EU countries** produce a challenge to national and local authorities in how the legislation will be implemented uniformly around EU when the products with claims appear to the food shelves. How the consumer understanding will be assessed remains still unclear." (Lähteenmäki et al., 2010, p. 231 [18])
	"It is well documented that consumers' environmental and ethical buying motives play an increasingly important role in Europe and the USA (e.g., De Ferran and Grunert, 2007; Folkes and Kamins, 1999; Freestone and Mcgoldrick, 2008; Honkanen et al., 2006; Thøgersen, 1999, 2011). However, so far only little research on the importance of consumers' environmentalist and ethical buying motives **in emerging economies such as China or Brazil has been published** (but see Chan and Lau, 2000; Chan et al., 2008; De Barcellos et al., 2011, 2013; Ramasamy and Yeung, 2009; Soares et al., 2008). Given the globalization of consumer culture (Cleveland and Laroche, 2007) and the rapid increase in disposable incomes and spending in emerging economies, it seems likely that these motives will become (more) important here as well (Strizhakova and Coulter, 2013), **but the emphasis might be different colored by each country's unique history, culture and other conditions** (Craig and Douglas, 2006; Madden, 2007; McEwen et al., 2006)." (Thøgersen et al., 2015, p. 390 [36])
	"**There is also a paucity of studies on how consumers in Asia process health claims.** As countries become more intertwined in their economic activities, manufacturers cannot ignore the need to globalize their product offerings. If it is indeed true that there is 'growing similarity among countries in what their citizens want to buy,' (Yip, 1995), then one wonders whether extant skepticism **concepts developed based on Western consumers are equally applicable to Asian consumers**?" (Tan & Tan, 2007, pp. 61–62 [87])

	Examples from research papers
"Market potential"	"The market for foods with health benefits and dietary supplements **continues to expand** in the United States (Neiner, 2012), European Union (EU) (Sanaullah Khan et al., 2013), and Japan (LFR, 2011). Front of pack nutrition claims are a primary vehicle used to inform American consumers about the health benefits of foods and supplements (Lytton, 2010). Manufacturers and marketers of these products value the ability to make health claims. **Such marketing strategies (Koponen et al., 2012) can increase the perceived value of specific products, making them more competitive (Levy and Stokes, 1987; Freimuth et al., 1988) and profitable** (Pearson, 1999; IOM, 2010; Sanaullah Khan et al., 2013) in the marketplace". (Berhaupt-Glickstein et al., 2014, p. 62 [20]) "Yet there may be **a more promising solution to the obesity problem** – restaurants **could profitably help customers make healthier selections (**Chandon and Wansink, 2012). Most restaurants offer a wide range of healthier, lower-calorie options – salads, calorie-free drinks, vegetarian side dishes – that are also equally or more profitable than some of the more frequently ordered menu items, and these healthier items are becoming increasingly popular – especially those which are "slightly healthier" versions of favorite recipes (Wansink, 2014a,b). In contrast to fighting against regulations, an overlooked solution would be for restaurants to more effectively guide consumers toward these healthier options while still giving them a wide range of choices (Reynolds et al., 2005)." (Wansink & Love, 2014, p. 137 [143]) "**Growth forecasts show that the market is expected to grow** in almost all countries in the upcoming years, but a**re most optimistic** for Asia, varying from an expected growth of 0.6% in Japan up to 13.4% in China (Euromonitor International, 2015c). Still, **the market share of functional foods is rather small in numerous countries** (Euromonitor International, 2015b). This increases the interest of the food industry to operate on an international level. However, global variations in legislative requirements on nutrition and health claims complicate the marketing of functional foods across jurisdictions (Aschemann-Witzel and Hamm, 2010; Jew et al., 2008; Jones et al., 2008; Kwak and Jukes, 2000; Lalor and Wall, 2013; Richardson et al., 2003)." (de Boer & Bast, 2015, p. 61 [171]) "The European Union (EU) nutrition labelling policy aims to facilitate consumers' food choice, stimulate innovation and facilitate the circulation of foods bearing claims across countries. However, **the beef industry has not fully taken advantage of utilizing nutrition and health claims based on the EU nutrition labelling policy to differentiate beef products in the market**." (Van Wezemael et al., 2014, p. 167 [13])
"Sustainability"	"Consumption growth is heralded as the solution to **important global problems such as poverty, unemployment and inequality, but it is also dreaded as a cause of environmental degradation** (OECD, 2011; Thøgersen, 2014). Notably, a large and growing share of climate gases and other critical emissions is directly related to private consumption, and even more are indirectly related (European Environment Agency (EEA), 2012; The World Bank, 2012). Hence, there is an increasing awareness that **future growth in consumption must respect planetary boundaries and be "green" (OECD, 2011) or sustainable** (Commission of the European Communities, 2008; WBCSD, 2008). **The success of such a "green growth" strategy** depends, among other things, on individuals accepting the policy interventions that are deemed necessary as voters and choosing "green" products and services as consumers (Dauvergne and Lister, 2012; Kinzig et al., 2013)". (Thøgersen et al., 2015, p. 390 [36]) "**Green consumerism** has significantly **influenced ecologically conscious decisions in various business segments and modified manufacturing processes and operation procedures** (D'Souza and Taghian, 2005; Wolfe and Shanklin, 2001). In addition, a number of consumers have shown an increased positive attitude and perception toward companies sensitive to environmental matters (Han et al., 2009; Han and Kim, 2010; Hu et al., 2010; Jeong, 2010). The term green is alternatively known as "eco-friendly", "environmen- tally friendly", or "sustainable" (Han et al., 2009; Laroche et al., 2001; Pizam, 2009). Consistent with this phenomenon, **several restaurants have incorporated eco-friendly business practices into their products and services**, as interest for the environment in food service appears to be a relatively new phenomenon (Hu et al., 2010)" (Y. J. Kim et al., 2013, p. 255 [136]) "However, scholars have yet to investigate the impact of corporate-level information on consumers' inferences of nutritional content. Furthermore, prior research has examined consumers' perceptions of nutrition content through inference making, leaving the potential for resulting overconsumption underexplored. This important gap requires examination because **many firms engage in activities such as corporate social responsibility (CSR) to enhance their reputations with stakeholders,** including consumers (Ferrell et al. 2010)." (Peloza et al., 2015, p. 19 [110])
"Special consumer groups"	"An **increase in life expectancy, resulting in an increase in the numbers of the elderly worldwide** and the desire for an improved quality of life, as well as increasing costs of health care, has stimulated governments, researchers, health professionals and the food industry to explore how such changes can be managed more effectively and how **to address the needs of older generations** more closely in the future (Dean et al., 2009)." (Annunziata et al., 2015, p. 352 [24]) "Tommy Thompson, former US Secretary of Health and Human Services, called obesity a "crucial health problem," and Dr Julie Gerberding, director of the CDC, pointed to "**the epidemic of overweight among today's youth**" (NARC, 2004). Furthermore, as Americans gain girth, **criticisms of food marketers gain momentum**. Some observers take aim at advertisers as culprits, particularly in the childhood obesity epidemic (Strasburger, 2001)". (Quilliam, 2006, p. 123 [64]) "By necessity, both the IOM's (2006) and the FSA's (Hastings 2003) reviews focus on the impact of television advertising because this has been the primary research emphasis over time. **Little is known about new online marketing practices or their impacts on children**. Calls for an assessment of online marketing practices have recently come from a diverse set of stakeholders, including congres- sional leaders, the Center for Science in the Public Interest (CSPI), the National Advertising Review Council (NARC), and the IOM, all of which have had to rely on anecdotal evidence in their treatment of the issue to this point (see, e.g., CSPI 2003; Harkin in FTC 2005; IOM 2006; NARC 2005)". (Moore & Rideout, 2007, p. 202 [109]) "Considering the increasing trend in the demand for "green food," **lifestyle of health and sustainability (LOHAS) consumers** have emerged **as an important customer group in the foodservice industry**." (Cortese, 2003; Rogers, 2005). […] LOHAS consumers are becoming an important market segment for restaurants. […] The senior population comprises 31.0 percent of the total Korean population as of 2011, and the proportion is predicted to increase to 54.3 percent by 2040 (Korean Statistical Information Service, 2010). **The disposable income of seniors is higher than that of non-seniors** (Caballero and Hart, 1996), even though the income for seniors is low compared to their younger counterparts. Additionally, most seniors do not have children to support, as their children are grown (Shortt and Ruys, 1994), and **they often place a greater priority on dining out than non-seniors** (Rainville, 2008)." (M. Kim et al., 2013, pp. 559–560 [135])

	Examples from research papers
"Consumer demand"	"Spurred by **unprecedented consumer demand for healthy diets** and governmental concerns regarding public health, healthiness has become a critical part of food-related businesses. Specifically, providing healthier options has become a key strategy for survival and prosperity for restaurant businesses". (Hur & Jang, 2015b, p. 12 [138])
	"Consumer interest in health and diet is reflected in **the recent demand by consumers for information on the nutritional value of the food they eat** (Levy, Schucker, Tenney, and Matthews, 1988). For example, in **a 1982 survey conducted by the Food and Drug Administration,** consumers indicated that they needed and desired nutritional information about the food they consumed even if the information was sophisticated and unlikely to be used (Heimback, 1982). **This pressing "need to know"** has raised considerable concern among regulators (e.g.. Committee on Public Health and the Committee on Medicine in Society) and food experts (e,g,. Best, 1989) alike that food labeling and advertising claims have gotten out of hand and require stricter regulation". (Klassen et al., 1991, p. 32 [38])
	"**As is the case with most markets, the demand for healthy products** is being driven by customer segments which have expressed a strong need for the benefits these products provide. With regard to this particular market, **demand is being driven by a large customer need segment** that bases a number of its purchase decisions on its desire to adopt or maintain a healthy lifestyle (Berry, 2004; Weiss, 2002, Beverage Industry, 2004; National Petroleum News, 2002). Despite the **tremendous impact that this healthy lifestyle consumer has had on the marketplace**, there has been very little research on this segment in the marketing literature". (Divine & Lepisto, 2005, p. 275 [55])
	"Healthy eating has recently come to play an essential role in the promotion and maintenance of good health throughout the entire course of an individual's life. As a result, the number of people who try to eat healthy foods when they dine out is increasing (NRA, 2013). **To meet increased demands for healthy menus**, restaurants—regardless of the segment—are adding more healthful options to their menus (Mariani, 2011; Strom, 2013). Even fast-food restaurants that often serve relatively less healthy food compared to other restaurant segments are working to add healthy options". (Jeong & Jang, 2015, p. 1 [140])
	"According to the 2009 Healthy Eating Trends published by Nielsen, **more than 90% of U.S. consumers stated that eating healthily is important** (Nielsen 2010). However, recent studies (Barreiro-Hurle et al 2010; Binkley and Golub 2010) and anecdotal evidence suggest that for most consumers the nutritional value of food is not a major choice criterion. This is despite the increasing awareness, consumer knowledge and widespread labeling of diet-health facts from transfats to fiber and omega-3. An even more significant shift in eating habits across North America has **been the ongoing rise in the demand for further processing and convenience as time for meal preparation and cooking skills have decreased** (Capps et al 1985). At the same time, price sensitivity—value for money—and taste preferences have persisted and are still important drivers of everyday food choice decisions (Dynan 2000)".(W. Ahmad & Anders, 2012, pp. 113–114 [5])

Source: Author's own elaboration.

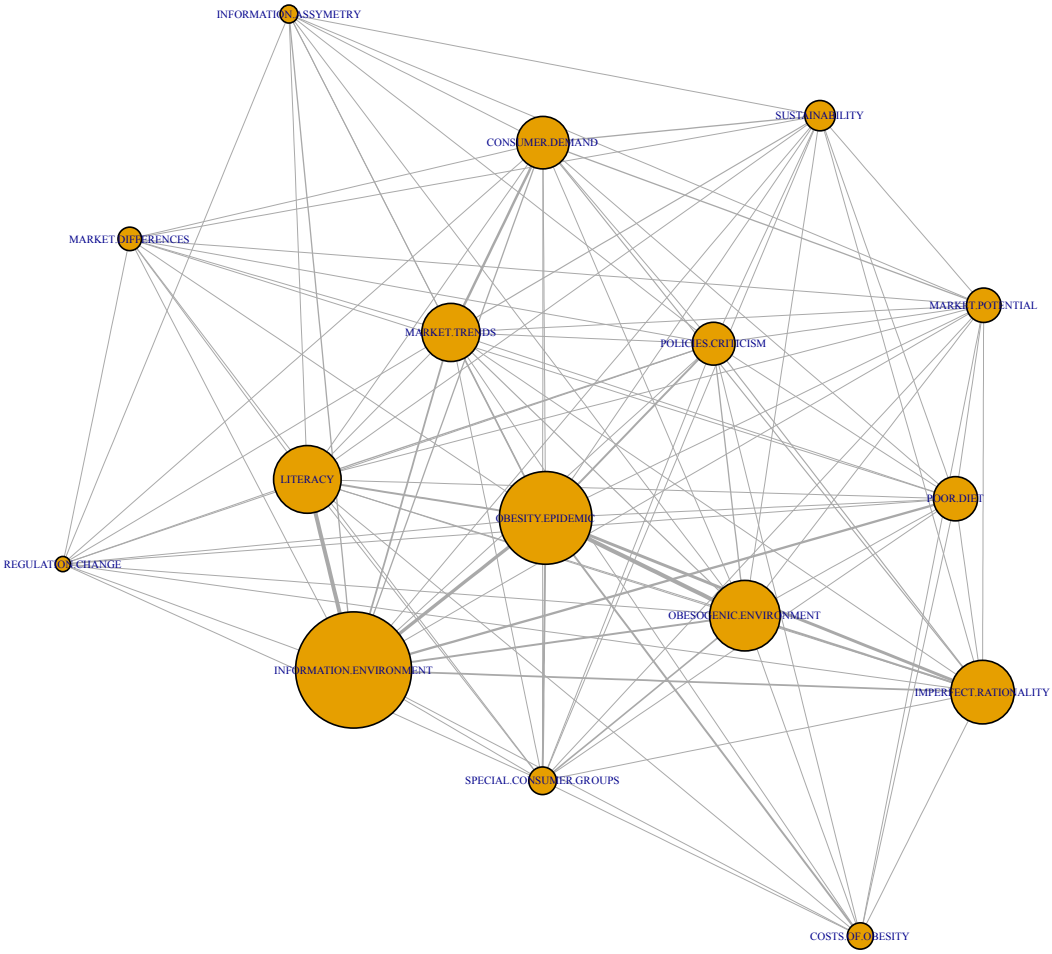
The "sustainability" theme uses statements about environmental preservation and social justice in the food industry, and discusses the benefits of integrating concerns about natural and human capital into business operations and marketing activities. "Consumer demand" problematization draws on the rhetoric of consumer-centrism and employs statements about consumers' opinions, wants and needs (often sourced from polls and market surveys) as points of references for marketing management and research. The "market differences" theme emphasizes (potential) problems deriving from heterogeneities between markets and consumers in various international settings. The "special consumer groups" theme is also concerned with differences, yet more specifically focuses on specific consumer segments who require "special attention." These segments may include children as consumers, aging population, the poor and other "vulnerable" consumers, or, on the contrary, millennials, healthy lifestylers and seniors as especially promising marketing targets.

8.2.2. Problematization co-occurrence map

As evident from the examples, it's rare that problematization paragraphs in marketing papers use one theme only. It's much more common to see a combination of several themes. In fact, what we see in many research articles' opening paragraphs is problematizations' *mass customization* (Pine, 1993) – problematization written so that the final original result is a product of elements drawn from a limited pool of options.

Some groups of themes seem to appear together more often than others, as shown in Figure 8.2 depicting the themes' co-occurrence[46] network structure.

Figure 8.2. Problematization key themes in a co-occurrence map.



Source: Network structure from content analysis as visualized by R co-occurrence plot.

Overall the thematic net is extensive, and most themes (depicted as network nodes) are connected to virtually all other nodes, even if some connections are very thin (line thickness stands for frequency of co-occurrence in texts). Yet some themes are more frequent (larger nodes) and have stronger connections between them (thicker lines). For instance, the "obesity epidemic" theme is among the most recurrent themes (along with "information environment") and also occupies a more central position, showing how pervasive and influential the "strategically alarmist" rhetoric of obesity is - despite critical obesity studies

[46] Co-occurrence is a measure frequently used in text-mining analysis that identifies how often two items from a corpus of texts occur together and/or in a certain order. If analyzed at the level of paragraphs or sentences, for example, co-occurrence may signal semantic proximity or even certain level of idiomaticity. In our case, we applied co-occurrence analysis not to naturally occurring words or word combinations, but to the results of our content analysis coding. For each article, we lined all problematizations identified (i.e., codes), as if the codes were words and each line (i.e., each article) was a sentence. We further counted a co-occurrence measure for each line, and by combining co-occurrence measures for all articles (all lines), we produced a co-occurrence matrix for the entire corpus. To make such a matrix more visual, a common strategy is to turn the matrix into a co-occurrence network graphic, where items are visualized as nodes of a size proportional to the frequency of their occurrence, connected with lines of width proportional to the frequency of nodes co-occurrence. See Appendix 4 for co-occurrence matrix and the plot used for network visualization using R (statistical environment, https://www.r-project.org).

that show that bodily weight is a weak predictor of health, that obesity statistics are likely overstated and that obesity itself is an outcome of more structural problems (Askegaard et al., 2014; Campos, 2005; Gard & Wright, 2005; Herrick, 2009; Ross, 2005). The "obesity epidemic" theme also forms a stronger inter-connection – almost a "fixed expression" co-occurrence – with two themes in particular: "obesogenic environment" and "imperfect/bounded rationality." The two also articulate the most popular causal explanations of obesity, blaming, on one hand, modern Western lifestyles of low energy expenditure that are out of step with our evolutionary make-up and, on the other, inherently irrational and weak human nature prone to sloth and gluttony. Gard and Wright (2005, pp. 108–125) call these generalizations disguised as explanations "everyone everywhere" and "just so" stories. In other words, marketing and consumer researchers' arguments and thinking share the dominant explanation of obesity and are prone to the most popular "rhetorical viruses," i.e., "specific rhetorical flourishes [that] are endlessly recycled and, rather like viruses, passed from person to person, mutating, but keeping their essential structure" (Gard, 2010, para. 8 in chapter 2). Naturally the rhetoric of obesity epidemic and its "viruses" further contributes to "obesity hysteria" (Gard, 2010) and the catastrophist view of modern food as an imminent health disaster, despite the fact that marketing itself is accused of being a major contributor to the obesity-conducive environment. Apparently, marketing is indeed "very good at taking criticism and turning it into a marketing opportunity" (Simon 2010 in Schleifer, 2013, p. 69).

The "information environment" theme also forms a network of firm inter-connections, specifically with the "poor diet" and "literacy" themes. This comes as no surprise considering how many resources are dedicated to the promotion of consumer education and information remedies to improve people's diets (and the nutritional quality of marketed foods) and the widespread "sick population" assumption proposing that, as a whole, population is not compliant with dietary recommendations (Coveney, 2006). Thinner connections link "information environment" to qualitatively different themes: some that refer to regulatory and policy issues, some – to economic and market factors, and others – to consumer concerns. This is indicative of the strength of the information theme in mediating between various market actors and their interests (e.g., regulation, consumer protection, profit maximization, credence quality communication and empowerment through informed choice), as well as between various food-related risks and (desired) health benefits.

Connections between nodes can determine the direction that a theme's meanings take. For example, "special consumer groups" may stand for a vulnerable consumer segment in need of paternalistic protection policies when connected to "policies criticism" and for a profitable marketing target when linked to "consumer demand" or "market potential" (e.g., think of older people framed as either seniors with high purchasing power or as an aging population with higher health risks, or children framed as either vulnerable innocents in need of special policies or agents exerting "pester power" in need of education). The "consumer demand" theme may discuss the need for education or trustworthy information when used with the "literacy" and "information environment" themes, or food (re)formulations and innovations when used with "market trends," "sustainability" and "market potential."

8.2.3. Problematization-solution determination

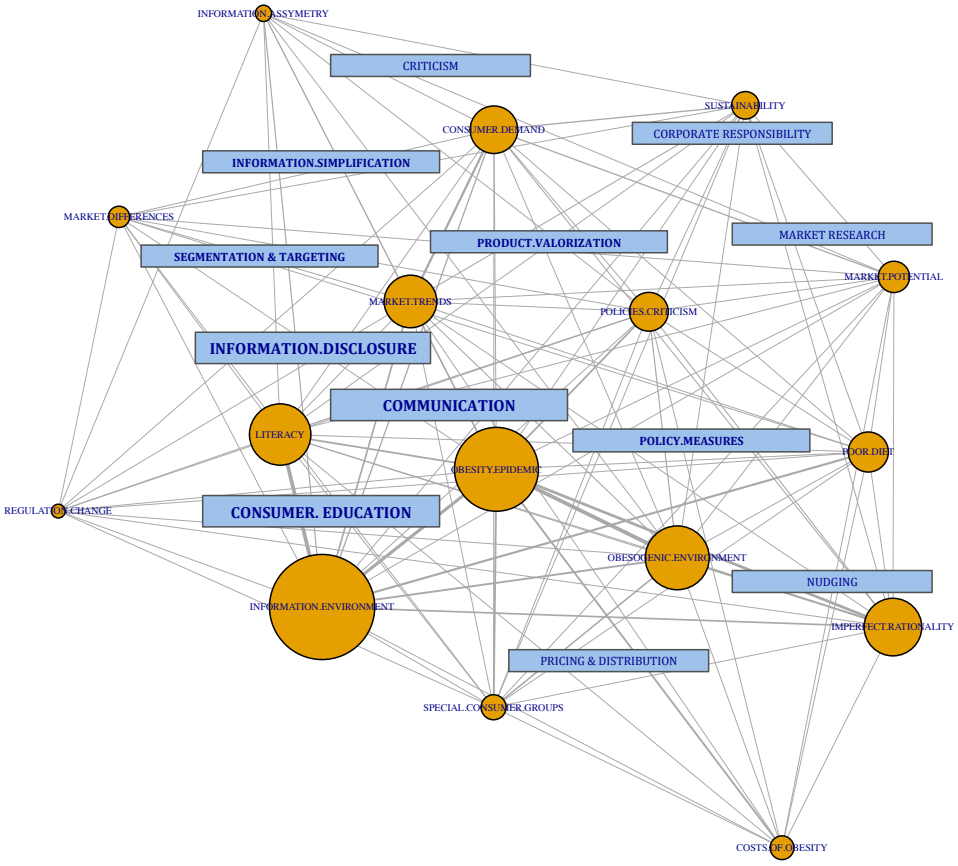
Another essential element of problematizations is the relationship between introduction and conclusions, which are, as a rule, dedicated to recommended solutions and managerial implications. Due to the logic of research, the "grammar structure" of a conclusion is basically that of an introduction, but in reverse order – as if it's an "echoing device" (Booth et al., 2003). Therefore, themes and the manner in which they are presented reemerge as an integral part of solutions. The way a problematization is framed determines the solutions offered.

In the case of marketing discourse about health, the vocabulary of solution typologies is reduced even more than that of problematizations (see Appendix 4). The three most frequently offered solutions fall into "communication," "information disclosure" and "consumer education" remedies. Less frequent but still common strategies are conceptually close to the three most prominent solutions and basically propose enhanced versions: to simplify disclosed nutritional information and capitalize on marketing's segmentation abilities to diversify and personalize communication and education initiatives. Some typologies are more protective and propose policy measures (e.g., regulations and incentives) to support consumers' health behavior and stimulate healthier market offerings. These measures may include re-formulation of products to make them objectively healthier and other initiatives of corporate social responsibility. Figure 8.3 shows the vocabulary of solutions placed over the co-occurrence network of problematizations.[47]

Despite considerable regularity and thus "predictability" of proposed solutions based on formulation of the problem, the resulting situation can be better described as any-measure-is-at-least-worth-a-try. In fact, in elaborating on his notion of obesity's "rhetorical viruses," Gard (2010) claims that they (as well as, in our case, other health-related problematizations) are so alarming and contagious that they can justify virtually any course of action. The worse the problem is depicted, the more acceptable it becomes to propose any idea (including self-evident, old and recycled) to tell us that we just need to do something.

[47] See Appendix 4 for the complete list of solutions, including their brief description used for coding. Also in Appendix 4, you can find the full matrix of co-occurrences for all problematizations and all solutions. A separate visualization of solutions (without problematizations) can be found in Appendix 4 as well: unlike the problematization vocabulary network, the co-occurrences of different typologies of solutions are less frequent and much less intertwined. We chose not to visualize the co-occurrence of problematizations and solutions together on the same network map, because with an increase of nodes and number of lines, it becomes more complex and more difficult to read. Instead we manually added solutions in (approximate) proximity to the problems with which they are associated, showing the three most frequently used solutions in larger quadrants, the following three in slightly smaller quadrants in bold and the remaining solutions without any further distinction.

Figure 8.3. Solutions for key problematization themes



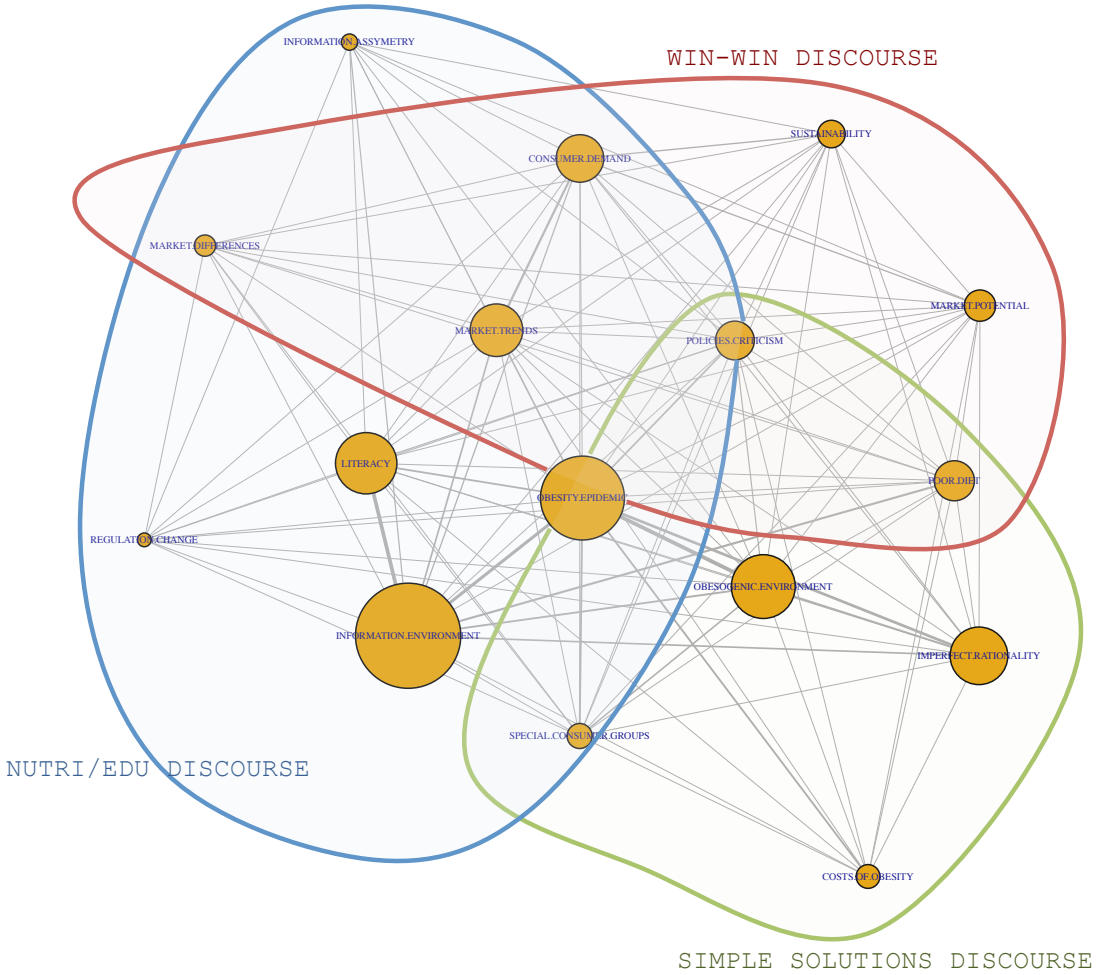
Source: Author's own elaboration; the vocabulary of solutions placed over the co-occurrence network of problematizations - originally visualized via R co-occurrence plot based on content analysis results.

8.3. Three discourses about health and food

Correlations and patterns of thematic choices, concepts and statements employed in problematization vocabularies and resulting solutions shape three unities of discourse about health and food in marketing and consumer research, which we've named "nutri/edu," "simple solutions" and "win-win" discourse (roughly depicted with colored areas on Figure 8.4). While distinct in their underlying logic, in the reality of published articles, they may co-exist and overlap.[48] The names are chosen to communicate the core unifying idea that distinguishes each from others (see Table 8.5 for the summary). To borrow from Alvesson (1994, p. 310), "as is the case of all (informed and reflectively used) metaphors, these do not aspire to capture the whole 'truth,' only significant and interesting aspects of it."

[48] Discourses are not groupings of articles on a more abstract level, but a set of regularities between thematic choices (incl. problematizations), types of statements, objects of research, concepts etc. Discourses cut through various research streams, yet a discourse may be somewhat more salient in one research stream than in another. Table 8.6 takes a shot at showing manifest presence of three themes, each characteristic of one of the discourses: "information vs. knowledge" – of nutri/edu discourse, "healthy vs. unhealthy" - of simple solutions discourse, and "healthy/ier vs. base" – of win-win discourse.

Figure 8.4. Three discourses about health and food in marketing research.



Source: Author's own elaboration; co-occurrence network originally visualized via R co-occurrence plot based on content analysis results.

Table 8.5. Summary of problematizations and generated solution per three discourses.

	NUTRI/EDU	SIMPLE SOLUTIONS	WIN-WIN
Key health problematization	Inadequacy of nutrition/public health education campaigns (abstract, untimely, theoretical and don't understand the consumers)	Sick population (i.e., obesity epidemics combined with obesogenic environment and "low fat" paradox) who make "impossible" unhealthy choices	Demand for health solutions is pervasive, yet the need is not (currently) satisfied
Generated solutions	Idealization of informed choice; consumer-friendly communication	Small-steps behavior change: nudging; health involvement	Product innovation/ valorization; branding
Role of marketing	"Better" medium of consumer empowerment and education	Technology of behavior modification	Translator and mediator across consumer-producer divide
Key theme/ dichotomy	(expert) information vs. (consumer) knowledge	Healthy vs. unhealthy	Healthy/ier vs. base

Source: Author's own elaboration.

We will now discuss each discourse, paying attention to their core themes, assumptions, concepts and arguments as well as considering consequences of their positions that tend to be overlooked in the mainstream marketing and consumer research about health and food.

8.3.1. Nutri/edu discourse

This discourse – constructed around problematization of the information environment at large and of ineffective public health efforts to educate consumers resulting in persistent gaps in consumer knowledge in particular – is characterized by two core ideas: universality of nutritional information and the power of (consumer-friendly) education. This discourse reflects an informational turn in food consumption, which signals the shift from focus on consumers eating foods to consumers reading foods (Frohlich, 2011). The "information vs. knowledge" dichotomy is most important for understanding this discourse. Information, or rather truthful and objective information, is an expression of truth in an empiricist/positivist sense that, if used correctly, leads to health outcomes. By default, the pure source of information is available only to those who can be legitimately qualified as experts. Despite the multiple fields of expertise that have a stake in food, when it comes to information, they mostly adhere to one system of knowledge with the status of truth: nutrition. (Building on Foucault's term, Coveney (2006) calls nutrition the "regime of truth" in the context of food). On the other hand, knowledge is a subjective and thus imperfect version of information – it's how laypeople grasp and interpret the objective truth. The secret to health through food consumption under this line of reasoning lies in how close a consumer can get to the pure form of information – i.e., how well it can be processed without interferences and loses of intended meaning, comprehended and put into practice. Even though the gap can never be closed – rather, it constantly widens with the help of research, science and media coverage on new risks (Beck, 1992; Coveney, 2006) – extensive thinking in marketing and consumer studies is governed by the goal of minimizing this gap.

Consumer-friendly nutrition

Belief in superiority of nutritional information brings together very different market actors and expert systems (Coveney, 2006). However, when a particular system of explanations such as nutrition needs to be flexibly used by food scientists, food manufacturers and marketers, dieticians, doctors, alternative healthcare providers, advertisers, opinion-makers and (as an expected result of health education) by every single consumer, it also inevitably becomes a "commodifiable media product" (Coveney, 2006, p. 138). What public discourse calls nutrition is not strictly nutrition science, but rather "nutritional scientism" (Mayes & Thompson, 2015), i.e., superficial references to science and simplification achieved by translating "science" into "layperson's" terms.

Marketing and nutri/edu discourse in particular stretch the boundaries of what counts as nutritional information. While still occupying the privileged position of objective truth,

nutrition also becomes part of a global system of marketing communication. We thus see a gradually growing influence of marketing ideologies (consumer-centrism above all) on what counts as nutritional information. Nutrition is no longer just an objective truth about food products – it is "an important part of the competitive landscape in the marketing of food products" (Moorman, 1998, p. 82 [96]) and thus a mode of expression that can be more or less effective depending on a setting. Of course, no one wants communication to be ineffective. Ineffective information is too costly for all parties involved, as the following quotes imply:

> "Imperfect information leads to **imperfect consumer purchasing decisions, or adverse selection, resulting in inferior product offerings, extraordinary profits, competitive barriers to entry, inadequate consumer-oriented communication, and decreases in consumer satisfaction** (Akerlof 1970; Harris and Carman 1983; Mishra, Heide, and Cort 1998; Redmond 2009; Scherer 1970). These consequences raise the question of how to remedy imperfect or inadequate information. Finding solutions is complicated by the fact that while consumers want succinct information conveyed in simple terms, industry must balance the costs of providing information with business profitability (Childs and Childs 2001; Gardner 2006; Gorski 1997)" (Kolodinsky, 2012, p. 193 [78])

> "This issue is especially important once we recognize that all consumers are not alike. A single message is **unlikely to be equally effective in reaching different types of consumers**. For instance, a message that is effective in getting an older person to consider a diet-health issue may not be as attractive to a younger person, for whom these issues seem far removed from current concerns. As a result, **if all firms are required to use the same unchanging model language, we would expect the standardized message to be less effective in attracting the broad range of consumers over time, and thus, to substantially reduce producers' incentives to focus on diet-health issues in labeling. This effect would reduce the amount of truthful information flowing to consumers**." (Ippolito & Mathios, 1990, pp. 436–437 [72])

Nutri/edu discourse establishes marketing, a field in possession of both product knowledge and expert knowledge about consumers, as *a better version of nutrition communication and education*. Knowing what consumers want and need and what information they can and cannot understand[49] makes marketing better equipped than public health campaigns to reach and influence consumers, especially at the crucial moment of decision-making – the point of purchase. The dual imperatives of consumer-friendliness and education are a constant source of theoretical and practical conflict: do we need to educate consumers about more intricate and nuanced aspects of nutrients, or "dumb it down" enough to ensure that most consumers can understand? This tension builds more and more urgent "unaddressed" gaps in marketing and public policy knowledge. Whether it helps spread objective truth while providing consumer protection and empowerment is still up for discussion, based on the collective inconclusive findings about efficacy of information evidenced by Rotfeld's (2009, p. 375) summary: "Labels can help some people sometimes in some cases, if they have the knowledge or motivation to use the information, which may or may not be in the format they can understand."

[49] In a recent interview Irene Rosenfeld, CEO of Mondelēz International, one of the largest multinational food producers, stresses that nutrition facts panels needs to speak the language of consumers and their company is strategically oriented at composing their products and communicating such composition in such way that consumers can easily find the ingredients from nutrition facts panel in their own kitchen (Gubsky, 2016).

The ~~freedom~~ duty of informed choice

In earlier days of marketing research, information provision was synonymous with freedom of communication for food producers combined with consumer protection from faulty or misleading advertising claims, according to the official purpose of NLEA (e.g., see Freimuth et al., 1988 [4]; Kolodinsky, 2012 [78]; Pappalardo & Ringold, 2000 [106]). Information provision later expanded to become part of the consumer's right to know and regulation more generally (e.g., Hieke & Taylor, 2012 [198]). At the same time, nutritional information has been adopted as a tool to establish competitive advantage (e.g., Krystallis & Chrysochou, 2011 [91]; Moorman, 1996 [202], 1998 [96]), giving birth to "nutrition marketing" (Colby et al. 2009, p.92 as cited in Bui et al., 2013). Combined with problematization of poor diet and risks of obesity, the role of nutritional information is redefined within nutri/edu discourse into a decision aid on a micro-level (e.g., Trudel et al., 2015 [216]) and a means of consumer empowerment and responsibilization on a macro-level (e.g., Schleifer, 2013 [228]; Weiner, 2010 [131]).

When it comes to conceptualizations of information and its function, nutri/edu discourse builds on the neoliberal rhetoric of democratic values, freedoms and dignity (Fırat, 2013). However, thanks to the high political visibility of the topic of health, freedom of choice is presented as more than a social right, but rather as a *duty to choose* wisely based on elaboration of provided nutritional information. This is the reason for a particular form of this section's title: "freedom" is crossed out, as it would be expected from the marketing's axiom of the consumer's autonomy to choose, and substituted with the "duty" to choose and consume appropriate commodities, as it's presented in the context of health-related information.

> "In the context of any information provision environment, **accurate use of objective attribute information relevant to a brand evaluation generally should help consumers distinguish between products that are poor or superior as determined by objective criteria or expert judgement** (Hogarth and Reder 1987). Similarly, for the nutrition facts panel, when the nutrient data can be used accurately, products less favorable in nutrition value should be evaluated more negatively, and products more favorable in nutrition value should be evaluated more positively. Thus, this ability to use the nutrient information accurately should moderate the effect of product nutrition value on consumer product evaluations and purchase intentions" (Burton et al., 1999, p. 472 [116])

The implication of the *idealization of informed consumer choice* is that the (good) consumers' skillset to endure in advanced consumer capitalism has to be expanded to include choices about nutrition in the array of other numerous choices that consumers have to make, ranging from regular everyday purchases to choices about how to spend time and raise children and how people should be born or die (Sulkunen, 2009, pp. 2–3). The crucial difference with choices about nutrition is that behind an apparent technical rationality (Warde, 1997, p. 49) and thus moral neutrality of nutrition facts, there is still a very strong normative component that shapes the definition of good and healthy life only in connection to the behavior of constant self-education about food and of following the rules dictated by nutritionist logic. In fact, as Coveney (2006, p. xii) puts it, "It is this moral imperative which is encoded in nutrition that makes it so compelling, so engaging, so judgmental, and so strangely popular." In this regard, Sulkunen (2009), in his analysis of "saturated society" (i.e., fully matured modern ideals of a society: progress, the nation and the individual), introduces the concept of "epistolary power," i.e., a particular form of persuasion that uses rational arguments and pragmatic emphasis on the outcomes (for individuals themselves and for others) that appeal

to everybody with apparent moral neutrality. Health is the first (alongside well-being and safety) among epistolary power arguments. Considering nutritional information as a form of "epistolary power," the information/knowledge approach to health moralizes consumers' shopping and food consumption behavior not necessarily per se, but through an emphasis on consequences of information (mis)use presented as the "costs of ignorance" (Teisl et al., 2001 [185]), as in the following excerpts:

> "**If all foods were equal in appeal, availability, and affordability and if consumers were knowledgeable about their healthfulness, they would choose healthy foods**. Instead, sweet and fatty foods taste better and are more difficult to resist; highly processed, energy-dense foods are cheaper and more widely available. Moreover, **consumers lack both sufficient knowledge to choose healthy foods and the ability to accurately monitor how much they eat**." (Ma et al., 2013, p. 104 [82])

> "From a policy perspective, it is important to recognize that **although consumers may think that supersizing benefits their pocketbooks, it may provide them with 73% more calories for only 17% in price savings** (Close and Schoeller 2006). Thus, **the increase in their waistlines is substantially greater than that to their wallets**." (Haws & Winterich, 2013, p. 62 [86])

> Reducing biases in calorie estimation is important because **even small calorie underestimations can lead to substantial weight gain over the course of a year** (Wansink 2006). For example, study 1 found that the mean estimation of a 1,000 calorie meal was 159 calories less if the meal was bought at Subway than if it was bought at McDonald's. This difference can lead to substantial weight gain if people eating at Subway think that they have earned a 159 calorie credit that they can use toward eating other food. **Given that a 3,500-calorie imbalance over a year leads to a 1-pound weight gain (Hill et al. 2003), an extra 159 calories will lead to an extra 4.9-pound weight gain for people eating a 1,000 calorie meal at Subway twice a week compared to those eating a comparable meal at McDonald's with the same frequency**. (Chandon & Wansink, 2007b, p. 312 [75])

Focusing on purely technical nutritional evidence or on "overweight and obesity statistics" (Krishen & Bui, 2015, p. 1 [22]), rather than on individuals, is one of the rhetorical techniques that gives researchers a license to use more judgmental and moralizing language without ostensibly stepping into explicit judgments of individual character and personal lives.

Scared by the consequences of "ignorance," consumers are constrained to face the constantly widening gap between the ideal truth and their subjective capacities to turn objective information into subjective knowledge. The responsibility to know and pay attention to nutrition facts in itself becomes a demanding occupation, competing with a daytime job for the primary role in life. An interesting example comes from a study by Nayga, Lipinski and Savur (1998 [47]) that, among other features, found that a good predictor for healthier food choices in demographic terms was unemployed status and higher-education/higher-income (read: middle-class housewives), which simply translates as them spending *more time* on shopping and reading labels. So the duty to read and elaborate on nutrition labels implies that consumers (need to) re-qualify their shopping from a chore to a meaningful study or work experience.[50] In the time specifically allocated to such experience, "good consumers" can not only exercise their existing skills in information acquisition and comprehension, but also acquire new knowledge, diagnose for new knowledge gaps and demonstrate by the virtue of their shopping cart how well they've been trained so far.

[50] Johnston and Cairns (2013, p. 408) claim that reflexive consumer is a classed and gendered project that extends gendered labor of women, i.e., "commodification of care" into "caring consumption" that takes on a new level of social and environmental significance. This labor "requires immense amounts of time, knowledge and money, and often results in feelings of stress and anxiety – particularly among poor and working-class mothers who struggle to negotiate these pressures on a limited budget."

Economic approach to food and eating

From a nutritional perspective, food is a combination of nutrients that can be beneficial for or harmful to a person's health (Scrinis, 2008). This reductive focus on nutrients, instead of gastronomic or social-bonding properties of food, is so pervasive in marketing discourse that it's hard to find any viable alternatives;[51] yet it's nutri/edu discourse that could be considered the major proponent of the nutritionist position.

With its focus on a single nutrient at a time, nutritionism can be seen as an escalation of medical individualism regarding eating. The very foundation of the modern medical approach, according to Foucault's history of medicine (Crawford, 1980, pp. 371–373; Foucault, 1973), relies on identifying the problem within the deep anatomical or molecular structure and isolating the defective unit from the rest of the organism. The goal of treatment is to break the most immediate causal link between the "pathogen," the smallest and most localized problem, and the symptoms of a disease. Additionally, medical practice separates a sick person from the social context in which disease is acquired. It does so for a variety of purposes from performing diagnostics in the most sterile setting to implementing treatment in a professionally controlled environment. In this sense, medicine is "a science of the individual," which succeeds only when the multiplicity of causes is dismissed and the experience of disease is separated from the subjective and the social. Nutritionism, in fact, may be such an attractive paradigm because it relies on individualization of the smallest beneficial or harmful agents within food structure, thus matching perfectly the "medical gaze" logic.

Today nutritionism and health seem to be inseparable, as if one was made for another, but modern nutritional thought was rooted more in economic efficiency than in medical or health logic. Starting from Wilburn Olin Atwater's work in 19th century, nutritional thought mimicked the double-entry system of accounting to balance "energy-in" with "energy-out" – nutrient intake with nutrient need/expenditure, costs with efficiency in economic and metabolic terms – the concepts that were applied for rationing food at prisons and workhouses (Coveney, 2006; Gard & Wright, 2005; Keane, 1997). This approach disconnects food utility (i.e., nutrition) from any other food property, including taste. In line with this understanding, nutri/edu discourse does not consider taste as a significant topic. Obviously, it's present as one of tested variables (some articles even present statements like "taste influences consumer perception/choice/experience" with a reference to a particular study), but taste's presence is pointless. Taste is in neither oppositional nor complementary relationship to health, unlike in other discourses; it's a hollow object, since even tasteless food may be perfectly nutritional, digestible and healthy.

[51] In manifest content analysis 78% of all articles included a component of nutritionism logic, with "responsibilization" (12.5%) and "market creation" (41.7%) research streams accounting for the smallest share of articles that subscribe to nutritionism logic (see Table 8.6).

Overdependence on nutritional information with its medical individualism and roots in rationalization of food rationing leads to a disembodiment of eating experience, not to mention the possibility of deception for all, especially health-conscious consumers who rely the most on health and nutritional information. Consider this study, where researchers manipulated fat and sugar content of yoghurts to make them less healthy than was evident from the label. They found that judgment about healthiness is (obviously) a result of label reading, not food tasting. Health-conscious consumers, who rationalize their food choices, tend to trust what they read to a larger degree and so can be "deceived" into enjoying foods that they wouldn't enjoy tasting as much without reading:

> "The analysis reveals the expected **main effects of the fat content declaration** on perceived fat content ($t = 10.99$, $p<.001$) and of **the sugar content declaration** on perceived sugar content ($t = 2.06$, $p < .05$). In contrast, **the actual fat and sugar content exerted no main effects** ($p > .05$). Thus, the **participants could not intrinsically detect whether the product was low in fat or sugar content**. [...] the **healthiness assessment is primarily due to the visual inspection of the labeling.** Even more importantly, the analysis reveals that health consciousness moderates the effects of fat and sugar labeling. [...] the health conscious consumers are apt to downgrade the healthiness of a conventional product—a result that does not hold for the less health-conscious participants. **Thus, health consciousness changes the judgments that consumers make regarding healthiness on the basis of labeling.** In contrast, the tastiness assessments are guided by the yogurt's actual fat and sugar content (Table 4). Tastiness significantly decreases with lower levels of intrinsic fat ($\beta = -.21$, $t = -4.72$, $p < .001$) and sugar ($\beta = -.12$, $t = -2.57$, $p < .01$) content. Remarkably, **food composition does not affect how respondents perceive product healthiness**, and we found no interaction effects ($p > .05$). Thus, sensory characteristics shape taste evaluations, regardless of health consciousness.
>
> Lower intrinsic fat or sugar content markedly reduces tastiness judgments and, in turn, purchase intentions, although the **participants were obviously unable to identify the true reasons for the decrease in taste**. In the manipulation check, the participants could not "taste" whether the product contains more or less fat or sugar. On the contrary, **they referred to the labeling to draw conclusions about the product's healthiness.** This is an intriguing finding because consumers (anecdotally) believe that they are very capable of tasting the difference between regular and healthier product variants. Previous studies have also shown that humans are somewhat insensitive to a marginally lower fat content when other cues are kept constant (e.g., texture, flavor, sweetness; Hoppert, Zahn, et al. 2012). Our observations underscore the notion that **fat content may be reduced to some extent without consumers noticing.** [...] **The higher the degree of health consciousness, the more strongly consumers base their healthiness expectations on a food product's labeling** [...] The health-conscious consumers **may have self-manipulated their taste assessments of healthy food items** so that they are consistent with their goal of achieving a healthy lifestyle. That is, **they believe that healthy foods taste better than they actually do**. Yet our results imply that only healthiness expectations of reduced-fat and reduced- sugar products are affected because health-conscious consumers are more sensitive to and more experienced with objective food product information indicating healthiness. Despite the labeling-induced positive effect, there is the risk of less favorable sensory assessments of healthier food variants, regardless of a consumer's level of health consciousness. Having enjoyed the product, even the health conscious participants struggled in self-manipulating sensory perceptions and **suppressing the fundamental desire for tastier foods** because **rationalizations and inference-based evaluations compete with actual taste perceptions and enjoyment**." (Mai & Hoffmann, 2015, pp. 72, 75 [160])

Many studies outside nutritionist paradigm have found that embodied experiences are important for individual health strategies and wellbeing: individuals regard the body simultaneously as a project under constant surveillance and control, and as an ultimate verification mechanism to (dis)confirm and (dis)approve of chosen strategies of self-control (Kristensen et al., 2013, 2011, 2016). Such experiences, however, go far beyond guessing-the-fat-content-by-the-taste-of-it tests; they can rather be found in lived consumption experiences (J. Cronin et al., 2014). On the other hand, the disembodiment of nutritionism, which makes reading far more important than tasting food, on personal and institutional levels (e.g., in the practice of expiration date labeling Yngfalk, 2016) further contributes to establishing nutrition as an institution of pure belief, just like religion (Coveney, 2006; Fitzpatrick, 2001): you need to trust it and follow it wholeheartedly because there is no empirical way of testing

its claims.[52]

The widespread nutritionist view on food makes it also subject to modularity logic (Mick, Broniarczyk, & Haidt, 2004). Not only is diet thought about as a combination of macro- and micronutrient options, but the food product itself can be engineered as a mere bundle of technically good nutrients. The view is supported, if not promoted, in marketing discourse under the rhetoric of consumer demand or consumer-centrism:

> "Another possibility for controlling the effects of the unhealthy = tasty intuition is to change the composition of unhealthy foods. One alternative is to **reformulate high-energy-density foods (i.e., foods high in calories) to lower their energy density (i.e., calorie content) by replacing some of the fat with water, fiber filler, or vegetables** (Wansink and Huckabee 2005). [...] Research suggests that up to 20% of the fat in a high-energy-density food can be replaced with low-density items (e.g., fruits, vegetables) **without consumers noticing a difference in taste** (Rolls, Ello-Martin, and Tohill 2004)." (Raghunathan et al., 2006, p. 181 [84])

> "To this end, the needs and goals of consumers, companies, and society at large must be addressed in an integrative and positive approach [...]. Policy makers should provide incentives to foster this process. For example, they may support companies' **necessary R&D efforts** and help ensure that healthy products are at least equally attractive to consumers (in terms of price, availability, etc.; Glenz and Yaroch 2004). National and supranational funding of research institutes and/or companies (e.g., the frame work programs of the European Union for research and technological development) is one way to stimulate **the development of healthier variants that mask taste decrease**." (Mai & Hoffmann, 2015, p. 77 [160])

As a science writer Michael Pollan (2009) warns us, there is huge difference between food and "edible foodlike substances" that can be customized to concentrate good things like proteins, fiber and vitamins and minimize bad things like fat, sodium and sugar. In his view, we need to eat food and avoid products of modular nutrition:

> That's what I mean by recommendation to "eat food", which is not quite as simple as it sounds. For while it used to be that food was all you could eat, today there are thousands of others edible foodlike substances in the supermarket. These novel products of food science often come in packages elaborately festooned with health claims, which brings me to another, somewhat counterintuitive, piece of advice: If you're concerned about your health, you should probably avoid products that make health claims. Why? Because a health claim on a food product is a strong indication it's not really food, and food is what you want to eat. (Pollan, 2009, pp. 1–2)

Calculus exercise

Implied in the central assumption of nutri/edu discourse is the notion that consumers who manage to close the gap between objective information and subjective knowledge are more successful in achieving their health goals. These are the so-called "nutrition elite" (Andrews et al., 2011, p. 176 [104]), who should be treated as positive examples to learn or copy from:

[52] At the moment, consumers do not have many viable options for accessing the nutritional content of foods besides reading and making calculations based on general nutrients' averages. In some research contexts, consumers' calorie intake was subject to verification based on "doubly labeled water" biomarker (Lichtman et al., 1992 in Chandon & Wansink, 2007a [95]). As with any other lab methods, however, this is not an option for a typical consumer context. This is a niche that can potentially be occupied with future technological advances. As of today some proposals exist, but are at an early stage and with uncertain efficiency – see, for example, "SCiO. A Pocket Molecular Sensor For All!" (https://www.consumerphysics.com/myscio/).

> "[…] in terms of evaluation of product nutrition quality, the Nutrition Facts Panel offers a myriad of nutrition attributes (e.g., calories, calories from fat, total fat, saturated fat, cholesterol, sodium, total carbohydrates, sugar, fiber, protein, vitamins and minerals). The most appropriate way to integrate this information (and nutrient and health claims) into a single summary assessment of **quality can be a very difficult task often accomplished by only the most knowledgeable, nutrition-conscious consumers** (i.e., **"the nutrition elite")".** (Andrews et al., 2011, p. 176 [104])

The level of "the nutrition elite's" expertise is described in mathematical terms as an ability to make arithmetically accurate calculations (based either on guessing or reading) of nutrition value in food composites and handling comparisons of multiple variables at the same time, as emphasized in the following excerpts:

> "Information was presented both on the front and back of the mock package. The back portion of the mock package for the meal-based dinner showed the nutrition facts panel, a listing of product ingredients, preparation directions for both microwave and conventional ovens, and scanner code. Information on the front of the mock package included a picture of the prepared product and short description of the dinner (i.e., "chicken tenderloins with pasta and vegetables in a delicious sauce"), a nutrition claim and instructions to "SEE BACK PANEL FOR NUTRITION INFORMATION," net weight, instructions to "Keep Frozen," "Microwaveable," and price. Subjects were asked to examine the information on the mock package and then answer questions in the survey. The mock package was available to the subjects as they answered the questions, but no directions were given at any time to focus directly on the nutrition facts panel presented on the package stimulus. [...] In this nutrient usage task, subjects were asked **if they were to consume five servings of the product in a day (and nothing else), assuming a 2,000-calorie daily diet, would they consume more or less than the recommended amount of fat, cholesterol, sodium, saturated fat, calories from fat content, fiber, carbohydrates, and Vitamins A and C (i.e., nine different nutrients and vitamins**). **Correct decisions could be obtained by using either the percentage of DV or the absolute amounts coupled with the recommended amounts shown in the table at the bottom of the facts panel**. Percentage nutrient task "accuracy" scores were computed by summing the number of correct responses for the nine nutrients, then dividing by 9 and multiplying by 100. Scores ranged from 11 percent to 100 percent. Almost one-third of the subjects answered all questions correctly (100%), more than half answered 89%". (Burton et al., 1999, p. 763 [116])

> "Individuals who want a healthy diet (health consciousness) have to assess the healthiness of food products. A healthy food choice **requires a deeper and more rational decision-making process for food products.** Whether health- conscious consumers actually engage in a healthy diet depends on their beliefs in their ability (nutrition self-efficacy) to find and choose healthier foods (Anderson et al., 2000). As explained later in more detail, nutrition self-efficacy therefore determines the quantity of food attributes considered important. Health-conscious consumers with low nutrition self-efficacy focus on a reduced set of cue attributes, **whereas those with high nutrition self-efficacy engage in extensive comparison."** (Mai & Hoffmann, 2012, p. 318 [54])

> "Conventional wisdom suggests that **deriving calorie estimates of combinations of food items should be fairly trivial: The calorie content of a meal comprising several individual items should be equal to the sum of the individual estimates of these items**. However, we argue that this is not always the case and that people display systematic biases in evaluating the calorie content of combinations of items. In particular, we argue that when evaluating combinations of items representing indulgence and health goals, consumers tend to underestimate their calorie content [...] The paradox here is that adding a healthy option can lower the perceived calorie content of the combined meal even when the actual number of calories has not changed or even has increased. **For example, people might believe that a meal comprising a hamburger and a green salad has 500 calories even though they believe the hamburger alone has 600 calories when they evaluate it separately** […] when evaluating options classified into opposite categories (e.g., virtues and vices), people tend to balance out their evaluations using an averaging rather than an additive rule. **When translating the qualitative evaluation into a quantitative estimate, this averaging leads to a subtraction effect in which combining two options can lead to lower quantitative estimates**." (Chernev & Gal, 2010, pp. 739, 745 [93])

Expert consumers are therefore those who are able to perform "eating calculus" (Roberto et al., 2014 [155]) or "dietary calculus" (coded as DIETMATH measure) (A. Levy et al., 1996 [161]) while "thinking more nutritiously" (Wansink & Love, 2014 [143]). Interestingly, while food in its everyday sense rather belongs to typically feminine duties (e.g., shopping and cooking) and values (e.g., nurturance, care, nature, family and communion), nutritional expertise is researched and assessed in a typically masculine, quantifiable, measurable and calculable way. In this sense, nutritionism becomes a useful ideological ally to marketing and consumer

research, which as we know from Hirschman (1993) is routinely dominated by masculine ideology.

However, comparing nutritional expertise to calculus, one arithmetic calculation at a time, could be a major simplification. It is more like *nutritional Tetris*, requiring attention to detail and handling nuanced information, reacting to a constantly changing situation and the increasing speed of new information that literally pours from the sky. Like in this iconic game, handling only a few basic and familiar shapes while having only a few distractions is simple. But if you have played more elaborate versions of Tetris, you know that the multiplication of available shapes, speed increase, special effects, and excessive accumulation of previously fallen blocks at the bottom of the screen all increase the complexity and lead to a "game over" failure. As wittily put by Skrbanek (1994),

> The public is exposed daily to a barrage of health factoids provided obligingly by the media, who scan the medical literature for new dietary 'breakthroughs'. Eat broccoli to avoid cancer. To avoid stroke, don't eat salt. Eat shredded doormats to increase the bulk of your stool and to avoid cancer of the colon. Don't eat liver pate when pregnant. As a Times editorial observed: 'Health scares and food fads ebb and flow with such speed that the "healthy" eater can barely keep pace with them'. (Skrabanek, 1994, p. 83)

Similarly, a situation where choice not only multiplies but also increases in terms of involved effort (such as nutritional calculus) may lead to negative outcomes. Hyperchoice, as summarized by Mick, Broniarczyk and Haidt (2004), leads to information overload, especially aggravated in conditions of time stress, multiple and sequential choices and higher level of decision elaboration. This overload has detrimental effects not only on overall decision quality, but on subjective consequences such as confusion, stress, decreased self-regulation and willpower, lower self-esteem and life satisfaction, and anticipated regret of product choices – even when choices made are objectively and normatively superior. Freedom of choice, combined with the imperative to make choices, backfires also on the collective level, contributing to a culture of quicker and less thoughtful assessments and thus judgmentalism, impatience and rudeness; hypersensitivity to individual needs and wants, and thus an increase in ego-centrism; diminishment of mindfulness and shorter attention spans; etc. These consequences are quite the opposite of the desired benefits of a (nutritionally) well-informed consumer.

In a recent publication by Google's "Think with Google" marketing insights service, the capacity to make an informed choice based on various sources (the Internet above all) is compared to "food IQ" (Pina, 2016). The orientation toward "eating calculus" may cause the general IQ level to be questioned under the pretext of measuring health and nutritional knowledge, contributing to judgments of individuals' overall moral (Askegaard et al., 2014) and professional character (Roberts & Leonard, 2015) based on the quality of their food choices.

On both sides of the fence

Marketing discourse occupies a liminal position regarding the information vs. knowledge dichotomy. On the one hand, marketers possess authentic information about a food product's quality and are in charge of communicating it. On the other, they are experts about consumers and thus experts in identifying the information-knowledge gap. Due to such liminality, marketing discourse has a capacity to move between subject positions of consumer educator and deceiver, and accuse public health education campaigns of the "low fat paradox" of poor nutrition and failing to curb obesity, all despite being an accused party itself.

The liminality of marketing discourse is also evident in the struggle between generalization and personalization, between a juridical obligation to reflect generally accepted scientific data and be clear to an average consumer (Ippolito & Mathios, 1990 [72]; Nocella & Kennedy, 2012 [14]; Pappalardo & Ringold, 2000 [106]) and marketing's core mission of "knowing your consumer" to take care of consumer interests and target the segment with the most potential in the most appropriate way.

Food marketing has been labeled the "tobacco industry of the new millennium" (Nestle, 2013), and many foods and food behaviors have been demonized similarly to smoking (Rozin, 1999; Rozin, Markwith, & Stoess, 1997; Rozin & Singh, 1999). However, it's unlikely, at least at the moment, that food companies will be held as liable for adverse health effects as the tobacco industry was. The reason is the decades of consumer responsibilization with the help of labeling,[53] a "product of multiple determinations" (Frohlich, 2011, p. 20). On the one hand, labeling is an act of consumer protection and information distribution, i.e., an act of governmental regulation of corporate behavior. On the other, labeling is a company's lever to establish credibility with consumers (Penders & Nelis, 2011) and gain a competitive advantage as a mode of communication. Therefore, labeling can be better understood as a coordinating device between various market actors and their interests (Frohlich, 2011, 2012, Yngfalk, 2012, 2016).

8.3.2. Simple solutions discourse

Building on the problematization of irrational human nature and the obesity-conducive environment, this discourse is characterized by its reductionist style of formulating the problem, concept of consumer thinking and behavior, and solutions. While dealing with a complex environment and consumer-food relationship, this discourse (seemingly) simplifies issues in order to produce lower-cost, yet more effective solutions than information remedies or consumer education. An integral part of such simplification is the "healthy vs. unhealthy" dichotomous categorization that is applied primarily to food, but also to food-related

[53] According to Frohlich (2011), "labeling" differently from "label," as the physical label attached to food packaging, stands for any and all informational materials that reference the label and/or bear upon its interpretation. So, *labeling* includes advertising campaigns and health claims that might not appear directly on the food package. The distinction originates from a legal definition in use by policymakers.

behaviors, choices, consumers and lifestyles. Similarly to the "nutri/edu" discourse, the "simple solutions" discourse is embedded in nutritionism, yet it's skeptical about information and an educational approach based on the assumption that human nature has simply predisposed us to long for pleasure and indulgence instead of being able to use medical rationality required to handle nuanced information and exert efficient self-control on a daily basis (i.e., the imperfect/bounded rationality assumption).

Simple health

One of the first, and probably one of the most important, steps to solving a problem is framing it in terms of cause and effect. A tendency to simplification manifests in this discourse in (over)simplification of the etiological explanation of obesity, the main "villain" that simple solutions marketing discourse is attempting to defy:

> "As Surgeon General of the United States, David Satcher warned that the obesity epidemic spreading throughout the nation could soon overtake tobacco as the leading cause of preventable deaths. More specifically, the rising death toll resulting from illnesses and diseases directly related to being overweight, and those worsened by obesity, threaten to wipe out medical advances made in the treatment of the two major causes of death in the United States, heart disease and cancer (U.S. Department of Health and Human Services 2001). Overweight and obese individuals are not the only ones facing the high costs associated with their conditions. The U.S. Department of Health and Human Services estimates that obesity costs the United States over $117 billion a year (U.S. Department of Health and Human Services 2001). **Identifying the primary cause of the obesity epidemic is not difficult — Americans are simply consuming too many calories given their level of physical activity**." (Burton & Creyer, 2004, pp. 121–122 [51])

This simple cause-effect explanation is in fact quite widespread in healthism and has given rise to the category of "lifestyle diseases" – conditions like COPD, cirrhosis, diabetes, heart diseases, stroke, etc. that result from how people live their lives by smoking and drinking too much alcohol, eating too much sugar, not exercising enough, etc. In the case of obesity, the simple explanation is behavioral as well: eating the wrong types of food, eating too much and not moving enough. Despite concerns raised by some researchers (Campos, 2005; Gard & Wright, 2005; Vallgårda, 2011) about the need to take into consideration the broader picture and multiple causes of these health issues for both medical and ethical reasons, the simple explanation about individual lifestyle choices is still the most compelling. And if causes of obesity are simply a "no-brainer," then there is also a considerably simple way out:

> "Hill et al. (2003) estimate that **a reduction by 100 calories per day can help offset weight gain**. Public policy makers thus aim to foster healthy food choices (e.g., fruits, vegetables) and reduce unhealthy patterns (e.g., fatty foods) […] The obesity epidemic is largely related to **preventable risk factors**, such as the intake of foods with high energy densities and a lack of physical activity (Frieden, Dietz, and Collins 2010; Hill et al. 2003). **Consumers must increase their relative intake of healthy foods compared with unhealthy foods to decrease the prevalence of diet-related diseases**." (Mai & Hoffmann, 2015, pp. 63, 64 [160])

> "Although many of these changes seem small, Wansink and Huckabee (2005) point out that 80% of the population gain weight because of a calorie excess of less than 50 calories a day. The changes suggested here **could allow consumers to enjoy the foods they consider tasty in smaller, controlled quantities, perhaps enough to avoid consumption of those additional 50 calories**." (Raghunathan et al., 2006, p. 181 [84])

> "Although successful weight loss is related to a variety of factors, **for many consumers, the best means to lose weight is to simply consume fewer calories than are expended**. On a weekly basis, **if an individual consumes 3,500 fewer calories than are expended, then about a 1-pound loss can be expected**. Likewise, consuming 3,500 more calories than are expended will add an extra pound". (Howlett et al., 2009, p. 501 [74])

Obesity is thus framed as a preventable disease, which can be controlled by willpower and simple behavioral modifications: simply reducing 100 calories per day, simply avoiding food away from home, simply reducing portion sizes, simply not forgetting to have five vegetables a day, simply doing piece-meal mental calculations before ordering meals, etc. Most of these behavioral modifications are also simple to implement either by consumers themselves or for consumers, by simple "small step"[54] modifications of consumption environments and choice architecture known as nudging (Thaler & Sunstein, 2008), which we will discuss in more detail later. Despite such simplicity, there is an insurmountable obstacle to achieving better health on the individual and societal levels: a consumer who simply does not function in a predictable and rational way.

Impossible choices

An expectation of consumers' imperfect rationality implies that the concept of a generic consumer need is not sufficient, and a distinction between "false" and "true" needs has to be made. Real needs in the context of health and food are those justified by biological needs for basic nutrition and/or those that do not qualify as "unhealthy" and therefore don't lead to harmful health consequences. Needs become "false" when they result in consumption that has no rational justification, that can be easily avoided, and that leads to the biggest irrationality of all: unhealthy food choice. Though not necessarily talking about false needs in a nature/culture sense (Frank, 2002), simple solutions discourse frames consumer choices made in labs or in the real world as *impossible* because even when following their healthy intentions, consumers systematically make choices that result in unhealthy outcomes. Impossibility of choices results from the shared understanding that health is a universal need; hence, no sane person can wish to make choices that are deliberately unhealthy:

> "Consider, for example, a calorie-conscious person who is choosing between two meals: a lone hamburger or the same hamburger with a side salad. After some deliberation, **the consumer chooses the second meal even though, objectively, the two-item meal contains more calories and therefore is inconsistent with his or her primary goal of consuming fewer calories**. The preference for combinations of healthy and indulgent items is not unusual and has been fodder for stand-up comedy acts that poke fun at consumers who believe that by purchasing Diet Coke with their double cheeseburger and chili fries, they are making a virtuous choice. What drives consumers to act in a way that is inconsistent with their goals? We argue that when faced with a meal comprising both healthy and indulgent items, consumers tend to systematically underestimate its calorie content, such that they may perceive the combined meal not only as having fewer calories than the sum of its individual components but also as having fewer calories than the indulgent item alone. In the context of the foregoing example, this leads to the **paradoxical prediction that the combination of a hamburger and a salad will be perceived as having fewer calories than the hamburger**." (Chernev & Gal, 2010, p. 739 [93])

> "In Oakes's (2005) study, which we described previously, consumers overemphasized fat content when they assessed the healthiness of foods and relied on a categorization system (of foods as bad versus good) using stereotypes about types of food/ingredients to determine how much weight a food would cause someone to gain.

[54] While understanding the need of and committing to weight loss might be plain simple, it's sustaining lost weight that, in the need of the day, is more important and, as evidence demonstrate, far more complex. The success rate of diets – a huge business worldwide – is admittedly quite poor (Gard, 2010; Gard & Wright, 2005). Not to mention that weight fluctuations after and in-between diets can actually be more harmful to person's health that consistently high BMI (Campos, 2005). Somehow the topic of *sustained* change is beyond simple solutions discourse, which is far more concerned with *decision to change* and *making the move,* based on the assumption of "small steps" directional concept – that changing daily habits, one step at a time, will lead to long-term permanent behavior modification.

> **Had they relied instead on a more complete nutritional assessment of the foods, they would have found that the food they considered healthy on the basis of fat content (peas) would actually lead to more weight gain than the food they considered unhealthy (Snickers) because of the caloric content of the two foods**." (Raghunathan et al., 2006, p. 181 [84])

> "American consumers have never been more concerned about their personal health, and consequently demand for healthier foods continues to increase (Trivedi 2011). However, it is often **difficult for consumers to consistently make healthy decisions, even when they feel confident in their ability to do so** (Cole and Gaeth 1990; Kidwell et al. 2008). There are a variety of processing and contextual issues that may affect consumers' perception of product healthfulness. For example, recent research has examined the influence of "health halos," **consumers' erroneous beliefs that a food item or category is healthy when objectively it is not** (Roe et al. 1999; Chandon and Wansink 2007)". (Burton et al., 2015, p. 240 [114])

Consumer wrongs, presented as gaps between actual behavior and a "common sense" rational ideal of such behavior, are in turn rationalized by means of finding regularities (such as inferences and cognitive biases) in irrational choices of "mindless eating" (Chandon, 2013; Chandon & Wansink, 2012; Wansink & Chandon, 2014). Such rationalization strategies rely – besides an ex-ante normative judgment of what constitutes the "right" choice and the "true" need – on "everyone everywhere" (Gard & Wright, 2005) generalizations embedded in evolutionary or behavioral/cognitive explanations:

> "However, emphasizing the unhealthiness of certain food items can backfire. Paternalistic and normative remedies may provoke consumer reactance (Block et al. 2011) and**, ironically, may make unhealthy foods (communicated as wrong or bad choices) more attractive because humans tend to find the forbidden desirable** (Erskine 2008)". (Mai & Hoffmann, 2015, p. 76 [160])

> "Although the intuition appears to enjoy widespread subscription (e.g., Keller, Sternthal, and Tybout 2002), there is little scientific evidence to support the view that tastiness and healthiness are negatively correlated with each other. Indeed, **from an evolutionary standpoint, evidence points to the opposite, namely, that tastiness and healthiness are positively correlated with each other**. For example, in general, it is accepted among researchers (e.g., Drewnowski 1997; Smith 2004) that certain food groups (e.g., carbohydrates, fat) are perceived as tastier precisely because **these foods have proved effective for survival**; in these researchers' view, tastiness has served humans well as a proxy for healthiness" (Raghunathan et al., 2006, p. 177 [84])

> "In contexts in which food is not plentiful (e.g., in developing countries, such as India or China, and in underdeveloped countries, such as Somalia or Cambodia), **people may believe tastiness is positively correlated with healthiness, as evolution intended** (Drewnowski 1997; Smith 2004)." (Raghunathan et al., 2006, p. 183 [84])

> "Prior research in consumer psychology has shown that **consumers exhibit natural consumption tendencies for both unhealthy and healthy food, but in opposite directions—an over-consumption impulse for unhealthy food and an under-consumption impulse for healthy food** (e.g., Finkelstein and Fishbach 2010; Loewenstein 1996; Raghunathan, Naylor, and Hoyer 2006; Wansink and Huckabee 2005) [...] Researchers posit that these natural over- and under-consumption impulses for unhealthy and healthy foods, and their perceptual and sensory drivers, have **an evolutionary basis**. For example, Wansink and Huckabee (2005, p. 8) note that "fatty foods helped our ancestors weather food shortages,... [and] sugar and the sweetness associated with it helped them distinguish edible berries from poisonous ones." Furthermore, studies show that energy-dense (i.e., unhealthy) foods, while worse for long-term health, are better than non-energy-dense foods in providing short-term energy stores, which human beings have been hardwired to favor (Ostan et al. 2010)" (Talukdar & Lindsey, 2013, p. 125 [85])

> "Our results provide strong evidence that **consumption estimation biases have a perceptual origin and are not motivational or personality based**. Attributing biased calorie estimations to denial or self-presentation motivations may be unfair and ultimately counterproductive if people cope with these accusations by avoiding treatment". (Chandon & Wansink, 2007a, p. 97 [95])

"Everyone everywhere" generalizations based on "human nature" explanations, though believable and doubtlessly compelling, contribute to an "animalization" of consumer behavior by drawing attention to consumers' instinctive responses that bypass their reflective sense-making capacity (Nemorin, 2017). By implication, not trusting consumers' own meaning-making reflective strategies becomes the most secure way to know consumers better than

they can ever know themselves, turning the very idea of consumer responsibility or rationality into an illusion. We can think about it as the medicalization of consumer choice to the point of reducing food needs to bodily needs or wants; to bodily cravings or choices; to reflexes in response to impulses; etc. The question is, what will be left of consumer when – as in propositions like "from mindless eating to mindlessly eating better" (Wansink, 2010) – the mind is completely taken out of the equation?[55]

Simple nutrition: Binary food classifications

Another simplification of this discourse is reliance on a simplified version of food healthiness judgment, which still remains within the nutritionist framework but sees individual food products not only as nutrients' compositions, but also as belonging to food groups. In such taxonomies, healthfulness is defined as a binary code: 0 for absent (i.e., bad for you), 1 for present (i.e., good for you).

> "Previous research has shown that people tend to **categorize foods according to a good/bad dichotomy**, in which **foods are either good for one's health (e.g., fruits, vegetables, whole grains) or bad for one's health (e.g., fried foods, desserts, candy)** (Rozin, Ashmore, and Markwith 1996). Although both healthy and unhealthy foods offer benefits to the consumer and can provide pleasure in the form of taste enjoyment, **unhealthy foods are typically more difficult to justify because the pleasure and enjoyment they provide come at the expense of long-term health** (McClure et al. 2007; Okada 2005; Prelec and Loewenstein 1998; Shiv and Fedorikhin 1999)." (Poor et al., 2013, p. 126 [80])

> "Two conflicting goals are salient when making food consumption decisions: **the hedonic goal of taste enjoyment and the more utilitarian goal of maintaining good health** (Dhar and Simonson 1999; Fishbach, Friedman, and Kruglanski 2003). Many studies have shown that health primes can activate different consumption goals. Priming hedonic goals and concepts, such as sweetness, increases the intensity of **desire for hedonic food (such as cookies) and leads consumers to choose this better-tasting but less healthy option over a less tasty but healthier option** (e.g., Ramanathan and Menon 2006; Shiv and Fedorikhin 1999)." (Chandon & Wansink, 2007b, p. 303 [75])

> "The categories included **four relatively healthy (fresh broccoli, grapes, raisins, and wholegrain bread) and four relatively unhealthy (fresh non- lean beef, potato chips, nondiet soft drink, and white bread) food categories**. These categories **are generally considered relatively unhealthy or healthy** in the existing literature (e.g., Martikainen, Brunner, and Marmot 2003). Healthy foods are defined as those that are "low [in] fat,... low [in] saturated fat,... and contain at least 10% of daily value ... for vitamins A, C, calcium, iron, protein or fiber," and are limited in amount of sodium and cholesterol (U.S. Food and Drug Administration 2012). Unhealthy food is defined as those foods not meeting these standards. Nonetheless, it is relevant to note that our conceptual framework is based on **perceived or subjective rather than objective groupings of healthy and unhealthy food categories**. At the same time, as might be expected, groupings based on subjective perceptions and objective criteria are highly correlated in this domain (e.g., Stubbs and Whybrow 2004)". (Talukdar & Lindsey, 2013, p. 128 [85])

Dichotomous thinking about food is in fact very pervasive and, being interlinked with prevalent modes of sense making in many modern societies that provide "conditions of

[55] The research paper that carries the title "From Mindless Eating to Mindlessly Eating Better" itself produces mixed messages regarding the mind and its role. On one hand, being coherent with the title, it proposes to use a series of *"mindless rules"* that "may help individuals make better food choices by **taking their mind out of the game** – turning mindless overeating into mindless *better* eating – effectively creating healthy heuristics and behavioral rules-of-thumb" (Wansink, 2010, p. 460). However, right after, it elaborates on how to convince consumers to follow healthy "rules-of-thumb" by, paradoxically, putting the mind *back in the game* by engaging the reason ("If a dietician were to instruct a person to use smaller plates, it might engender reactance. If we say it with proof**, we can engage reason**" (Wansink, 2010, p. 461)) and accountability for own behavior changes ("At the end of each day, people are asked to check off which of the three changes they accomplished that day. This small act of accountability is intended to **make people more mindful** of what they are doing, and it provides its own small reward of accomplishment" (Wansink, 2010, p. 461)).

intelligibility" (Thompson & Hirschman, 1995), is unlikely ever to go away (Elbow, 1993). However, reliance on good-bad dichotomies, especially in marketing discourse, is problematic in many ways (Askegaard et al., 2014). It is becoming increasingly more difficult for consumers and experts alike to determine which foods are healthy. There are cultural differences even in the official dietary recommendations in various countries, not to mention "layperson" perspectives[56] (Leeman, Fischler, & Rozin, 2011). Naturally, with globalization flows, both food products from different cultural traditions and knowledge about their healthfulness travel, eventually increasing the range of choices for the criteria of healthfulness judgments.[57] Technological advances (including the trend of food products' healthification) also lead to hybrids or innovations that make many products almost unclassifiable, or classifiable into opposite categories following criteria from different expert systems.

Another problem is that binary opposition reduces food consumption to a choice between healthy and unhealthy items (even if such items are meals composed of both healthy and unhealthy ingredients[58]). Experimental designs prevalent in food and health research, in fact, are perfectly suited for binary choice studies, but they limit the temporal frame to a single choice or meal occasion and so fail to recognize a social and lifetime pattern of eating. In other words, they only look at the very first of "small step(s)," not the resulting walk.

A byproduct of binary thinking is the logic of tradeoffs and zero-sums. For instance, the opposition of "true" and "false" needs (i.e., wants and cravings) focuses on the low-level physiological view of pleasure and thus creates an *either-or logic*: you either want to be healthy and thin, or you love the pleasure of foods. As critically discussed by Gard (2010), such logic is inherent in economic understanding of consumers who freely follow their true desires and chose to be who they want to be, thus completely dismissing even a probability of internal conflict or possibility of a third option:

> […] people who love their food and want to be thin do not exist. Likewise, the person who diets, perhaps yo-yoing between weights, struggling with their desires or hating themselves when the pleasure of food gets the better of them does not exist. And as for anyone who is fat but wants to be thin, well, they are simply in denial about their true self. After all, if they really did want to be thin they would just get up off the couch and be thin. (Gard, 2010, Chapter 6, 4th paragraph from the end in "Obesity and the market" subsection)

[56] As a matter of fact, as Gard and Wright (2005) discuss, nutrition has not produced a completely different system of food values and rules compared to those already present in every culture, but simply created a scientifically appealing mode to justify centuries-long cultural knowledge of what constitutes healing (vs. harmful) and morally right (vs. dubious) food regimes.

[57] A recently published article in the *New York Times* (Quealy & Sanger-Katz, 2016) reports on a US consumers' and dieticians' poll about foods they find healthy or unhealthy. Besides featuring an interesting infographic about good and bad foods that experts and consumers agree or disagree on, the article also reports on which foods people question the most, by measuring how often they Google whether or not a food is healthy. The top search, "is sushi healthy," is an interesting example of how global foods (Belk, 2012) spur both uncertainty and interest.

[58] Meals are evaluated similarly to individual food items by following the typically nutritionist calculus model: full meal is divided in its most evident composites (e.g., fast food combo meal as burger and fries; burger – as bun, meat, salad and tomato etc.), then each item is evaluated in terms of its calories and other nutrients and if the sum of "good" nutrients overweighs the sum of "bad" nutrients, the meal can be considered healthy. This multi-step nutritionism approach, referred to as "piecemeal decomposition," is often promoted as a remedy against biased decision-making (i.e., "debiasing strategy" (Chandon & Wansink, 2007b [75]).

While the presence of the internal conflict is acknowledged and problematized in simple solutions discourse (e.g., Poor et al. (2013 [80]) explicitly investigate how to lessen the indulgence–health conflict), it nevertheless reduces understanding of problems to tradeoffs, especially pleasure–health tradeoffs. They are not only expressed as experimental stimuli of conventional "vice" vs. "virtue" categories of food,[59] but in the language of marketing discourse. Consider one of the most frequently cited works about this tradeoff: Raghunathan, Naylor, and Hoyer's (2006 [84]) paper "The Unhealthy = Tasty intuition and its effects on taste inferences, enjoyment, and choice of food products." The simplicity and clarity of mathematical language of "unhealthy = tasty" has greatly contributed to how well the publication and its claims have traveled, producing (less revealing) replication studies in various market settings (e.g. Kidwell et al., 2015 [94]; Werle, Trendel, & Ardito, 2013), less convincing and fortunate abbreviations (e.g. Mai & Hoffmann, 2015 [160]'s UTI),[60] enthusiastic use of mathematical signs in texts[61] and titles (e.g. Block et al., 2011; Haws, Davis, & Dholakia, 2016; Suher, Raghunathan, & Hoyer, 2016), etc. Mathematical equation signs here not only communicate the tradeoff logic visually and simplistically, but help present it as a universal rule, accurately describing and predicting the reality of an unsolvable distinction between the hedonic pursuit of physiological pleasure and prudent, health-driven food choice.

Rulebook of behavioral nutritionism

Going back to the previously introduced simplification of behavioral change via small steps, this discourse is a clear proponent of a now globally popular approach of nudging.[62] The term comes from a book *Nudge: Improving decisions about health, wealth and happiness* by Thaler and Sunstein (2008), which introduced the oxymoronic concept of libertarian paternalism, intended to promote policies that ensure protection of individuals from their own irrational and potentially harmful decisions (i.e., paternalism) without undermining personal autonomy (i.e., libertarianism). As explained by Thaler and Sunstein (2008):

> A nudge, as we will use the term, is any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy and cheap to avoid. Nudges are not mandates. Putting the fruit at eye level counts as a nudge. Banning junk food does not. (Thaler & Sunstein, 2008, p. 6)

[59] Vice categories are typically defined as "options that are consistent with short-term goals of immediate gratification (e.g., eating a chocolate cake) but are inconsistent with longer-term self-control goals (e.g., losing weight)." While virtue categories – as "options that are consistent with long-term self- control goals (e.g., losing weight) but do not necessarily offer immediate gratification" (Chernev & Gal, 2010, p. 739 [93]).

[60] Besides the intended shortening of "unhealthy=tasty intuition," UTI is also a frequently used abbreviation for Urinary Tract Infection.

[61] It is indeed so convincing that we adopted the "equation" language ourselves to synthesize research on heuristics in Chapter 7.

[62] Teams of experts in behavioral science are now part of the permanent staff in the White House in the US, in the UK, Australia, Germany, France, the Netherlands, the EU, Qatar, etc. (Sunstein, 2016).

The book is considered an offspring of Kahneman and Tversky's (1974) work on heuristics and biases and a sibling of the more recent Kahneman's (2011) bestseller *Thinking, Fast, and Slow*. The concept of nudge emerges from dual process theories used in cognitive psychology and builds on a distinction between "fast" and "slow" thinking. The distinction between two modes of processing is personified in *Nudge* by specifying two types of decision-makers: Econs and Humans. Differently from Econs, who can make imperfect but not biased forecasts, the majority of individuals, i.e., Humans, predictably err and systematically make biased forecasts and decisions (Thaler & Sunstein, 2008, pp. 6–8).

Nudges have become known as solutions that are considerably simpler and cheaper to implement and that produce more effective results in the field of health and food consumption. Health-promoting food nudges could range from subtle modifications of consumption environments such as putting fruits and vegetables in visually salient places in retail (Sigurdsson et al., 2011 [129]), putting healthier food options in transparent containers for better salience (Chandon & Wansink, 2006 [79]), putting more plants (Chandon, 2010; Wansink & Love, 2014 [143]) or more consummatory images in restaurants (Poor et al., 2013 [80]), product packaging design modifications such as longer "slimmer" container shapes (Wansink & Chandon, 2014), menu engineering to draw attention to healthier items (Wansink & Love, 2014 [143]), offering healthy food items as default option in bundle offerings (Mai & Hoffmann, 2015, p. 77 [160]), etc.

Marketing discourse, however, produces another form of nudging that is different from the original concept.[63] In this version, consumer involvement, awareness and participation fight more aggressively with a more paternalistic notion of "consumers can't know what they should want" (Rotfeld, 2007). So marketing discourse instead discusses deliberate *self-nudges* – small behavioral changes that do not need to be silently implemented by policymakers or marketers responsible for the eating environments behind consumers' backs when they can be brought to life by consumers themselves. After all, everyone can be their own best ~~doctor~~[64] choice architect:

> "Fortunately, overcorrection in the food consumption domain is desirable in the general population (the focus of our research) and in special groups, such as dieters and overweight people (though not for groups on the other end of the spectrum, such as anorexics). When people become aware of the link between affect and consumption, they are more likely to take deliberate steps to be more conscious of how much they eat. **For example, they could preplate their food, move the serving bowl or bag into the kitchen, eat only when sitting at a table, or preportion snacks**" (Garg et al., 2007, p. 204 [83])

> "Wansink (2004a) offers many practical alterations that can be made to both the eating and the food environments, including **pre-serving portions when snacking while distracted (e.g., while watching television); repackaging foods into small containers to suggest smaller consumption norms; never eating directly from a package; and using smaller plates, bowls, and eating utensils**. Such steps can allow marketers to **continue to market unhealthy foods in responsible ways and allow consumers to continue to enjoy the foods they consider tasty**, albeit in moderation. Although many of these changes seem small, Wansink and Huckabee (2005) point out that 80% of the population gain weight because of a calorie excess of less than 50 calories a day. **The changes**

[63] Besides the public policy version (Thaler & Sunstein, 2008), nudge marketing (Dholakia, 2016), in which companies (not policymakers) introduce nudges, is also considered here a "classical" version of nudging because it corresponds to the original concept: "any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives" (Thaler & Sunstein, 2008, p. 6).

[64] "Become your own best doctor" is a popular slogan and an epitome of personal responsibility for health.

> **suggested here could allow consumers to enjoy the foods they consider tasty in smaller, controlled quantities, perhaps enough to avoid consumption of those additional 50 calories**." (Raghunathan et al., 2006, pp. 180–181 [84])

When taken from several studies and combined, such self-nudges create peculiar *rulebooks* – collections of attractive, revelatory instructions directly addressing consumers to stimulate a change of habits. Think of the infographic we discussed in Chapter 5 (Figure 5.1), or the following collection (see Figure 8.5) from Wansink (2010, p. 461, Table 4 "Some examples of altering one's personal environment to help reduce food intake").

Figure 8.5. Example of a rulebook of behavioral nutritionism.

The food environment	How one's personal environment can be altered to help reduce consumption
Serving containers: serving containers that are wide or large create intake illusions	Reduce serving sizes and consumption by using smaller bowls and plates Use smaller packaging or break large packaging into sub-packages Replace short wide glasses with tall narrow ones Use smaller spoons rather than larger ones when serving oneself or when eating from a bowl
Salience of food: salient food promotes salient hunger	Eliminate the cookie jar, or replace it with a fruit bowl. Wrap tempting foods in foil to make them less visible and more forgettable. Place healthier, low-density foods in the front of the refrigerator and the less healthy foods in the back.
Structure and variety of food assortments: structure and perceived variety drives consumption	Avoid multiple bowls of the same food (such as at parties or receptions) because they increase perceptions of variety and stimulate consumption. At buffets and receptions avoid having more than two different foods on the plate at the same time. To discourage others from over-consuming at a high variety environment (such as at a reception or dinner party), arrange foods into organized patterns. Conversely, arrange foods in less-organized patterns to help stimulate consumption in the cafeterias of retirement homes and hospitals.
Size of food packages and portions: the Size of packages and portions suggest consumption norms	Repackage foods into smaller containers to suggest smaller consumption norms. Plate smaller dinner portions in advance Never eat from a package. Always transfer a food to a plate or bowl in order to make portion estimation easier.
Stockpiling of food: stockpiled food is quickly consumed	Out of sight is out of mind. Reduce the visibility of stockpiled foods by moving them to the basement or to a cupboard immediately after they are purchased. Reduce the convenience of stockpiled foods by boxing them up or freezing them. Stockpile healthy, low energy-density foods to stimulate their consumption and to leave less room for their high density counterparts.

Source: Wansink, B. (2010). From mindless eating to mindlessly eating better. *Physiology & Behavior*, *100*(5), 454–463. http://doi.org/10.1016/j.physbeh.2010.05.003

The term nudge is not necessarily used in such marketing rulebooks. Some authors talk about "heuristics and rule-of-thumb" (Wansink, 2010; Wansink & Chandon, 2014), while some others about "practical alterations" (Raghunathan et al., 2006 [84]). Yet they all rely on the same principles of "promot[ing] health without undermining personal responsibility" (Roberto et al., 2014, p. 439 [155]), i.e., of nudging: small behavioral changes, low(er)-cost/low(er)-involvement solutions, reliance on the notions of behavioral economics, and experts' informational and motivational superiority over consumers.

If we think about it, rulebooks are not so different from nutritional education strategies, which they themselves criticize. Based on the informational superiority of expert discourse (e.g., nutrition and behavioral science), they underline the gap between "impossible choices" and ideal health conduct and produce knowledge that teaches consumers what (simple) measures they can use to overcome this gap. So, the rulebooks are different only in the sense that, instead of consumer education based on pure nutritionism, they produce instructions for *behavioral nutritionism*. Despite an ethos of education and information provision, the simplicity and actionability of such rules, compared to the ever-increasing complexity of nutritional guidance, makes them less bookish and more street-smart: more realistic, more engaging, more posh. They are not boring facts and figures about chemical compositions requiring constant attention and math, but compelling laws inspired by extremely popular evolutionary psychology explanations. Thus these rules appear not only universal but also modern.

Their appeal and popularity are evident not only within academic marketing discourse but "in the streets" in our everyday life. For example, various advertising campaigns have started using insights from nudge research, almost as literally as recommended in research papers. Coke Zero ran a "taste the difference" campaign around 2013 in various markets (Coca-Cola Great Britain, 2013; Coca-Cola Journey, 2013; Reynolds, 2013), which was a take on the famous Pepsi's "blind taste" ad from the 1980s, yet with a healthy twist. The campaign showed crowds of consumers in a cinema or on a plane tricked into thinking they were drinking and enjoying regular Coke, while in fact they were drinking a zero-sugar version of the drink, without noticing any difference or taste loss. Both participating and watching consumers were then informed about the real situation and their own unfounded bias against low-calorie substitutes in an attempt to change their attitude and stimulate healthier soda choices. Now compare it to the recommendation by Raghunathan, Naylor, and Hoyer (2006 [84]):

> "To combat this problem, an obvious solution **would be to stress both taste and health for these items, with the taste dimension being the dominant dimension.** By stressing the taste dimension first, companies could work on breaking down the unhealthy = tasty intuition and increasing the probability of choice. Marketing strategies involving sampling, credible sources, and opinion leaders would be critical. First, **sampling would be a key factor in gaining acceptance** for these new, healthier products because **consumers will not believe that they are tasty unless they have tried the product themselves.** A free sample represents **a low-risk way to experience the taste**." (Raghunathan et al., 2006, p. 181 [84])

Another example, now taken directly from consumers' commonplace talk, is something spotted in the reviews section of Amazon while browsing products for a research-unrelated reason. The major concern expressed by most customers reviewing this particular product, a set of plates, was their size, a little smaller than regular and unexpected from the product description. Yet one consumer lauds the instrumentality of this set to implement a popular rulebook instruction about reducing plate sizes to reduce the amount of food eaten (Chandon, 2010; Wansink, 2010):

> "I love this product, sturdy, and beautiful. It not only fits my personality but suits my kitchen. I love the way **the plates are a smaller size, better for the right and proper sized meals**. My old plates were so large you feel you need to fill them. **This is better for a healthier diet** and over all are very nice". (Monica, published on 7 April 2014 on: https://www.amazon.com/review/RPHOZISAA8JFD/ref=cm_cr_rdp_perm?ie=UTF8&ASIN=B00GFPARHA)

In marketing's version, rulebooks, as opposed to "classical" nudging, are an example of a more libertarian than paternalistic "libertarian paternalism" (i.e., "libertarian $_{\text{paternalism}}$") because while the paternalistic element remains, it's overwhelmed by the rhetoric of sovereign consumer. The prescription of behavioral modifications here seems directed at *auto-conditioning* or *self-reinforcement* – but as if one of Pavlov's dogs itself rang the bell to start its saliva going.[65] The ethos of consumer empowerment, consumer responsibilization and

[65] In the parallel world of self-tracking and quantified-self trends, there is a gadget designed to implement exactly such auto-conditioning: Pavlok (https://pavlok.com). It's a "behavior training" wearable device that releases an electric shock, described by its producers as "an electric sensation that ranges from pleasant to slightly uncomfortable," in order to train away bad behaviors, such as smoking, nail biting, mindless eating, or procrastinating. The electric stimulus can be triggered either automatically (via a smart phone) or manually (by pressing a button). The latter, as producers and several user videos claim, is the most effective application, which can break bad habits in just five days. Self-administered electric shocks are directed at reprogramming the brain and creating an aversion on a neurological/automatic level: e.g., when one uses Pavlok's electric shock every time he/she smells or thinks about a delicious food the brain automatically associates that stimulus (food) with an aversion and produces the effective behavioral result of avoiding such food. Or, as it's put on the website: *switch off the animal instincts* responsible for bad behaviors and *turn human rationality back on*. This result is achieved,

neoliberal market freedom combined with classical conditioning produce yet another oxymoron – *the mindless presence of consumers' minds*.

Furthermore, the oxymoron is complicated by what has been continuously discussed as an ethical critique of nudging: whose rationality is being promoted? Whose minds are present, and whose minds are not? Nudging is thus mainly accused of judging (Steffen, 2016) humanity's inherently bounded rationality in favor of an ideal perfect rationality that is supposed to be objectively better for everyone. So, nudging is essentially an ex-ante normative judgment of what constitutes the desirable "right" choice. But who has the power to determine what's right? Is it right for everyone? Is there always only one right choice? Despite still an open discussion on the ethics of such value judgments, nudges are, in fact, well accepted and treated as universal rationalities.

And it's not just a matter of universally appealing evidence or the popularity of dual process theory explanations. In the war on obesity (and other pressing health concerns), any measure is "at least worth a try," as Gard (2010, para. 3 in chaper 2) puts it: "So, while a certain policy might previously have seemed extreme or heavy handed, the same policy might begin to look more reasonable if the problem it purportedly addresses is regularly described as a 'crisis'." So it's not surprising that when consumers are asked if they are concerned about (classical) nudges being intrusive and manipulative, consumers tend to say the practice is still acceptable, given that the nudges serve the ennobled goal of improving people's health (Junghans, Cheung, & De Ridder, 2015).

Like other food-related initiatives, nudging draws from nutritionism for justification discourses, which then simultaneously function as both facts and value judgments. However, with the multiplication of expert systems leading to divergent dietary prescriptions (Kristensen et al., 2011), any, even the most perfect of perfect rationalities, may be judged as wrong. In fact, the most pervasive nudge of all is the presence of nutritional information on every food package (Cioffi, Levitsky, Pacanowski, & Bertz, 2015; Thaler & Sunstein, 2008) and the resulting ubiquity of healthy food and nutrition marketing. Ironically, this nudge becomes a problem in itself: the consumers' sincere intention to turn to healthier options marked by policy-approved health and nutrition claims (Aschemann-Witzel & Hamm, 2010 [89]; Ford et al., 1996 [159]; Kozup et al., 2003 [81]; Lähteenmäki et al., 2010 [18]; Ono & Ono, 2015 [63]; Zank & Kemp, 2012 [48]) or by brands' certifications and producers' positive ethical images (Minton & Cornwell, 2016 [50]; Peloza et al., 2015 [110]) produces an ambiguous "health halo" effect, which leads consumers to believe that a food product is healthier than it actually is and results in an unhealthy outcome overall (Chandon & Wansink, 2007b [75]; Ma et al., 2013 [82]; Payne et al., 2014 [223]; Peloza et al., 2015 [110]). This phenomenon has received a "rhetorical flourish" label of the "low calorie paradox," i.e., "parallel increase in obesity rates and in the popularity of

ironically, by mindfully triggering the biological "reptile brain" response: "When suffering from cravings, when suffering from negative thoughts, when unfocused – just press the button and the electric stimulus **will jolt you back into human mode**." (Note that Pavlov's conditioning has been one of the most influential behavioral models in various branches of psychology. Yet it's an example of a pure behaviorist focus, later criticized by cognitive psychologists. It's also an example of extreme reductionism, criticized for an unrealistic focus on only one fraction of behavior and thus incompleteness and overly-deterministic generalizations.)

healthier foods with lower calorie and fat density" (Chandon & Wansink, 2007b, p. 301 [75]). To sum up, we can say, paraphrasing Skrabanek (1994, p. 15), that the market for the pursuit of health is in itself a symptom (and a virus) of unhealth.

8.3.3. Win-win discourse

This pragmatic discourse is characterized by the idea of mutual benefit. It dismisses the idea that health in food has to be a product of trade-offs and fights against zero-sums. Instead, it promotes the logic of interdependency, maximization of advantage and hybridity of interests. Win-win discourse relies on a "healthy/ier vs. basic" theme, in which health is a promise of superiority compared to the normal or base version (of food product, eating and production environment, lifestyle etc.). Health in this discourse is clearly located inside a product but does not necessarily correspond to its nutritious properties. A health-carrying product does not have to be perfectly healthy, rather, it needs to be better than other "basic" products either in health terms or in its ability to deliver more than solely health benefits. The consumer-centrism of this discourse is considerably different from other discourses. It draws meanings of healthfulness primarily from consumers' self-declared preferences, as opposed to expert discourse.

Benefits for all

Win-win discourse positions the health food market as a playing field of cooperation and mutual interest, not a battlefield of different market actors. With the health of consumers being a necessary component of economic and political efficiency, foods instrumental in satisfying consumers' health needs outpace other, more controversial initiatives lacking the appeal of mutual benefits. So win-win discourse is framed as a realistic strategy that solves both global health-related social problems and more local business issues:

> "A positive marketing framework examines **how consumers, businesses, and society can participate in an exchange that is mutually beneficial.** Encouraging producers and growers to adopt a marketing communications strategy designed **to successfully promote healthy foods may help advance consumer well-being and may also help the businesses that produce these products thrive**". (Bublitz & Peracchio, 2015, p. 2485 [42])

> Researchers should aim to provide answers to the vital question of how we can establish business relationships that satisfy the interdependent needs of the three stakeholders (food companies, consumers, and policy makers as the advocates of society) to increase the sales and profits of companies, contribute to consumer wellbeing, and raise societal welfare at large (Bublitz et al. 2013; Chandon and Wansink 2012; Wansink and Huckabee 2005). Such **win-win-win situations play a key role in resolving the healthiness/tastiness dilemma and helping consumers make healthier food choices**" (Mai & Hoffmann, 2015, p. 78 [160])

> "There is widespread concern that consumers are making inappropriate decisions about what they eat, leading to a growing incidence of obesity and chronic illness, **which will strain public-health budgets and damage economic competitiveness.**" (Brennan, Dahl, et al., 2010, p. 635 [92])

> "Although no food companies would want to discourage consumers from purchasing their products, it is in their interest to understand how moods influence consumers' food consumption. For example, overconsumption can lead not only to weight gain but also to rapid satiation and delayed repurchasing (Inman 2001). **Over the long run, helping consumers better control their consumption could also help promote more favorable attitudes**

> **toward the brand and company.** This may result in what Rothschild (1999) refers to as **a "win–win" policy-sensitive solution for both companies and consumers**" (Garg et al., 2007, p. 194 [83])

> "[…] restaurants in a position where they might become either reactive or defensive. Yet there may be a more promising solution to the obesity problem – **restaurants could profitably help customers make healthier selections** (Chandon and Wansink, 2012) […] Restaurants use, or at least have the potential to use, numerous strategies to get customers to order certain items from a menu. Tactics for shifting attention and de-emphasizing price are used to make restaurants more profitable. With a few revisions, **these tactics can be converted into win-win strategies that have the potential to not only make restaurants more profitable but patrons healthier** (Wansink, 2014a,b)." (Wansink & Love, 2014, pp. 137, 140 [143])

The rhetoric of win-win (or even win-win-win) invests this discourse with healthification properties. It "heals" the wrongs by demonstrating a multitude of benefits and symbolically transferring the value of health onto less worthy intentions. As opposed to inefficient, authoritarian policymakers, greedy industrial food producers and marketers, and irrational and illiterate consumers, we have policies supporting healthy market initiatives, sustainable business strategies driven by healthy long-term profits and shrewd consumerist investments in personal health preservation.

The orientation to serve the interests of all parties involved leads to a much more particularistic attention to these parties' individual characteristics. So win-wins are presented as context-specific: their meaning may vary depending on geographical, industry or consumer segment specificities. In other words, the local differences become as relevant as universal commonalities: for instance, the outcomes of nutrition marketing in restaurants are not the same as in packaged foods or quick-service restaurants, not the same as in high-end sit-down restaurants or advanced organic markets like the UK or Denmark, not the same as in the traditionalist food market in Italy, etc. Combined with a truly global rhetoric of health, as a socio-economical need and an expression of consumer interests, "local" food issues correspond instead to Wilk's (1995) concept of "structures of common difference," where the dramatization of the local is subject to the common universal code of expression. As we read in one such global/local narrative:

> "As countries become more intertwined in their economic activities, manufacturers cannot ignore the need to globalize their product offerings. **If it is indeed true that there is 'growing similarity among countries in what their citizens want to buy,' (Yip, 1995), then one wonders whether extant skepticism concepts developed based on Western consumers are equally applicable to Asian consumers**?" (Tan & Tan, 2007, pp. 60–61 [87])

2-in-1: Merger of multiple needs and multiple ideologies

Food knowledge is full of dichotomies or binary oppositions around health (Askegaard et al., 2014), such as taste/pleasure/indulgence (Krishen & Bui, 2015 [22]; Mai & Hoffmann, 2012 [54], 2015 [160]; Raghunathan et al., 2006 [84]), convenience and ease of preparation (Ronteltap, Sijtsema, Dagevos, & de Winter, 2012; Scrinis, 2008), satiation (Oakes, 2006), affordable price (Moorman, 2002; Scrinis, 2008) and fun (Elliott, 2009). In win-win discourse, the opposition is treated as an opportunity to bridge the gap and merge a spectrum of benefits into one *multitasking product*.

> "Companies often achieve product success by promoting the added health dimensions of their new products. A trip down almost any aisle of a grocery store will demonstrate how product lines have proliferated. As an example, in

addition to Campbell's traditional Cream of Mushroom Soup, Campbell's also offers a Healthy Request® version, a 25% less sodium version, and a 98% fat free version of the product. While these products communicate nutrient information or a health benefit**, they often adopt a dual strategy that focuses on both health and taste dimensions of the product**. The food and beverage industries have been working to satisfy the taste and health demands of consumers, growing product lines with **additional offerings designed to simultaneously meet hedonic desires together with the health conscious pursuits of consumers**. Increases in consumer demand for healthier versions of their favorite foods have been met with enthusiasm as producers seek new ways to increase consumption of their products. For many of these new products, food and beverage marketers **emphasize the health benefits and nutrition of the product concurrent with an emphasis on taste.** In the same way, it would also be quite possible for marketers of fruits and vegetables to position their products as both tasty and healthy. For example, apple producers could use the same types of visual techniques to promote their product not only as a "crisp, refreshing snack" but also as one that is a "good source of fiber" echoing the advertising approach of many package goods. Combining pleasurable taste cues with a specific health claim may help to propel healthy foods to achieve the same level of success as the packaged food industry enjoys." (Bublitz & Peracchio, 2015, p. 2487 [42])

"Commentary on functional foods set up a number of transformatory expectations. They are described, for example, as a revolution (Heasman & Mellentin, 2001), with the potential to individualise eating and transform the social meaning of meals (Holm, 2003) as well as medicalise the food supply (Lawrence & Rayner, 1998) and **blur the boundary between food and drugs** (Vainio & Mutanen, 2000)." (Weiner, 2010, p. 1541 [131])

The meaning of health in this discourse is built into the concept of utility maximization, but not necessarily to the point of reaching an impeccable health ideal. Maximization here can be read in terms of comparison to a base-level option, leading to either more health overall or the same level of health outcome yet with an additional benefit. In either case, it leads to an overall superior (than a base-level) outcome and increasing utility:

"In the household production context, **individuals produce health status as well as enjoyment** from food by consuming a variety of foods. More information provides a more complete household production technology. Better nutritional information may allow individuals **to attain a higher health status**, but it may also allow individuals **to attain the same health status in a way that increases their utility from food intake or decreases their costs without changing their risk of illness.** For example, consider the individual who suffers from hypertension, has reduced his sodium intake according to medical advice, and believes his current sodium intake is satisfactory. If this individual were to learn that certain brands of popcorn were low in salt, then he may switch to these brands and **allow himself more of some other high sodium food that he enjoys**. Better nutritional information **will cause changes in demand for products and increases in welfare even though it may not always cause a backwards shift in all risk increasing foods nor even a positive change in health status.** In our treatment of the problem, nutritional information is valuable to individuals because **it allows them to increase utility**, where utility is a function of both health risks incurred and taste preferences for different varieties and types of food products". (Teisl et al., 2001, pp. 133–134 [185])

2-in-1 healthy food products might step on the toes of medicine, and, in fact, many consumers believe that food is as effective as medicine and can be considered "a preventative alternative to high-cost medical services" (Childs & Poryzees, 1997, p. 434 [60]). A global poll by Havas Worldwide (2012) reported that around 7 in 10 consumers globally trust food as a health enabler on par with medicine, which is evidence of "blurring the distinction between food and medicine" and of food in general being "progressively invested with medical significance [and…] touted as possessing a therapeutic or health enhancing capacity that indicates an individual's or population's present and future health" (Mayes, 2014b, pp. 5, 1). Curiously, one of the main objectives of labeling regulations has long been to create a clear distinction between food and medicine (Frohlich, 2011; Pravst, 2012), which apparently hasn't proved to be as potent as the medicalization of eating and centuries of cultural "layperson" approaches to exercising (self-) care regimes through foods (Coveney, 2006).

A special case of 2-in-1 products are those that unite the whole spectrum of *ideological* benefits and absorb multiple ideologies on top of healthism, such as sustainability, fair trade, animal welfare, localism and consumerism. After all, when conspicuous consumption is out of

vogue and can be openly shamed, the only justification consumers can resort to is that their consumerism leads them to a higher goal. Organic foods in particular are a clear example of foods satisfying not only consumers' concerns about healthy eating, but also allowing consumers to participate in environmental and ethical justice debates. Organic foods also serve marketers' for-profit orientation by stimulating consumers to more guilt-free consumption and establish businesses as sustainable with all image-related benefits that the term implies (Bevan, Isles, Emery, & Hoskins, 2004; P. Jones, Comfort, & Hillier, 2007; McDonagh & Prothero, 2014). Consider the following excerpt, which aggregates many typical expressions of organic foods' multiple commercial and ideological functionality:

> "With annual growth rates of approximately 10% on a worldwide basis, the market for organic food has made remarkable progress. In 2008, organic food generated revenues of almost $51billion (Biomonitor, 2009). The market for organic food thrives on increased consumer attention to environmental and animal welfare issues, owing to extensive coverage in the media and growing awareness of the consequences of environmental pollution, global warming, and the use of natural resources. Because organic farming uses fewer pesticides and artificial fertilizers, it is believed **to do less harm to the environment** (Cornelissen, Pandelaere, Warlop, & Dewitte, 2008; Gore, 2006; The Week, 2009). Another consumer motive for choosing organic products relates to **health concerns. Alarmed by dramatically increasing obesity rates and discussions about food safety, many consumers desire healthier, less processed, natural foods** (Food MarketWatch, 2008). Some authors cite health preservation and improvement, rather than ethical motives, as the chief reasons consumers purchase organic products (McEachern & McClean, 2002; Schifferstein & Oude Ophuis, 1998). Retailers and manufacturers have also recognized the organic food market's potential (Kiesel & Villas-Boas, 2007; Polman, 2010). Mirroring the growing interest in corporate social responsibility initiatives (Bhattacharya & Sen, 2004; Groening, Swaminathan, & Mittal, 2009), **the organic market has become an attractive opportunity because of higher margins earned for organic products; the average unit margin for organic products exceeds that of conventional products by 4.2 cents** (Bezawada & Pauwels, 2010)." (van Doorn & Verhoef, 2011, p. 167 [33])

As a matter of fact, the very definition of organic food as healthy is problematic if we think about it in terms of either "nutri/edu" or "simple solutions" discourses. Though containing (and transmitting to the eater (Jörgen Magnér, Wallberg, Sandberg, & Cousins, 2015)) a much lower amount of the pesticides, fertilizers, hormones and antibiotics involved in traditional non-organic food production methods, organic foods do not have a superior profile in terms of nutrition composition in comparison to their conventionally produced equivalents (Dangour et al., 2010; Hoefkens, Verbeke, Aertsens, Mondelaers, & Van Camp, 2009 [188]; Kolodinsky, 2012 [78]; Nasir & Karakaya, 2014 [59]; C. M. Williams, 2002 [10]). Food fortification, as well as GM technologies, can produce far more superior products on a nutritional level. Yet consumers, and consequently marketers, show overwhelming interest in organic foods and consider them superior options in terms of health (Anisimova & Sultan, 2014; Baker, Thompson, Engelken, & Huntley, 2004; Hughner et al., 2007; Vega-Zamora et al., 2014 [124]; Zanoli & Naspetti, 2002). Neither nutri/edu nor simple solutions discourse are capable of justifying such consumer illiteracy or the health halo about organics. However, if thinking in terms of win-win discourse, organic foods carry a connotation of multitasking and respond to several (moral) consumption imperatives, including health, and thus perfectly fit into the family of "healthier 2-in-1s."

Premium privileges

One of the factors that bridge consumers' win of a health benefit with an advantage for the producer is the price premium that consumers are reportedly willing to pay:

> "With over $200 million in annual sales, smaller snack packaging (e.g. 100-calorie snacks) has become a profitable business in the US and Europe (Peters, 2007; Kraft Foods Company, 2012). Smaller snack packaging manufacturers have created a situation in which **both they and consumers benefit (i.e. help increasingly overweight/obese consumers limit consumption while simultaneously increasing profitability**). Profitability comes from **charging a premium** for snacks packaged into smaller portion sizes – **a premium for which customers report they are willing to pay** (Wertenbroch, 1998; Tuttle, 2011)." (Payne et al., 2014 [223])

> "[...] an organic claim affects WTP through product perceptions, though we also allow for a direct effect based on **several rationales**. First, the organic claim may function as an **additional product attribute for which consumers are willing to pay extra.** The claim enables the manufacturer to charge a price premium because it **differentiates the product from other products**. Studies published in agricultural journals reveal that **consumers are willing to pay higher prices for products with organic claims** (e.g., Davies, Titterington, & Cochrane, 1995; Loureiro & Lotade, 2005). In addition, **consumers may accept that the production of organic food demands higher costs** (Byrne, Toensmeyer, German, & Muller, 1991), resulting in a higher WTP." (van Doorn & Verhoef, 2011, p. 167 [33])

Price has an important signaling function in the health marketplace. As a credence good, healthy food requires a range of signaling mechanisms to credibly communicate products' characteristics that are not verifiable either at the moment of purchase or through actual consumption experience. Therefore, price premium, just like with other credence goods (Hughner et al., 2007; Nagler, Kronenberg, Kennelly, & Jiang, 2011; Perrea, Grunert, & Krystallis, 2015), simply becomes an index of superiority, a heuristic that "trains" consumers to distinguish healthier options from base-level options. In fact, the issue of price is justified in win-win discourse by consumers' willingness to pay "for the privilege" (Paul & Rana, 2012 [58]) of buying health-wise superior products or services (e.g., paying premium for smaller portions of food (Chandon & Wansink, 2012; Tuttle, 2011)). To quote Skrabanek (1994, p. 30), "as health is a priceless commodity, any price can be asked for it."

At the same time, healthy food options' higher costs are considered one of the major obstacles for many consumers to change their food choices (Wills, Storcksdieck genannt Bonsmann, Kolka, & Grunert, 2012), suggesting the need for price-reduction strategies to increase consumption of healthier food. Price, however, involves more than demand-supply equilibrium evaluations when it comes to health. There are several ideological conflicts involved. Businesses' profit (im)morality (Ludwig & Nestle, 2008) is one of them, but given pervasive measures of consumer willingness to pay for healthier foods, charging a price premium seems a rational approach in strict terms of marketing ideologies. Besides satisfaction of subjective consumer needs (Anker et al., 2011 [41]), a price premium also ensures business-as-employer survival and a continuation of businesses' investments into health and other social causes (WEF, 2015). From a more critical perspective, the "happy marriage" metaphor is not as definite, and considering the independent relationship between results and consumer orientations, "the notion of market-orientation and of putting the customer in focus appears to be rather a weak force for welding the customer's and the corporation's interests together" (Alvesson, 1994, p. 301).

Another moral conflict involves the concept of "good" consumer behavior and double standards resulting from our moral assumptions (Askegaard et al., 2014). As an example, when people who receive financial support from the government buy healthier organic (read: more expensive) food, their choices are judged as immoral. Taxpayers who contribute to the governmental support of at-risk groups believe it's morally wrong to spend support money on expensive ethical and healthy produce, yet it's the right choice if the money is honestly earned

(J. G. Olson, McFerran, Morales, & Dahl, 2016). At the same time, health moralizations promoting the duty to eat well adopt a message that eating healthy does not have to be expensive and that it's just a matter of willpower to substitute (large quantities of) junk food for (smaller quantities but higher quality of) healthy food – a widely popular idea that traps lower-income individuals into another moral dead-end.[66]

The price issue may be one of the most challenging of all health-related 2-in-1s. In line with the common thread of win-win discourse, which assumes that the meaning of health is shaped as an opposition to an inferior base-level option, price accentuates that health creates, rather than dismisses, inequalities (cf. Campos, 2005; Crawford, 1994; Fitzpatrick, 2001; Lupton, 2013c; Roberts & Leonard, 2015).

Productive lifestyles

In win-win discourse, not every win is equal to another: a consumer's win discursively precedes and prepares the ground for the marketers' win. In other words, the conditions for marketing and business success are, at least discursively, determined by satisfaction of consumers' self-declared unmet needs, wants and desires.

> "When addressing food and overeating, it is important for firms to develop profitable win–win solutions to help consumers better control what they want to eat. No company would want to modify a product in a way that discourages consumers from purchasing it or consuming it. **However, it may be in a company's best interest to help consumers better control how much they consume in a single setting**. For example, the results from a survey of 770 North Americans indicated that **57% of the participants would be willing to pay up to 15% more for portion-controlled items** (Wansink and Huckabee 2005). Moreover, it could help prevent product "burnout" and also help promote more favorable attitudes toward the brand and company". (Garg et al., 2007, p. 201,203 [83])

> "With over $200 million in annual sales, smaller snack packaging (e.g. 100-calorie snacks) has become a profitable business in the US and Europe (Peters, 2007; Kraft Foods Company, 2012). Smaller snack packaging manufacturers have created a situation in which **both they and consumers benefit (i.e. help increasingly overweight/obese consumers limit consumption while simultaneously increasing profitability**). Profitability comes from charging a premium for snacks packaged into smaller portion sizes – a premium for which customers report they are willing to pay (Wertenbroch, 1998; Tuttle, 2011)." (Payne et al., 2014 [223])

Understanding consumer lifestyles with their "perpetual becoming" (D. Armstrong, 1995, p. 402) toward their "relational" health (i.e., "[…] in that it bridges a person's existing state with a favorably looked upon future state" (Östberg, 2003a, p. 131)) helps marketing put a price tag on experiences that previously were not directly price-indexed (Alvesson, 1994). In win-win terms, this is called innovation, but in more critical terms, we'd call it commodification of consumer lifestyles.

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[66] See (Collective Evolution, 2016) for an illustrative Facebook users' discussion in comments spurred by a post by Creative Evolution, self-described as "one of the world's most popular alternative media, production, and community outlets that gives readers an opportunity to reshape their everyday way of thinking." The post featured a visual that said "If you think eating healthy is expensive, just wait till you see the medical bills from eating cheap crappy food" and a caption "Most people who can afford to eat junk food, can actually afford to eat healthy. They would just have to cut out all the junk food... Most of the time (not all), stating that eating healthy is expensive is just an excuse."

In treating consumers as entrepreneurial subjects (Zwick & Cayla, 2011), this discourse does not simply perform a market analysis of consumer demand to propose solutions that would satisfy it, but puts consumers' lifestyles and subjectivities to work producing economic value for the market (Cova & Dalli, 2009; Cova et al., 2011; Zwick et al., 2008). So consumers' duties expand from the obligations to be well, chose wisely and stay informed about health and nutrition to another type of "job": "part-time marketer" (Fırat, 2013; Fougère & Skålén, 2013; S. J. Levy & Luedicke, 2013; Skålén et al., 2008) providing "full-time marketers" (researchers and practitioners) with actionable data about what they will need next.

An internal paradox is that marketing itself "confuses" consumer needs: needs consumers experience as genuine are in fact socially constructed. Marketing, in Alvesson's words, is a "mystification" that works as "the systematic constructing and "bending" of needs and wishes in a way that ties them strongly to commodities" (Alvesson, 1994, p. 305). So marketer's win after all could be the one that precedes consumer's win, because it constructs what consumers genuinely need and wish for.

Innovation and (re)invention

The mass-industrialized food production system and food marketing are two of the most prominent defendants of the obesogenic environment. For this reason, the whole win-win logic of strategies of product healthifying participates in the *reparations mission* – consisting of reinvention of the industry's role in health debates.

On a strictly product level, such a mission involves the "materialization of societal concerns about health into product form" (Herrick, 2009, p. 51 [132]) – or, simply put, product innovations. Such innovations tend to follow a challenging double purpose of creating a responsible product reformulation while satisfying consumer demands. It is a perpetual motion machine of balancing costs with perceived benefits, health trends that are familiar and overwhelmingly popular now with new nutritional discoveries, common knowledge with unique and unknown (and potentially differentiating) revelations, specific individual needs with universal prescriptions, etc.

> "In practice, healthy choices come in **two forms: brand extensions making existing products healthier through lowering fat, sugar, salt or carbohydrate content, or through novel product platforms with new nutritional properties, health claims and often functional ingredients**. Despite stringent dietary guidelines issued every five years by both the Federal Drug Administration (FDA) and US Department of Agriculture (USDA 2005) in the US and by the UK Department of Health, it must be noted that **'healthy choices' are now so defined as much by the companies themselves as government agencies**". (Herrick, 2009, p. 55 [132])

On a more ideological level, the struggle for a positive image of marketing at large and, more specifically, of mass-marketed brands is the game of symbolic "relative decommodification against overwhelming dominance of industrial food in the contemporary food market" (Askegaard et al., 2016, para. 4 in section "the mundane brand resistance"). As shown by Ulver-Sneistrup, Askegaard, and Kristensen (Askegaard et al., 2016; Ulver-Sneistrup et al., 2011), the appeal of craftsmanship, authenticity and care, as a virtue of producers and

involved consumers, can healthify brands. These virtues also help to healthify the brand of contemporary food production system and marketing at large.

8.4. Conclusions

The three discourses presented here show that marketing and consumer research about health and food is shaped by three knowledge systems. These systems rely on different experts' criteria for healthfulness judgments, take into consideration different aspects of food and consumer behavior, interpret different events and concepts as meaningful and appropriate, involve different terminology and predispose different measures to talk about health. At the core of each discourse lies a fundamental binary opposition that structures the rest of relationships between objects, concepts and thematic choices.

A peculiarity of these three discourses is that – despite significant differences of their positions regarding health, food, market and consumers – within the reality of research streams and texts of individual articles, these dominant discourses are united, juxtaposed and played out into various forms. There does not seem to be a historical trend, either: all three discourses to various degrees govern both earlier and more recent research articles. We attempt to demonstrate it by showing in Table 8.6 and in Figure 8.6 the proportion of articles that subscribe, at least at some point in their texts, to the logic of binary oppositions indicative of one or another discourse.[67] We have to admit that simply counting manifestations of these themes as directly visible in texts does not account for more intricate and implied cases, as well as leads to inclusion of a few false positives. However, it does help to see the overall picture and the general trend in terms of locating discourses in time and in theoretical and/or methodological research traditions.

"Nutri/edu" discourse could be described as the most established and mature. Due to its location in proximity of public policy discourse on food safety and labeling regulation, it may be portrayed as a "constraining" discourse, continuously fueled by legislative and protectionist concerns about creating "perfect" markets for consumers and marketers alike. Every regulatory change (or perception of the need of one) charges this discourse with renewed energy to persevere and evolve.

[67] Besides "information vs. knowledge," "healthy vs. unhealthy" and "healthy/ier vs. base," we also included "healthy vs. taste" and "nutritionism" themes when performing the manifest "bean counting" analysis. The nutritionism theme, as we discussed, is highly influential in both "nutri/edu" and "simple solutions" discourse, and the "health vs. taste" opposition is a recurrent companion of the "healthy vs. unhealthy" dichotomy.

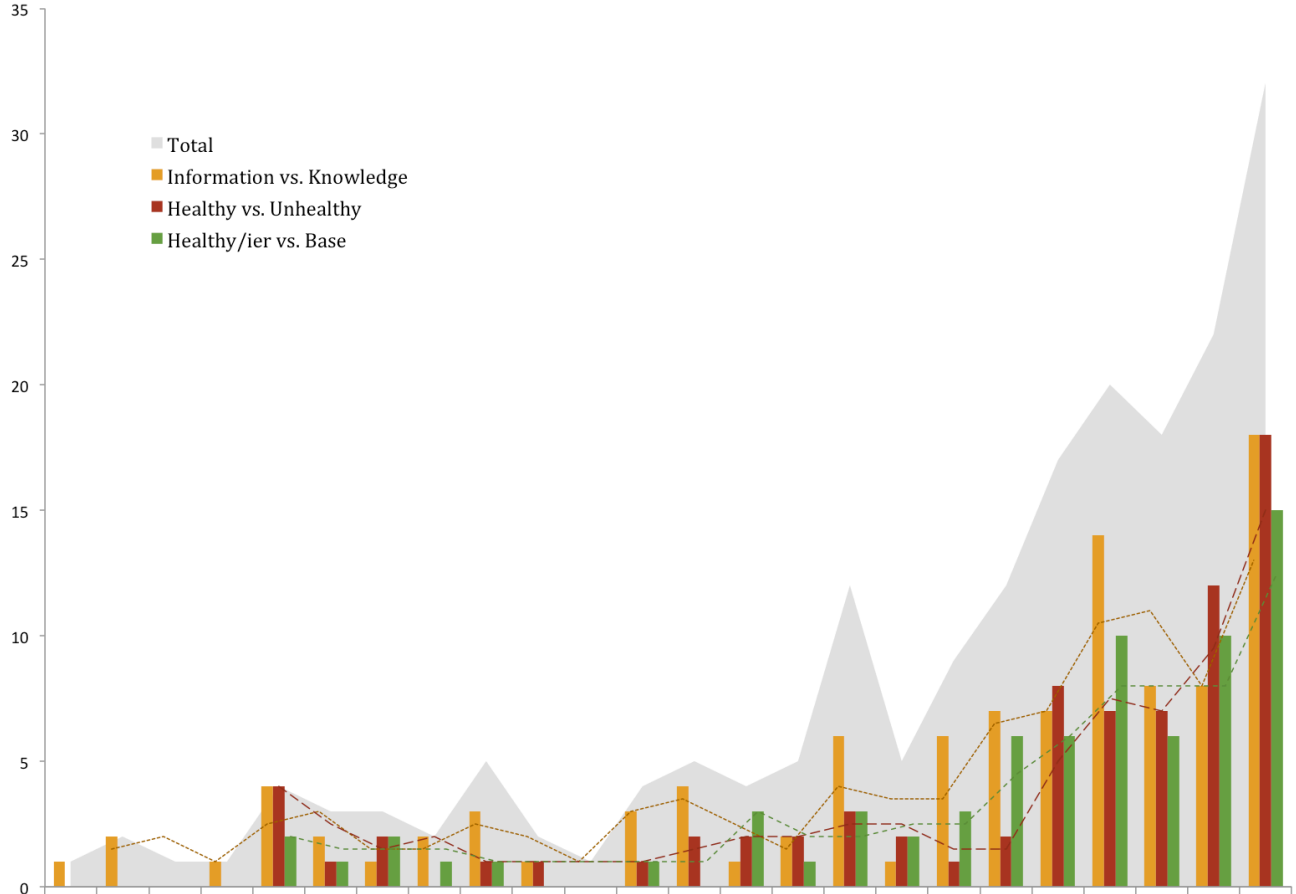
Table 8.6. Distribution of key themes per research stream.

	Information vs. knowledge N_{kn}=105; 55%			**Healthy vs. unhealthy N_{un}=77; 41%**			**Healthy/ier vs. base N_{inn}=73; 38%**			**Nutritionism N_{n}=149; 78%**			**Health vs. taste N_{tast}=42; 22%**		
	Mean	*research stream share*	*theme location share*	*Mean*	*research stream share*	*theme location share*	*Mean*	*research stream share*	*theme location share*	*Mean*	*research stream share*	*theme location share*	*Mean*	*research stream share*	*theme location share*
Health and nutritional information	**63**	**85.1%**	**60.0%**	**29**	**39.2%**	**37.7%**	**13**	**17.6%**	**17.8%**	**72**	**97.3%**	**48.3%**	**10**	**13.5%**	**23.8%**
Information environment	20	69.0%	19.0%	12	41.4%	15.6%	6	20.7%	8.2%	28	96.6%	18.8%	5	17.2%	11.9%
Information communication*	24	85.7%	22.9%	13	46.4%	16.9%	6	21.4%	8.2%	25	89.3%	16.8%	2	7.1%	4.8%
Information processing*	19	100.0%	18.1%	4	21.1%	5.2%	1	5.3%	1.4%	19	100.0%	12.8%	3	15.8%	7.1%
Consumer perceptions*	**19**	**57.6%**	**18.1%**	**21**	**63.6%**	**27.3%**	**10**	**30.3%**	**13.7%**	**31**	**93.9%**	**20.8%**	**17**	**51.5%**	**40.5%**
Category heuristics	12	52.2%	11.4%	16	69.6%	20.8%	7	30.4%	9.6%	22	95.7%	14.8%	12	52.2%	28.6%
Size heuristics	-	-	-	-	-	-	-	-	-	1	4.3%	0.7%	-	-	-
Learning & heuristics	6	100.0%	5.7%	4	66.7%	5.2%	2	33.3%	2.7%	6	100.0%	4.0%	3	50.0%	7.1%
Marketing management	**12**	**25.0%**	**11.4%**	**7**	**14.6%**	**9.1%**	**38**	**79.2%**	**52.1%**	**25**	**52.1%**	**16.8%**	**7**	**14.6%**	**16.7%**
Market creation	11	30.6%	10.5%	4	11.1%	5.2%	30	83.3%	41.1%	15	41.7%	10.1%	2	5.6%	4.8%
Persuasive communication	1	8.3%	1.0%	3	25.0%	3.9%	8	66.7%	11.0%	10	83.3%	6.7%	5	41.7%	11.9%
Critical	**4**	**19.0%**	**5.5%**	**10**	**47.6%**	**13.0%**	**7**	**33.3%**	**9.6%**	**13**	**61.9%**	**8.7%**	**3**	**14.3%**	**7.1%**
Market failure	4	30.8%	3.8%	9	69.2%	11.7%	2	15.4%	2.7%	12	92.3%	8.1%	3	23.1%	7.1%
Responsibilization	-	-	-	1	12.5%	1.3%	5	62.5%	6.8%	1	12.5%	0.7%	-	-	-
Other	**6**	**42.9%**	**5.7%**	**10**	**71.4%**	**13.0%**	**5**	**35.7%**	**6.8%**	**8**	**57.1%**	**5.4%**	**5**	**35.7%**	**11.9%**
Dieting & prevention mindset	1	25.0%	1.0%	3	75.0%	3.9%	-	-	-	3	75.0%	2.0%	2	50.0%	4.8%
Emotion	1	33.3%	1.0%	1	33.3%	1.3%	2	66.7%	2.7%	1	33.3%	0.7%	1	33.3%	2.4%
Health-taste reconciliation	1	33.3%	1.0%	3	100.0%	3.9%	2	66.7%	2.7%	2	66.7%	1.3%	2	66.7%	4.8%
Sustained change	2	100.0%	1.9%	1	50.0%	1.3%	1	50.0%	1.4%	-	-	-	-	-	-
Social advertising	1	50.0%	1.0%	2	100.0%	2.6%	-	-	-	2	100.0%	1.3%	-	-	-

* Two articles make part of two categories each.
** Two articles included on a superior (meta-category level) but do not make part of individual groupings.

Source: Author's own elaboration of content analysis results.

Figure 8.6. Distribution of key themes per year of publication.



	1988	1990	1991	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total	1	2	1	1	4	3	3	2	5	2	1	4	5	4	5	12	5	9	12	17	20	18	22	32
Information vs. Knowledge	1	2		1	4	2	1	2	3	1		3	4	1	2	6	1	6	7	7	14	8	8	18
Healthy vs. Unhealthy					4	1	2		1	1		1	2	2	2	3	2	1	2	8	7	7	12	18
Healthy/ier vs. Base					2	1	2	1	1			1		3	1	3	2	3	6	6	10	6	10	15

Source: Author's own elaboration of content analysis results.

Additionally, "nutri/edu" discourse relies the most on normatively defined terminology, and many scholars in spheres well beyond legal research are prone to use official terminology, thus making this discourse especially resistant and enduring. Contrarily, "simple solutions" and "win-win" discourses both appear to be more modern and timely, gaining their voice sometimes in contrast, sometimes in complement to others. "Simple solutions," with its popular behavioral rhetoric, is becoming a highly influential discourse beyond academia (i.e., in public institutions as well as in popular media), while the most managerial "win-win" discourse may be the most versatile discourse capable of flexibly absorbing ideas from other realms (e.g., organic and sustainability discourse) and thus appealing to multiple market actors and useful for multiple purposes.

Each of three discourses is subject to the ideology of healthism – both in terms of medicalization and marketization of everyday life. Each discourse eventually produces a narrative that legitimizes the imperative of consuming health in a form of market commodity. Whether appealing to consumer-centrism combined with a pure form of nutritionism, a fancier behavioral version of nutritionism or utility-maximization proposition, marketing discourses of health and food invest conceptualizations of the consumer marketplace with a preoccupation and responsibility for health raised to a status of super value (Crawford, 1980).

By employing different food-related risk factors and frames of problematization (poor diet resulting from poor information, obesogenic environments or absence of superior market offerings), dominant discourses in their own distinct ways use the context of food consumption as the main stage for enactment of responsibility (for "nutrition calculus," self-control or perpetual production of lifestyles) and, as a consequence, creation or maintenance of market system (Giesler & Veresiu, 2014). Food marketing becomes marketing of healthism, collectively carried out not only by the industry, but also by supposedly neutral academics and policymakers, not to mention consumers with their lifestyles.

In discussing three discourses and trying to "mak[e] visible the interconnectedness of things" (Fairclough, 2010, p. 39), we attempted to combine descriptions of their internal logic and underlying assumptions with a reflection about implications and consequences of such logic, which are rarely expressed within dominant paradigms. Another missing element in most marketing texts is a conceptual reflection on the very basic constructs employed in research: health, food, and consumer. There is a general lack of recognition that these very constructs could be more problematic that they seem at the first glance. The mere presence of three distinct, at times even contradictory discourses about health and food in marketing sheds light on inherent complexity of these constructs. Thus, in the following chapter, we will carry on a reflexive and critical discourse analysis and will attempt to "unpack and make explicit" (Fitchett & Caruana, 2015, p. 9) the vocabulary of health in marketing and consumer research.

9. Critical vocabulary of health and food in marketing discourse

Despite an abundance of research about health and food in marketing and consumer studies, what is most striking is how essentialized the very concept of health is. What we mean is that multiple versions of health seem to exist in the food marketing domain, yet it is much easier to find operationalizations of health and food (i.e., examples or typical cases such as fruit as a healthy snack as opposed to a chocolate bar, salad as a healthy side dish as opposed to fries, etc.) than a discussion about what health means (to consumers, marketers, or society at large) and why. The same is true for two more abstract and fundamental concepts of consumer and food, which constitute the main subject of our current analysis. In line with our objective of uncovering the ideology of healthism in marketing and examining broader consequences of underlying assumptions for scholars, industry market actors, and consumers, we will proceed in this chapter towards identifying critical components of existing knowledge: conceptualization of health, (healthy) food product, and (healthy food) consumer. In this chapter we'll attempt to dig into the "unsaid" and, with the help of semiotic approach, build up a critical vocabulary of health and food in dominant marketing discourses.

9.1. Unpacking the three discourses: From binary oppositions to semiotic squares

In Chapter 8 we identified three dominant discourses in marketing and consumer research about health and food. The first, "nutri/edu" discourse, is named after the two ideas that structure its core thematic features: the universality of nutritional information and the power of (consumer-friendly) education. This discourse is constructed around the problematization of the information environment and, in particular, of ineffective public health efforts to educate consumers that result in persistent gaps in consumer knowledge. This discourse is best understood in terms of an "information vs. knowledge" structuring dichotomy, which dictates that health is achievable only by closing the gap between the objective nutritional information and subjective understanding thereof by consumers.

The second discourse is named "simple solutions" after its tendency towards (over)simplification evident in a number of thematic choices, including the behavioral explanation of obesity used as a problem formulation, the small step approach to behavioral modifications as solutions, good or bad binary principle for food's healthfulness judgments, etc. Building on the problematization of the obesity-conducive environment, skepticism about the standard educational approach typical of public health initiatives and the assumption of an inherently irrational, pleasure-seeking human nature, this discourse establishes that consumers systematically make choices that result in unhealthy outcomes, such as overeating and calorie underestimation. Simple solutions discourse is structured around a "healthy vs. unhealthy" dichotomy, applicable primarily to food, but also to food-related behaviors, choices, consumers and lifestyles.

The third discourse, "win-win", embraces and promotes the principle of interdependency, maximization of advantage, mutuality of benefits and hybridity of interests. Probably the most pragmatic and versatile discourse, win-win positions the health food market as a playing field of cooperation and mutual interest, not a battlefield of different market actors. Win-win discourse is structured around the "healthy/ier vs. basic" dichotomy, in which health is a promise of superiority compared to the normal or base version (of food product, eating and production environment, lifestyle, etc.) either offering more health overall or the same level of health outcome yet with an additional benefit.

All three dominant discourses have one thing in common: they are best understood in terms of their foundational binary oppositions that organize their entire system of meanings. Binary oppositions are in fact one of the pillars of (structural) semiotic approach, which we adopt here in order to dig deeper into the meanings of three fundamental concepts that are more often than not are taken for granted in marketing and consumer research on health and food resulting in a lack of reflexive conceptual discussion. These three concepts are: health, (healthy) food product, and (healthy food) consumer.

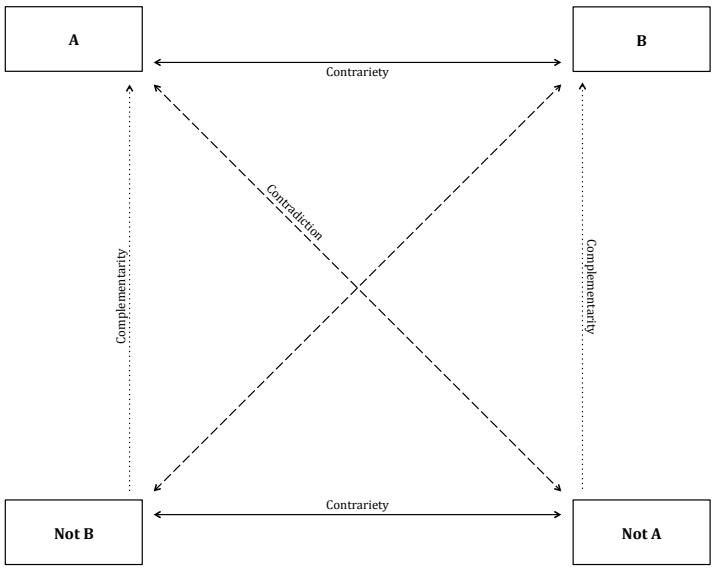
Examinations of the concept of consumer occupies important space in marketing theory literature (e.g., Arnould, 2007; Campbell, 2005; Cova & Dalli, 2009; Cova et al., 2011; Schwarzkopf, 2011), yet in predominantly empirical articles on food choices and consumption experiences in the context of health, consumers—healthy food consumers to be more precise—are explored mainly in segmentation studies in terms of their demographics and psychographics (e.g., Divine & Lepisto, 2005 [55]; Granzin et al., 1998 [112]; M. Kim et al., 2013 [135]; Nasir & Karakaya, 2014 [59]; Stanton et al., 2012 [70]). We can locate some discussions about the concept of food, especially some of the emerging or borderline forms such as medical food or functional food, in legislative research and administrative literature (European Commission, 2006; FDA, 2006, 2013; Moors, 2012; Pravst, 2012), but regulatory definitions are not necessarily shared by all of those who study, talk about, and directly work with food and its marketplace (cf. marketing consulting approach and definitions in Euromonitor International, 2015a, 2015b; Nielsen, 2015). The definition of health has been a challenging philosophical task in medicine since the times of Hippocrates. However, attempts in medicine and public health to provide a universal prescriptive definition of health have not proved to be useful: the "official" definition (WHO, 1948) is a subject of heated debate among health professionals, further complicated by the fact that common knowledge of health simply transcends the field of medicine because people simply "need to use health as a coded way of referring to an individually, socially, or cosmically ideal state of affairs" (Skrabanek, 1994, p. 39).

Despite an obvious lack of reflection on these concepts in marketing discourse about food and health, we as readers have no problem relating to the content and learning from the research. After all, these concepts are not unique to marketing, public policies, and medicine; they constitute the everyday reality that seems so self-evident, natural, and true that they do not seem to require further consideration. In fact the meanings are obvious—even too obvious—which constitutes a problem, not of comprehension, but of potential blindness to the consequences of the communicated messages. Consequently, the goal of the present analysis is

"to question that which is treated as taken for granted, self-evident, and given by nature" (Skålén, 2010) and by dismantling the existing taken for granted structures of the abstract concepts reconstruct, i.e., reconceptualize (L. Harvey, 1990, p. 209), them critically in the light of the three discourses identified in the previous chapter and briefly summarized in this section's opening.

Among other means to uncovering self-evident meanings (e.g., psychoanalytical, historical research, ethnographic observation, etc.), semiotic approach was chosen as a better fit to this work's methodology. It has a long history of application in marketing (Mick & Oswald, 2006), in critical social research tradition (L. Harvey, 1990), as well as in numerous types of social research employing documentary data (Manning & Cullum-Swan, 1994). Besides binary oppositions, which already proved useful to guide the analysis in Chapter 8, semiotic approach offers a useful analytical tool for unpacking the meanings in a more dynamic and relational perspective, known as Greimas' semiotic square (Mick & Oswald, 2006; Oswald, 2015)[68]. The semiotic square can be considered an extended version of the binary oppositions: it helps add an extra dimension of nuances to opposing meanings by considering not only the main opposition (i.e., contrariety), but other structuring relationships, i.e., contradiction and complementarity (see Figure 9.1).

Figure 9.1. Greimas' semiotic square.



Source: Example of Greimas' semiotic square (e.g., Mick & Oswald, 2006; Oswald, 2015) visualization.

[68] Originally developed for structural linguistics' analysis of narratives by Algirdas Greimas, the semiotic square is now a widely popular analytical tool extensively applied in cultural studies and, though less extensively, in various kinds of marketing and consumer research, including conceptual work (e.g., Ostergaard & Bode, 2016), longitudinal "process" research (e.g., Humphreys, 2010b), systematic studies of consumer narratives (e.g., Kozinets, 2008; Östberg, 2003b; Thompson, 2003), analysis of advertising communication (e.g., Floch, 1990 in Oswald, 2015), positioning and competitive brand strategy analysis (Rose, 1995 and Dano, Roux and Nyeck, 2003 in Mick & Oswald, 2006, pp. 36–39), quantitative cluster analysis (e.g., Andre et al., 2014), etc.

As exemplified on Figure 9.1, if "A" is the opposition of "B", the structure of meanings around them is also formed by the contradiction between "A" and "Not A" (i.e., the element distinguished from "A" by the absence of some of A's quality) and between "B" and "Not B", and consequently by the relationship of complementarity between "Not B" and "A" and between "Not A" and "B". Semiotic squares are thus analytical tools that help create maps of logical possibilities (i.e., of meanings), where positions are pre-set as the logical rules and the internal elements, the concepts such as "A", "B" and others in this example, are defined by the discursive universe in which these concepts exist.

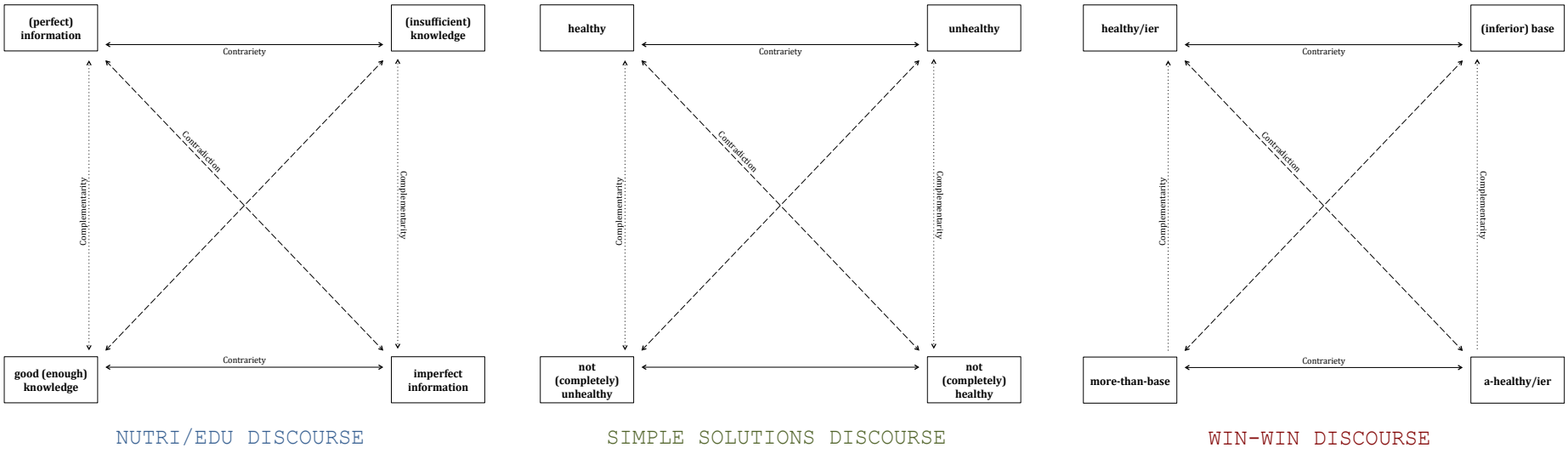
To help us uncover the meanings of taken for granted notions with the help of semiotic approach, we extended the binary oppositions of each discourse ("information vs. knowledge" for nutri/edu, "healthy vs. unhealthy" for simple solutions, and "healthy/ier vs. base" for win-win) in order to complete semiotic squares as shown on Figure 9.2.

It is the relationships between oppositional elements that construct the meanings of (health food) consumer, (health) food, and health in the marketing discourses, which we will demonstrate and elaborate on in the remainder of this chapter. The following sections have the same organization. The dialectical nature of each of the three concepts is first presented in the most general terms, without specific reference to any of the three discourses. The more general presentation is followed by three sub-sections dedicated to more specific discussion in terms of nutri/edu, simple solutions and win-win discourses. In each of them, we review the meanings exemplified in respective discourses and weave in commentary and considerations informed by critical perspective. Finally, in the conclusions we'll turn back to the organization of the elements in the semiotic squares in order to summarize the key logics with which the three discourses produce the meanings around health and present the full vocabulary through which the discourses can be better understood.

9.2. The concept of consumer: between regular and model consumer

Each discourse talks about at least two consumers. On the one hand, there is a *model consumer* who is capable, now or in the future, of living a healthy life. On the other, there is a *regular consumer* whose choices and diet behaviors in the best-case scenario are simply not healthy enough, and, in the worst-case, are putting the entire society at risk of an imminent health catastrophe. Similar to the role of "consumer fetishes" that "incarnate beliefs about ideal consumers" in commercial ethnography projects (Arnould & Cayla, 2015), the ideas about consumers operating in respective discourses have a particular function in marketing research and in discursive construction of a consumption culture, so it's quite unlikely that the consumers imagined and configured in marketing texts actually exist in reality as real people (D. T. Cook, 2011).

Figure 9.2. Semiotic squares of three dominant marketing discourses about health and food.



Source: Author's own elaboration.

The *regular consumer* emerges in observations of how consumers behave in the market or lab settings, which makes them appear very real: we get to know their (average) age, (collective) occupation, (distribution of) income level, where they were recruited for the study, how they reacted to research questions or market stimuli, etc. At the same time, they represent typical situations, which massively occur in the market, personify the statistics, and serve as a living proof of a problem researchers address. Contrarily, the *model consumer's* behavior is depicted as a virtuous, but somewhat deviant, not massively popular or conventional mode of conduct. This can be traced back to the very foundation of what pursuit of health in healthism is about: the notion of individual responsibility implies "individual's determination to resist culture, advertising, institutional and environmental constraints, disease agents, or, simply, lazy or poor personal habits" (Crawford, 1980, p. 368).

Therefore the image of a health-wise (more) successful consumer, however desired and virtuous, has to be characterized, at least to some extent, by an air of a-typicality, resistance, distinction, and exclusivity. At the same time, the a-typical model consumer also needs to embody the reality of "success cases" that prove that behaving in a certain way leads to a desirable health result, and thus can be used as a proxy to inform consumers, marketing, and policy actions about the direction to be taken in order to "correct" the health of regular consumers. However, the paradox is that even the model consumer is never on par with the health ideal, as defined by expert systems. Instead, in regard to health the model consumer settles for a more realistic "make-do" scenario, given endogenous conflicts of consumer behavior and exogenous inefficiencies of the regulatory or market systems. For this reason, the paradox of two consumers in marketing is that the "problematic" regular consumer represents the typical mass as a data-driven abstraction, while the "successful" model consumer exists in reality, but is surely an exception that nevertheless has plenty of room for improvement.

Marketing discourse about health and food thus moves between these two consumers, but in the apparent attempt to find ways to close the gap it continuously problematizes and encourages all market players to be more attentive to the previously unnoticed differences. We propose using metaphors of *mind* (for nutri/edu discourse), *body*, or more precisely *gut* (for simple solutions discourse), and *social group* or *segment* (for win-win discourse)[69] to describe the continuum within which both regular and model consumers (as well as the transient "middle ground" consumer (de Burgh-Woodman & King, 2013)) are created and used in marketing and consumer research.

9.2.1. Mind: Between quasi-expert and illiterate dupe consumer

A model consumer embodying the "mind" metaphor in nutri/edu discourse is a sovereign and well-informed individual, with a clear understanding of the "science" behind practices and

[69] I thank Dannie Kjeldgaard for his suggestion of these metaphors, after a research seminar presentation during my stay at the University of Southern Denmark in March-June 2016.

choices that structure his/her health-related consumption. Ultimately, his/her knowledge-empowered health works as a source of demonstrating "the rational capacity to re-make self and world" (Crawford, 2006, pp. 402–403). This is an active, assertive and autonomous self who seeks to govern personal behavior with reason rather than emotion (Lupton, 1997), by researching and evaluating courses of action in an open-minded and impartial manner.

This consumer constantly evaluates and monitors their own state of knowledge about health and nutrition. Knowledge here has a rather empiricist connotation and therefore represents a quest for the truth that is objectively located out there. The process of gaining knowledge therefore is ongoing, but the implied motivation is that at some point the obtained knowledge will be complete (despite the fact that the ideals of what is "complete" and sufficient truth is in constant flux). As *good students*, they listen and internalize public health and nutrition advice, excelling in such subjects as label reading, nutrient calculus, nutrition-speak, and nutrition accounting (i.e., thinking about their individual health and food consumption in terms of balancing nutritional needs with expenditures). More than a passive absorption of knowledge "pouring" on them, such consumers feel the obligation to search for additional sources that provide further proof or explanations. Accumulating information and connecting bits of knowledge together gives them confidence that their food consumption skills are rational (see Crawford, 2006, vol. 402; Kristensen et al., 2013, 2010; Lezaun & Schneider, 2012), and may even encourage them to complement or substitute popular mainstream health and nutrition advice with alternative health and self-care practices (see Beck, 1992; Kristensen et al., 2011; Thompson & Troester, 2002). In the information environment characterized by abundance of multiple sources of information and multiple expert systems (Giddens, 1991; Östberg, 2003b) that use the same universal language of nutrition (Coveney, 2006; Scrinis, 2008), it's no wonder that consumers who have gained certain familiarity with nutritional terminology end up creating their own assemblages of information that to an expert in one well-defined and specific field might seem like lay (read: inaccurate, incomplete, or even erroneous) beliefs of good health and healthy eating.

Like in medical discourse concerned with "expert patients" (S. Henderson & Petersen, 2000) and "reflexive selves" (Lupton, 1997), these nutritionally knowledgeable model consumers struggle to be considered equal (or as equal as possible) to the experts. Since they occupy a liminal space between experts and non-experts, we can call them *quasi-expert consumers*. In marketing texts these consumers are labeled with various names, including more standardized descriptors such as "health-conscious " (Kraft & Goodell, 1993; Mai & Hoffmann, 2015 [160]; Moorman, 1998 [96]) and "knowledgeable and motivated" (Burton et al., 1999 [116]), as well as more singular ones, like "educationally privileged consumers" (Mitra et al., 1999 [97]), "nutrition elite" (Andrews et al., 2011, p. 176 [104]), "enlightened and convinced" (Horska & Sparke, 2007 [1]), "nutrition fact seekers" (Mai & Hoffmann, 2012 [54]), "nutrition-focused health enthusiasts" (Granzin et al., 1998 [112]), "scientific health consumer" (Gould, 1988), "adventurous and health-conscious" consumers (Liang & Lim, 2011 [29]), etc.

On the contrary, the portrayal of a regular consumer in nutri/edu terms is much duller. This is an individual without sufficient ability and/or dedication to absorb and follow nutritional advice from the experts, even when it's presented in a simplified consumer-friendly form.

Instead of reflexive and deliberate consideration of pros and cons of their choices they tend to select a simpler option: i.e., more readily available, cheaper, more attractive to senses, etc. The consumer is framed as a distracted, ignorant and passive creature, reduced to the single quality of nutrition illiteracy, a dupe, subjected to manipulation by mass media, company actions and regulatory policies, such as in the following excerpt:

> "[...] it may be that **many people do not have the capacity to understand the message because of functional illiteracy**. Most written health-related material uses wording that is too complex for many people to understand (A. Adkins, Elkins, & Singh, 2001; Rudd, Moeykens, & Colton, 1999). **The average reading skill of US adults is reported to be no better than the eighth grade (that is, pre high school).** The OECD-sponsored International Adult Literacy Survey conducted in 1996 indicates that this level is similar across most developed countries (Ministry of Education, 2004). However, most government and marketer-originated health literature is some three grades above this (Hoffman, McKenna, Worrall, & Read, 2004; Mumford, 1997; Wallace & Lemon, 2004). A considerable amount of material that has appeared in the Daily Mail is written at or above the twelfth-grade level (advanced high-school level).
> Some 20% of the UK and European populations are functionally illiterate, while a similar-sized group can read at only very basic levels (Department for Education and Skills, 2003a, 2003b), **so that 40% of the population are likely to struggle with many health communication messages. Similar figures are reported in the United States,** where 21% of adult Americans do not have even elementary skills, leaving them unable to extract even simple information from printed material. A further 25% can perform basic reading tasks **but cannot integrate or synthesise several facts from documents**. A largely **unidentified group could be classed as 'aliterate'**, in that they are able to read but choose not to, and rely on television rather than print media for news (Wallendorf, 2001, p. 506). Consumers with low literacy face considerable barriers when evaluating products and services, particularly in connection with analysing written information such as nutritional content and claims (Ozanne, Adkins, & Sanlin, 2005). Identified coping strategies include relying on families and friends to make purchase selections, or limiting purchases to a narrow range of options with which they are familiar (N.R. Adkins & Ozanne, 2005).
> [...] Among the young consumers whom we investigated, there is a substantial degree of disinterest and apathy. Even among this relatively well-educated group (our sample included 96 people studying for a first degree and 67 people for a second degree), **there is grave cause for concern about their ignorance of basic nutritional and health-related information.** Among the general population, the ability to respond to health and nutrition messages (efficacy) **is severely constrained by high levels of illiteracy or poor reading skills**. Generally, behavioural beliefs about health and nutrition are influenced in **unpredictable and not always desirable ways by the mass media**. For example, the newspaper that we examined in depth often reported speculative or exploratory scientific studies as though they were 'fact', and in some cases took a prolonged stance that ran counter to the best available scientific evidence". (Brennan, Dahl, et al., 2010, pp. 644, 648–649 [92])

Such a consumer is an embodiment (and an attempt of causal explanation) of "sick population" assumption (Coveney, 2006, p. 15), i.e., people who persistently fail to follow nutrition recommendations. Despite the high level of preoccupation with these consumers' misunderstanding, being misinformed or deceived, consumers themselves have little power to have their opinion count. Choosing among a limited set of availabilities is the only possible avenue for them to exercise their (ir)rationality.

Discursive representations of an average consumer in nutri/edu discourse are massive, compared to much more unique and singularized representations (i.e., exceptions, not rule) of knowledgeable consumers, which often has very little to do with the actual level of knowledge demonstrated by consumers in the market. For instance, as aggregation of studies in Coveney (2006, pp. 94–96) claims, as a result of massive education campaigns and (generally unexpected) accurate representations of nutrition information in media, the actual level of nutrition literacy has become far more sufficient than normally portrayed. In a nutrient information usage task in a study by Burton, Garretson and Velliquette (1999 [116]), the average score of nutrient usage accuracy was quite an impressive 75%, while more than half have answered 89% of questions correctly and almost one-third achieved a perfect 100% accuracy score. A study by Mitra, Hastak and Ford (1999 [97]) resulted in a finding, defined by the authors as "surprising", that the overall level of nutrition comprehension based on label

examination was accurate enough and did not differ for "educationally privileged" and "educationally disadvantaged" consumers. A recent study by Bucher, Müller and Siegrist (2015) found out that nutrient value as a measure of food's healthfulness has really sunk in with consumers, leading to the situation when nutritionists' and consumers' perception of foods' health profile in most (though not all) cases are highly correlated with their actual nutrition value.

Similar evidence of growing mass literacy is not so infrequent, yet the rhetoric of mass *il*literacy accompanied by statements claiming that "[c]onsumers' inability to accurately assess nutritional content of certain foods is well known" (Peloza et al., 2015, p. 19 [110]) is stronger and have already acquired a status of common knowledge, not even requiring a citation (cf. Rekdal, 2014) as this 2015 example shows.

Whether actual consumers are considerably more literate than normally presented or not is after all irrelevant, because an average illiterate consumer absolutely needs to exist in marketing discourse for, among others, legal purposes. It is a quintessential representation of liability risks, if we remember that the food industry is a new potential target of class action litigation, like the tobacco industry in the second half of the 20th century (Nestle, 2013). Such a consumer is also needed to mobilize industry restriction and control policies, not to mention marketing research itself. Typically, in dualistic structures one of the elements tends to have a controlling or dominant status (Thompson & Hirschman, 1995). In this case, an average illiterate consumer exerts more power in marketing discourse than a more knowledgeable model consumer.

All in all, building on the metaphor of the mind, the consumer in nutri/edu discourse has an inferior knowledge about nutrition principles, which makes him/her potentially vulnerable to being misled into conceivably harmful uninformed food choices or to being manipulated by irresponsible profit-oriented marketers. Yet, despite momentarily insufficient knowledge, the consumer, like an early-stage student, has the potential to improve, either by increasing the level of knowledge (e.g., by improving information comprehension abilities), by rising motivation to acquire knowledge, or by improving trust in the information environment (an environment that is supposedly truthful and predisposed to guide towards objectively better choices). This is the vision of the Enlightened ideal (Addis & Podestà, 2005, p. 395; Thompson & Hirschman, 1995, p. 145), which frames health-related food consumption as a *life-long learning process*.

What is missing in this depiction of an empowered "good student" capable of reflexive and autonomous healthy food consumption, is that valorization of the mind and rationality detaches consumers from other types of experiences, such as emotional and embodiment responses, and dissociating consumers from "the physically vulnerable, desiring, all-too-human body" which is paradoxically absolutely necessary as a diagnostic mechanism for good or bad health outcomes (Lupton, 1997, p. 380). According to Skrabanek (1994), healthism requires separation of the embodied experience of health from the idea thereof, because it creates a greater demand and a greater willingness to pay for the latter:

> The extension of 'health care' to the healthy is a relatively simple matter. The healthy must be persuaded that *feeling* healthy is not the same as *being* healthy, otherwise they could go through their whole life without noticing how bad they were. Once healthy, but scared, health consumers start queuing outside, demanding their right to be let in (since health, as they were told and now believe, is their inalienable right), health producers can claim, with some justification, that they are doing their best to meet the demand, though the shortage of the demanded commodity (health, in this case) will, regrettably, lead to some increase in price. Paradoxically, the spiralling costs of the medical care are in part justified by the claim that its main *raison d'etre* is to save money by preventing diseases from happening and that is why the industry is trying to deliver health to everyone, whether they need it or not. (Skrabanek, 1994, p. 31 original italics)

Another "inevitable consequence of knowledge" is "entanglement in web of practices, beliefs and technologies that knowledge inspires" (Thompson & Hirschman, 1995, p. 145), which makes even health-wise successful model consumers slaves to the "authorative other" (Lupton, 1997), i.e., whoever is entitled to more, better, or newer knowledge. This is how consumers in transition from *illiterate dupes* to the status of *quasi-expert* are systematically portrayed as *nutrition slaves*, whose irrational behavior outcomes are evaluated even worse than those of illiterate consumers:

> "For example, **education negatively influences motivation, ability, comprehension, and objective decision quality**. In the case of motivation, educated consumers may already have sufficient information and, hence, **are less motivated to search for more**. In the case of ability, education may have **increased consumers' awareness of what they do not know, causing them to rate themselves lower in terms of ability**. An **incongruity between educated consumers' standards and the experts' standards** may be one explanation for the negative relationship between education and objective decision quality. Finally, as expected, education is negatively related to comprehension, indicating that **as education increases, comprehension levels decrease** (recall that lower levels equate with higher comprehension)". (Moorman, 1990, p. 373 [76])

> **"One might expect that consumers highly involved in nutrition would be more knowledgeable about it and less likely to be influenced by health claims (Wansink 2005). Yet, past research suggests that nutrition involvement may not moderate the effects of health claims.** Moorman (1990) found that nutrition involvement increases the self-assessed ability to process nutrition information but **does not improve nutrition comprehension or the nutrition quality of food choices** in two product categories. Two studies (Andrews, Burton, and Netemeyer 2000; Andrews et al. 1998) found that objective nutrition knowledge improves the accuracy of some nutrition evaluations but **does not significantly reduce erroneous inferences** across nutrients or the effectiveness of objective nutrient information in reducing these overgeneralizations.
> More generally, studies have found that **association-based errors, such as those resulting from priming, cannot be corrected** by increasing incentives and the degree of elaboration (Arkes 1991). In fact, Johar (1995) found that **highly involved consumers are more likely to be deceived by implied advertising claims** because involvement increases the likelihood of making invalid inferences from incomplete-comparison claims, such as "this brand's sound quality is better." (Chandon & Wansink, 2007b, pp. 303–304 [75])

When we talk about knowledge that is not abstract, but also product-specific (like in the case of the healthy food marketplace where expert knowledge is not only in controlling hands of nutritionists and policymakers, but also in the hands of producers), the "entanglement" also leads to market-dependency: "the more consumers seek information and become more knowledgeable about product features, facts, and prices, the more they become preoccupied with consumption through the process and subsequently further embed themselves in the marketplace" (Izberk‐Bilgin, 2010, pp. 305−306, based on Ozanne and Murray 1995). Lezaun and Schneider (2012, p. 22) refer to this knowledge-market entrapment with the term "restless consumption", i.e. "a state of limited knowledge, unlimited desire, elastic rules of action and a constant obligation to choose".

9.2.2. Body and gut: Between well-disciplined and creature of evolution consumer

The metaphor of "body" and/or "gut" moves conceptualizations of regular and model consumers into the realm of physiology, cognitive psychology, and evolutionary explanations. Instead of focusing on the controlled rationality alone, this consumer conceptualization revolves around the interplay of evolutionary rational and irrational bodies, mindless and mindful eating, self-awareness, and hard-wired habits.

In his talk at the prestigious TED Global conference in July 2010 (which received more than 1.27 million of total views as of October 2016), Heribert Watzke, a food scientist working for Nestlé, presented his interpretation of how the human brain system overruns the perfectly functional neurological system of the "small" hidden brain, the gut. Apparently, the amount of neural tissue of the gut (500 million nerve cells, 100 million neurons, and 20 different neuron types) makes it comparable to the brain of a cat, hence the human gut can be thought of as a "small brain" compared to the big actual brain. Despite the impressive number of neurons and the gut's multiple functions from communicating with emotional limbic system, reacting to food on a chemical and mechanical levels to protect digestion, to providing immune support (Watzke, 2010), the colloquial "gut feeling" in the context of healthful consumption does not have a positive connotation, especially in terms of simple solutions discourse. It rather represents the paradox (or even failure) of evolution: while the human body is supposed to lead people to biologically rational choices (i.e., healthy food), in reality it conducts people to unhealthy food choices and consistent overeating. This is a neo-Darwinian take on consumer that applies the romanticized image of the past to understand how to solve the problems of the "unnatural" present (cf. Lupton's (1996, p. 11) critique of a nostalgic "noble savage" concept and Gard and Wright's (2005, pp. 108–113) "just-so" and "everyone everywhere" stories of how modernity makes people lazy and fat). This *creature of evolution* is the portrayal of a regular consumer, intrinsically not capable of making correct healthy food choices in the current stage of human and market development.

The *creature of evolution* consumer is also a dupe, highly susceptible (even more than the *illiterate consumer*) to external manipulations that lead them to making unintended choices. Similar to Nemorin's (2017) interpretation of subjects of neuromarketing discourses, we deal here with non-knowledgeable consumers reduced to animalized "poor in world" state, i.e., reflex-driven animal reaction conditioned by external triggers. The state of non-knowledge in case of the *creature of evolution* consumer is different from that of illiterate consumer, because of a different knowledge in question. The problem of *creature of evolution* consumers is that they lack the knowledge about themselves, about their responses to external stimuli (e.g., advertising, health claims, eating environments etc.), about their emotions, compulsions, desires, etc. So the "if they only knew" rhetoric (Guthman, 2008) is directed in this case at various types of reflexivity and self-knowledge besides (or in addition to) better product knowledge:

> "Nevertheless, because cognitive knowledge does not help people manage their pleasure-seeking goals (Ramanathan and Menon 2006), simple food associations are likely to continue to drive behavior **unless people learn to think more deliberatively about their emotions.**" (Kidwell et al., 2015, p. 117 [94])

> "In Oakes's (2005) study, which we described previously, consumers overemphasized fat content when they assessed the healthiness of foods and **relied on a categorization system (of foods as bad versus good) using stereotypes about types of food/ingredients** to determine how much weight a food would cause someone to gain. **Had they relied instead on a more complete nutritional assessment** of the foods, they would have found that the food they considered healthy on the basis of fat content (peas) would actually lead to more weight gain than the food they considered unhealthy (Snickers) because of the caloric content of the two foods." (Raghunathan et al., 2006, p. 181 [84])

> "What could be done to improve the accuracy of inventory estimations? **The lack of self-knowledge** about estimation strategies revealed by the protocol data and the robustness of the biases exhibited in the field studies suggest that **consumers do not learn much from experience**, even though they often run out of stock and waste overstocked products". (Chandon & Wansink, 2006, p. 134 [79])

A particular subtype of this consumer is a consumer who shows enough interest and motivation to change habits and follow health and nutrition advice, but due to biased perceptions and hard-wired behaviors ends up making choices that lead to overeating. In contrast to the nutrition elite, these are (also) *nutrition slaves*, tricked into unintended behaviors because of their poor mind or poor willpower.

> Given this variety and amount of nutrient data, **most consumers probably do not attempt to use all information** in product judgements and will instead use simplifying heuristics or shortcuts to minimize judgement task difficulty (e.g., Hogarth 1987; Moorman 1996).[...]
> Using the various types of information available in a nutrition label to evaluate a product's contribution to a total daily diet **is a complex and daunting task even for knowledgeable and motivated consumers. Most consumers will use cognitive shortcuts**" (Burton et al., 1999, pp. 471, 477 [116])

> "Nevertheless, **because cognitive knowledge does not help people manage their pleasure-seeking goals** (Ramanathan and Menon 2006), simple food associations are likely to continue to drive behavior unless people learn to think more deliberatively about their emotions.**"** (Kidwell et al., 2015, p. 117 [94])

> "More generally, some strategies to promote healthy eating result in finger-pointing toward food indulgences. This can be counterproductive because **temptations abound, and will-power is notoriously fallible**." (Chandon & Wansink, 2007b, p. 312 [75])

The conceptualization of the consumer in simple solutions discourse is caught between two fires: the inherently simple nature of metabolic machinery of the body subject to basic instincts and "too much" evolution that re-wired the otherwise perfectly functioning body mechanism. As a result, the regular consumer is, by definition, unable to make right choices. Yet if irrational choices produced by the automatic, rapid, default, and overall evolutionally old "reptile brain" thinking (Kahneman, 2011) are beyond individual control then why—we might critically ask—are consumers held accountable for their irresponsible food choices, morally judged for miscalculation of the calories in the food basket, and discriminated for their overweight bodies? When looking at consumers through this lens, wouldn't it be more rationally coherent to further medicalize their behavior and just invent "a pill" (literally or figuratively) to fix the errors in consumer food judgments, following the example of hyperactive children who struggle to concentrate at school or women who exhibit a bad temper resulting from premenstrual syndrome? Pharmacology or other technologies might arrive there, possibly even earlier than we expect[70], but similar radical medicalization

[70] Heribert Watzke (2010), who was mentioned earlier, collaborates on the research that develops such food processing/cooking methods that would produce substances and textures that would send a potent signal to the brain to stop

propositions are likely to remain ethically dubious (Anker et al., 2011 [41]) and otherwise preposterous as clashing with the idea of a sovereign consumer. Not to mention that the very struggle for consumer health creates more market opportunities than a possibility of finding a permanent solution.

In this quite gloomy picture of general hopelessness for human health, willpower, and reason, an a-typical consumer who can get closest to the "proper" health behavior ideal, i.e., making choices that are not completely unhealthy, is portrayed as a self-conscious *well-disciplined consumer*. This is an individual who is self-aware of his/her own inherently bounded rationality and who is willing to discipline him/herself with a combination of mindful and mindless self-control. Having accepted the fact that their health is in continuous jeopardy not only from the external dangers, but also from the harm that may come from the inside, they retreat to self-discipline to help them lead a lifestyle of "danger-consciousness" (Crawford, 2006, p. 403) and continuous risk reduction. Needless to say, they are especially susceptible to risks, to knowledge about risks to be more precise, which is the knowledge that can make otherwise invisible risks visible, overdramatized, or minimized (Beck, 1992).

Considering that *well-disciplined consumers* in marketing discourse are rare and examples of not completely unhealthy food conduct are random, simple solutions discourse simultaneously believes and does not believe in their active agentic capacities. On the one hand, self-awareness and mindfulness are promoted, and on the other hand, perfect rationality is denied by default (cf. oxymoron of *mindless presence of consumer minds* that we discussed in the previous chapter). Therefore, the work of disciplining consumers is portrayed as a complex of policies, practices, and actions to be enabled a little bit by everyone. Yet the ultimate responsibility, especially for the failure of discipline, remains with the consumer.

9.2.3. Group: Between trendsetters and unrealized potentials

The social metaphor of consumer as a group transforms conceptualization of regular and model consumers from individuals into clusters of consumers. Due to the social aspect, these consumers are portrayed in terms of their lifestyles[71] revolving around specific market behaviors and, following a common segmentation practice, are given "quasi-people" descriptions (Sunderland & Denny, 2011, p. 157): e.g., "locavores" (Stanton et al., 2012 [70]), "health freaks" (Childs & Poryzees, 1997 [60]), "taste lovers" (Mai & Hoffmann, 2012 [54]),

longing for more food, thus curbing the problem of overeating. Also, a number of pills that reportedly control the appetite, reduce food cravings, make you feel fuller, etc. exist in the market, but offer questionable evidence about their success rates.

[71] The term lifestyle reportedly started being used widely in 1960s (originating from 1929 word introduced by psychologist Alfred Adler) to refer to individuals' compound choices of certain behaviors, which implies that individuals can freely chose to preserve or to change certain behaviors (e.g., those that predispose them to health risks and illness) and that each person has a responsibility to exert the right to *chose* their lifestyle in order to prevent disease (Coveney, 2006, p. 98).

"LOHAS"[72] (M. Kim et al., 2013 [135]), "meat reducers" (Baker et al., 2002 [88]), "traditionalists" (Liang & Lim, 2011 [29]), etc. As social groupings they are presented as more powerful, compared to individual consumers viewed in choice settings. With their collective, statistically significant responses to market offerings or to market polls, in win-win terms they become thought of as having agency and a voice, especially if they want to clearly tell marketers how to effectively satisfy their unmet needs.

In the regular version, these are large consumer segments with ever increasing interest to do something about health, which is framed in terms of their "unmet needs". These consumers' high level of interests hits the wall of unsatisfying market offering, which impedes full realization of their lifestyle potential. On the other hand, in the model consumer conceptualization the realization of such potential is either complete or satisfying enough for the consumer to acquire the status of *trendsetter*. What is distinct from other discourses and depictions of the gap between regular and model consumers is that *unrealized potential* consumers *themselves* conceptualize who trendsetters are according to their own desire of progression on the ladder of health consumption. Win-win marketing discourse in this case (apparently) limits to reporting consumers' vision of how they see the model consumer, i.e., the privileged version of who regular consumers aspire to. Such depictions are, however, rarely explicitly framed as opportunities to grasp consumer aspirations about the model consumer. A more typical frame would take form of a problematization of the so-called intention-behavior gap, where both are supported by population statistics: (mis)behaviors based on surveys of declared practices or generalizations of observed behaviors, while intentions on surveys of consumers' declared preferences.

Ultimately, the consumers' aspiration embodied in win-win discourse's idea of a model consumer is of someone who is able to resolve the moral conflict between utilitarian health-orientation and hedonic consumption. Due to the fact that marketing is considered almost a pejorative term in socially-focused public discourse (e.g., Alvesson, 1994; McDonagh & Prothero, 2014; Prothero et al., 2011; Varey & Pirson, 2014), especially when processed and fast food are held accountable for today's obesogenic environment (Chandon & Wansink, 2007b [75]; Howlett et al., 2009 [74]; Josiam & Foster, 2009 [133]; Newman et al., 2014a [111]; Smith, 2004 [130]) and are combined with other moralistic discourses about food and health (Gard & Wright, 2005; Giesler & Veresiu, 2014; Kristensen et al., 2010, 2016; Wiest, Andrews, & Giardina, 2015 etc.), the utility of health conduct is openly opposed to the pleasures of consumption, which are "considered as impulsive, vices, sinful, low self-control, less healthy, and less thoughtful choices with which consumers would rather not be identified" (Khare & Chowdhury, 2015, p. 574 [73]). While the former, utilitarian, and rational self-discipline for health is praised and associated with personal and social responsibility, the latter, consumerism, is being openly shamed, giving rise to the contemporary trends of frugal (e.g., Witkowski, 2010) and sustainable consumption (e.g., de Burgh-Woodman & King, 2013; Visconti, Minowa, & Maclaran, 2014) and sharing economies (e.g., Belk, 2014), etc. As a result, the model consumer is the one who is able to make the best out of two worlds and to re-

[72] LOHAS is an abbreviation for lifestyle of health and sustainability, which is frequently used as a demographic market segment, generally composed of a relatively upscale and well-educated population.

channel the pleasure of consumption into a meaningful health-conductive lifestyle (cf. Kraft and Goodell (1993) refer to such combination as "wellness lifestyle in the marketing sense"), thus achieving a state of *compromising guilt-free consumption*.

Such conceptualization of consumers mirrors the position of biopolitical marketing that "aims to mobilise and extract value from the production of consumer communication, lifestyles and subjectivities" (Zwick & Bradshaw, 2016, p. 93). Biopolitical marketing's main resource is the free and autonomous, creative and enterprising, responsible and ethical consumer who produces economic value for the market by producing their own lifestyle (Cova & Dalli, 2009; Cova et al., 2011; Zwick et al., 2008; Zwick & Cayla, 2011). So, "prescribing" an objectively health-wise superior vision of the consumer would go against the logic of biopolitical marketing. In this way the fact that the model consumer is presented as the regular consumer's problematization of (and aspiration for) him/herself gives marketing a license to channel consumers' dissatisfaction into a profit-making market process.

Besides the duty to be self-reflexive, informed, responsible, active, and entrepreneurial choice-makers, consumers in win-win discourse also become "part-time marketers" working to invent and enact the innovative health market, which they are willing to pay premium for. The intensity of consumer involvement into ideation and need creation guarantees a never-ending cycle of product innovation and markets' differentiation (Lezaun & Schneider, 2012).

9.3. The concept of health food

Needless to say, considering the contemporary food system, the absolute majority of food is acquired, not produced by the household that consumes it. Therefore talking about food is more often than not a conversation about marketable food products (or food-based services), whether in a ready-to-consume form, or in a form of a commodity transformable through "craft work" of preparation (Askegaard et al., 2016). In such a situation, the permanent situation of *food choice* (or rather *hyperchoice* (Mick et al., 2004)) is the main focus as well as the main problem of the current era (Coveney, 2006; Mol 2008 in Lezaun & Schneider, 2012). Food choice is integral to health in that it signals the choice of certain behaviors which either predispose people to health risks or, on the contrary, indicate the adoption of a lifestyle of risk aversion, self-discipline, and responsibility to live well. Food product then becomes an almost magical object in regard to consumer health: while traveling from producer to consumer it transforms (and is transformed by) consumers' lifestyles and identities and does not cease to exist after it has been consumed. Even after the post-consumption disappearance it acts as an instrument contributing to the creation of health-supportive or health-threatening meanings for the self and for others, commanding future consumption behavior, as well as directing re-conceptualization of previous consumption. The food concept we are going to critically discuss here is thus an expression of how marketing discursively constructs the instruments necessary for health-related transformation via consumption.

In standard marketing management theories' distinction between high and low involvement

goods, food is classified as a low involvement product. It can be argued that food purchases are an everyday necessity, with somewhat lower monetary risks (especially if each product is evaluated separately), and their purchases are either habitual or, on the contrary, impulsive in contemporary consumer culture. Yet in some contexts, including health value, they become highly involving (Beharrell & Denison, 1995). Two contradictory concepts that certainly turn low involvement food product into highly involving health consumption are an idealistic vision of food as *healthful*, on one hand, and a more pragmatic conceptualization of food as *risky*[73], on the other.

Both healthful and risky food concepts locate (un)healthfulness within the food product, even though the location can range from hyper-specific chemical composition, to food groups, and even macro-levels of food market systems. Starting from the location of health, food conceptualizations in marketing normalize food products as either complying or not to the adopted expert system criteria of healthfulness judgment. Therefore the healthful food concept is the idealized vision of rationality and expertise, while risky food is an expression of the typical non-conformity (or rather not complete conformity) to the terminology and to the principles that should guide food marketing and/or consumption.

In this case, despite relying on the location of health within food in our analysis, we prefer to use paired notions of *(mis)reading* (for nutri/edu discourse), *(mis)perception* (for simple solutions discourse), and *(non)differentiation* (for win-win discourse) to describe the continuum between the concepts of healthful and risky food as it is shaped by the dominant discourses of marketing and consumer research.

9.3.1. Label (mis)reading

In the information turn to "reading foods" (Frohlich, 2011; Yngfalk, 2012), food products, especially in the context of health, have strongly established themselves as credence goods in need of information remedies for consumers to help guide their choices and for marketers to differentiate their offering. Consistent with the nutritionist view (Scrinis, 2008) and supported by regulatory prescriptions (European Commission, 2006; FDA, 2013; Moors, 2012; Pravst, 2012), food is conceptualized as a combination of nutrients that can either deliver the basic nutrition, or, on top of that, can be considered beneficial for a certain bodily function. As the very notion of credence good emphasizes, food seen as a combination of invisible to the plain eye chemicals, materializable only in the form of generic or product-specific nutrition information, is also a form of belief, trust, and "blind" acceptance. In most global markets there is some type of regulation about product information disclosures that prescribe which sufficient and additional information (e.g., health claims) can or should be displayed, in which visual format, using which kind of wording and measuring systems, etc.

[73] We consider harmful food, i.e., food that causes immediate health damage (e.g., rotten or contaminated food), as edible substance turned poisonous, which are technically out of discussion on health foods and are subject to safety concerns instead. On the contrary we are concerned with risks, i.e., presently invisible constructs and "professional" terms for future possibility of danger (Beck, 1992; Lupton, 1993) that can be verified or not in the present.

(de Boer & Bast, 2015 [171]; Hobbs et al., 2014 [170]). Leaving aside the issues of producers' premeditated non-compliance, legal breaches, and intentional communication of false information, labeling—from the perspective of nutri/edu discourse—can enable either a perfect or imperfect transmission of objective information for consumers to base their informed choices on. The conditions of perfect information are believed to result in a beneficial health outcome, while imperfect information is an expression of potential risks representing a major concern in research. In trying to manage the gap between the two conditions, "nutri/edu" marketing discourse is primarily concerned with how to manage the tension between accurate disclosure of rational information and effective consumer-friendly communication, between scientificity and comprehension, and between truthfulness and straightforwardness.

The concept of information itself is highly fragmented, which is evident if we look at multiple descriptors used in the marketing discourse to create and define the gap between perfect and imperfect information. On the one hand, ideal information is defined as *honest and impartial*, expressed in notions of "objective" (e.g., Howlett et al., 2009 [74]), "accurate" (e.g., Jun & Yeo, 2012 [77]; Kolodinsky, 2012 [78]), "truthful" (e.g., Ippolito & Mathios, 1990 [72]), "unbiased" (e.g., Burton et al., 2015 [114]), "diagnostic" (e.g., Kozup et al., 2003 [81]), "cognitive" (e.g., Bublitz & Peracchio, 2015 [42]), "scientifically substantiated" (e.g., Aschemann-Witzel & Hamm, 2010 [89]), etc. information. Such conceptualization leads to a situation of relative low-involvement into consumers' health for the industry, placing the utmost responsibility for the food choice on the consumer and the burden of continuous control on regulatory mechanisms. In an ideal world, all the food product needs to do is not to obscure the truth about its actual composition. By extension, honest transparency would drive producers to improve the quality of food composition in order for them to be perceived more favorably by the consumers among competitive offerings. In the messy reality, however, even objective and accurate information may be problematic due to selective truthfulness, unexpected interpretations of truthful information by consumers (Hastak & Mazis, 2011), and eventually inability for most of us unequipped with a microscope to verify the veracity of information outside of the lab's "sterile world of a controlled eating behavior" (Östberg, 2003a, p. 133).

On the other hand, nutri/edu marketing discourse also conceptualizes ideal information (sometimes in contradiction to honest and impartial information concept) as *comprehensible and user-friendly*, which is expressed in the use of descriptors such as "accessible" (e.g., Howlett et al., 2009 [74]), "credible" (e.g., Brennan, Dahl, et al., 2010 [92]; Raghunathan et al., 2006 [84]), "familiar" (e.g., Desai & Ratneshwar, 2003 [115]; Mitra et al., 1999 [97]; Moorman, 1990 [76]), "established" and "accepted" (Aschemann-Witzel & Hamm, 2010 [89]), "commonly perceived" (e.g., P. Williams et al., 2008 [10]), etc. information. Such conceptualization is enabled by the marketing capacity to establish the connection between the industry and the consumer with the help of market research initiatives, scanning of consumer preferences and states of subjective knowledge to make sure that communication of credence qualities does not break down. This is also a strong expression of critique for the spiraling of regulatory restrictions where "[t]he labeling landscape grew more complicated for industry to comply with, consumers to navigate, and regulators to regulate" (Kolodinsky, 2012, p. 198 [78]). The

rhetoric of this type of information conceptualizations accentuates a number of democratic values, such as the rule of the majority (i.e., consumers), freedom of speech (for marketers), in addition to a more generally applicable democratic value of consumers' right to "know what they are eating", since "[f]or many consumers, labelling is not about risk, but about freedom, autonomy, and informed control" (MacDonald & Whellams, 2007, p. 186 [40]).

The paradox here is that even the information conceptualized as user-friendly still subscribes to nutritionism and medical individualism (Crawford, 1980, pp. 371–373; Foucault, 1973), which shifts attention to properties located deep in food's chemical composition. The choice of foods by user-friendly label reading still prescribes taking into consideration more and more of smaller and smaller food constituents and applying slightly simplified versions of nutrition (ac)counting. Yet, according to numerous empirical studies in various research traditions (Bouwman et al., 2009; Chrysochou, 2010a; Chrysochou et al., 2010; Kristensen et al., 2010; Luomala et al., 2006), consumers' own sense-making of healthy eating routines takes the diametrically opposing direction from more concrete food products to more holistic and abstract associations such as balance, variety, relaxedness, routine, culture, and traditions.

Nevertheless, nutri/edu marketing discourse rather subscribes to a micro-fragmentation approach because such micro focus encourages product-per-product, brand-per-brand, item-per-item hyper-specific comparisons, invigorating the culture of never ending differentiation (Lezaun & Schneider, 2012). While all sodas may be unhealthy and all yoghurts healthy, this one soda or yoghurt brand may be an exception, making it normal that "standard deviations" of nutrient content create enormous gaps within the same product groups (Ma et al., 2013 [84]) due to different strategic competitive choices of food marketers (Moorman, 1998 [96]), thus imposing active label reading as the main consumption tactics. In its turn, normalization of food reading, as opposed to relying on other types of food relationships (e.g., cultural or social norms, sensorial experiences, emotional response), leads to the naturalization of a number of institutional structures (e.g., EFSA, FDA and their international equivalents), as well as marketing and consumption practices (e.g., temporalizing and standardizing consumption via food date labeling (Yngfalk, 2016)). Therefore a label is a form of governmental strategy that builds on seeming neutrality and scientific measurability of nutrition and on free-market logics in an attempt to "capabilize" consumers' responsibility to secure individuals' and populations' health (Frohlich, 2011; Giesler & Veresiu, 2014; Mayes, 2014a).

9.3.2. Risky (mis)perceptions

As the very concept of perception chosen as a title of this section suggests, the health-defining principle in alternative to plain nutritionism is heuristics and reliance on categorization of food products into groups as either healthful or not (i.e., risky). In terms of simple solutions discourse, food can be perceived as healthful or risky within consumers' associations, which rarely correspond to the expert verdicts, the so-called "expert-lay discrepancy" (Halkier and Holm, 2008 in Kristensen et al., 2013). For instance, while in the consumer perspective food is

invested with medical properties for 7 consumers in 10 worldwide (Havas Worldwide, 2012), regulatory and science-driven approaches, on the contrary, part from the assumption of a clear-cut distinction between two categories (European Commission, 2015; FDA, 2013; Moors, 2012; Pravst, 2012). Eventually, the "authorative other" (Lupton, 1997) can problematize virtually any consumer perception of any food, leading to catch-22 type of traps. As long as it is always possible to change a frame of reference used for comparison, there is no escape for consumers' perceptions being diagnosed with chronic shortcomings:

> "We used orange juice as the focal product because it can have both virtue and vice connotations. Orange juice is a **fruit juice and contains vitamins, which can lead participants to classify orange juice as a relative virtue** (when compared with soft drinks, such as cola) when choosing a drink. However, orange juice **contains approximately 122 cal per serving** and has a high sugar content (Caloriecount, 2010; in contrast, cola contains 100 cal), **which makes it a relative vice in comparison to drinks such as water or reduced-calorie drinks.**" (van Doorn & Verhoef, 2011, p. 170 [33])

> "When consumers were asked in a survey to **identify whether beef or chicken was healthier, 70% chose chicken, and 6% chose beef** (Husted 2005). This example suggests that chicken is associated with a favorable health halo effect while beef is associated with an unfavorable health horn effect. These assumptions are supported by long-term sales trends indicative of increased chicken consumption and reduced red meat consumption as consumers continue to strive for healthier diets (Leonard 2011). However, the objective information now presented to consumers at the POP reveals substantial differences across specific cuts of beef and chicken. For example, **some lean cuts of beef are objectively more healthful than certain cuts of chicken**." (Burton et al., 2015, p. 242 [114])

The most important concern of simple solutions marketing discourse when it comes to food perceptions is that different patterns of food consumption have a potential to turn even a healthy product into unhealthy outcome or vice versa. As a consequence, consistent with simplification stance of this discourse, healthful food is simply conceptualized as non-existent. Every food item is rather thought about as inherently risky and every consumption situation as representing a potential for health disaster.

On top of that, the concept of risky food is constructed here as diagnosable in terms of *immediate outcome*, such as underestimation of calories at the food/meal choice stage (Chandon & Wansink, 2007b [75]; Chernev & Gal, 2010 [93]; Peloza et al., 2015 [110]), overconsumption (Chandon & Wansink, 2007b [75]; Garg et al., 2007 [83]; Geyskens et al., 2007 [107]; Ma et al., 2013 [82]; Payne et al., 2014 [223]; Poor et al., 2013 [80]), and wrongful food perception or categorization (Burton et al., 2015 [114]; Ford et al., 1996 [159]; Zank & Kemp, 2012 [48]), eventually leading to a directly observable or measurable weight gain (Mai & Hoffmann, 2015 [160]).

The constant risk setting entails construction of the food concept in the contrast between input and output, intention and consequences, impulsion and true need. The breach between the two is used to build up anxieties and reinforce the emotions of fear and caution about food and its consumption outcomes. The logic of compensation and credit/debit food accounting (e.g., unhealthy food consumed in smaller quantities, healthier side to compensate for less healthy main course, etc.) inherited from the intellectual tradition of "energy-in"/"energy-out" approach of the father of modern nutrition Wilburn Olin Atwater is criticized as too complex for regular consumers to handle right (e.g., negative equations shown in Chernev & Gal, 2010 [93]). This means that we all are better off to simply accept that the ideal of healthy eating may be attainable only if every food, every impulsion, and every intention is treated as primarily unhealthy and risky:

> "Within the eating domain, the trade-offs focus on the immediate pleasure of greater consumption of an unhealthy product versus the negative overall consequences on health. Although food type is important, we consider the relevant health goal as reducing the consumption quantity of unhealthy foods and/or increasing the consumption of healthy foods (Jetter and Cassady 2006), noting that consumption quantity may be just as important as food choice, if not more (Redden and Haws 2013; Wansink, Payne, and Chandon 2007). When a consumer has decided to enjoy a particular (relatively unhealthy) food, having a smaller quantity is more consistent with health goals, but consuming more brings additional pleasure. **In the case of very healthy foods (e.g., low-calorie vegetables such as carrots or lettuce, water), consumers can increase consumption without negative health consequences. Given that there are few foods that exist for which consuming large quantities does not have negative consequences for health**, we focus primarily on unhealthy foods". (Haws & Winterich, 2013, p. 50 [86])

> "Reducing biases in calorie estimation is important because **even small calorie underestimations can lead to substantial weight gain over the course of a year** (Wansink 2006). For example, study 1 found that the mean estimation of a 1,000 calorie meal was 159 calories less if the meal was bought at Subway than if it was bought at McDonald's. This difference can lead to substantial weight gain if people eating at Subway think that they have **earned a 159 calorie credit** that they can use toward eating other food. **Given that a 3,500-calorie imbalance over a year leads to a 1-pound weight gain (Hill et al. 2003), an extra 159 calories will lead to an extra 4.9-pound weight gain for people eating a 1,000 calorie meal at Subway twice a week compared to those eating a comparable meal at McDonald's with the same frequency** […] Still, from a public health perspective, **the best result would be achieved when people perceive all restaurants serving large portions of calorie-dense foods, such as McDonald's but also Subway, as an indulgence**. Raising the accessibility of unhealthy primes would improve the accuracy of calorie estimations for fast-food meals and would dissuade them from ordering calorie-rich beverages and side dishes" (Chandon & Wansink, 2007b, p. 312 [75])

The *binary code* of food that privileges constant riskiness also plays out in numerous derivations that define any absence of healthfulness as a health-related risk. The most abused victim of this logic is hedonism, where good taste and pleasurable eating become an immediate red flag of poor nutrition and overall unhealth. The rule of thumb is simple: "if it is delicious, proscribe it; if it is bland, prescribe it" (Skrabanek, 1994, p. 79). Only France and its idealized food culture seem to escape demonization of indulgence experiences when it comes to food's healthfulness (e.g., Chandon & Wansink, 2007b [75]; Haws & Winterich, 2013 [86]; Raghunathan et al., 2006 [84] ; Werle et al., 2013), even though the "myth" of obesity-invincible France (Gard, 2010) is researched less frequently than simply quoted in conclusion paragraphs. In other settings, however, taste becomes an empirical measure of risk quantitatively comparable to nutrition, i.e., the measure of health. Taste in this context is determined either by means of the food's chemical structure or by the consumers' physiological reaction to the product. In the first case, taste is a given and static quality (e.g., of high fat or sugar content), independent from individual consumers and their experiences (e.g., Mai & Hoffmann, 2015 [160]). Being perfectly calculable in vitro it completely dismisses the possibility of the relativism of tastes and individual differences in sensorial perceptions. In the second, taste is a physiological interpretation of the food input determined by previous experiences and hard-wired habits (e.g., Alexander et al., 2010 [134]; Howlett et al., 2009 [74]; Raghunathan et al., 2006 [84]; van Doorn & Verhoef, 2011 [33]; Wansink & Love, 2014 [143]), used in the sense of "an acquired involuntary attraction to specific products" (Teil & Hennion, 2004, p. 23). In both cases the taste of the food is conceptualized as independent from individual consumers' agency, from their reflection and/or elaboration of taste (cf. Teil & Hennion, 2004), from contextual variation in food consumption experiences (Zarantonello & Luomala, 2011), from their life stories that invest foods (e.g., comfort foods) with special taste-altering meanings, from social influence and changing tastes (Belk, 2012; Lupton, 1996; Warde, 1997).

Furthermore, it is still quite unclear which one determines what in the health and taste chicken-and-egg-situation. Since most Western cultures have been historically characterized by the continuous dialectic between the pleasure of consumption and asceticism, where the individual self was constructed as a negotiation between the two extremes of indulgence and self-denial, taste in the context of healthful or risky foods has a dialectical (not cause-effect) reading (Lupton, 1996; Thompson & Hirschman, 1995; Warde, 1997). As Lupton (1996) puts it,

> […] the increasing web of strategies around the prohibition of eating 'bad' foods in consumer culture tends to have the effect of heightening and valorizing their pleasures through incitement. We would not gain as much pleasure from indulging ourselves in foods that are prohibited if they were not denied us in the first place. Our 'rational' knowledge that they are 'bad' constructs our sensual and emotional experience of them as 'good'. (Lupton, 1996, p. 156)

In this way, in the continual dialectic between pleasurable and rational consumption, one simply does not have a meaning without another.

Whether embedded in taste-health dichotomy or in a more broad risk rhetoric, food conceptualizations in this discourse become paradoxical expressions of *unhealthy health*. When health is worshipped as the superior life value (Crawford, 1980), but understood through the everything-is-risky lens, consumer culture of constant risk awareness and risk aversion also becomes a culture of plummeting satisfaction with life and declining perceived health quality (Førde, 1998) despite the fact that the levels of the populations' health are objectively rising (even though global differences remain) together with gains in life expectancy and in healthy life years, improving treatment success statistics, etc. (United Nations, 2015; WHO, 2016b). Overwhelming risk aversion may lead to increased anxiety and personal uncertainty (Fischler, 1988), deprivation of confidence in foodstuffs, in expert advice, in one's own abilities to chose what to eat (Warde, 1997, pp. 31–32), and eventually to risk intolerance (Førde, 1998), which ironically detracts, rather than contributes to the goal of wellbeing. As Førde (1998, p. 1157) puts it: "A growing intolerance to risks and uncertainty is hardly the best basis for self-realisation and coping as long as uncertainty, unpredictability and risk are an inherent part of any human life that is worth living."

9.3.3. Innovative premiums' (non)differentiation

By the implication of the rhetoric of overwhelming consumer demand for healthy food in win-win discourse, marketing's mission is to satisfy consumers' idea of health through responsible products and services. Healthful food is conceptualized here as an object of ongoing innovation with the purpose to invest food with more and better utility compared to the base offerings that do not entirely satisfy consumers' health-related needs. Thinking of health in relational terms as a process and a perpetual becoming (D. Armstrong, 1995; Block et al., 2011; Östberg, 2003a), such innovation is also a continuous differentiation in the structure of available alternatives (Fırat & Dholakia, 2003, pp. 27–28, 36–39). The constant development of new products and the endless creation of new consumer desires, in Warde's (1997, p. 57)

terms, are "the essential mechanisms for the reproduction of modern capitalism and its consumer culture". A remarkable contradiction is that while food is considered among the toughest habits to change (e.g., there are instances of immigrant communities that stop speaking their mother tongue but nevertheless preserve preference for their culture of origin's cuisine (Belk, 2012)), the invention of new food consumption traditions, with commercial gains of course, and the resulting multiplication of choices has also become an integral part of modern consumer culture and consumers' "obligation" to experience new pleasures (Warde, 1997).

In the logic of differentiation and ongoing innovation, new foods by their very nature of novelty get better than the old products as by going beyond the previous standard, they also deny the old normal. Ironically, novelty sometimes might stand for material or symbolic return to tradition. So the mechanism of food products' evolution on healthfulness in win-win terms, the so-called healthification, is about offering new healthier versions of the old(er) base version of the same or similar foods. Considering that the change in the category occurs with the speed of light, "old" is not so much a temporal category as qualification of a product as not offering enough of differentiation. Oversimplifying, if previously discussed simple solutions discourse frames all food as risky and unhealthy, win-win accentuates hopes and promises (instead of fears and anxieties) and states that any food can be healthified. Healthfication's intention is to reduce the feeling of guilt consumers experience when facing a moral obligation to limit consumption in the name of health, while giving industry an opportunity to turn the unappealing, prohibitive, and normative "do not eat" recommendations into "sensible swaps" (a term used by Kraft's CSR strategies, cited in Herrick, 2009, p. 58 [132]), which allow consumers to eat healthier and evolved versions of foods. In other words, healthful food is conceptualized as a (*guilt-free) cake* that, very literally, you can have and eat it too; a cake that, by denying the old idea of incompatibility of (health) utility and (consumption) pleasure, serves an all-satisfying solution.

Compared to articulations of food healthfulness embedded in nutritionism, healthful or risky food conceptualizations based on differentiation are characterized by a more practical and positive grasp on the nature of food's health benefits. Foods' healthfulness here is fluid, relative, contingent upon consumer perceived value, and subject to ongoing destabilization of product features, taxonomies, and markets in quest for differentiation. In such conditions health quality moves away from a specific product's composition and directly noticeable immediate effects into far-fetched future consequences of consumption and consumer lifestyles.

Brennan, Eagle, and Rice (2010) conceptualized health as a "luxury good", highly desired, yet hard to obtain due to expansion of risk awareness and shrinking of what can be commonly considered as free-of-risks. The win-win discourse quite literally translates the "luxury good" metaphor into a premium-priced product category: differentiation by health is also an expectation of a higher price (and higher profits):

> "Our conceptual model (see Fig. 1) assumes that an organic claim affects WTP through product perceptions, though we also allow for a direct effect based on several rationales. First, **the organic claim may function as an additional product attribute for which consumers are willing to pay extra**. The claim enables the manufacturer

> **to charge a price premium because it differentiates the product from other products**. Studies published in agricultural journals reveal that consumers are willing to pay higher prices for products with organic claims (e.g., Davies, Titterington, & Cochrane, 1995; Loureiro & Lotade, 2005). In addition, **consumers may accept that the production of organic food demands higher costs** (Byrne, Toensmeyer, German, & Muller, 1991), resulting in a higher WTP." (van Doorn & Verhoef, 2011, p. 168 [33])

> "Healthy foods are defined as lower- calorie, nutrient-dense foods, whereas unhealthy foods are higher-calorie foods with lower nutrient density per serving (Drewnowski 2010). **Healthier foods cost more per serving and per calorie** (Drewnowski 2010), but when healthy food prices are lowered, the purchase and consumption of such foods dramatically increases (French 2003). Thus, consumers may forgo healthier foods to save money rather than merely because of their taste preferences for less healthy alternatives (Raghunathan, Naylor, and Hoyer 2006)." (Haws & Winterich, 2013, p. 49 [86])

> "Most restaurants offer a wide range of healthier, lower-calorie options – salads, calorie-free drinks, vegetarian side dishes – **that are also equally or more profitable than some of the more frequently ordered menu items, and these healthier items are becoming increasingly popular** – especially those which are "slightly healthier" versions of favorite recipes (Wansink, 2014a,b)." (Wansink & Love, 2014, p. 137 [143])

> "Higher lean-to-fat ratios and some non-food ingredients generally **raise the cost of manufacturing low-fat products** (Solheim and Lawless 1996; Bower et al. 2003). In the case of some low-priced products, for instance, **potential buyers with low purchasing power are liable to be less health-conscious**, so that any further price rise due to fat reduction is more likely to deter them (Colmenero 2000). It has been estimated that the new product may be anywhere from 10 to 30% more expensive compared to its full-fat counterpart, but this drawback may be offset by the fact that growing numbers of consumers are interested in reducing their fat intake and so may perceive **low-fat products as better value for money** (Colmenero 2000)." (Krystallis & Chrysochou, 2011, p. 215 [91])

The widespread use of consumers-willingness-to-pay argument (e.g., Chang et al., 2012 [234]; K. H. Lee et al., 2015 [28]; van Doorn & Verhoef, 2011 [33]; Van Wezemael et al., 2014 [13]) suggests that the differentiating innovation necessary for the food's healthfulness is likely to be controlled by affluent groups of consumers with higher purchasing power, for whom the consumption acquires its value also due to the fact that it is superior to the offerings consumed by other people (Alvesson, 1994, p. 298). According to the underlying economic logic, it is perfectly fine for the system to deliver the added benefit of health only to some individuals, as long as the less privileged consumers are left with access to the base-level products (i.e., are not worse off, following the Pareto optima (Fırat & Dholakia, 2003, pp. 27–28)). Whether or not such a situation is fair from the social perspective of pressuring health imperative is a subject of continuous public debate, yet it's unlikely to be resolved as long as healthfulness is treated as a value-added differentiator in a choice setting.

The comparative framing of the healthful food concept as *healthier than a base* clearly defines the type of realtionship and meanings that link alternatives in the market setting. The meaning of healthier products is to problematize the alternatives that do not articulate any health-related quality. While most foods are in fact neither healthy, nor unhealthy, but are just foods (Campos, 2005; Colls & Evans, 2008, p. 617 [7]; Gard & Wright, 2005 etc.), the mere presence of foods explicitely labeled as healthier makes the rest seem like underachievers and thus risky. *Risky food* in such conceptualization is a product that misses the opportunity to identify and clearly communicate the food's health benefits or to healthify the product through material (e.g., reformulation) or immaterial (e.g., branding) innovation. Consumer environments where increasing visibility of the healthier segment silently problematizes the risky un-evolving base products intensifies the need for healthful foods and by doing so guarantees a never-ending cycle of product innovation and markets' differentiation (Lezaun & Schneider, 2012). In light of this silent problematization of any other (base-level) food, producers' sincere motivation to healthify their products, improve the market, and cater to

consumers' unmet needs eventually may be contributing to producing the unintended and overlooked collective result of consumer pathologizing, creation and exploitation of irrational health concerns in consumers, distortion of health-related knowledge, and overall desensitization of health due to overly pervasive health messages (Anker et al., 2011 [41]).

9.4. The concept of health

As we mentioned before, the definition of health in medicine has been a challenging philosophical task since the times of Hippocrates. An "official" World Health Organization definition of health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1948) attempted to challenge the massive prevalence of understanding health as the "absence of disease" in 1948, but it still remains highly questionable as it is criticized for being overly ideological, unrealistic, and not separating health from other abstract notions, such as happiness (Ustün & Jakob, 2005).

At the same time, it is hard to contest that in many senses the word "health" has become a keyword transcending the realm of medicine. A multiplicity of experiences of good living are now described using healthy as a qualifier. In Skrabanek's (1994, pp. 137–138) terms, health has become a "scientific equivalent" of such values as happiness, sense of purpose, self-esteem, work satisfaction, creativity, resilience, stress resistance, confidence in future, commitment, etc. As a metaphor of good life, the social construct of health spreads across various cultural experiences and social structures: "Health may be reasonably described as a social cynosure, a meaningfully and emotionally charged fixation – both a goal and a source of anxiety, a value for self and others, integral to identity, a state of being that is continually assessed and the organizing concept for a vast organization" (Crawford, 2006, p. 404).

So while most can agree that "absence of disease" is too narrow to define health, the all-inclusiveness of the concept is not satisfying either because it makes health stand for everything, but at the same time for nothing. Ironically, our excavation in search for a positive, not-just-absence-of-disease meaning in the context of food consumption and marketing still requires us to talk about health using the oppositional constructs of risks, and more specifically *risks of unknown* (for nutri/edu discourse), *risks of uncontrollable* (for simple solutions discourse), and *risks of outdated and unavailable* (for win-win discourse) to describe the dominant conceptualizations of health in marketing discourse.

The concept of health articulated in marketing discourse is useful not only as an abstract understanding of the idealized vision of a "good life" and problem-free consumption, but as an explanation of principles that drive everyday consumption and marketing work in the health and food domain, the principles that integrate with marketing ideology and shape the market ideology in and beyond food.

The selected conceptualizations that we explain here may not represent the exhaustive account of concepts and thematic choices around health, but they do highlight the most

significant and, to our view, expressive aspects of the meanings of health as it is employed in dominant marketing discourses.

9.4.1. Invisible body: Fighting the risk of unknown

In line with the metaphor of the mind, the concept of health characteristic of nutri/edu discourse is discoverable in the tension between the reasonable (mind) and the irrational (body). If we consider that a sickness is "a marker of the body 'taking over' reason, revealing the essential nature of the body as fragile and mortal" (Lupton, 1995, p. 9), we can expect that the opposing notion of health is entrenched with mindfulness. So, from this perspective, health can be understood as the state of keeping the *body invisible*, of preservation of phenomenological state of "bodily disappearance" (Leder, 1990 in J. M. Cronin et al., 2015, p. 1907 [8]) when we are not aware of our organs perfectly performing their functions (Skrabanek, 1994, p. 15). It is this state of invisibility and unawareness that ensures that the steering wheel of control over everyday life is in the hands of the rational mind.

Besides the individual experience of body becoming uncontrollable in sickness, and thus more evident as a "separate" entity with a life of its own and requiring a complex of attention and work, the visualization of body as a sign of health can be of a more social and symbolic nature. Historically speaking, before the spread of bacteriology and germ pathogeny theories, medical thought has long relied on the visible and olfactory (e.g., humors, miasma) cues in identifying agents of illness and contagion, such as physiological or social (i.e., "otherness", race) filth (Lupton, 1995). In today's medicine, unhealth (illness itself and health risks) is generally more individual-centric and more invisible, making the very essence of (in)visibility and (non)odor of the unhealthy body more intricate. Obesity epidemic rhetoric can be thought of as a process of *hyper-visualization of the body* on social and relational levels: the larger and more visible the body (and the body of the obesity statistics) becomes, the farther away we as a society deviate from the ideal of health. BMI as a language is instrumental to visualizing the body, any body of anybody, so that even an unproblematic and otherwise asymptomatic body can be labeled and made more evident to the self and to the population sciences. Explanation of food's chemical composition by means of functional nutrition, i.e., the role of nutrients in bodily functions, is also a means to visualize how the body works separately from the mindful, sensual, or social experiences of eating. After all, visualizing the body as a combination of cells, organs, processes, and functions (even if they overlap) "enlarges" the body[74], giving it more visibility and "weight" in the way we think and talk about it.

In line with understanding health as a state of invisible body, preemptive health principles need to overemphasize the mind over embodied experiences in nutri/edu discourse. So, health-promoting strategies of consumer education, labeling and "food reading", idealization

[74] To illustrate the point, let's go back to an example of Heribert Watzke's TED Talk we mentioned earlier. His inspirational account of the gut-brain interaction uses several rhetorical devices that "enlarge" the body by discursively increasing the size of its parts: e.g., the gut is being compared to the cat's brain in terms of the number of neurons; to the length of a tennis court – if it can be stretched, and 400 sq. meters of surface – if it can be unrolled together with all the folds (Watzke, 2010).

of informed choice, hyper-specific focus on microscopic nutrients in defining food's healthfulness, etc. are all compatible with the objective of legitimizing the invisibility of the body, despite an apparent paradox that the actual treatment requires bodily responses (Lupton, 1997) and that consumers' actual food risk management strategies involve "finding principles and products that resonate with the embodied experience" (Kristensen et al., 2013, p. 251).

The main underlying idea behind health as an invisible body concept is that the forces of nature affecting the body can be resisted with the help of knowledge, which is an idea deriving from technocratic legacy and the Enlightenment ideal (Thompson & Hirschman, 1995, pp. 144–145). According to Lupton's (1995) historical analysis of public health discourses, the very idea of health as a "positive tenet which could be attained, preserved, and even recovered with the aid of a proper life style, public and personal hygiene, and the aid of medicine" (Risse, 1992, p. 195 in Lupton, 1995, p. 22) is a product of the Enlightenment. Previous conceptualizations rather subscribed to impotency to control faith and, eventually, health and death. In a way the new "positive" attitude to health was a reaction, guided by the intellectual climate and scientific developments, against unquestioning religious beliefs and in favor of rationalization, progress of human thought, scientific insights, and education in dealing with the unknown, which is the approach that has been preserved to a large extent until today (Coveney, 2006; Fitzpatrick, 2001; Zola, 1972, 1977 etc.). As Lupton (1995) puts it,

> In this secular age, focusing upon one's diet and other lifestyle choices has become an alternative to prayer and righteous living in providing a means of making sense of life and death. 'Healthiness' has replaced 'Godliness' as a yardstick of accomplishment and proper living. (Lupton, 1995, p. 4)

Yet, in replacing the belief in the supernatural with the voice of reason, the very essence of faith as a strong and unshuttering belief in things not necessarily requiring first-hand material evidence, remains a strong feature of the health concept in nutri/edu discourse terms. Dedication to managing health via nutrition, however scientific and rational it may sound, is also a form of moral behavior (Coveney, 2006), largely driven by a belief that doing the "right" and "proper" thing today will be rewarded in the unknown and unforeseeable future.

9.4.2. Adaptability: Controlling the incontrollable

As we mentioned before, the "official" definition of health (WHO, 1948) has been subject to criticism for the past 60-plus years, so various groups of doctors, researchers, and healthcare professionals attempted to bring attention to the need to change it. One such group has proposed to define health in dynamic rather than static terms, and thus offer a more modest, yet practical interpretation of health as individual, medical, and societal mission (Huber, 2010; Huber et al., 2011). The WHO definition, according to this critique, does not define health, but "superhealth", i.e., extreme exuberance and happiness, "the sort of feeling ordinary people may achieve fleetingly during orgasm, or when high on drugs" (Skrabanek, 1994, p. 42). In light of chronic diseases and an ageing society, they further claim, health cannot be

described any longer using the word "complete", as in the WHO definition or as the Old English etymological meaning of health as wholeness implies. Instead, they propose, based on 1943 Georges Canguilhem's work in philosophy of science (The Lancet, 2009), to define health as "the ability to adapt and to self manage". Given that the simple solutions discourse is based on a similar premise of impossibility of completely risk-free consumption and food choices, the concept of *adaptability* very well articulates how the concept of health is constructed in this discourse.

In the conditions of constant risk, health becomes the capacity to cope with the inherently risky environment, intrinsically flawed decision making capacity of individuals, the imminent gap between true and false needs, inevitable perception biases, etc. Ideally, coping should rely on an interaction between mind and body, between mindfulness and impulses, and between self-control and small "mindless" tricks. Viewing health as adaptability is a modest and practical conceptualization of health, prioritizing the ability to bounce back from imminently unhealthy conditions and behaviors.

An implication of health as adaptability is a dynamic frame of reference that balances health between the reality of limitations and opportunities. This frame is well illustrated by a "maximizing healthy life years" initiative by World Economic Forum, which promotes involvement of private sector in health-related market offerings (WEF, 2015). In distinguishing between life years and healthy life years, this initiative implies that health is "counted" as a *subtraction from a whole*, rather than a possibility to add. Every individual has a certain lifetime potential—i.e., a certain number of years to remain in life, which is subject to many dynamic forces, including genetic predispositions, uncontrollable fatalities, progress of medicine, and the overall social trend of life expectancies. Within the total number of life years, not all years are equal to others. Some of them can be quite unproblematic from a health standpoint, the others, not so much. The healthy lifestyle here is a means to minimize the difference between one and another, because this is the only aspect that has a (even the slightest) chance to be controlled by an individual within the limitations of the overall lifetime potential. Increasing the overall number of years is rather a matter of genetic luck and societal progress more than of individual responsibility in risk management. So, however variable an individual's health (and healthy years) prospect might be, it is always a function of the best probability within the frame of dynamic limitations.

The apparent paradox of the adaptability of health is that in many occasions health thrives in the context of severely constraining limitations than that of open opportunities. In various instances in the research a more vivid focus on limitations increases consumer motivation and amplifies self-regulatory strength leading to more positive behavioral outcomes (e.g., see Ma et al., 2013 [82]; Trudel et al., 2015 [216]). This is most evident in the case of individuals who have received a diagnosis of a lifestyle disease requiring a life-long modification of their diets, or those who perceive themselves as sick (e.g., avoiding gluten on the basis of self-diagnosed gluten sensitivity), as they tend to exert more self-control and dedicate themselves more to the pursuit of health through food choices. In the same line of thinking, greater freedom (e.g., market of low-fat substitutes of higher fat foods) leads to less successful coping (i.e., the phenomenon of the low fat paradox). So framing every food and every consumption situation

as a very probable danger does help increase the motivation to self-regulate by creating a narrower range of options, within which to cope, adapt, and self-manage. Yet, on the other hand, the dynamism of constant multiplication of health dangers articulated by numerous expert systems and moving of signposts signaling risks keeps making this range more and more narrow, almost inexistent, leading to an escalating spiral of anxiety and control (Crawford, 2004). The ability to cope within the disproportional expansion of limitations and shrinking of opportunities becomes illusive, resulting in a paradox of growing health insecurities, and therefore intensification of inability to choose between dangers (Beck, 1992; Giddens, 1991; Sulkunen, 2009) and growth of sacrifices for the sake of the (unattainable) health ideal.

Therefore, health as adaptability is also the conceptualization of ongoing work in detecting new challenges in the changing physical, social, and environmental surroundings, as well as in the developments of internal emotional and instinctive abilities and responses. So, it is the capacity to orientate before it is to cope. Besides, this is a conceptualization that locates health within an individual and his/her behaviors of self-management, treating the system of social, political, and economical determinants of health as simply determinants of the frame of limitations.

9.4.3. Costs: Investment for perpetual improvement

Within benefits vs. costs framing typical of economic evaluation of options in marketing discourse, the use of health, paradoxically, falls into the category of *costs*: compared to the simpler, cheaper, tastier, etc. alternatives, healthful food consumption and/or production is a sacrifice on a financial or an opportunity costs level. Ironically, in the actual terminology used in the marketing texts, health remains a "benefit"; however, the way it is used resembles losses more than gains, unless this cost is instrumental to something else, in which case it gets framed as an *investment*.

Health as a cost has a number of readings. From a public policy standpoint, the pursuit of health is a substantial category of governmental spending. The implied (macro)economic logic is that the health of citizens is a necessary price to pay for sustainable socio-economic growth, achievable thanks to increased productivity, consumption, and (re)investement into the economy by healthy workers, consumers, and taxpayers (WEF, 2015). In the context of food choice, health information processing is a difficult and costly (e.g., in terms of time and effort) engagement. Health is also a cost of sacrifice of other benefits such as convenience, taste, availability, affordability, satiation, fun, etc. This is the reason why healthified market offerings that provide consumers with multi-benefit solutions require a very literate increase in (cost and) price.

Yet health cost in the win-win discourse is not supposed to be a sunk cost, but to be instrumental to moving towards a "favorably looked upon future state" (Östberg, 2003a, p. 131). As an investment cost, health becomes an instrument of maximizing future potential to

achieve a whole range of individually and/or circumstantially defined needs. Being a base-level prerequisite for other life projects, the meaning of making an investment into health is to cash in the return on investment one day in the future. Health as an investment, like a financial investment, does not have to be secure to fulfill its purpose. Investment can be shrewd and meaningful to the investor him/herself, whether this means making a safer (e.g., mainstream health recommendations, familiar and popular healthy nutrients) or riskier type (e.g., alternative expert systems' advice, newly discovered benefits or exotic food ingredients) of commitment.

In the broader public discourse on health, consumerism and uncontrolled consumption lead to health risks. In the win-win discourse, where costs and benefits are flipped, avoiding consumption is no longer the price to pay for health, but the contrary. Consumption is part of a solution, where health is a subject of (future) profitability for all actors involved. The unfortunate implication is that making a profit requires first making an investment: more profit means more investment. This is the mechanism that dictates the need of perpetual improvement when it comes to health as investment into consumer life projects and food marketing opportunities.

9.5. Conclusions: Critical vocabulary

The constructions of consumer, food, and health discussed in this chapter are underpinned by the mobilization of ideology of healthism as a neoliberal project and further reinforced by marketing ideologies. According to Eagleton (1991, p. 60), naturalization of ideology converts the controversial into obvious. What we tried to do here is to unpack the obvious and show the controversial within.

Focusing only on the three main concepts of consumer, food, and health has served as a window to uncover, through connotations, semantic relations, and "unsaid" oppositions, the full critical vocabulary of three discourses about health and food in marketing. Individual meanings from this vocabulary served as building blocks in this chapter's discussion and are merely better organized in a more structured form in Table 9.1.

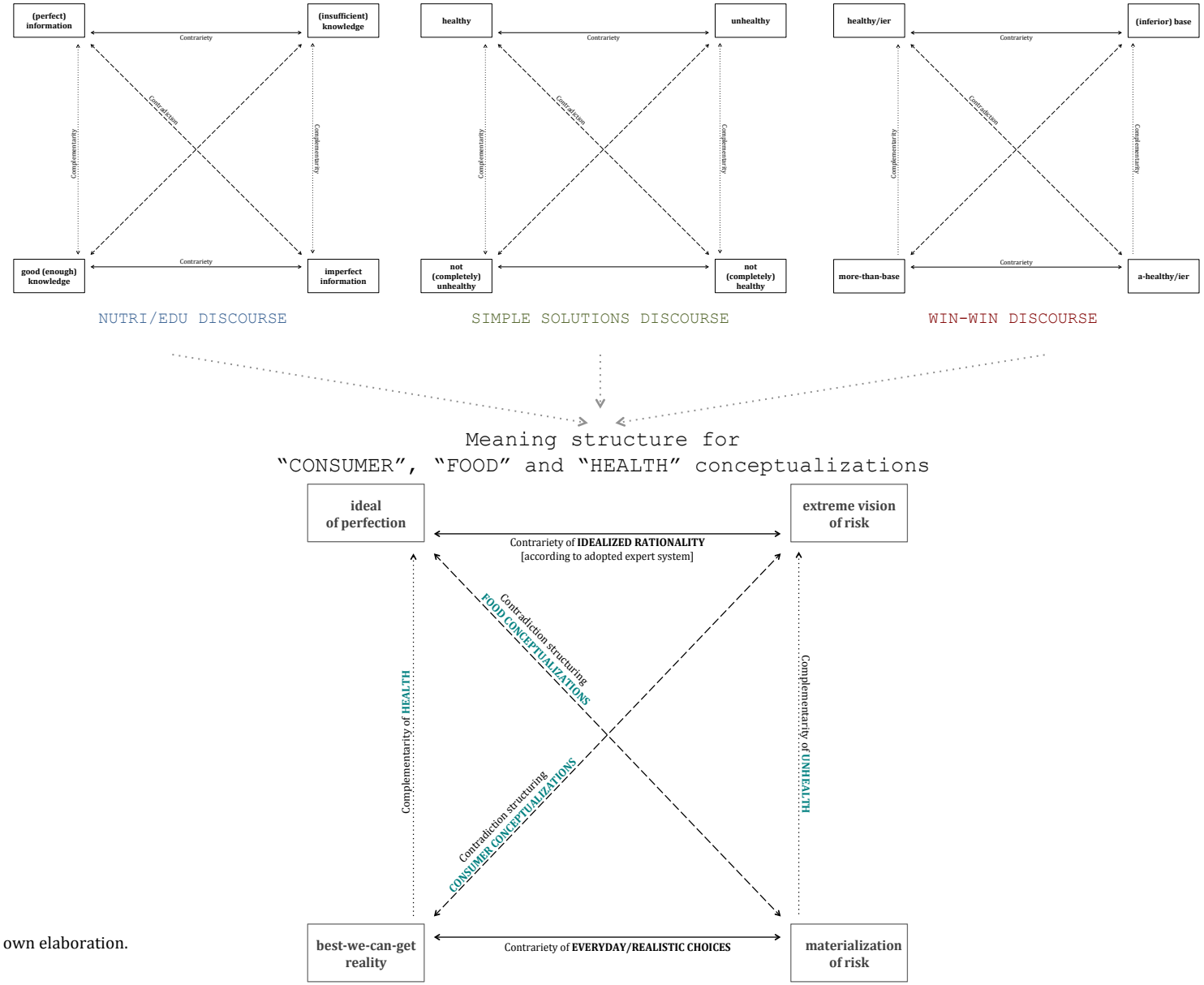
We should emphasize that alternative meanings, which go beyond these triple-headed conceptualizations, exist, but not within dominant discourses. For instance, a concept of an "extended consumer" in health context, i.e., the consumers' family, caregivers, support groups, and social network (J. M. Cronin et al., 2015 [8]; J. Cronin et al., 2014 [147]; Logie-MacIver & Piacentini, 2010 [157]) is an interesting, health-wise promising, and underdeveloped conceptualization in the food marketing context. Similarly, conceptualizations of food and eating in more holistic and abstract terms (e.g., variety, relaxedness, routine, culture, traditions (Bouwman et al., 2009; Chrysochou, 2010a; Chrysochou et al., 2010; Kristensen et al., 2010; Luomala et al., 2006)) in alternative to nutritionism is still understudied. Future research, in fact may focus on bringing together the "alternative" vocabulary to complement the dominant meanings presented here.

Table 9.1. Critical vocabulary of three dominant discourses about health and food in marketing.

	NUTRI/EDU	SIMPLE SOLUTIONS	WIN-WIN
Structuring dichotomy	Information vs. knowledge	Healthy vs. unhealthy	Healthy/ier vs. base
Consumer metaphor	Mind	Body/Gut	Group/segment
Regular consumer	Illiterate dupe (yet educatable) Good student	Simple nature consumer Creature of evolution Nutrition slaves	Large consumer segments with growing interest to do anything about health and yet unrealized potential
Ideal consumer	Expert consumer (sovereign and well informed, rational, acting in a calculated and informed manner)	Well-disciplined consumer (self-aware of his/her own inherent bounded rationality and exerting enough self-control over making correct healthy choices by applying a combination of mindful and mindless disciplinary acts)	Trendsetter (radical, informed consumer idealized by regular consumers)
Market actor stereotypes	Consumer-protecting policymakers Dupe consumers Evil marketers	Outdated policymakers Animal(ized) consumer with poor will power Marketer as a magician	Policymakers as parents of teenagers (could give pocket money and a lift, or bust a party) Consumer as a king Marketers as servants of all market actors' interests
Health location (in food)	Food composition (hyper-specific)	Food groups	Food markets
Health location (in consumption cycle)	Pre-consumption, choice setting	Consumption and immediate outcome	Far-fetched consequences of consumption
Health food normalization	Compound of beneficial ingredients Credence good requiring "information remedy"	All food is risky (mis)perceived healthfulness, as compared against objective expert judgment	Any food can be healthified Fluid, relative, contingent upon consumer perceived value, ongoing destabilization of product features and categories in quest for differentiation
Principle for food improvement	Consumer (conscious) need	Gap in consumer want and (unconscious & true) need	Consumer demand
Healthy consumption ideal	Enlightened / "Learnt" consumption	Mindless consumption	Proactive consumption
Information remedy	Objective and truthful	Mindless Behavioral	Simple
Articulated political rhetoric	Democratic liberalism	Libertarian paternalism	Laissez-faire capitalism
Tension of (un)health	Mind vs. Body	True vs. False needs	Satisfied vs. unsatisfied needs
Risk	Risk of unknown	Risk of uncontrollable	Risk of unavailable
Health concept	Invisible bodies Resisting the forces of nature that affect the human body with the help of knowledge	Adaptability Ability to adapt and self-manage within inherent unhealthiness of food	Cost and investment Moving towards a more favorably looked upon future state Perpetual innovation Meaning and purpose in life
Expert system	Nutritionism	Behavioral nutritionism	Biopolitical marketing

Source: Author's own elaboration.

Figure 9.3. Structure of meanings of consumer, food and health conceptualizations in the three marketing discourses.



Source: Author's own elaboration.

As we've demonstrated in this chapter, all the concepts are dialectically constructed within a set of oppositions and contradictions: model vs. regular consumer, healthful vs. risky food, and health vs. unhealth. Within each couple of dualistic concepts, one of the elements has a controlling, dominant status, while the other is used as an opposing and complementing reflection of the controlling concept (Thompson & Hirschman, 1995). It is the more alarming and more problematic concepts that often play the mobilizing and dominant role in marketing discourse about health and food. However, the presence of the reverse, less risky conceptualization, is indicative of the continuum constructed in marketing discourses. It is only by looking at both extremes that we can truly grasp the enduring principles behind each conceptualization, because the constructs on the opposing ends co-produce one another.

Going back to the structures of meanings presented in the form of the semiotic squares in the beginning of this chapter (Figure 9.2), we can now try display a "meta" semiotic square summarizing on a more abstract level the logic, with which all three discourses construct the meanings of consumer, food and health (see Figure 9.3). The elements in the top row of the "meta" semiotic square (bottom part of Figure 9.3) represent how marketing discourses construct the main tension in healthy food marketing and consumption in *idealized and abstract* terms*.* The elements in the bottom row show how the idealistic concepts are amended to deal with *realistic* market settings and *day-to-day mundane* consumption. The elements on the left side correspond to what's discursively presented as *rational and "correct"* under the adopted expert system, while those on the right – what's *irrational and* "*incorrect"*. Thus, complementarity of the elements of the left vertical axis reveals the vision of *health conduct*, while those of the right vertical axis shows the relationship of complementarity leading to *unhealth*.

Contradiction between the expert-conforming ideal ("ideal of perfection") and the irrational reality of negation of expert advice ("materialization of risk") more typically structures marketing's conceptualization of (*healthful vs. risky) food product*, due to the fact that dominant marketing discourses tend to invest food with transformative health properties and view food (rather than consumer or food consumption) as a more directly controllable element. On the contrary, the contradiction between an expert-conforming reality ("best-we-can-get reality") and abstract idea of irrationality ("extreme vision of risk") is characteristic of conceptualizations of *(model vs. regular) consumers* because of the persistent opposition of producer/marketer and consumer in marketing discourse in general.

The notions of consumer, food, and health re-conceptualized and discussed in this chapter are useful not only as very abstract and theoretical concepts. They in fact can help better understand and explain some of the principles that guide "real" academic work and marketing and consumption practices. These principles can also help us better see through some of the obvious paradoxes of the health and food domain (e.g., low fat paradox, price-related credence issues, if organic is healthy, etc.). Now, this might not help resolve these paradoxes once and for all, but a better understanding would surely help in discerning the elements responsible for contradictions, which, hopefully, can help marketing and consumer research move in the direction toward an individual and collective holistic "food well-being paradigm" (Block et al., 2011).

10. Discussion: Ideological functioning of health in marketing discourse

In the previous chapters reporting on data analysis findings we identified three discourses about health and food and looked at the components of existing taken-for-granted knowledge about health in food marketing and, for each, examined not only the "visible" explicit meanings, but also "opaque", more implicit, underlying assumptions and discussed their consequences for scholars, market actors, and consumers. In this chapter, we are taking a step back and trying to provide a more general discussion on the function of health in marketing discourse. Health food is not only an object of marketing and consumer research, it is used as a powerful argument that holds together the value system and invests marketing texts with functions and meanings that evidently transcend the domain of food. After a brief introduction, we will discuss five functions of health, or "health halo" effects, in marketing discourse: moralizing, market-binding, (dis)empowerment, industry legitimation, and marketing (re)branding effects.

10.1. "Health halo" effects in marketing discourse

Health has become so tightly connected to food, that it feels omnipresent in the food marketplace and, naturally, in food marketing research. Let's consider one particular example of such research—a 2006 *Journal of Marketing* article by Chandon and Wansink (2006 [79]) entitled "How Biased Household Inventory Estimates Distort Shopping and Storage Decisions." The article investigates the problem of inventory estimate bias that, due to the inelastic psychophysical power function of inventory estimates and adjustments, leads to consumers' overestimations of low levels of inventory and underestimations of high levels. Since it is not actual inventory levels, but biased inventory estimates that drive purchase incidence, consumers end up with either excessive or insufficient actual food storages, thus leading to problems of food waste or distressing stockouts (i.e., unmet demand). To improve the elasticity of inventory adjustments and thus the accuracy of average inventory estimates, the authors suggest increasing the visual salience of inventory (e.g., storing food behind glass cupboard doors, in transparent containers, at eye level) or to anchor perception levels to the average levels of inventory (e.g., inventory of a "typical" family).

Food waste is, of course, a very important and timely social and economic issue (FAO, 2016), which also has a number of marketing implications. For instance, expiration date labeling, which by definition is concerned primarily with consumer protection and food safety, also results in temporalization and standardization of consumption (Yngfalk, 2016) and eventually in food waste increase (Gunders, 2016). A number of initiatives today try to overcome the unfortunate negative consequences of expiration date labeling and challenge existing food production, regulation, marketing, and consumption practices. Denmark has become known as one of the leaders in food waste reduction initiatives thanks to various businesses and organizations that offer alternatives to the current status quo: a recent opening of an anti-waste supermarket, WeFood, is one of the most publicized, but not the only example

(Overgaard, 2015; Russell, 2016). On regulatory level, many European governments now, following the early example of France (Chrisafis, 2016), focus on passing laws to decrease food spoilage in supermarkets, forcing retailers to re-think their strategies and everyday operations. Digital technology solutions, mobile applications, and web platforms are being created to allow a range of market actors to engage in food re-distribution, sharing, donation, business process optimization, and information circulation, for the sake of helping to reduce food waste (Corbo & Fraticelli, 2015).

But what about the main topic of our discussion, health, and its connection to food waste and inventory biases? How did research on biased household inventory by Chandon and Wansink (2006 [79]) end up in the pool of articles on *health* in the context of food?

Well, the article made it through all the selection rounds because its abstract clearly states that "the model and the results offer new insights into accelerating the consumption of healthy foods" (Chandon & Wansink, 2006, p. 118 [79]), thus making this paper extremely relevant to the topic of our study. However, excluding the repetition of the same line in the end of the introduction section on p. 119, the next time the topic of health is actually brought up is on p. 134, the very last page of the article in the closing section dedicated to implications for managers and consumers.

Without trying to undermine the quality or results of this very insightful research, we cannot help but ask: Why was it necessary to reduce the implications to healthy foods, as opposed to discussing the implications for all perishable and high turnover consumer goods (e.g., toiletries, cleaning products, OTC medicines)? Why did an article that functioned perfectly well for 16 pages (out of 18, including references) without obesity epidemics, lifestyle disease, non-compliant sick population, poor diet, or any other health-related topic, have to focus to such a large degree on implications of waste and stockouts *specifically* for healthful foods?

The explanation provided by the authors that "healthful foods, which are often more perishable than less healthful ones" (Chandon & Wansink, 2006, p. 118 [79]) is frankly not satisfying. An article in such a widely circulating journal as the *Journal of Marketing* would more likely want to discuss how its findings can be applied on a larger scale, for a larger selection of products and consumption contexts, as opposed to going only for the most "extreme" cases. A more plausible conclusion is that bringing in health is done with an eye towards the greater goal. For example, in this particular case, the connotation of societal benefit built in the notion of health may make the results appear more morally noble and reaching beyond the benefit of sales promotions optimization for retailers and manufacturers, which presents the implications as a "win" for individual consumers and society at large in addition to the industry actors. Health rhetoric may also help connect several existing public discourses (of responsible eating, of responsible spending and stocking, of food waste, etc.) together for a stronger legitimation of the proposed implications and solutions. Greater political visibility of health may also be useful to obtain public (as opposed to private) research funding—a plausible hypothesis that we can neither confirm nor disconfirm since the article does not cite where research funding comes from. Finally, going beyond this one text and looking at the research profile of the two authors, we may reasonably presume that

the choice of accentuating health may have been guided by the desire to strengthen the researchers' personal brand, considering that Pierre Chandon and Brian Wansink are world-leading experts in healthful food consumption research targeted at "invent[ing] healthy eating solutions for consumers, companies, and communities" (Cornell University Dyson School, 2016). Moreover, a relatively short implication section (less than a page compared to 16 pages of the main body of the article) provides both authors with the space to multiply citations of their previous work (4 out of 7 total self-referential citations for Wansink, and 2 out of 3 for Chandon), which is a very pragmatic instrument for personal brand (of research) strengthening, as well as for incrementing citation indices necessary for advancing research careers in today's academia.

We consider this example a good yet maybe a little too literal illustration[75] of the main point of this discussion, namely that health tends to have an ideological function in marketing discourse**.** Similar to the consumer context affected by the heuristic bias of "health halos", which leads to a disproportionately positive perception of certain products as healthier than they actually are, metaphorically-speaking "health halos" seem to be affecting academic marketing discourse as well as creating inferences infected by the "magic" quality of health-related rhetoric. Invoking the concept of health helps transcend the food domain and establish a higher level of legitimacy for the arguments about the nature of consumer choice, about marketing discipline and practice, and reinforce some of the taken-for-granted assumptions deeply-rooted in healthism.

In the remaining sections, we will discuss in more detail five types of "health halo" effect at work in marketing discourse. Namely, how particular usage(s) of the health concept leads to social construction of knowledge (and reality) that i) emphasizes moralizations around food and health, ii) intensifies neoliberal market-binding practices, iii) reinforces a paradox of consumer responsibilization and medicalization of consumer behavior creating a (dis)empowerment effect, iv) legitimizes food industry, and v) helps rebuild the brand of marketing itself, while allowing marketing researchers to gain more relevance and motivation to progress with their careers.

10.2. Moralizing effect

> All forms of consumption are morally ambiguous and problematic, whatever one's social role or position in the world system. Consuming can be constructive or destructive, coercive or free, a medium of domination or resistance, or both at the same time. These become truly moral issues because there are so many contradictory 'goods' and 'bads' where choices are not clear-cut. The one constant is that the motives and outcomes of consumption inevitably raise moral debate. (Wilk, 2001, p. 253)

75 Chandon and Wansink's article (2006 [79]) is rather an exception than a rule within the sample of papers analyzed in this work. Yet, it is not the only article that uses the topic of health sparingly in the main body of the research only to bring it "full strength" in the implications. Other, even though less pronounced cases include, for example, Desai and Ratneshwar's (2003 [115]) and Quilliams's (Quilliam, 2006 [64]) works on brand extension practices.

As the above quote from Wilk (2001) explains, the questions of morality and consumption cannot be separated. Any form of consumption can be seen in the light of moral choices. Yet, when it comes to health in food contexts, moralizing becomes even tenser, likely due to the juxtaposition of several morally intense subjects. In every society and in every historical era, food was connected to a range of moral meanings and standards (Coveney, 2006). In the modern nutrition-centric view on food, i.e., "a moral discourse alongside a scientific discourse on food", modern selves rely on problematization of food choices in relation to scientific principles to recognize themselves as moral and good citizens (Coveney, 2006, pp. 88, 93–121). Due to an everyday aspect of food consumption, the possibility (and the power) of individual choice is rarely doubted in this domain, making it especially prone to "practical translation of moral and political visions" of a different world (Sassatelli, 2004, p. 177) on the one hand, or moral cirticism of individual responsibilities and duties (2004, p. 181) on the other. Moreover, due to the culture of healthism that "turns health into the moral" (Conrad, 1992, p. 233), the immersion of food into the context of health, i.e., the universal super value encompassing "everything that is good in life" (Crawford, 1980, p. 365), heightens and exacerbates other existing moral connotations around food and consumption.

Four morality discourses at work in TCR research (morality of food items, of self-control, of body size, and of market actors) discussed by Askegaard et al. (2014) seem to span over our broader selection of marketing and consumer research publications as well. In fact, they can be thought of as elemental building blocks of morality in health and food marketing discourses, even though they can rely on different repertoires of meanings, thematic choices, and concepts.

First, morality of food items (Askegaard et al., 2014, pp. 1805–1807) produces a system of *food normalization,* according to which it is possible to distinguish foods by good vs. bad choices. Normalization of foods is articulated primarily in the choice of research objects and/or stimuli that more often than not subscribe to the binary principle. On a technical level of research execution, this is supported by the prevalence of experimental designs (57.9% of empirical studies in our sample) and surveys relying on bipolar scales (25.5%) that in one way or another employ dichotomous logic. Though several principles can be used to justify food's dichotomous distinction (nutrition calculus, absence of perception biases, current market or consumer trends[76]), any food normalization ultimately dictates standards for proper consumer conduct (lifelong learning, self-discipline, restless (re)invention of lifestyle). One of the strongest supplemental principles, remarkably popular in marketing discourse is *incompatibility of hedonism and health* probably accounting for why "gastronomic perspective is generally absent in existing food and health research" (2014, p. 1807). However, hedonism and health incompatibility is a popular (explicitly declared in at least 22.2% of articles), but not a universal morality, due to the fact that it's a particular case of self-control morality, the second type of morality discussed by Askegaard et al. (2014, pp. 1808–1811). The universal idea here is that commitment and effort of *doing the right thing*, of sacrificing something today (mental energy and time, taste and/or other impulsive cravings, money) will be rewarded in

[76] The triplets of examples in this section, unless otherwise stated, correspond to the three discourses in the order of their discussion in Chapters 8 and 9: "nutri/edu", "simple solutions", and "win-win" discourse.

the future, and vice versa—not doing anything (staying illiterate, giving in to impulses, not consuming specific and appropriate commodities) will be punished sooner or later in life. This belief is really strong not only for consumers who substitute belief in God with belief in healthy lifestyle (Coveney, 2006; Fitzpatrick, 2001; Lupton, 1996; Warde, 1997; Zola, 1972, 1977), but likely also for researchers who tend to conduct an overwhelming amount of research on health in a synchronic setting (74.2% of research designs are cross-sectional) with only a minority actually looking into long-term market and consumption transformations (11.1% are longitudinal).

The third type, morality of body size (Askegaard et al., 2014, pp. 1811–1815), is the kind of morality that translates individual everyday choices into *social consequences.* In doing so it relies on the appeal of medical language and scientific data. The reliance of marketing research on obesity and poor diet problematizations (quoted in 55.3% of article openings) is one of the most articulate expressions of this morality. In addition, BMIs of consumers are collected as an important element of many study designs, but much more rarely used in the actual discussion of findings, leading us to think that BMI is used as a form of rationalization, a technical and distant language to talk about general consequences of consumption without seemingly stepping into explicit judgments of individual character and personal lives. Though avoiding direct judgments, various discussions of societal consequences of BMIs, which use conventional arguments from the most popular public discourses, is a sign of researchers subscribing to the morality of body size with the resulting moralization of consumers' individual capacities (intellectual, self-knowledge and self-control, coherence with own declared intentions).

Finally, the fourth morality of market interaction (Askegaard et al., 2014, pp. 1816–1818), is an expression of *condemnation of the modern food production system* catering to consumer wants as opposed to providing for objective (health) needs, resulting in a relationship of opposition between health and mass consumer culture. While always present either in the forefront or in the background, this morality is continuously addressed through research, where marketing's preoccupation with health is supposed to find ways to absolve the system of production and marketing and create a "modern solution" alternative of a fairer, more sustainable, system of production and trade (Sassatelli, 2004, p. 184).

All-in-all, due to the overwhelming understanding of health as a universal value and everyday food decisions as matters of free choice, in marketing discourse health becomes a universal symbol of good and responsible behavior of all market actors, but for consumers especially. The "halo" effect of health is precisely this moral *extrapolation*, i.e., transference of judgments about single food choices' rightfulness (vs. wrongness) onto all aspects of individuals' lives and even consequences for the society. As a result, it leads to creation of elites, on one hand, and stigmatization of "non-compliant" individuals and behaviors, on the other, and thus social stigma and lower life quality for some segments of the population (Kristensen et al., 2010).

The idea that poor moral character can be visibly accessed by people's eating habits and their immediate outcomes may lead to real cases of discrimination (see Roberts & Leonard, 2015).

Though explicitly offensive or discriminatory remarks are not evident (or well concealed[77]) in our sample of marketing texts—after all, the peer review system and political correctness in academic publishing help weed most potential problems out—can we say that the academic world is completely exempt from moralizations that result in such stigmatization? In 2013 evolutionary psychologist Geoffrey Miller, an author of an influential book about consumer behavior, *Spent: Sex, Evolution and the Secrets of Consumerism*, posted a tweet saying, "Dear obese PhD applicants: if you didn't have the willpower to stop eating carbs, you won't have the willpower to do a dissertation. #truth". In response to the following Twitter backlash, professor Miller's faculty had to conduct an internal investigation to make sure that the provocative principle was not applied in practice on the actual PhD selection boards. Even though the results were in favor of Prof. Miller's past record and permitted him to keep his job, he was formally censured and distanced from future graduate admission committees. The tweet was later described as "self-promotional" and not authorized by his research institution. However, doesn't it also mean that some other (academic) writings of Prof. Miller praising conscientiousness and higher capacities of individuals with strong will power could have been based on the same judgmental principles that produced the unfortunate "idiotic, impulsive, and badly judged" tweet (Trotter, 2013)?

We have seen that the idea of economic rationality and calculus of nutrients in relation to the energy expenditures is so well spread in marketing discourse (and beyond) that no viable alternative to nutritionism seem to exist. So disinterest in nutrition label reading, despite questionable results of its actual real-life efficacy, is increasingly seen as simply a failure of common sense. With multiplication of expert systems and food tribes (Beck, 1992; Cova & Cova, 2002; Warde, 1997), *not having* a position about consumption of appropriate commodities is becoming increasingly abnormal. Translated, *a-health* position of not explicitly focusing on health in eating is framed as a risk in itself. It seems that not having a radical position about food consumption, remaining a consumer of normal undifferentiated base line commodities, is increasingly problematized as a failure of not having a defined position about health and of not pursuing strategies for health preservation, promotion or maximization. Naturally, this position stigmatizes not as much traditionalists-by-choice (i.e., a radical position in itself), but those who simply do not have a choice.

10.3. Market-binding effect

> The health of the market is heralded above all, even above the health of the people. Those who think that the market is simply a ''mechanism'' without any vested interest are, consequently, greatly mistaken. The market is an institution that has its principles and norms and practices, constituted to advance its enlargement. Maintaining and reinforcing this enlargement is inscribed in the institutional practices […] The entrenchment of the neoliberal ideology among powerful players across the world, where vocal declarations of support are no longer unusual

[77] Some of the examples we used in the previous chapters get very close to using offensively-prejudicial language, for example the use of word "*liable*" to talk about buyers' with lower purchasing power who fail to make healthy food choices (Krystallis & Chrysochou, 2011, p. 215 [91]), or referring to more nutritionally-conscious consumers as "*elite*" (Andrews et al., 2011, p. 176 [104]), etc.

> or surprising, is a strong indication of just how strong the institution of the market has become in modern culture. Almost no one any longer questions why the health of the market and its expansion should precede the health of human beings. It is taken for granted that the only means to humanity's health is through the health of the market. (Fırat, 2013, p. 81)

In neoliberal healthism, health is socially constructed by the market logic as much as by the "medical gaze" (Foucault, 1973). Yet, the market component of healthism involves an apparent paradox. On the one hand, the culture of consumerism resulting in overconsumption is antithetical to health and is commonly framed as a primary source of all modern health-related problems (see, e.g., all and every contribution in Varey & Pirson, 2014). On the other, market and consumption also constitute a modern solution to health problems: in the healthists' world the pursuit of health is primarily taken to the marketplace, where individuals can shop for conventional or alternative commodities that help them in health preservation and maintenance. Apparently, personal responsibility for health requires ceaseless production of "solutions" more than elimination of the core "problem". At least, this is how health works in marketing discourse.

Marketing discourse thus supports healthism's position of justifying consumption of health in any form. And in doing so it justifies marketing's orientation at ceaseless (re)creation of (new) market offerings in the name of health. The use of health gives researchers the license to offer almost any kind of solution: old or new, recycled or unique, well known or revolutionary, expected or original, proven or hypothetical, cheap or expensive, massive or niche, etc. Anything proposed in the name of health will do. And because the marketplace has become the most natural platform for individuals to exercise their rights and responsibilities (Crockett & Wallendorf, 2004; Fitchett et al., 2014; Foster, 2011), including their responsibility for health of course, most of the solutions are inevitably bound to the market logic and interests, i.e., to the health of the market in Fırat's (2013) terms.

The mandatory labeling policy that largely structures discourses on health in the food marketplace was conceived as a measure of consumer protection from misleading claims made by the food industry. The intention was also to better educate consumers about labels and through labels. By minimizing deliberately deceptive claims to those truthful but sometimes misleading (Hastak & Mazis, 2011), the system of labeling has also rationalized the dynamics of consumer decision-making, turning label-reading into a must in a skillset of a good consumer (even though independent from the actual attention or comprehension levels). So, the message is that educated well-informed consumers should not abstain from the market and consumption, but should arrange their shopping cart according to nutrient composition in addition to other principles such as availability, brand preferences, price, individual or family needs and wants etc. In this way, the label has also become a communication tool and a competitive lever for food marketing (Moorman, 1998, p. 82 [96]). Food industry resources and skills (e.g., establishing a connection with consumers) play out to be instrumental in ensuring that every new piece of nutrition science knowledge is communicated to the consumers in order to keep them in the game of food reading. After all, when focusing on the package or other branded information materials to process the

information on the nutrition facts panel or nutrition claim, consumers will most likely acquire other types of information that producers and marketers what them to know.

Labeling and nutrition bind consumers to market commodities in many other ways that go well beyond the food marketplace. Services involved in consumer information and education are a huge market in itself. This includes professional dieting advice, trainings and courses, books and guides, TV programs, etc. This is further complicated by an exponential growth of so-called "quantified self" technologies that help individuals keep track of various activities during the day to make a calculation of calories consumed minus energy burnt. With the spread of socio-cultural normalization of self-tracking, technologically supported by fancy marketable tools and gadgets (Lupton, 2013b), the range of activities and data tracked has expanded from specific weight-loss, dieting, and fitness to all types of everyday behaviors including eating, of course, as well as length of sleep, steps taken, flights climbed, stand hours, minutes of mindfulness, etc.[78] By seemingly working as an aid for better awareness (i.e., gathering specific data needed for more accurate energy-in/energy-out calculations) and for self-nudge stimulus to make better food choices and be more active (e.g., via gamification engagement to maybe beat one's own, spouse's, or friend's performance results), self-trackers also collect the global big data about people's behaviors. As a 3.0 form of population statistics (see Selke, 2016), it creates data-driven assemblages of new normalness, or lack of thereof, based on a specific population of gadget owners[79]. But what may be more disturbing is that this enormous amount of information is not an exclusive property of individuals, whose lives are quantified (Lupton, 2016). Neither it is of public institutions[80]. The data stored in cloud-based computing systems[81] often remain in the hands of private entities, internet empires, and owners of big data analytics technologies, which makes this information a market in itself. Already now such data is sellable to and/or sharable with advertisers, employers[82], insurance

[78] These examples are taken from the list of measurements and activities traceable with the help of "Health" app that has become an integral part (one of a few preloaded applications) of iOS, operative system of all Apple devices, since 2015 iOS 8 release.

[79] Even though the number of accessible "quantified self" gadgets are growing, the core customer is still likely to represent a limited population of predominantly US residents (BCC Research, 2015) in their 20s-30s and with higher than average disposable income (Nielsen, 2014). In this regard, critical obesity studies draw attention to the fact that statistics of obesity and body weights that established the standards for normal BMI were arbitrary and not accurate as they built correlations based on overrepresentation of a limited population statistics, i.e., middle aged men (Campos, 2005; Gard, 2010; Gard & Wright, 2005).

[80] The idea of passing individual data to governmental organizations and national statistical bureaus for the sake of better research and better statistics exists (Barrett, Humblet, Hiatt, & Adler, 2013). Currently, most trackers as "low risk general wellness devices" are beyond strict regulatory control, unlike medical devices (FDA, 2016), but the growth of "quantified self" industry and better understanding of real and potential uses of collected data might require some regulatory revisions sooner or later, at least based on experience with health claims and resulting labeling regulation change.

[81] Free-access availability of heath-related information from personal health trackers once deemed a revolution in healthcare and big data is now considered highly controversial, after all it is "like publishing your own medical autobiography online" (Weinstein, 2015).

[82] There is a growing trend of organizations encouraging their staff to be healthy via corporate wellness programs that often use self-trackers to collect employees' activity data. Such programs remain controversial. On the one hand, in some cases data collected via self-trackers helped reduce insurance payments and overall increased employers' motivation and satisfaction (P. Olson, 2016; Rothfeld, 2015). In many others they only accentuated health divides and discriminations (especially between entry-level staff and high-level management), increased moral pressures, led to backlashes about privacy issues, and created unnecessary and costly pathologizings and health risk scares (Berinato, 2015; Lewis & Khanna, 2014). The main

companies[83], researchers and/or doctors[84], to name a few. Privacy issues and a legal definition of the rightful owner of the data remain a gray area, making the scenarios in which this new commodity of global health information might be used in the future highly unpredictable.

Ironically, neither the rhetoric of emancipation from consumption or of market resistance undermines the power of the market as the most natural place for health solutions. We might think that self-discipline in eating means withdrawal from ordinary consumption, but in fact self-disciplining consumers end up in the vortex of restless scanning for risks, recognition of temptations, and attempts to manage them with the help of other commodities (think of self-trackers we discussed before, for example). According to behavioral economics principles, modification of unhealthy habits requires behavioral aids in a product form, such as substituting sugary snacks for sugar-free ones; re-stocking kitchen cabinet for smaller-sized plates, transparent containers, tall glasses, installing mirrors in the kitchen; consciously choosing a ½ sized meal for 70% of the price, etc. Self-disciplining solutions may be presented in economic logic as an overall low(er)-cost solution, especially in the long run, but in the present they cost consumers (or those who implement them for consumers) not only personal distress, but real money spent on such behavioral modification aids. After all when the loud and clear message of health promotionist propaganda (Skrabanek, 1994, p. 21) declares that all humans by their very nature are weak and hard-wired for biased decisions, it is perfectly rational that individuals would need to be helped, at a price, especially during the critical first steps.

A product named KSafe (http://www.thekitchensafe.com) is a good illustration of this point. KSafe is a time-locking container designed in accordance with the principles of behavioral economics to be a "powerful tool to build good habits". As the product's website explains, it works like this: you buy chocolate chip cookies, but know that you cannot eat them all at once, so you put them in a transparent container that constantly reminds you of them, but keeps them locked for a pre-set amount of time that you yourself have chosen to set. So, one (acquired) consumer good helps resisting another (acquired one). Just like in case of Pavlok wearable device (https://pavlok.com), which we discussed before (Chapter 8, "Rulebook of behavioral nutritionism" section), KSafe's product idea builds on an interplay of self-awareness about the need for self-discipline and about the realistic lack thereof, of rational

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concern is that under the pretext of health benefit for all, tracking may enable oppressive control of employees' lives well beyond the workplace.

[83] Some insurance companies start exchanging self-tracker data from their clients for insurance premium discounts, especially if one has demonstrated positive health and/or other behavioral metrics (P. Olson, 2014).

[84] Some medical practices encourage their patients to share their tracked food and/or activity data, which supposedly helps healthcare professionals to adjust treatment decisions with actual, not self-declared, lifestyle and thus help improve compliance and monitoring issues (Hernandez, 2014). For the same reasons, some medical research projects and trials use self-trackers to collect information about levels of activity and compliance during studies (Comstock, 2016; Dwoskin & Walker, 2014). The spread of the practice, however, is limited due to legislative boundaries (i.e., self-trackers are consumer technology, not medical device), concerns about the accuracy of the data, and low capabilities of big data analytics (Standen, 2015). Doctors simply do not know what to do with the amount of everyday lifestyle data of individuals who do not demonstrate any clinical symptoms.

mindfulness and animalized mindless craving for pleasure[85]. These products treat consumer as Dr. Jekyll and Mr. Hyde, who moves between human-state and beast-state. This example really helps to better understand the *mindful presence of consumers' mind* oxymoron of marketing discourse: the function of controlling the mindless beast-inside is really in the hands of the consumer-self, because staying on the "human side" is only possible through a mindful choice of appropriate products and services.

10.4. (Dis)empowerment effect

> I often quote former US Federal Trade Commissioner Mary Gardiner Jones who told us that "I don't want to be required to be my own expert pharmacist, mechanic, accountant or doctor." She was a lawyer by education and that, she said, was difficult enough. Yet decades later, the world is more confusing, with choices more numerous, and the dangers of errors much greater. (Rotfeld, 2007, p. 384)

> When the highly paid specialist said the decision to have a fancy medical test was up to me, I knew "empowerment" had gone too far. I was paying him to make the decisions. But he was acting like the junior partner in my health care. I might have yelled "Power to the People" in some demo 20 years ago when he was clawing his way into the Macquarie Street medical establishment, but I didn't actually mean power to me over every technical decision that would crop up in my life. I didn't seek to be "empowered" in matters that bored me, like tax, or that totally baffled me, like expensive tests. I long for the old doctor-as-God, for the expert who would tell me what to do rather than lay out the odds. (Horin, 1995 in Lupton, 1997, p. 373)

> We are told how to improve our health or reduce our risk of illness by eating properly, exercising regularly, or taking a aspirin daily. While this information empowers us, it also burdens us. If we can control our health, we can be blamed for being ill. (Yoder, 2002, p.23 in Kristensen et al., 2010, p. 360)

One of the reasons why the ideology of healthism became so widespread without raising too many concerns for it being deceptive, obscuring, unjust, or subjugating like a "normal" ideology in its classical pejorative sense would, is because the value of health and personal responsibility also produce the environment for empowerment. The benefitting properties of empowerment (through information availability, self-knowledge, and satisfaction of unmet needs) include feeling more power, control, and influence over strategies of pursuing one's better health. On the other hand, the reverse side of increased health involvement, personal responsibility and autonomy is that a failure or inability to take full control over health results in victim-blaming (for ignorance, poor will power, and choosing inappropriate commodities), and thus turning empowerment into disempowerment.

Transformation of consumer empowerment into disempowerment can be understood as a consequence of concurrent medicalization and responsibilization, two integral elements of

[85] We will leave the questions of how system 1 and system 2 (Kahneman, 2011) speak to each other to cognitive psychologists. What we want to emphasize is how marketing discourse inserts market-binding meanings into presentations of these systems' interplay and how this interplay is further materialized in the product form.

healthism. Medicalization focuses on transition of social or personal issues into the domain of medical individualism. Consumer responsibilization, on the other hand, is how healthism is enacted, how the idea of health is translated into a practical state furnishing concrete goals, motivation, prescriptions, and means of achieving them through specific behaviors—this is what Eagleton (1991, pp. 47–50) calls action-oriented ideological strategy. Clearly, a number of contradictions and conflicts arise when medicalization and responsibilization are combined together. Essentially, ongoing reproduction and fragmentation of health-related risks informed by medicalization produces the reality where space for health gets extremely limited, almost inexistent, turning consumer empowerment into an "individual pursuit of the chimera of health" (Skrabanek, 1994, p. 11), an illusion, a *pathological responsibility* for something largely uncontrollable and unachievable.

Ongoing fragmentation of risks is ideologically close to academic work at large, where construction of gaps is a necessary scholarly skill, if not a talent, that opens opportunities for research contributions and drives researchers' publications and careers forward (Locke & Golden-Biddle, 1997). So there is no one single way of how marketing constructs gaps and risks in regard to food and health. When operating at the level of a food object, the ongoing reformulation of risks has a direction towards food's smaller and smaller components, such as newly (re)discovered benefits or dangers of nutrients or their fragments (e.g., the current ambiguous status of fats deriving from its components' contradictory reputation: though unsaturated fats are known to have a less risky health profile than saturated fats, unsaturated trans fats are portrayed as more risky than saturated fats). As other science-informed risks that are otherwise invisible to the human eye, this process also continuously constitutes a consumer subject in a constant need of being informed and educated, disempowered by the fact that more education and more information paradoxically make them more aware about their own knowledge gaps and more anxious about the gap between abstract information and their subjective experiences with food (i.e., sensual pleasures, social and bonding effects of meal times, as well as cultural and emotional meanings around food). Similarly, constant multiplication and redefinition of product features, categories to chose from, systems of expertise, and product taxonomies, while serving marketers to ensure differentiation and appropriation of health value generated via consumers' productive work outside marketplace, also dilute the overarching principles for what can be considered responsible behavior and what cannot, eventually demotivating some consumers from even trying.

Alternatively, when not only food products but consumer's behaviors are put at the center of risk construction, risks (i.e., unhealthy eating) are medicalized and justified at the level of bodily machinery (i.e., craving and instincts) or hardware (i.e., hard-wired habits), (dis)empowering consumer mindfulness through mindlessness and vice versa, a process that in reality cannot separate the body and the mind, is highly self-reinforcing, and probably never-ending. As Skrabanek observed in regard to anticipatory medicine's mission of continuous screening for more risk factors, "After all we are normal only because we have not been tested thoroughly enough"(Skrabanek, 1994, p. 36).

Ongoing medicalization of every aspect of eating combined with self-reinforcing process of fragmentation of risk reminds us of Zeno's Achilles and tortoise paradox (Clark, 2011). When the path towards health through eating is repeatedly split into an infinite amount of fragments and gaps, there are no chances left that even the Achilles-consumer can ever reach (let alone surpass) the tortoise of health.

In this way, one of the functions of health in marketing discourse is a concurrent involvement of medicalization and responsibilization, consumer empowerment and consumer disempowerment rhetoric, in order to articulate an infinite series of distances to catch up before reaching a constantly moving milepost of better health and an infinite series of gaps to address with a pressuring necessity through research and marketing work. This creates a paradoxical position: while the aim of marketing researchers' work of knowledge creation is health, the "primary beneficiary of that knowledge is often the knower in terms of career progression and academic cultural capital" (Bettany, 2007, p. 72).

10.5. Legitimization effect

> To arouse an interest in new goods, it is important to advertise and to convince potential customers that they could not possibly be without them, even though they may not have realised it up until now. In the case of 'health', the task is not difficult. Everyone needs it. (Skrabanek, 1994, p. 29)

As explained by Humphreys (2014a, p. 491), legitimation is the social process of making a product, idea, or practice congruent with other pervasive cultural values, beliefs, institutions, and social norms, or, simply put, becomes commonly accepted. Whether or not food industry's involvement in health[86] is acceptable and appropriate is in fact quite a complex issue. As we discussed earlier, one of the enduring moralities in the context of food and health is built around the opposition between health and the modern food production and marketing system, catering to (unhealthy) consumer wants as opposed to providing for objective (health) needs and willing to sacrifice individuals' wellbeing for the sake of economic profit (see contributions in Varey & Pirson, 2014). This idea does not refer only to the most recent state of the food industry portrayed as the "tobacco industry of the new millennium" (Nestle, 2013); it goes back to Marxist political moralism and critique of capitalism as alienating consumers from the labor and products of thereof (Sassatelli, 2004). It also connects to the Edenic myth idealizing the problem-free natural way of living, which was destroyed by humanity's desire to manipulate nature with the help of modern science and technology, such

[86] Due to the spread of health-related positionings in the food industry, the status of healthy food in today's food marketplace is ambiguous. Market observatories and consultancies used to refer to healthy food as a massive "trend" until the early 2010s, but changed the terminology to a "category" under the (more or less) consistent name of "Health and Wellness". The category is described and economically estimated as distinct from other food industry categories such as "fresh food", "packaged food", and "foodservice" (Euromonitor International, 2015b; Nielsen, 2015). In our perspective healthism affects the social reality of consumption and cuts through the entire food market, so qualifying healthy food as a new or separate industry would not be coherent to the perspective on ideology adopted here. Yet, the tendency among marketing professionals to narrow down the number of names to refer to the healthy food phenomenon and to quantify the health-related market component in a consistent manner is a sign of growing isomorphism, indicative of the needs of increased diffusion and multilateral acceptance of health food as a social phenomenon (Humphreys, 2010a).

as industrial food production, which caused otherwise never-would-have-existed illnesses and suffering (Thompson, 2004; Ulver-Sneistrup et al., 2011). So, likely as in the past, the legitimacy of the present-day food industry in regard to health is being constantly put into question in light of circulating risk information, social concerns, popular beliefs, moral and institutional pressures, cultural norms, industry's actions and individuals' responses to them, etc.

Industries can gain or lose legitimacy over time on all or any regulatory (i.e., conformity to existing legislative norms as defined by government institutions), normative (i.e., social appropriateness and acceptability in line with dominant norms and values), or cultural-cognitive levels (i.e., integration with existing cognitive schemas and cultural frameworks on a deep, taken for granted level) (Humphreys, 2010a, pp. 3–4). Note that normative and cultural-cognitive legitimacy may be analytically distinct, but are overlapping and often blurred on an empirical level (Humphreys & Latour, 2013, p. 775). As shown by Humphreys on multiple occasions (2010a, 2010b, 2014a), archives of newspaper publications is a useful source to track down changes in general levels of legitimacy of certain ideas, industries, and practices over time, in that as a public discourse it shapes and is shaped by the social reality. As another component of public discourse, marketing research also plays an important (and not impartial) role in legitimization shifts in food industry practices' judgments. The topic of health in marketing discourse in fact activates legitimizing (or delegitimizing) frames to question food industry's past and current state and, more importantly, imagine future (legitimizing) scenarios informed by the research.

The food industry's involvement into health implicates all three types of legitimacy negotiations. Health is of course a critical topic in terms of the food industry's regulatory legitimacy, as the whole corpus of research on nutrition labeling shows. Notably food is one of the most strictly regulated consumer industries because of its enormous impact on consumers' health. Concern for safety and health have been the most articulate argument in restricting the freedom of marketing's speech through nutrition labeling and regulation of health and nutrition claims, present to some degree in most international markets (de Boer & Bast, 2015 [171]; Hobbs et al., 2014 [170]). Despite an expectation that regulatory issues would diminish with the maturity of the argument (Humphreys, 2010a), they really do not, as is evident in the stickiness of legislative terms and constant growth of the nutritional information research stream. On the one hand, the use of regulatory terms is a consistently invoked rhetoric that helps transmit assurance of a controlled and approved practice (i.e., additional level of control on top of the promise of foods' safety). On the other, health rhetoric also works in an unintended (from a regulatory stand point) way: though health makes the food industry more restricted from a legislative point of view, it also helps marketing negotiate its role and proactive position in debate on consumer health. The illustrative case is, of course, Kellogg's All Bran campaign of 1984-85 that challenged the then-existing regulation, positively resonated with the public (Pappalardo & Ringold, 2000 [106]), and lead to lifting the total ban on all health claims on food products, which eventually transformed the market into how we know it now (Freimuth et al., 1988 [4]; Ippolito & Mathios, 1995 [2]; Klassen et al., 1991 [38]). Kellogg's case not only created marketing opportunities for other

fiber-containing food products, but served as a legitimating "creation myth" to justify marketing's (as research discipline and business practice) proactive participation in the consumer health debate up to the point of discursively establishing marketing as a better version of nutrition communication and education, because knowing what consumers want and need and what information they can and cannot understand makes marketing, rather than pubic health, better equipped to reach and influence consumers. Despite obvious constraints of the regulation in force, the urgency of health-enabling information (rather than any other information) explicated in marketing discourse aids the food industry in regaining the voice, expressing various sides of "mutual benefit" position as opposed to immoral profit-only orientation, and eventually finding ways to work with the regulatory restraints turning them into industry's advantage. The transformation of the term "label" to "labeling" (Frohlich, 2011), i.e., the shift from a regulatory meaning to a promotional meaning, indicates marketing's attempt of appropriating some of policies' functions. Essentially the same position is evidenced in the behavioral nutritionism position on nudging, which claims an active role in gently pushing consumers in a healthy direction by modifying choice architecture in some of the most effective settings, such as moving retail and food away from home decision contexts.

Normative legitimacy refers to general approval of practices as desirable, proper, and appropriate. Naturally, the issue of health puts the food industry at normative crossroads, giving marketing discourses plenty of material to work with in either a criticizing (e.g., obesogenic environment) or a celebratory (e.g., win-win innovations) manner. Overall, negotiating the food industry's legitimacy to provide consumers with healthy solutions, despite being responsible for creation of many, if not most, health problems, requires shifting blame elsewhere. In various contexts, blame is shifted directly onto individuals themselves (for ignorance or misinterpretation of information, poor will power, and choosing inappropriate commodities) by an extension of the guiding principle of personal responsibility for health. As claimed by Herrick (2009, p. 53 [132]), the shift of responsibility and "blame from 'foods' to 'diet' and from 'diet' to 'sedentarism', with punitive consequences for those population groups or individuals defined as making 'inappropriate' choices in situations where context may preclude the possibility of choice" is becoming a common thread in marketing discourse[87]. Adoption of CSR strategies by food businesses can be seen in this light as attempts of reclaiming legitimacy because "in order to operate successfully within this culture of criticism […] manufacturers must communicate their integrity, foster trust and demonstrate their willingness to be held accountable for the quality and long-term safety of their products" (Herrick, 2009, p. 55 [132]).

[87] The shift of the blame from the food industry to lack of physical activity, modern sedentary lifestyles, and laziness can be at times quite explicit and articulate. Consider the example of a massive advertising campaign launched in London starting from August 2016 by a UK restaurant booking platform, Michelin's Bookatable (https://www.bookatable.co.uk), to encourage Londoners to get out and explore the city's restaurants. The ads were put everywhere in London: on out-of-home roadside panels, buses and the Underground, as well as transmitted through digital, online, and social media channels. Two of the posters specifically do not only play on experiential advantages of going out in comparison to takeaways, but bring in the concern for health by saying "Nobody gets called a table potato" (i.e., obviously playing with the stereotypical "couch potato" image of an obese person, which according to Gard and Wright (2005, pp. 22–25) has become one of the most recognized "brands" of obesity epidemic) and, even more clearly, "Eating doesn't kill you. Sofas do" (Campaign, 2016).

Cognitive legitimacy deals with individuals' mental representation about certain practices, their understanding and "taken for grantedness" (Hannan and Freeman 1986 in Humphreys & Latour, 2013, p. 775), and their ability to easily classify them. Plenty of food typologies from classical food taxonomies (e.g., vegetables, fruits, legumes, grain, dairy, etc.), to nutritionist categories (e.g., calcium, protein, vitamins, fiber, etc.), or (re)invented and modern lifestyles (e.g., organic, sustainable, functional, vegan, vegetarian, gluten-free, green, homegrown, authentic, fair trade, local, raw, eco, etc.) are used as labels and classifications to make health quality communication and perception more standardized. "Pre-packaged health" classifications on the marketing side make it easier to appeal to competing concerns by integrating actual markets and products into existing cultural frameworks. The variety of heuristic classifications leading to identifying foods as healthy or not, which either align with nutritional scientific discourses on food or with long-standing lay-concepts of cultural norms of self-care, provide what the food industry is best known for—the ample choice for satisfaction of every consumer desire.

Overall, the universal value of health is widely used in marketing discourse as a frame to lend legitimation to food industry practices, which are otherwise subject to legitimacy fluctuations. Health helps translate the commanding economic and managerialist logic of food production, otherwise not entirely conforming to pervasive social and moral ideals, into an appropriate and highly desirable, metaphorically healthified practice. Based on the assumption that health food consumption in the end is a universal win-win, health justifies marketing's claims for freedom of information for the sake of consumers' informed choice, for participation in massive consumer behavior modification, and for satisfaction of any kind of health-related demand based on a very wide spectrum of either experts' or consumers' ideas around health. Health helps idealize, embellish, and highlight positive aspects of the food industry over those more controversial (amplification frame (as per Benford and Snow 2000 in Humphreys, 2010a)); appeal to multiple interests and multiple stakeholders (extension frame); connect congruent and/or competing concerns such as sustainability, food indulgence (bridging frame); and eventually change the old understanding of food industry as the core of all health evils into a new meaning of the health solution (transformation frame). So, emphasizing the pressing concern for health is a multifunctional frame that channels fluid legitimacy perceptions about food production and marketing systems, their practices and interests, into an overall positive direction, if not when describing the present state of the industry, then certainly for envisioning, or rather "recommending", the future.

10.6. (Re)branding effect

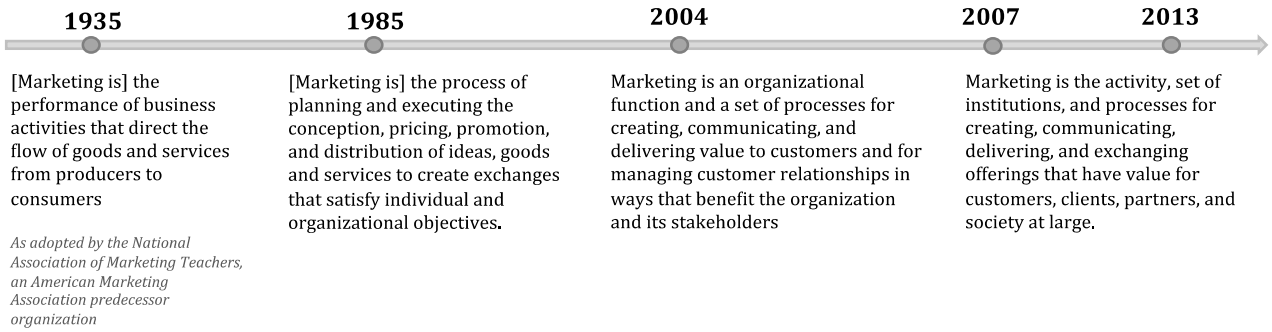
> Brands, OK, but not *real* brands. (Askegaard et al., 2016)

It is not unusual for marketing to be used as a pejorative term within (critical) social science (Alvesson, 1994, p. 291; Varey & Pirson, 2014). This frame is also not so infrequent in the common public discourse in regard to health and food: it is the greedy marketing after all that has been largely responsible for having created the existing obesogenic environment, built up

consumers' unhealthy food habits, and manipulated individuals to associate happiness and fulfillment with consumerist lifestyles. As a consequence, when marketers (researchers and practitioners) express concern for health in the minds of the public it helps rehabilitate the pejorative image of marketing as manipulator seeking profits at all costs, and turn it into a more positive image of supplier of DIY resources for health-related needs satisfaction. In this way, this function of health in marketing discourse can be seen as a legitimation directed at the "brand" or the commonly shared understanding of marketing as such (as opposed to legitimizing the food industry). Health rhetoric accentuates that we are talking about marketing, yes, but not *really* (evil and greedy) marketing.

Health's contribution to re-branding the brand of marketing into a more extensive and humane socio-organizational institution in fact parallels the evolution of the official definition of marketing (see Figure 10.1), which has expanded tremendously from the concept of selling (1935 AMA definition), to management process (1985), to an organizational function (2004), and in its current vision (2007 and 2013)—to "a science, educational process and a philosophy" (AMA, 2008, p. 1). In line with horizontal (Kotler & Levy, 1969) and vertical (Bandinelli & Arvidsson, 2013) expansions, the scope of marketing has broadened "to incorporate the concept that one can market something to "do good" (AMA, 2008, p. 1). Evidently the ever-growing involvement of health-related arguments in marketing work is a particular symptom, if not one of the drivers, of such expansion.

Figure 10.1. History of the definition of marketing by the American Marketing Association (AMA).



Source: Based on definitions and timeline retrieved from:
AMA. (2008). *The American Marketing Association Releases New Definition for Marketing*. Retrieved from https://archive.ama.org/archive/AboutAMA/Documents/American Marketing Association Releases New Definition for Marketing.pdf; AMA. (2016). Definition of Marketing (Approved July 2013). Retrieved June 18, 2016, from https://www.ama.org/AboutAMA/Pages/Definition-of-Marketing.aspx

Attempts to rethink marketing do not confine to AMA's efforts. Emergence of a different marketing consciousness (Pirson & Varey, 2014) combined with marketing's discipline's passion for (re)inventing definitions of its own concept (Hackley, 2003, p. 1339) are in fact a currently growing mega-trend in marketing theory and numerous sub-disciplines (e.g., social marketing, sustainable marketing, positive marketing, and conscious marketing) (Pirson & Varey, 2014). Though the official AMA definition clearly shows the direction towards orientation at societal issues, according to many scholars' critique, it still lags behind the real opportunities for contributing to societal wellbeing, because, for example, it is still too

microscopic and technisist (Shultz & Shapiro, 2014) and is guilty of complete lack of people (Wooliscroft, 2014).

Just like the healthification of food manufacturing and marketing strategies has become quite mainstream for food brands, invoking health is commonplace for marketing and consumer researchers from all kinds of schools of thoughts, not only those more specifically focused on the issues of consumer wellbeing (e.g. TCR, CCT, critical consumer and marketing research). So it is plausible to think that health, though not a necessary component for doing research in the field of marketing, may support the idea of what marketing scholar's work is and/or should be. While notably gravitating towards primarily serving companies' and managers' practical interests (e.g., Addis & Podestà, 2005; Brownlie & Saren, 1997; Fitchett et al., 2014; Tadajewski, 2010a), marketing research is also required to comply with criteria for scientificity (Skålén et al., 2008). This is often done with the help of "conceptual kleptomania" (Hackley, 2003, p. 1344) and employing theories and research approaches from adjacent scientific disciplines (MacInnis & Folkes, 2010). Though not representing a defined scientific paradigm, but only a scientific equivalent to most of the values known to humanity (Skrabanek, 1994), health surely adds a component of multidisciplinarity, opening opportunities for engaging concepts and paradigms from law, medicine, food science, agricultural or political economics, behavioral sciences, etc. What is more important, however, is that by merely involving a different and somewhat incompatible intellectual domain, health serves a similar function of investing marketing discourse with a counterbalance to pure practice (i.e., managerialist/technicist orientation) in order to lend disciplinary legitimacy (i.e., scientificity) to the discipline.

Health rhetoric helps disguise underlying managerial concerns and produce an argument worth academic investigation, the allocation of public institutions' research funds, the attention of conference organizers and journal publishers, professors' time and intellectual engagement, etc. After all, dedication to an attractive and stimulating argument with high political and moral visibility such as health is a powerful motivation that helps preserve and justify marketing researchers' commitment to their work and to the demands of their occupation as well as effectively communicate with research review boards, editors, faculties, sponsors, students, and general public audiences.

10.7. Conclusions

Just like in the food marketplace, health produces high urgency in marketing and consumer research about food, increasing with every year the amount of research output, the variety of researched problems, and proposed solutions (see Chapters 6 and 7). It attracts so much attention, possibly because health represents the meeting between an urgent public interest and highly involving moral value with a domain of everyday food choices. Along with urgency and abundance of research around health and food, multiple versions of health exist in food marketing discourse (see Chapters 8 and 9), which indicates that health is used not only as an

object of marketing and consumer research, but ideologically, as a multifunctional label that transcends the domain of food.

As an ideological "health halo", the topic of health works as an amplifier for a variety of taken-for-granted and reproduced positions that characterize dominant marketing discourse. Firstly, the universal value of health juxtaposed with other normative cultural narratives around eating invests everyday food choices with polarizing moral meanings, which are extrapolated into judgments about rightfulness (vs. wrongfulness) of people's lifestyles, personal characters, parenting, intellectual capacities, etc. Secondly, health's ideological resources create the basis for stronger markets, because the endless exercise of personal responsibility is inevitably bound to consumption of a myriad of health-related offerings. In the end, health produces "healthy" profits and contributes to the health of the market more than to the health of the individuals. Thirdly, health sustains two conflicting and self-reinforcing processes that result in a paradox of illusionary consumer empowerment—the paradox that is extremely useful for marketing researchers to endlessly source more and more gaps for the sake of producing more and more research. Finally, health becomes a frame that helps participate in negotiation about the legitimacy of the modern food industry and the moral worth of marketing as a socio-organizational institution, which allows marketing researchers to gain better motivation for committing to their work.

Our claim that health has an ideological function in marketing discourse is not intended to condemn the entire community of marketing and consumer researchers. Ideologies and assumptions cannot be completely avoided in any academic work. Though we choose to discuss ideological assumptions and their potential implications in an admittedly critical and somewhat revelational manner, the functions of health in marketing discourse are not entirely catastrophic. However, a more reflexive take will surely benefit future research, the food market, and hopefully people's wellbeing.

11. Conclusions

Discourses as structures of meanings enable and constrain what can be said (and thought) about social phenomena (Foucault, 1972). This research argues that marketing discourses about health and food structure market reality of (omnipresent) health by enabling and constraining what can and cannot be (responsibly) eaten or produced, proscribed or prescribed, bought or sold, chosen or advertised, medicalized or healthified, published or researched.

11.1 Marketing discourses' versions of health(ism)

By embodying and rationalizing healthism using different appeals and arguments sourced from public health, nutrition, the obesity epidemic scare, medicine, behaviorism, corporate responsibilities and other repertories of health-related meanings, the three marketing discourses identified in this research produce different solutions for consumer health and wellbeing. These discourses not only inform research questions and strategies of academic marketing scholars, but also materialize into commercial health food products, persuasive communication about healthy eating, commodities constituting a consumer's healthy lifestyle and principles for judging appropriateness of everyday food choices. These in turn have potentially problematic consequences from cultural, humanistic, ethical, social justice and even health standpoints.

The first discourse identified in this work is "nutri/edu" discourse, named after the two ideas that structure its core thematic features: the universality of nutritional information and the power of (consumer-friendly) education. This discourse is constructed around the problematization of the information environment and, in particular, of ineffective public health efforts to educate consumers that result in persistent gaps in consumer knowledge. This discourse is best understood in terms of an "information vs. knowledge" structuring dichotomy, which dictates that health is achievable only by closing the gap between the objective nutritional information and subjective understanding thereof by consumers, in line with the vision of the Enlightened ideal. Only idealistic "nutrition elite" consumers are capable of closing the gap, i.e., of processing information provided by the experts without interferences and losses of intended meaning, using nutrition calculus and medical rationality to handle nuanced information, fully comprehending it and putting it into practice. However, in the reality of constantly updating nutrition research and media coverage of new risks, the gap becomes self-reinforcing and realistically can hardly be closed, which in a way condemns those consumers who are willing to follow the nutritional information rules to the status of "nutrition slaves".

As the major proponent of the nutritionist position, nutri/edu discourse promotes hyper-specific focus on macro- and micronutrients' composition of food, which invigorates active

label reading as the main consumption tactics and modularity (i.e., engineering food product as a mere bundle of technically good nutrients) as the strategic logic of product management. Through the idealization of informed consumer choice, the rhetoric of freedom of choice in nutri/edu discourse is redefined as a duty to choose wisely based on elaboration of provided nutritional information. Despite seeming technical rationality of the choice guided by elaboration of nutritional information, and thus moral neutrality of nutrition facts, there is a strong normative component that moralizes consumers' shopping and food consumption behavior not necessarily per se, but through an emphasis on the consequences of information (mis)use presented in terms of the costs for the future state of the individual health or (economic and not) costs for the society.

Nutri/edu discourse frames health as a state of invisible body: the state when we are not aware of our organs because they perform their functions in a perfect and unobstructed manner. This invisibility and unawareness ensure that control over everyday life is in the hands of the rational mind, not subjugated to serving the malfunctioning body. In line with this understanding of health, nutri/edu discourse proposes those health-promoting principles that emphasize the mind over embodied experiences (i.e., the above-mentioned consumer education, labeling and "food reading", idealization of informed choice, hyper-specific focus on microscopic nutrients, etc.)

The second discourse is named "simple solutions" after its tendency towards (over)simplification evident in a number of thematic choices. Among them are the etiological explanation of obesity used as a problem formulation (eating the wrong types of food, eating too much and not moving enough); behavioral modifications as solutions (the small step approach); criteria for food's healthfulness judgments (either good or bad binary principle); the conceptualization of consumer behavior (tradeoff between choices); the extent of riskiness (everything is risky); etc. Building on the problematization of the obesity-conducive environment, skepticism about the standard educational approach typical of public health initiatives and the assumption of an inherently irrational, pleasure-seeking human nature, this discourse establishes that consumers systematically make choices that result in unhealthy outcomes, such as overeating and calorie underestimation. This discourse tends to apply the romanticized image of the past to understand how to solve the problems of the "unnatural" present.

Simple solutions discourse is structured around a "healthy vs. unhealthy" dichotomy, applicable primarily to food, but also to food-related behaviors, choices, consumers and lifestyles. Such binary opposition frames foods as either good-for-you or bad-for-you at the level of food groups and categories in addition to the nutrients' composition level. Such binary distinction is problematic, as it is increasingly difficult for consumers and experts alike to determine which foods are healthy due to an increase of expert systems determining the criteria for such judgments, global flows of products, technologies and information, and an increase in hybrids or innovations that make many products unclassifiable at a heuristic level. To overcome this problem, this discourse, consistent with its simplification stance, conceptualizes healthful food as non-existent because every food item and every consumption

situation should better be thought about as representing a potential for health disaster in order to reinforce the emotions of fear and caution to ensure better discipline and self-control and thus, better quality of food-choice outcomes. Given impossibility of completely risk-free consumption and food choices, this discourse conceptualizes health as adaptability, the ability to adapt and to self-manage within the frame of dynamic limitations.

This discourse supports modifications of consumption environments and choice architecture known as nudging (Thaler & Sunstein, 2008). Simple solutions discourse, however, produces a version different from the original concept in that it emphasizes the consumer's own role in implementing nudges. In this version, (self-)nudges are not so different from nutritional education strategies, which simple solutions proponents themselves criticize for promoting education campaigns based on the superiority of expert discourse and belief in consumer sovereignty. The critical difference is in the type of knowledge that (self-)nudges promote: instead of nutritional guidance, they produce actionable behavioral instructions informed by popular cognitive, neuro-, and evolutionary psychology explanations.

The third discourse is "win-win" due to the principle of interdependency, maximization of advantage, mutuality of benefits and hybridity of interests that this discourse embraces and promotes. Win-win discourse positions the health food market as a playing field of cooperation and mutual interest, not a battlefield of different market actors. This is probably the most pragmatic and versatile discourse, capable of flexibly absorbing ideas from other social discourses and thus appealing to multiple market actors and useful for multiple purposes.

Win-win discourse is structured around the "healthy/ier vs. basic" dichotomy, in which health is a promise of superiority compared to the normal or base version (of food product, eating and production environment, lifestyle, etc.) either offering more health overall or the same level of health outcome yet with an additional benefit. Win-win discourse is about uniting the spectrum of (material or ideological) benefits into multitasking market offerings. This reduces the feeling of guilt consumers experience when facing a moral obligation to limit consumption in the name of health, while giving the industry an opportunity to turn unappealing and prohibitive "do not eat" recommendations into appealing, high-value-added, guilt-free products. In maximizing utility with the help of health strategies informed by win-win discourse, this discourse reinvents the role of the industry in health debates from a cause of the obesogenic environment to a viable creator of the health-related offerings demanded by consumers. Win-win discourse accentuates hopes and promises (instead of fears and anxieties) and states that any food can be healthified and become part of a health-conductive lifestyle.

Health in this discourse is clearly located inside a product but does not necessarily correspond to its nutritious properties. It draws meanings of healthfulness primarily from consumers' self-declared preferences, as opposed to expert discourse. As a result, win-win discourse puts consumers' lifestyles and subjectivities literally to work in order to produce economic value for the market by inventing and enacting the innovative health market, which consumers themselves are willing to pay premium for: as a value-added differentiator in a

choice setting, healthfulness is also an expectation of a premium price (higher costs and higher profits).

Win-win discourse goes somewhat against common sense and twists the meanings of costs and benefits regarding health. Despite using term "benefit" in the actual terminology, the way it is used resembles costs and losses more than gains. Compared to the base-level (simpler, cheaper, tastier, etc.) alternatives, healthful food consumption and/or production is a sacrifice on a financial or an opportunity cost level, unless this cost is instrumental to something else, in which case it gets framed as an investment. By flipping costs and benefits, win-win also establishes that avoiding consumption is no longer the price to pay for health, but the contrary: consumption is part of a solution, where health is a subject of (future) profitability for all actors involved.

The three dominant discourses, though separable on the analytical level, co-exist in reality of marketing and consumer research. Individual articles occupy different subject positions in regard to these discourses and may either take a purer, more radical position clearly embodying the main principles of only one discourse, or occupy middle ground and incorporate meanings from several discourses.

The variations between the three discourses demonstrate the power of healthism as a dominant ideology. According to Eagleton (1991), though ideologies strive to homogenize around a common value and belief system, they are not homogeneous or unified and don't have a pure self-identity. Instead, ideologies are "usually internally complex, differentiated formations, with conflicts between their various elements, which need to be renegotiated and resolved" (Eagleton, 1991, p. 45). The internal heterogeneity and inconsistencies between three discourses show the dialogical aspect of healthism, how it's able to speak from a multiplicity of sites, yet offer a unifying platform for various actors, their interest, positions and propositions.

By employing different food-related meanings and problematizations, the three discourses similarly, but in their own distinct ways, establish the market and consumption reality of food as the main stage for enactment of responsibility for health. Through the lens of healthism, food marketing is collectively carried out not only by the industry, but also by supposedly neutral academics and policymakers. Even consumers become part-time marketers for healthy foods. Through a consumer-driven culture of self-care, self-improvement, and self-responsibility implemented via free market choices, consumers themselves create the value of health in their lives, which is being co-opted by marketers as a source of perpetual innovation.

Health also has an ideological function in marketing and consumer research. It helps establish a higher level of legitimacy for the arguments about the nature of consumer choice, about marketing discipline and practice, and reinforce some "taken-for-granted" assumptions. In parallel to the consumer context affected by heuristic bias of "health halos", the "magic" quality of health-related rhetoric seems to affect academic marketing discourse, which is why the ideological functions of health identified in this work were also referred to as metaphorical "health halo" effects. Namely, healthism produces a moralization effect that

emphasizes moral judgments around food and health; a market-binding effect that intensifies neoliberal practices and produces a rationale for "healthy" profits and the health of the market as much as or even more than for the health of the individuals; a (dis)empowerment effect that reinforces a paradox of consumer responsibilization and medicalization of consumer behavior creating the illusion consumer empowerment (the paradox that is extremely useful as a source for creating research gaps instrumental to marketing researchers' work); a legitimization effect that helps the modern food industry to participate in negotiation of its legitimacy; and a (re)branding effect that contributes to rebuilding the brand of marketing itself, while giving marketing researchers more motivation to commit to their work and establish more relevance to further their careers.

11.2 Taken-for-granted market reality of health

Marketing discourse establishes, justifies and promotes the stable presence of health in the market reality in several ways. First of all, since free markets are merely the economic equivalent of democracies (Schwarzkopf, 2011, p. 8) there is probably no better context to show and exercise personal rights and responsibilities, including the responsibility for health. So most of the solutions for consumer health are inevitably bound to market logic and interests, to the health of the market (Fırat, 2013, p. 81) and the strength of marketing discourses. The everydayness of food consumption makes it a context where the possibility (and the power) of free choice is rarely doubted (Sassatelli, 2004). By invoking the values of democracy and consumer sovereignty, marketing discourse thus supports healthism's position of justifying consumption of health in any (edible) form and the market's ceaseless health-inspired innovations.

Building on such consumer-focused themes as the pressure for better health-related knowledge as well as empowerment through informed choice, marketing discourse first established the argument in favor of freedom of information (analogous to freedom of choice) and then transformed the obvious regulatory constraints into an opportunity for marketing to showcase its best and most unique skills. This justified marketing as a better version of nutrition communication and education, because knowing what consumers want and need and what information they can and cannot understand makes marketing, rather than public health, better equipped to reach and influence consumers. Thus information disclosure via labels has been co-opted into the system of marketing communication, evidenced in the double meaning (regulatory and promotional) of the word label(ing) (Frohlich, 2011). A similar transformation may be on its way in regard to nudg(ing), where another public policy tool is being rethought in marketing discourse, with the help of freedom-of-choice and right-to-know rhetoric, into a trendier variation of consumer education (about their inherent behavioral flaws, as opposed to scientific facts about nutrition). This change increases consumers' responsibilities to self-control and self-manage and markets' responsibilities to offer more and more choice.

Marketing discourse rationalizes the dynamics of consumer decision-making, turning label-reading, constant scanning for new information and for better offerings into must-have skills of a good consumer. These skills are designed to be market-bound (how otherwise can a daily nutrient value be reliably calculated, or a food judged non-expired and safe to consume?) and to replace alternative skills (e.g., embodied consumption experiences). So a good consumer does not have to resist the market and consumption to achieve better health, but choose that segment of market reality where health has become a natural system for organizing transactions and shopping carts.

Health is also incorporated into the mission statements of food industry players, via a pressure of compliance with the CSR mega-trend (Lubin & Esty, 2010; McDonagh & Prothero, 2014), not to mention the very definition of marketing (AMA, 2016; Varey & Pirson, 2014). In both cases, the value of health as a "metaphor for everything that is good in life" (Crawford, 1980, p. 365) symbolically transfers onto other institutions and practices whose legitimacy is otherwise questionable in the light of circulating risk information, social concerns, popular beliefs, moral and institutional pressures, etc. This symbolic healthification helps idealize and embellish positive aspects of the food industry and marketing, appeal to multiple stakeholders, connect incongruent concerns, and eventually change the old understanding of food industry and marketing as the core of all modern health evils into a new meaning of providers of health solutions. All in all, the mechanism of advancement and naturalization of health in the market reality consists of ceaseless production of "solutions" rather than elimination of the "problems".

Marketing discourse borrows meanings from wider social discourses (e.g., the obesity epidemic, consumer sovereignty, free market, morality, democracy, evolutionary psychology) to insert them into the market context in interesting ways. It often happens that "everywhere" meanings do not satisfy marketing researchers. Instead, researchers process these meanings through a "technical" strainer of acceptable research methods in order to re-present them in a rationalized and quantified manner, so that they can serve as more legitimate guiding principles for marketing scholars' and/or practitioners' needs (e.g., re-labeling "common knowledge" deriving from a Protestant work ethic and other cultural discourses about a negative relationship between health and taste into a cognitively-demonstrated "unhealthy=tasty" bias). This process is often used to transform cultural beliefs, taken-for-granted notions, just-so stories, etc. into *consumer* beliefs or insights – that is, forms of knowledge instrumental for marketing work and practices. After all, when knowledge is presented in a more appropriate and legitimized form characterized by rationality, practicality, pragmatism, distanced gaze and other principles of scientificity that lend knowledge a privileged position of power (Berger & Luckmann, 1966, p. 130; Foucault, 1972; McCarthy, 1996, p. 50; Sulkunen, 2009, p. 148) – which often simply means that there is a number (or reference) attached to it – consumer insights or plausible intuitions about the market travel much better both in the academia and in organizations.

The omnipresence of health in the food marketplace can be considered a case of market ideology powered by healthism and naturalized in the cultural discourse, in everyday

consumption practices and in the structure of market institutions (Holt, 2012). As a neoliberal project in itself (Crawford, 1980, 2004, 2006), healthism is interconnected with the ideologies of marketing, which, as a symbiosis, jointly construct the meanings around health in marketing discourse. This occurs in a world where marketing is the key institution of culture (Sherry, 2011) and one of the most influential global ideologies of the present (Bandinelli & Arvidsson, 2013; Eckhardt et al., 2013; Fırat, 2013; Sherry, 2011; Skålén & Hackley, 2011). This bundle of ideological interconnections then creates interdependency between the health of the individuals and the health of the market and reinforces a consumer culture of self-care, self-improvement and self-responsibility channeled through the freedom of market choice.

11.3 Methodological considerations on the dual nature of research texts

This research draws attention to the relevance of various textual approaches and, more specifically, critical discourse analysis for and of marketing research – a field where literary tradition and application of discourse analysis are still underrepresented (S. Brown, 1999; Fitchett & Caruana, 2015; Hackley, 2003; Skålén, 2010). Despite marketing's superb capacity to absorb useful concepts and approaches from other disciplines (Hackley, 2003; MacInnis & Folkes, 2010), text-based methods of analysis leak into marketing research primarily in the context of marketing communication studies. Of course qualitative research in general is still in minority in the marketing discipline, even though mixed qual-quant and hybrid human-automatic content analysis studies are gaining momentum and might lead to wider application of text-based research (see Humphreys, 2014b). In analysis of marketing research work, which consists primarily of written and/or published texts, literary or text-based methods or analysis ironically don't come as a first choice. Though "[m]arketing scholars, like it or not, are players in the literary game" (S. Brown, 1999, p. 2), statistical meta-analysis appears to many researchers and editors as a more worthy type of "meta" in meta-analysis. The problem of analyzing marketing research outputs as texts is aggravated by an epistemological dilemma: are they archives of pure forms of knowledge or discursive events (i.e., instances of sociocultural practice)? This dilemma may even lead to an ambiguous perception of the status of such research by a broader marketing and management research audience as neither (really) empirical, yet not (completely) theoretical.

In this research, however, the dual nature of marketing research texts was treated as an opportunity rather than a hindrance. Thinking about the texts in different ways, this dissertation produced different forms of analysis suitable for different purposes and addressing different audiences. Each approach was reinforced through another.

The results of the bibliographic data synthesis can be used by an audience of general scholars interested in the big picture and general trends of the historical development of marketing research about health and food. Due to a transparent and well-documented process of articles' selection and coding of the contents, the results of this study can be contrasted and compared to future research in (or even outside of) the topic of food and health marketing.

The results of articles' categorizations are likely best suited for scholars specialized in the topic of health in the context of food marketing or its subtopics (e.g., labeling, health claims, health halos, functional foods marketing). The map of research streams can help scholars locate their studies within the existing research landscape, see the structure and topics of the adjacent domains to invigorate their own field of specialization, or conduct further systematic reviews. These results can also help beginning scholars navigate this increasingly complex field.

The outcomes of discourse analysis may have the widest readership audience. More specialized scholars might find the discussion insightful or provocative, and it will hopefully invoke self-reflection for their future work. Those who have been quoted should not take it as a judgment on their work, as the critical position of this discussion addresses public discourse on macro-societal level, and not the individual worth of specific articles and contributions. To more general scholars, as well as policymakers and marketing professionals, analysis of the three discourses may be equally valuable for better insight and overall reflectivity, because the focus on discourse examined common knowledge shared by nearly all market players. As the structure of common knowledge and meanings materialized in the market and consumption norms regarding health and food, the three discourses with their respective vocabularies provide a common interpretative frame equally suitable for scholars, marketers, policymakers and consumers. The structure of meanings presented and analyzed with the help of the semiotic square is also potentially applicable as an analytical tool for other discourses related to health consumption.

11.4 The (more) practical side

At first glance, this work may come across as overly abstract and theoretical. Yet these ideas of marketing discourse have structuring effects on individual consumers and corporations, and therefore cannot be considered completely impractical. Comparing the ideas in marketing research publications to observations of "real" market phenomena done throughout analysis of the three discourses, though not the main objective of this research, was meant to show the practical dimension of these conceptual discussions.

The concepts of health articulated in marketing discourse are useful not only for an abstract philosophical understanding of the idealized vision of a "good life" and problem-free consumption, but as an explanation of principles that drive everyday consumption and marketing work in the health and food domain. Individual products, services or cross-sectional marketing efforts depend on how well they fit with powerful shared discourses (Fitchett & Caruana, 2015, p. 1). Marketing strategies can therefore be assessed by checking the coherence of individual meanings used in brand building: Do the meanings embraced by this brand seamlessly fit into the same discursive "universe", or do they create cluttered patchworks of meanings in need of additional arguments? On the contrary, true market innovation, especially of a disruptive kind, is hardly imaginable without going beyond what's taken for granted in the market reality. A more reflective and careful examination of the

broader set of consequences, promoted in this research, can also be a source of marketing innovation or (re)positioning strategies of truly responsible businesses.

11.5 Limitations

One of the evident limitations of this study is the composition of our sample, which predetermined the results in both the research synthesis and discourse analysis stages. Faced with incredibly rich research databases, we needed to restrict the amount and structure of marketing and consumption studies that shaped the data for this research. A different choice of keywords, of abstract screening questions or of journal (un)justification criteria at the selection stage, or a decision to supplement an automatic search with any type of manual selection would have produced a different sample and somewhat different findings, especially for the bibliographic historical overview and the content (or maybe even the number) of research streams. It's unlikely that another systematic literature collection procedure would have produced a radically different understanding of the dominant themes that shape marketing discourses, but a different sample would probably have shed more (or less) light on either prevalent or alternative positions that were over- or underrepresented in our sample.

However, in our sample generation, we attempted to identify the structures of common knowledge in health and food marketing research. The fact that our findings could be connected to more general trends in other subject areas of marketing research (in the case of research synthesis) and to public discourses outside of the academic marketing genre (in the case of discourse analysis) provides an indirect confirmation that the goal was achieved.

Another limitation is that the topics discussed here are more applicable to Western contexts. Consider, for instance, the rhetoric of obesity epidemic, a dominant problematization theme. This theme focuses on the problem of the economically developed West or global North, not on the problems of malnutrition still experienced in developing areas. Also, the dominance of nutritionism reflects a propensity to privilege a Western scientific/medical approach over alternative systems of medicine or eating, such as Chinese Traditional Medicine, the five elements energy theories (constitutive of many Asian approaches to eating, cooking and curing), principles of food seasonality (the pillar of the Mediterranean diet, but a popular principle in other cultures as well), etc. This limitation results in part from our wholly English-language sample, which was therefore dominated by studies of the US, Australian, British and other Western European market contexts. This limitation also reflects a more far-reaching trend: the dominance of Western-centric epistemological marketing ideology (Cayla & Peñaloza, 2011; Svensson, 2005; Varman & Belk, 2009; Varman & Saha, 2009), which leaves little space for alternative conceptualization of markets.

11.6 Future research

Despite numerous conversations within academic marketing about health and food, this work has highlighted that some questions, topics, assumptions and approaches are more common (and thus better researched) than others. For instance, micro and more technicist issues, such as managerial questions of profitability, market expansion, communication efficiency, policy issues of consumer education and information credibility, prevail over research about macro relationships between marketing practices and consumer health. Existing research prioritizes healthy food over healthful eating (i.e., food choice vs. actual consumption experience). Cross-sectional research designs significantly outnumber longitudinal studies. Similarly, qualitative studies and other approaches based on more feminine values (Hirschman, 1993) are underrepresented. Health is understood and operationalized primarily through nutritionism, leaving out other perspective (e.g., gastronomical) and largely ignoring evidence that consumers' own health perceptions and strategies use more abstract principles (e.g., balance, variety, relaxedness, routine, culture and traditions) as opposed to the micro-fragmentation of food composition into the micro- (and nano-) constituents typical of nutritionism. Though an interesting and potentially promising avenue, the extended consumer (i.e., consumers' family, caregivers, support groups, social networks) is rarely given enough attention in marketing research publications. These dominant approaches open up numerous opportunities for future research, which will certainly find many gaps to fill going in the directions of the research paths "less traveled by."

This project itself can benefit from future research. Research relying on a hand-picked sample could better define internal structures of the research streams identified here. A much larger and more inclusive sample (e.g., using different keywords, additional databases, languages other than English, studies before 1988 or after 2015, looser selection criteria, wider disciplinary selection), on the contrary, can be applied to test whether the structure of categorizations (and discourses) proposed here could accurately represent the population of academic research on health and food.

Finally, critical discourse analysis is a promising avenue with numerous applications (see Fitchett & Caruana, 2015) that can be used to explore the structuring power of healthism on market reality in other micro-, meso- and macro-contexts.

11.7 Concluding "realization"

In Berger and Luckmann's (1966, p. 84) terms, knowledge is a "*realization* in the double sense of the word". On the one hand, it's apprehension of existing reality looking at how its past, socially created, knowledge has created the present. On the other, knowledge is a force of ongoing production of this reality. So, let's wrap this work up with one final realization, in the double sense of the word, about the market reality of health and contributions of critical research in production of this reality.

The objective of a critical inquiry is to *de-* and *re-*construct the obvious in order to show its elements and components, underlying assumptions and potential consequences and, by showing where these assumptions come from, demonstrate that these elements and assumptions are not set in stone. Yes, they may be taken for granted today, and they may be highly rationalized and self-evident, but understanding that they also have a story or agenda means that they may not be so inevitable after all. Ripping some of the common-sense knowledge about health and food apart is painful and may even create a sense of disorientation ("if that doesn't solve it, then what does?") or even hopelessness ("we are all doomed"). If my work caused the reader to experience some of these sentiments from time to time, then I have transmitted how I often felt working on this research project. Yet, this does not have to be the only takeaway. Pessimism, after all, can be active (Foucault 1983, p. 231–32 in Askegaard et al., 2014, p. 1820). The path from here is to try to imagine alternative social and market realities based on a better understanding of the current discourse.

Appendices

Appendix 1. Test search: Keyword thematic analysis results.

Keywords by thematic category and subcategory	Frequency count
HEALTH	**777**
Public health	26
Human health	3
MEDICAL & PHARMACEUTICAL	221
Direct-to-consumer advertising	24
Dietary supplement(s)	21
Prescription (Rx) drug(s) (medication)	10
Pharmaceutical industry	7
drug advertising (advertisment(s)	6
Food supplement(s)	6
Pharmacovigilance	6
Clinical trials	5
Generic(s) drug(s) (medicines)	5
Non-prescription (medication)	5
Adverse event(s)	4
Antibiotic(s)	4
Drugs	4
DSHEA	4
Herbal medicine(al product)	4
Herbal products	4
Internet (online) pharmacy(ies)	4
OTC medications (medicines)	4
Pharmaceuticals	4
Prescriptions	4
Allergy	3
Alternative medicine	3
Drug policy	3
Drug safety	3
Pharmacoepidemiology	3
Rx-to-OTC switch	3
Supplement(s)	3
Vaccine(s)	3
Vitamin(s)	3
adverse drug reaction(s)	2
Adverse event reporting	2
Antidepressant(s)	2
Brucellosis	2
Cancer	2
Chronic disease(s)	2
Counterfeit drugs	2
Depression	2
Depression, treatment	2
Diarrhoea	2
drug approval	2
Drug information	2
Drug regulation	2
Follow-on biologic(s)	2
Heart disease	2
New drug application (NDA)	2
OTC Review	2
Patient information	2
Pharmaceutical marketing	2
pharmaceutical regulation	2
Prescribing	2
Radiology and radiologists	2
traditional herbal medicinal product	2
treatment	2
Veterinary drug/medicine	2
Disease(s)	4
Disease management	3
Abuse liability	2
PUBLIC HEALTH CONCERNS	102
Obesity	48
Tobacco	7
Smoking	6
childhood obesity	5
community	3
Consumer protection	3
health disparities	3
Nicotine	3
Overweight	3
Social capital	3
Child health	2
Cigarettes	2
Consumer rights	2
Food access	2
Future	2
Iron deficiency	2
Medicalization	2
Micronutrient malnutrition	2
Tobacco industry	2
INFORMATION & INTERVENTIONS	78
Social marketing	17
health promotion	14
Consumer information	4
Dietary guidance(s)	3
Dietary Guidelines for Americans	3
health communication	3
Health education	3
Nutrition education	3
public health nutrition	3
Training	3
Food Guide Pyramid	2
Information	2
Prevention	6
Intervention(s)	4
Advocacy	3
Prevention research	3
intervention strategies	2
HEALTH & FOOD SAFETY/RISK	163
Food safety	30
safety	9
Risk	7
Risk assessment	7
Risk management	7
animal welfare	6
Food security	6
Control	5
Animal health	4
Risk analysis	4
Risk perception(s)	4
Salmonella	4
Toxicity	4
Assessment	3
Benefit risk	3
HACCP	3
Health hazards	3
Heavy metals	3
Pesticide(s)	3
Risk communication	3

Keywords by thematic category and subcategory	Frequency count
Toxicology	3
Antimicrobial	2
Community food security	2
Conservation	2
Consumer product safety	2
Counterfeit(ing)	2
Food additives	2
Food standard(s)	2
Fruit quality	2
Health risk	2
Helminth(es)	2
Hygiene	2
IPM	2
Meat quality	2
Mislabeling	2
Quality control	2
Safety assessment	2
Salmonellosis	2
surveillance	2
Warning(s)	2
Warning letter(s)	2
Zoonoses	2
MARKETING	**622**
Marketing	66
Food marketing	20
Marketing strategy(ies)	6
Market(s)	5
marketing mix	4
Positioning	2
Strategy(ies)	2
CORPORATE STRATEGY	42
Corporate social responsibility	4
Management	4
Competition	3
Cost(s)	5
International trade	3
Responsibility	3
Sponsorship	3
Sustainable	3
Benchmarking	2
Best practice	2
Ethics	2
Good Manufacturing Practice (GMP)	2
Governance	2
Performance	2
Profit(s)	2
PRICE	13
Price(s)/pricing	8
Food prices(ing)	3
Pricing strategies	2
DISTRIBUTION	57
Supermarket(s)	8
Retail/retailing	5
Supply chain(s)	5
Farmers' market(s)	4
Restaurant(s)	4
food environment	3
Food supply	3
Food supply chain(s)	3
Grocery store(s)	3
Retail trade	3
Retailers	3
Supply chain management	3
Direct marketing	2
Food away from home	2
Marketplace	2
Point-of-purchase	2
Trade(s)	2
RESEARCH & DEVELOPMENT	26
Innovation	6
Product development	6
New product development	5
novel foods	4
technology	3
New products	2
COMMUNICATION & BRANDING	111
Advertising	33
promotion	11
Communication	10
Internet	8
Package(ing)	6
Food packaging	5
food advertising	4
Website	4
Sampling	3
Television	3
Active packaging	2
Branding	2
Brands	2
Consumer advertising	2
Green marketing	2
Image(s)	2
Magazines	2
Media	2
Photographs	2
smartphone applications (apps)	2
social media	2
Television advertising	2
NUTRITION MARKETING	140
Health claim(s)	31
Label(ing)	24
Food label(ing)	19
Nutrition(al) label(ling)	16
Nutrition and health claims	8
(FOP) Front-of-pack(age) label(ing)	7
Claim(s)	7
Health benefits	6
Nutrition(al) claim(s)	6
Nutrition(al) information	4
Nutrition(-related) marketing	3
Structure-function claims	3
health message(s)	2
Organic label(s)	2
Qualified health claims	2
HEALTH & WELLNESS CATEGORY *	140
Functional food(s)	49
Organic food(s)	37
Health(y) food(s)	16
Nutraceuticals	7
Local food(s)	6
Traditional food(s) (products)	5
Organic products	4
Energy drinks	2
Natural products	2
FOOD	**725**
Food(s)	43
Food industry	16
Food product(s)	16
Quality	12
Food quality	4
Product(s)	3
Packaged food	2
Product attributes	2
FOOD TYPES	120
Vegetable(s)	17
Fruit(s)	12
Meat	7
Beef	6
Fish	6
Eggs	5
Milk	5
Beverage(s)	4
Fast food	4
Fruits and vegetables	4

Keywords by thematic category and subcategory	Frequency count
Pork	4
Seafood	4
Snack (food(s)	3
Wines	3
Apples	2
Apricot(s)	2
Bread	2
Breakfast cereals	2
Dairy	2
Dairy products	2
Farmed fish	2
Goat milk	2
Meat product(s)	2
Muscadines	2
Olive oil	2
Poultry	2
Soft drink(s)	2
sugar-sweetened beverages	2
Tomato(es)	2
Tropical fruit(s)	2
Unpasteurized milk	2
yogurt	2
NUTRITION	145
Nutrition	36
Probiotic(s)	16
Prebiotic(s)	6
Lactic acid bacteria	5
Micronutrient(s)	4
Nutrient profile(ing)	4
Nutrition(al) value	4
Whole grains	4
Antioxidant	3
Ingredients	3
Nutrient density	3
Nutrition(al) quality	3
Salt	3
Trans fat	3
Caffeine	2
Carotenoid(s)	2
Cholesterol	2
Composition	2
Energy density	2
Fat	2
Flavonoid(s)	2
Food and nutrition	2
Food analysis	2
Inulin	2
Nanoparticles	2
Nutrition transition	2
Olean	2
Olestra	2
Oligofructose	2
Panax ginseng	2
Phytochemicals	2
Polyphenol(s)	2
Portion size	2
Serve(ing) size	2
Sodium	2
Soy protein(s)	2
sugar	2
Triticum aestivum	2
FOOD PROCESSING & ORIGIN	127
Genetically modified (GM) food	15
Traceability	9
Environment	7
Sustainability	7
Organic	6
Biotechnology	5
Processed food(s)	5
Globalization (globalisation)	5
Agriculture	4
Food fortification	4
Genetic engineering	4
Genetically modified organisms (GMOs)	4
(Food) irradiation	4
Aquaculture	3
Nanotechnology	3
Nutrigenomic(s)	3
Sustainable agriculture	3
Agricultural products	2
alternative agriculture	2
Animal husbandry	2
Bioavailability	2
Bioequivalence	2
Biosimilars	2
Environmental friendliness	2
Environmental protection	2
Farming	2
food production	2
Food system(s)	2
Fortification	2
Gis	2
Local production	2
Naturally raised	2
seafood industry	2
Vegetable production	2
Wild fish	2
COUNTRY **	145
United States (US/USA)	11
Australia	8
Canada	6
China	6
European Union (EU)	6
United Kingdom (UK)	6
India	5
Africa	4
Europe	4
Sweden	4
Brazil	3
Croatia	3
Developing countries	3
Germany	3
Greece	3
Korea	3
Malaysia	3
Denmark	2
Egypt	2
Fiji	2
Ghana	2
Iran	2
Kenya	2
Mexico	2
Nigeria	2
Norway	2
Pakistan	2
Poland	2
Saudi Arabia	2
The Netherlands	2
CONSUMER	**696**
Consumer(s)	63
FOOD & PRODUCT CHOICE	84
Food choice(s)	11
willingness to pay	8
Food consumption	6
Convenience	4
Health halo (effect or bias)	4
Taste	4
Buying behaviour	3
Consumer choice	3
Customer satisfaction	3
Flavo(u)r	3
Impulse buying	3
Purchase intention(s)	3
Purchasing motives	3
Quality perception	3
Satiety/satiation	3

Keywords by thematic category and subcategory	Frequency count
consumer decision making	2
Consumer judgments	2
Consumer surplus	2
Food choice motives	2
Food purchasing decision	2
Loyalty	2
Satisfaction	2
Sensory	2
Sensory perception	2
Shopping	2
CONSUMER BELIEFS & BEHAVIOR	213
Consumer behavio(u)r	63
Attitude(s)	19
Consumer('s) attitude(s)	12
Consumption	12
consumer('s) perception(s)/perception(s)	16
Behavio(u)rs	9
consumer('s) preference(s)/preference(s)	14
(Consumer) acceptance	10
Beliefs	6
Trust	5
Value(s)	5
Decision making	4
Motivation	4
Benefit	3
Motive(s)	3
Autonomy	2
Awareness	2
Barriers	2
behaviour change	2
Cognition	2
Consumer psychology	2
consumerism	2
Consumption behavior	2
Continuing education	2
Emotion	2
Involvement	2
Personal values	2
Social norms	2
Utility	2
CONSUMER SEGMENTS	213
Child(ren)	25
Market segmentation	12
Segmentation	10
Consumer segmentation	5
Adolescents	4
Demographic(s)	4
Consumer segments	3
Latino	3
Parents	3
African American	2
Elderly	2
Family	2
Gender	2
Hispanic	2
Income	2
Low-income	2
Older consumers	2
poverty	2
schools	2
Young adults	2
Young consumers	2
Youth	2
HEALTH & FOOD RELATED LIFESTYLES	134
Health	31
Diet	16
Healthy eating	14
Education	5
Breastfeeding	4
Health consciousness	4
Food related lifestyle	3
Fruit and vegetable consumption	3
Lifestyle	3
Physical activity	3
Wellbeing	3
Wellness	3
Consumer health	3
Personal health	3
Body mass index (BMI)	2
Consumer trends	2
Energy intake	2
Fat consumption	2
Fish consumption	2
Health concerns	2
Healthy diet(s)	2
Healthy food choice	2
Healthy lifestyle	2
Mediterranean diet	2
Nutrition knowledge	2
Self regulation	2
Self care	2
Self control	2
Sport	2
Weight loss	2
Consumer education	2
Healthiness	2
RESEARCH APPROACHES AND METHODS	**111**
Conjoint analysis	10
survey	10
Cluster analysis	5
Focus group(s)	5
Qualitative research	5
Structural equation modeling	5
Choice experiment	4
Consumer research	4
Means-end chain(s)	4
Sensory evaluation	4
Theory of Planned Behavior	4
Consumer study(ies)	3
Content analysis	3
Economics	3
Laddering	3
Sensory analysis	3
Analysis	2
Behavioral economics	2
Consumer survey	2
Experiment	2
Factor analysis	2
Food choice model	2
Implicit association(s) test	2
International comparison	2
Literature review	2
Market(ing) research	2
Methodology	2
Model(ling)	2
Monograph(s)	2
Quantitative research	2
Questionnaire	2
Research	2
Review	2
State-of-art reviews	2
TOTAL	**2696**

* Category "HEALTH AND WELLNESS CATEGORY" is part of the "FOOD" and "MARKETING" thematic categories because these keywords denote food types on one hand, and marketing categorization in regard to health and wellness value proposition – on the other. Subcategory sum frequency count is included in both.

** Category "COUNTRY" is part of the "FOOD" and "CONSUMER" thematic categories because these keywords can be used either in regard to analyzed consumer segments (by country) or food origin. Subcategory sum frequency count is included in both

Appendix 2. Selection by journals quality assessment.

Journal Title	Country	Total articles Retrieved	Total articles Final sample	ABS 2015[i]	ABDC 2013[ii]	SJR score 2014[iii, iv]	H-Index[v, vi]	ABS coef.	ABDC coef.	SJR coef.	H-index coef.	Final score[vii]
Titles qualifying for inclusion based on quality assessment												
Food Policy	NL	33	19	3	B	1.192	55	1	1	1	1	**4**
Journal of Public Policy and Marketing	US	29	23	3	A	1.150	44	1	1	1	1	**4**
Journal of Consumer Marketing	UK	20	17	1	B	0.601	55	1	1	1	1	**4**
Journal of Consumer Affairs	UK	19	13	2	A	0.776	38	1	1	1	1	**4**
International Journal of Hospitality Management	UK	17	11	3	A*	1.318	52	1	1	1	1	**4**
Journal of Risk Research	UK	9		2	C	0.694	29	1	1	1	1	**4**
Journal of Marketing	US	8	8	4*	A*	7.332	160	1	1	1	1	**4**
American Journal of Agricultural Economics	US	6	3	3	A*	1.309	71	1	1	1	1	**4**
International Journal of Contemporary Hospitality Management	UK	6	4	3	A	1.079	28	1	1	1	1	**4**
Agricultural Economics	UK	5	1	2	A	0.663	48	1	1	1	1	**4**
International Journal of Retail and Distribution Management	UK	5	1	2	B	0.684	31	1	1	1	1	**4**
Psychology and Marketing	US	5	5	3	A	0.711	65	1	1	1	1	**4**
Journal of Marketing Communications	UK	5	5	1	B	0.483	21	1	1	1	1	**4**
Journal of Business Ethics	NL	4	3	3	A	1.110	87	1	1	1	1	**4**
Journal of Marketing Research	US	4	4	4*	A*	4.488	109	1	1	1	1	**4**
Journal of the Academy of Marketing Science	US	4	2	4	A*	3.769	108	1	1	1	1	**4**
Marketing Letters	US	4	3	3	A	1.009	42	1	1	1	1	**4**
European Review of Agricultural Economics	UK	3	2	3	A	0.915	40	1	1	1	1	**4**
Journal of Business Research	US	3	3	3	A	1.183	100	1	1	1	1	**4**
Journal of Consumer Research	US	3	3	4*	A*	3.980	109	1	1	1	1	**4**
Canadian Journal of Agricultural Economics	UK	3	2	2	A	0.659	23	1	1	1	1	**4**
International Journal of Advertising	UK	3	2	2	B	0.793	24	1	1	1	1	**4**
Qualitative Market Research	UK	3	3	2	B	0.558	20	1	1	1	1	**4**
Business Horizons	UK	2		2	C	1.245	51	1	1	1	1	**4**
European Journal of Marketing	UK	2	2	3	A*	0.940	47	1	1	1	1	**4**
Journal of Advertising Research	UK	2	1	3	A	0.764	55	1	1	1	1	**4**
Journal of Agricultural Economics	UK	2	1	3	A	0.953	38	1	1	1	1	**4**
Journal of Consumer Psychology	US	2	2	4*	A	2.089	63	1	1	1	1	**4**
Journal of Experimental Psychology: Applied	US	2	1	3	A	1.214	61	1	1	1	1	**4**
Journal of Retailing and Consumer Services	UK	2	1	2	A	0.657	39	1	1	1	1	**4**
Marketing Science	US	2	2	4*	A*	4.320	87	1	1	1	1	**4**
Technovation	UK	2		3	A	1.556	82	1	1	1	1	**4**
American Economic Review	US	1	1	4*	A*	9.543	185	1	1	1	1	**4**
Australian Journal of Agricultural and Resource Economics	UK	1		2	A	0.829	36	1	1	1	1	**4**
Ecological Economics	NL	1		3	A	1.813	133	1	1	1	1	**4**
Environment and Planning A	UK	1	1	4	A*	1.205	79	1	1	1	1	**4**
Health Economics	UK	1		3	A*	1.327	85	1	1	1	1	**4**
International Journal of Industrial Organization	US	1	1	3	A	1.355	57	1	1	1	1	**4**
International Journal of Research in Marketing	NL	1	1	4	A*	2.434	65	1	1	1	1	**4**
International Marketing Review	UK	1	1	3	A	0.975	51	1	1	1	1	**4**
Journal of Advertising	US	1	1	3	A	1.249	61	1	1	1	1	**4**
Journal of Applied Econometrics	UK	1		3	A*	2.672	70	1	1	1	1	**4**
Journal of Behavioral and Experimental Economics	US	1	1	2	B	0.416	39	1	1	1	1	**4**
Journal of Economic Psychology	NL	1		2	A	0.984	63	1	1	1	1	**4**

Journal Title	Country	Total articles Retrieved	Total articles Final sample	ABS 2015[i]	ABDC 2013[ii]	SJR score 2014[iii, iv]	H-Index[v, vi]	ABS coef.	ABDC coef.	SJR coef.	H-index coef.	Final score[vii]
Journal of Family and Economic Issues	US	1	1	2	B	0.574	29	1	1	1	1	**4**
Journal of Fashion Marketing and Management	UK	1		1	B	0.677	30	1	1	1	1	**4**
Journal of Health Economics	NL	1		3	A*	2.036	82	1	1	1	1	**4**
Journal of Law and Economics	US	1	1	3	C	1.61	61	1	1	1	1	**4**
Journal of Regulatory Economics	NL	1		2	A	0.692	41	1	1	1	1	**4**
Journal of Retailing	NL	1	1	4	A*	2.326	85	1	1	1	1	**4**
Journal of Sustainable Tourism	UK	1		3	A*	2.315	60	1	1	1	1	**4**
Management and Organization Review	UK	1		3	A	3.134	26	1	1	1	1	**4**
Milbank Quarterly	UK	1		3	B	2.590	68	1	1	1	1	**4**
MIT Sloan Management Review	US	1		3	A	0.99	71	1	1	1	1	**4**
Review of Industrial Organization	NL	1		2	A	0.514	41	1	1	1	1	**4**
Service Industries Journal	UK	1	1	2	B	0.471	38	1	1	1	1	**4**
Tourism Management	UK	1		4	A*	2.481	110	1	1	1	1	**4**
World Development	UK	1		3	A	1.792	122	1	1	1	1	**4**
Business History	UK	1		3	A	0.526	22	1	1	1	1	**4**
Risk Analysis	UK	15		4		1.291	79	1	0	1	1	**3**
International Journal of Consumer Studies	UK	13	9	2	A	0.548	11	1	1	1	0	**3**
Social Science and Medicine	UK	11	3	4		1.491	163	1	0	1	1	**3**
Health Communication	UK	5	2		B	0.616	42	0	1	1	1	**3**
American Journal of Public Health	US	4	1		A*	1.987	183	0	1	1	1	**3**
Journal of Consumer Behaviour	UK	4	3	2	B	0.625	14	1	1	1	0	**3**
Journal of Macromarketing	US	3	2		A	0.558	26	0	1	1	1	**3**
Marketing Intelligence and Planning	UK	3	1	1	A	0.351	28	1	1	0	1	**3**
Cornell Hospitality Quarterly	US	2	1		A	1.047	42	0	1	1	1	**3**
Journal of Consumer Policy	NL	2	2		C	0.681	27	0	1	1	1	**3**
Journal of Marketing Management	UK	2	2	2	A	0.489	17	1	1	1	0	**3**
Journal of Rural Studies	UK	2	1	3		1.191	64	1	0	1	1	**3**
Annual Review of Resource Economics	US	1	1	2	B	1.321	12	1	1	1	0	**3**
Applied Economics Letters	UK	1		1	B	0.305	34	1	1	0	1	**3**
Consumption Markets and Culture	UK	1	1	2	B	1.131	9	1	1	1	0	**3**
Journal of Social Issues	UK	1			A	0.679	81	0	1	1	1	**3**
Journal of Travel & Tourism Marketing	US	1		2		1.05	26	1	0	1	1	**3**
Social Choice and Welfare	US	1	1		A	0.734	33	0	1	1	1	**3**
Social Studies of Science	UK	1	1	2		1.800	61	1	0	1	1	**3**
Sociology of Health and Illness	UK	1	1	4		0.929	68	1	0	1	1	**3**
Titles not qualifying for inclusion based on quality assessment												
Appetite	US	63				1.218	80	0	0	1	1	**2**
Journal of Nutrition Education and Behavior	US	13				0.870	50	0	0	1	1	**2**
American Journal of Health Promotion	US	12				0.596	67	0	0	1	1	**2**
Health Affairs	US	12				3.659	116	0	0	1	1	**2**
Food and Nutrition Bulletin	JAP	11				0.810	45	0	0	1	1	**2**
Health Promotion International	UK	11				0.752	56	0	0	1	1	**2**
Journal of Health Communication	US	7				0.874	53	0	0	1	1	**2**
Public Health Nutrition	UK	7				1.052	95	0	0	1	1	**2**
Advances in Consumer Research	US	6		2	B	0.113	12	1	1	0	0	**2**
Agribusiness	GER	6			C	0.417	12	0	1	1	0	**2**
Journal of Community Health	NL	6				0.862	43	0	0	1	1	**2**
Patient Education and Counseling	Ireland	6				1.248	96	0	0	1	1	**2**

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Health Education Research	UK	5				1.054	74	0	0	1	1	**2**
Health Risk & Society	UK	4				0.542	32	0	0	1	1	**2**
Journal of Product and Brand Management	UK	4			B	0.377	26	0	1	0	1	**2**
Pediatrics	US	4				3.331	263	0	0	1	1	**2**
Australian & New Zealand Journal of Public Health	AUS	3				0.796	62	0	0	1	1	**2**
China Agricultural Economic Review	UK	3			C	0.406	8	0	1	1	0	**2**
Critical Public Health	US	3				0.849	25	0	0	1	1	**2**
Public Understanding of Science	UK	3				0.936	47	0	0	1	1	**2**
Social Indicators Research	NL	3				0.705	66	0	0	1	1	**2**
Social Marketing Quarterly	UK	3		1	C	0.209	15	1	1	0	0	**2**
Tobacco Control	UK	3				2.715	93	0	0	1	1	**2**
American Journal of Preventive Medicine	US	2				2.945	154	0	0	1	1	**2**
Applied Economic Perspectives and Policy	UK	2				1.089	28	0	0	1	1	**2**
Australasian Marketing Journal	NL	2		1	B	0.352	15	1	1	0	0	**2**
Bmc Public Health	UK	2				1.304	81	0	0	1	1	**2**
Hastings Center Report	US	2				0.767	46	0	0	1	1	**2**
Health	UK	2				0.557	34	0	0	1	1	**2**
Health Education and Behavior	US	2				1.063	66	0	0	1	1	**2**
Health Psychology	US	2				1.646	119	0	0	1	1	**2**
International Journal of Health Services	US	2				0.484	125	0	0	1	1	**2**
International Journal of Public Health	CH	2				1.076	41	0	0	1	1	**2**
Journal of Human Nutrition and Dietetics	US	2				0.608	46	0	0	1	1	**2**
Journal of Medicine and Philosophy	UK	2				0.419	36	0	0	1	1	**2**
Journal of Public Health Policy	UK	2				0.836	37	0	0	1	1	**2**
Lancet	UK	2				11.150	560	0	0	1	1	**2**
Nutrition Reviews	UK	2				2.264	100	0	0	1	1	**2**
Physiology and Behavior	US	2				1.257	113	0	0	1	1	**2**
Addiction	UK	1				2.386	143	0	0	1	1	**2**
Advances in Hospitality and Leisure	US	1		1	C	0.179	6	1	1	0	0	**2**
Africa	UK	1				0.615	25	0	0	1	1	**2**
AgBioForum	US	1			C	0.377	31	0	1	0	1	**2**
American Ethnologist	US	1				2.587	51	0	0	1	1	**2**
American Journal of Community Psychology	US	1				1.55	83	0	0	1	1	**2**
American Journal of Physical Anthropology	US	1				1.227	88	0	0	1	1	**2**
Annals of Behavioral Medicine	US	1				1.721	91	0	0	1	1	**2**
Annals of the American Academy of Political and Social Science	US	1				1.16	64	0	0	1	1	**2**
Annals of the New York Academy of Sciences	US	1				2.255	181	0	0	1	1	**2**
Antipode	US	1				2.343	69	0	0	1	1	**2**
Asia Pacific Viewpoint	UK	1				0.484	26	0	0	1	1	**2**
Body Image	NL	1				1.037	50	0	0	1	1	**2**
British Journal of Nutrition	UK	1				1.364	139	0	0	1	1	**2**
Child: Care, Health and Development	UK	1				0.844	54	0	0	1	1	**2**
Clinical Pharmacology & Therapeutics	UK	1				2.547	151	0	0	1	1	**2**
Clinical Therapeutics	US	1				0.926	108	0	0	1	1	**2**
Community Development Journal	UK	1				0.504	28	0	0	1	1	**2**
Community Mental Health Journal	NL	1				0.604	51	0	0	1	1	**2**
Contemporary Clinical Trials	US	1				1.133	38	0	0	1	1	**2**
Dental Clinics of North America	UK	1				0.52	47	0	0	1	1	**2**

Journal Title	Country	Total articles Retrieved	Total articles Final sample	ABS 2015[i]	ABDC 2013[ii]	SJR score 2014[iii, iv]	H-Index[v, vi]	ABS coef.	ABDC coef.	SJR coef.	H-index coef.	Final score[vii]
Development Policy Review	UK	1				0.869	43	0	0	1	1	**2**
Drug and Alcohol Review	UK	1				1.162	54	0	0	1	1	**2**
Engineering Economics	Lithuania	1			B	0.701	19	0	1	1	0	**2**
Ethnicity & Health	UK	1				0.692	42	0	0	1	1	**2**
European Journal of Law and Economics	NL	1		1	C	0.244	19	1	1	0	0	**2**
Federal Register	US	1				0.467	32	0	0	1	1	**2**
Frontiers in Behavioral Neuroscience	CH	1				1.295	32	0	0	1	1	**2**
Global Economy Journal	Germany	1		1	B	0.339	10	1	1	0	0	**2**
Governance	UK	1				2.086	52	0	0	1	1	**2**
Health & Social Work	US	1				0.439	40	0	0	1	1	**2**
Health and Place	UK	1				1.45	71	0	0	1	1	**2**
Health Education & Behavior	US	1				1.198	72	0	0	1	1	**2**
International Dental Journal	UK	1				0.563	47	0	0	1	1	**2**
International Journal of Behavioral Medicine	US	1				0.756	46	0	0	1	1	**2**
International Journal of Food Sciences and Nutrition	UK	1				0.441	49	0	0	1	1	**2**
International Journal of Hygiene and Environmental Health	Germany	1				1.279	60	0	0	1	1	**2**
International Journal of Obesity	UK	1				2.211	163	0	0	1	1	**2**
International Journal of Value Chain Management	UK	1		1	C	0.132	8	1	1	0	0	**2**
International Review of Psychiatry	UK	1				0.927	58	0	0	1	1	**2**
International Review of Retail, Distribution and Consumer Research	UK	1		1	B	0.297	11	1	1	0	0	**2**
Journal of African Economies	UK	1				0.72	30	0	0	1	1	**2**
Journal of Agricultural and Resource Economics	US	1				0.579	35	0	0	1	1	**2**
Journal of American College Health	US	1				0.838	69	0	0	1	1	**2**
Journal of Applied Behavior Analysis	US	1				0.812	56	0	0	1	1	**2**
Journal of Brand Management	UK	1		2	A	0.362	16	1	1	0	0	**2**
Journal of Business Communication	US	1			C	0.374	36	0	1	0	1	**2**
Journal of Child and Family Studies	US	1				0.638	50	0	0	1	1	**2**
Journal of Cleaner Production	UK	1				1.588	81	0	0	1	1	**2**
Journal of Consumer Culture	UK	1				1.688	31	0	0	1	1	**2**
Journal of Contingencies and Crisis Management	UK	1				0.46	34	0	0	1	1	**2**
Journal of Cultural Economy	UK	1		2		0.574	7	1	0	1	0	**2**
Journal of Dairy Science	UK	1				1.262	130	0	0	1	1	**2**
Journal of Ethnopharmacology	Ireland	1				1.195	140	0	0	1	1	**2**
Journal of Global Marketing	UK	1		1	C	0.198	19	1	1	0	0	**2**
Journal of Health Population and Nutrition	BGD	1				0.747	40	0	0	1	1	**2**
Journal of Health Psychology	UK	1				1.119	59	0	0	1	1	**2**
Journal of Historical Research in Marketing	UK	1			C	0.416	8	0	1	1	0	**2**
Journal of Hospitality and Tourism Technology	UK	1			B	0.408	7	0	1	1	0	**2**
Journal of Law Medicine & Ethics	US	1				0.584	42	0	0	1	1	**2**
Journal of Occupational and Environmental Medicine	US	1				0.978	84	0	0	1	1	**2**
Journal of Physical Activity & Health	US	1				1.071	39	0	0	1	1	**2**
Journal of Quality Assurance in Hospitality and Tourism	US	1		1	B	0.371	12	1	1	0	0	**2**
Journal of the Academy of Nutrition and Dietetics	US	1				1.69	126	0	0	1	1	**2**
Journal of the American Veterinary Medical Association	US	1				0.751	87	0	0	1	1	**2**
Journal of Urban Health	Germany	1				1.146	67	0	0	1	1	**2**
Kennedy Institute of Ethics Journal	US	1				0.449	30	0	0	1	1	**2**
Marine Pollution Bulletin	UK	1				1.327	113	0	0	1	1	**2**
Medical Anthropology: Cross Cultural Studies in Health and Illness	UK	1				0.7	28	0	0	1	1	**2**

Journal Title	Country	Total articles Retrieved	Total articles Final sample	ABS 2015[i]	ABDC 2013[ii]	SJR score 2014[iii, iv]	H-Index[v, vi]	ABS coef.	ABDC coef.	SJR coef.	H-index coef.	Final score[vii]
Modern Asian Studies	UK	1				0.58	27	0	0	1	1	**2**
Mountain Research and Development	CH	1				0.78	40	0	0	1	1	**2**
Mutation Research-Fundamental and Molecular Mechanisms of Mutagenesis	NL	1				2.099	136	0	0	1	1	**2**
New York University Law Review	US	1				1.546	35	0	0	1	1	**2**
Plant Foods For Human Nutrition	NL	1				1.054	51	0	0	1	1	**2**
Poultry Science	US	1				1.019	95	0	0	1	1	**2**
Preventive Medicine	US	1				1.702	130	0	0	1	1	**2**
Public Health Reports	US	1				0.951	70	0	0	1	1	**2**
Research in Developmental Disabilities	US	1				1.084	67	0	0	1	1	**2**
Revista Panamericana De Salud Publica	US	1				0.46	42	0	0	1	1	**2**
Revue Scientifique Et Technique-Office International Des Epizooties	France	1				0.541	65	0	0	1	1	**2**
Science of the Total Environment	NL	1				1.658	160	0	0	1	1	**2**
Sociologia Ruralis	UK	1				0.749	58	0	0	1	1	**2**
Southern Economic Journal	US	1				0.665	40	0	0	1	1	**2**
Substance Use and Misuse	UK	1				0.672	60	0	0	1	1	**2**
American Journal of Law & Medicine	US	1				0.434	23	0	0	1	1	**2**
Canadian Public Policy	Canada	1			B	0.311	20	0	1	0	1	**2**
Field Methods	US	1				0.704	21	0	0	1	1	**2**
Food Analytical Methods	US	1				0.681	21	0	0	1	1	**2**
Hastings Law Journal	US	1				0.594	21	0	0	1	1	**2**
Journal of Veterinary Medical Education	Canada	1				0.443	24	0	0	1	1	**2**
New Genetics and Society	UK	1				0.512	24	0	0	1	1	**2**
Rural and Remote Health	AUS	1				0.471	24	0	0	1	1	**2**
Social Science Journal	US	1				0.412	24	0	0	1	1	**2**
Sustainability	CH	1				0.452	20	0	0	1	1	**2**
Journal of Food Products Marketing	UK	31			C	0.209	12	0	1	0	0	**1**
Journal of Agricultural and Environmental Ethics	NL	15				0.386	28	0	0	0	1	**1**
Journal of International Food and Agribusiness Marketing	UK	11			C	0.207	13	0	1	0	0	**1**
EuroChoices	UK	6			C	0.336	8	0	1	0	0	**1**
Young Consumers	UK	6			B	0.269	5	0	1	0	0	**1**
Health Promotion Journal of Australia	AUS	5				0.404	18	0	0	1	0	**1**
International Food and Agribusiness Management Review	US	4				0.318	21	0	0	0	1	**1**
Journal of Agricultural and Food Industrial Organization	US	3			C	0.207	14	0	1	0	0	**1**
Public Health Ethics	UK	3				0.489	10	0	0	1	0	**1**
Eating and Weight Disorders	Italy	2				0.36	30	0	0	0	1	**1**
Enterprise and Society	UK	2		3		0.150	14	1	0	0	0	**1**
Food Science and Technology Research	Japan	2				0.213	25	0	0	0	1	**1**
Food Security	NL	2				0.647	17	0	0	1	0	**1**
Human Organization	US	2				0.314	39	0	0	0	1	**1**
Canadian Journal of Dietetic Practice and Research	Canda	2				0.385	21	0	0	0	1	**1**
Health Marketing Quarterly	US	2				0.338	20	0	0	0	1	**1**
Asia Pacific Journal of Tourism Research	UK	1				0.583	18	0	0	1	0	**1**
Asian Journal of Scientific Research	Pakistan	1				0.462	10	0	0	1	0	**1**
Evaluation Review	US	1				0.269	39	0	0	0	1	**1**
Health Policy	Ireland	1					59	0	0	0	1	**1**
International Information and Library Review		1				0.408	18	0	0	1	0	**1**

Journal Title	Country	Total articles Retrieved	Total articles Final sample	ABS 2015[i]	ABDC 2013[ii]	SJR score 2014[iii, iv]	H-Index[v, vi]	ABS coef.	ABDC coef.	SJR coef.	H-index coef.	Final score[vii]
Journal of Aging and Social Policy	US	1				0.463	19	0	0	1	0	**1**
Journal of Black Studies	US	1				0.304	28	0	0	0	1	**1**
Journal of Euromarketing	US	1			C		13	0	1	0	0	**1**
Journal of Nonprofit and Public Sector Marketing	UK	1			B	0.333	11	0	1	0	0	**1**
Journal of Promotion Management	UK	1			B	0.218	10	0	1	0	0	**1**
Modern Applied Science	Canada	1				0.425	7	0	0	1	0	**1**
Nature and Culture	US	1				0.477	6	0	0	1	0	**1**
Quality & Quantity	NL	1				0.328	31	0	0	0	1	**1**
Research in Consumer Behavior	US	1			C	0.191	5	0	1	0	0	**1**
Scientific American	US	1				0.19	72	0	0	0	1	**1**
Social Theory & Health	UK	1				0.472	9	0	0	1	0	**1**
World Review of Science, Technology and Sustainable Development	UK	1			C	0.226	5	0	1	0	0	**1**
Bulletin of the History of Medicine	US	1				0.352	23	0	0	0	1	**1**
Ecology of Food and Nutrition	UK	1				0.265	20	0	0	0	1	**1**
Forum Qualitative Sozialforschung	Germany	1				0.218	21	0	0	0	1	**1**
Innovation	UK	1				0.276	22	0	0	0	1	**1**
Qualitative Research in Organizations and Management	UK	1				0.352	23	0	0	0	1	**1**
Review of European Community and International Environmental Law	UK	1				0.395	21	0	0	0	1	**1**
World Applied Sciences Journal	Pakistan	1				0.312	20	0	0	0	1	**1**

[i] **ABS** (Association of Business Schools) Academic Journal Quality Guide provides an assessment of fewer business and management publications worldwide (1401 in the latest version), but with a February 2015 edition it's slightly more recent than the ABDC Journal Quality List. The ranking is based on citation scores and the judgments of leading researchers in the field. ABS divides journals into five quality categories: 1) 4* (2.4%) a world elite journal, 2) 4 (6.1%) a top journal, 3) 3 (22.3%) a highly regarded journal, 4) 2 (34.3%) a well-regarded journal, 5) 1 (34.9%) a recognized journal.
Retrieved December 14, 2015 from https://steffenroth.files.wordpress.com/2015/06/abs-2015-steffen-roth-ch.pdf

[ii] **ABDC** (Australian Business Dean Council) Journal Quality List ranking was established in 2007 to overcome the regional and discipline bias of international rankings. Two editions of the ranking were produced since then – in 2009 and in 2013, which we selected based on the number of included items (2767) and relative newness. The ABDC Journal Quality List 2013 divides journals into four categories of quality: 1) A* (6.9%) best or leading journal in its field; 2) A (20.8%) highly regarded journal in the field or subfield, 3) B (28.4%) well regarded journal in the field or subfield; and 4) C (43.9%) recognized journal.
Retrieved December 14, 2015 from http://www.abdc.edu.au/pages/abdc-journal-quality-list-2013.html

[iii] **SJR index** (SCImago Journal Rank) was developed by SCImago from the widely known algorithm Google PageRank and based on the journals contained in the Scopus database from 1996. It is a measure of a journal's impact, influence, or prestige, showing the average number of cited citations received in the selected year by the documents published in the journal in the three previous years.
Retrieved December 10-14, 2015 from http://www.scimagojr.com/journalrank.php

[iv] SJR index scores were retrieved for 324 journal titles out of 410 (79%), which accounts for 881 (88.45%) of the total sample of retrieved articles (n=996).

[v] The **H-index** is an author-level metric that measures the productivity and citation impact of the publications of a scientist or scholar. In this case, the index is applied to the productivity and impact of a scholarly journal, considered as a group of of scientists who published their research there.
Retrieved December 10-14, 2015 from http://www.scimagojr.com/journalrank.php

[vi] H-index scores were retrieved for 333 journal titles out of 410 (81%), which accounts for 896 (89.96%) of the total sample of retrieved articles (n=996).

[vii] Publication venues with final score of "0" (number of articles originally retrieved is listed in the brackets after the title):
Food and Drug Law Journal (13); Ethics and the Politics of Food (9); Chemical Market Reporter (6); JOURNAL OF THE AMERICAN DIETETIC ASSOCIATION (6); Amfiteatru Economic (5); Journal of Hunger and Environmental Nutrition (5); Quality - Access to Success (5); Catalan Journal of Communication and Cultural Studies (3); Ethical Futures: Bioscience and Food Horizons (3); Food Drug Cosmetic Law Journal (3); Journal of Extension (3); Journal of Medical Marketing (3); Packaging Digest (3); A Resilient European Food Industry in a Challenging World (2); Brand (2); Consumer Behavior (2); Family and Consumer Sciences Research Journal (2); Food, Culture and Society (2); HOSPITALITY AND TOURISM: SYNERGIZING CREATIVITY AND INNOVATION IN RESEARCH (2); International Conference on Management Science and Engineering - Annual Conference Proceedings (2); International Journal of Pharmaceutical and Healthcare Marketing (2); Journal of Food Science Education (2); Journal of Hospital Marketing (2); Journal of the International Academy for Case Studies (2); Journal on Chain and Network Science (2); Marketing Health Services (2); Proceedings of the National Academy of Sciences of the United States of America (2); Research for Rural Development (2); Saude e Sociedade (2); The Oxford Handbook of the Social Science of Obesity (2); Worldwatch Paper (2); 2012 2ND INTERNATIONAL CONFERENCE ON APPLIED SOCIAL SCIENCE (ICASS 2012), VOL 1 (1); 2013 3RD INTERNATIONAL CONFERENCE ON APPLIED SOCIAL SCIENCE (ICASS 2013), VOL 1 (1); 2014 5th International Conference on Intelligent and Advanced Systems: Technological Convergence for Sustainable Future, ICIAS 2014 - Proceedings (1); 2ND INTERNATIONAL CONFERENCE ON STRATEGIC INNOVATIVE MARKETING (1); 5TH INTERNATIONAL CONFERENCE LUMEN 2014, TRANSDISCIPLINARY AND COMMUNICATIVE ACTION (LUMEN-TCA 2014) (1); 8TH INTERNATIONAL DAYS OF STATISTICS AND ECONOMICS (1); Actual Problems of Economics (1); ADVANCES IN ASIA-PACIFIC LOW CARBON ECONOMY (1); Advances in Consumer Research - European Conference Proceedings (1); Advances in Health Economics and Health Services Research (1); Advertising: Developments and Issues in the Digital Age (1); Agrekon (1); Agris On-line Papers in Economics and Informatics (1); Agroalimentaria (1); American Academy of Advertising Conference Proceedings (1); American Health and Drug Benefits (1); Americans and Food Choices: Select Research on Time and Diet (1); Anthropologist (1); ARCHIVES OF PEDIATRICS & ADOLESCENT MEDICINE (1); ASBBS eJournal (1); ASEAN CONFERENCE ON ENVIRONMENT-BEHAVIOUR STUDIES (ACE-BS) (1); Asian Social Science (1); Biosecurity and Bioterrorism (1); Business Transformation through Innovation and Knowledge Management: An Academic Perspective - Proceedings of the 14th International Business Information Management Association Conference, IBIMA 2010 (1); Cag University Journal of Social Sciences (1); CANADIAN JOURNAL OF PUBLIC HEALTH-REVUE CANADIENNE DE SANTE PUBLIQUE (1); Capabilities, Gender, Equality: Towards Fundamental Entitlements (1); China Business Review (1); Configurations (1); Consumers, Policy and the Environment A Tribute to Folke Ölander (1); Consuming Korean Tradition in Early and Late Modernity: Commodification, Tourism, and Performance (1); Contributions to Economic Analysis (1); Creating Global Competitive Economies: A 360-Degree Approach - Proceedings of the 17th International Business Information Management Association Conference, IBIMA 2011 (1); Current Issues in Hospitality and Tourism Research and Innovations - Proceedings of the International Hospitality and Tourism Conference, IHTC 2012 (1); Dialectical Anthropology (1); Dynamics of Competitive Advantage and Consumer Perception in Social Marketing (1); Economic Annals (1); Economic Annals-XXI (1); Environments (1); European Environment (1); European Food and Feed Law Review (1); European Journal of Risk Regulation (1); Family Economics & Nutrition Review (1); FDA Review of Drug Applications (1); Finance a Uver - Czech Journal of Economics and Finance (1); Fish Piracy: Combating Illegal, Unreported and Unregulated Fishing (1); Food and Foodways (1); Food Science and Technology: New Research (1); Foundations and Trends in Marketing (1); French Historical Studies (1); Governing Risk in GM Agriculture (1); Handbook of Sports Psychology (1); Health Education (1); HEALTH EDUCATION QUARTERLY (1); IEEE International Professional Communication Conference (1); Indian Journal of Agricultural Economics (1); Insufficient Funds: Savings, Assets, Credit, and Banking Among Low-Income Households (1); International Business and Management (1); International Journal of Agricultural Resources, Governance and Ecology (1); International Journal of Biotechnology (1); International Journal of Business and Society (1); International Journal of Management Cases (1); International Journal of Risk Assessment and Management (1); International Journal of Sustainability Policy and Practice (1); International Research Journal of Finance and Economics (1); Ireland: Economic, Political and Social Issues (1); JOURNAL OF BIOETHICAL INQUIRY (1); Journal of Communication in Healthcare (1); Journal of Consumer Health on the Internet (1); JOURNAL OF DEVELOPING AREAS (1); Journal of Direct, Data and Digital Marketing Practice (1); Journal of Health Care Marketing (1); Journal of International Consumer Marketing (1); Journal of Medical Licensure and Discipline (1); Jurnal Komunikasi: Malaysian Journal of Communication (1); Kasetsart Journal - Social Sciences (1); Liberalising Trade in the EU and the WTO: A Legal Comparison (1); Low-Wage Work in Denmark (1); Management and Marketing (1); Management Research News (1); Marketing Management Journal (1); MATHEMATICAL METHODS IN ECONOMICS (MME 2014) (1); McGill Journal of Law and Health (1); Medicalized Masculinities (1); Mediterranean Journal of Social Sciences (1); Nanotechnology Law and Business (1); Nonwovens Industry (1); Pakistan Development Review (1); Paperboard Packaging (1); Perspectives on Food-Safety Issues of Animal-Derived Foods (1); Pertanika Journal of Social Science and Humanities (1); Pharmaceutical Industry: Innovation and Developments (1); PICMET 2014 - Portland International Center for Management of Engineering and Technology, Proceedings: Infrastructure and Service Integration (1); Pleasures in Socialism: Leisure and Luxury in the Eastern Bloc (1); Policy Futures in Education (1); Practice Nurse (1); Preventing Harmful Substance Use: The Evidence Base for Policy and Practice (1); Problemy Ekorozwoju (1); Proceedings for the Northeast Region Decision Sciences Institute (NEDSI) (1); PROCEEDINGS OF THE 1ST NATIONAL CONFERENCE ON ENVIRONMENT-BEHAVIOUR STUDIES (1NCEBS) (1); Proceedings of the 2000 IEEE Engineering Management Society, EMS 2000 (1); PROCEEDINGS OF THE NUTRITION SOCIETY (1); Proceedings of the Technical Association of the Graphic Arts, TAGA (1); PROGRESS IN COMMUNITY HEALTH PARTNERSHIPS-RESEARCH EDUCATION AND ACTION (1); Public Health Branding: Applying Marketing for Social Change (1); Quarterly Journal of International Agriculture (1); Regulating Lifestyle Risks: The Eu, Alcohol, Tobacco and Unhealthy Diets (1); Research in Ethical Issues in Organizations (1); Research Journal of Business Management (1); Rethinking the Welfare State: The Prospects for Government by Voucher (1); Review of Agricultural Economics (1); Revista Brasileira de Gestao de Negocios (1); Science in Context (1); Smart Innovation, Systems and Technologies (1); SOCIAL WORK IN PUBLIC HEALTH (1); Studies in Family Planning (1); Studies in Regional Science (1); Taiwan Review (1); The Animal Feed Question in the Shadow of Contemporary Food Crises (1); The Changing Business Landscape of Romania: Lessons for and from Transition Economies (1); The FDA and generally recognized as safe (GRAS) substances (1); The Food Economy: Global Issues and Challenges (1); The Oxford Handbook of the Economics of the Biopharmaceutical Industry (1); The Regulatory Enterprise: Government, Regulation, and Legitimacy (1); Trade and Human Health and Safety (1); U.S. Grain Consumption (1); Wine Economics and Policy (1).

Appendix 3. Coding frame and coding protocol [viii]

Code	Code format	Description and/or mode of coding
PUBLICATION PROFILE		
Authors	Text Numerical	Authors' full names Number of authors per article
Authors' affiliations	Text Text	Full name of authors' institutional affiliation Location of authors' institutions (country & continent)
Number of institutions	Numerical	Number of unique institutions per article
Number of countries	Numerical	Number of unique countries of the article's authors' institutions
Discipline	Text	Discipline declared as official authors' affiliation (e.g. *marketing, agricultural economics, nutrition studies, hospitality management,* etc.)
Publication venue	Text Text	Full name of the journal Country of publication according to SCImago online database (Retrieved December 10-14, 2015 from http://www.scimagojr.com/journalrank.php)
Nature of article	Single choice	*Empirical*: reports on a conducted study, observation, experiment, etc. *Conceptual*: theoretical exploration of a phenomenon *Review*: summarizes previously published articles
Number of pages	Numerical	Full number of article pages, including references
Number of citations	Numerical	Google Scholar citations (chosen due to amount of indexed works). (Retrieved first in February 2016, subsequently updated on August 4, 2016)
RESEARCH DESIGN		
Theoretical positioning	Text [re-coded as single choice ex-post]	Theory, paradigm, or conceptual model that defines the authors' propositions, approach to analysis of phenomena, and use of concepts. Based primarily on authors' explicit declarations (normally in the special section dedicated to theoretical framework and/or literature review), copied verbatim into the coding frame. Subsequently, after all items were fully coded, individual theories were grouped into categories and a second superior-level code was created for categorization purposes.
Problem crystallization*	Single choice	*Exploratory*: research question and overall research approach based on discovery of relatively little-researched phenomenon. *Formalized*: explicit use of hypotheses, research questions structured around problems defined by earlier research.
Topical scope*	Single choice	*Statistical*: research design based on quantitative methods *Qualitative*: research design based on qualitative methods *Mixed*: mixed research design combining qualitative and quantitative approach *Case study*: research organized as a case study (for exemplary or didactic purposes)
Time dimension*	Single choice	*Cross-sectional:* analysis of a phenomenon at a single point in time. *Longitudinal:* analysis of a phenomenon measured repeatedly over time. *Mixed*: research design involving a combination of cross-section and longitudinal studies of one or several phenomena.
Market emphasis	Single choice	*Domestic*: one national market taken as a research focus *Cross-country*: more than one national market taken as a research focus *Generic/Not-specified*: general research and/or discussion not specifying any national markets
Research focus market	Text & Single choice	Country and/or region codified verbatim. Continent choice was limited to one of the standard options (*North America, Central America, South America, Europe, Asia, Africa, Australia*). Combinations of research markets located on different continents codified as "*Cross-continental*,"those without a particular market focus as "*Not specified*."
Number of studies*	Numerical	Total number of studies reported in the article, excluding pre-tests if applicable. *Applicable only to items classified as empirical in 'nature of article'.
Data collection mode*	Single choice	*Survey*: registered written response to a set of questions, tasks, or scenarios. *Interview*: individual or group open-ended more or less structured discussion. *Observation*: data collection based on either participatory or non-participatory observation of informants' behavior or response to stimuli *Secondary*: data collected from secondary sources, such as documents or existing databases. *Mixed*: more than one data collection mode employed.
Sampling design*	Single choice	*Probability*: probabilistic sampling procedure, in which each element of the population has a nonzero probabilistic chance of being selected for the sample *Non-probability*: theoretical or convenience sampling, relying on researchers' goals and judgments (rather than chance selection methods) *Not enough information:* if no information about the sampling method is deducible from the research
Recruitment/ communication mode*	Single choice	*Field:* sample interacted with in the natural environment for the studied phenomenon *Lab:* sample recruited for a study in a controlled environment *(Paid) online panel:* sample recruited via database of pre-registered participants online; participation may be exchanged for monetary (or not) contribution *(Paid) offline panel:* sample recruited via database of pre-registered participants offline; participation may be exchanged for monetary (or not) contribution *Database/document:* study sample is collected from documentary sources or from databases *Other (mixed or not specified):* sample recruitment methods that do not qualify for any other type or if no information about the sample recruitment method is available

Code	Code format	Description and/or mode of coding
Sample type*	Text [re-coded as single choice ex-post]	Composition of human informants or non-human information sources used in the study. Coded verbatim according to authors' description. Subsequently, after all items were fully coded, superior-level codes were created for categorization purposes to minimize the number of variants. Final categories included: *consumers, students, university staff/university affiliated, experts, households, companies, point of sale locations, brands/products, advertising, other/mixed*.
Sample size*	Numerical	Number of informants in the final usable sample.
Response rate*	Numerical	Proportion of the final clean sample used in the study to the number of informants approached in attempt to include in the study.
Variable association*	Single choice	*Causal*: research focused on determining cause-effect relationships between variables. *Descriptive*: research focused on providing description of phenomena in their incidence or association without determination of causality.
Control of variables*	Single choice	*Ex-post*: variable associations, correlations, or causal relationships described or controlled a posteriori. *Experiment*: variables pre-defined in the form of experimental manipulation prior to data generation and analysis.
Analytical technique*	Text [re-coded as single choice ex-post]	Analytical techniques applied to manage data, manipulate or reduce, prepare summaries, identify patterns, etc. Coded verbatim according to the authors' description of the main analytical technique (normally, the one used to test the hypothesis or reported on for the main study finding). Subsequently, after all items were fully coded, superior-level codes were created for categorization purposes to minimize the number of variants. Final list included: *descriptive statistics, non-parametric sample tests, ANOVA, MANOVA, ANCOVA, MANCOVA, factor analysis, cluster analysis, conjoint analysis, regression, econometric model, SEM. qualitative*.
TOPICAL AREA		
Industry	Text [re-coded as single choice ex-post]	Food market typology examined in the research. Coded verbatim according to authors' description. Subsequently, after all items were fully coded, superior-level codes were created for categorization purposes to minimize the number of variants. Final categories included: *food (in general or non-specified), packaged food, foodservice, functional food, organic food, fresh food, other*.
Food product focus	Text [re-coded as single choice ex-post]	Specific food product examined as the research object or as a research stimulus that exemplifies key researched concept. Coded verbatim according to authors' description. Subsequently, after all items were fully coded, superior-level codes were created for categorization purposes to minimize the number of variants. Final categories included: *snack; sweet snack; cereal; yogurt & diary; condiment; ready to eat meal; away from home meal; salad meal; red meat; white meat; fruit; vegetable; soy; beverage; bread; dessert; fish & seafood; other*. Studies that focused on more than 8 food product categories were coded as "*panel/multiple*" otherwise each item was assigned to a category if manifested individually or together with other food products.
Nutrition focus	Text [re-coded as single choice ex-post]	Specific nutrients examined as the research object or as a research stimulus that exemplifies key researched concept. Coded verbatim according to authors' description. Subsequently, after all items were fully coded, superior-level codes were created for categorization purposes to minimize the number of variants. Final categories included: *calorie, fat, saturated fat, trans fat, fatty acid, sodium, cholesterol, fiber, sugar, protein, pro & prebiotics, carbohydrates, omega-3, vitamins, other*. Studies that focused on more than 7 nutrients were coded as "*panel/multiple*" otherwise each item was assigned to a category if manifested individually or in a group of nutrients.
Health claim	Text [re-coded as single choice ex-post]	Specific health claim examined as the research object or as a research stimulus that exemplifies key researched concept. Coded verbatim according to authors' description. Subsequently, after all items were fully coded, superior-level codes were created for categorization purposes to minimize the number of variants. Final categories included: *cardiovascular health; bone & joint health; cancer risk reduction; cholesterol risk reduction; digestive health; brain activity & memory; immune support; energy; beauty; weight management; blood sugar & diabetes benefits; eyesight; other*. Each item was assigned to a category if manifested individually or in a group of other health claims.
Marketing practice	Text [re-coded as single choice ex-post]	Specific marketing practices examined as the research object or as a research stimulus that exemplifies key researched concept. Coded verbatim according to authors' description. Subsequently, after all items were fully coded, superior-level codes were created for categorization purposes to minimize the number of variants. Final categories included: *labeling, menu labeling, other nutrition marketing, advertising, branding, marketing communication, product quality, product quantity and packaging, R&D and new product development, pricing, distribution (retail & eating environments), social marketing communication, corporate social responsibility, market creation/growth (organic and other specialty food product), consumer segmentation, other*.

* Code applicable only to items classified as empirical in 'nature of article.'

NOTE: Categories, definitions and protocol elaborated starting from coding frame used in (Andriopoulos & Slater, 2013; Aykol & Leonidou, 2015; Aykol et al., 2013; Eteokleous et al., 2016; Gomes et al., 2016; C. N. Leonidou & Leonidou, 2011; L. C. Leonidou et al., 2010, 1998; L. C. Leonidou & Katsikeas, 2010) and explained in detail in (Aykol & Leonidou, 2015, see appendix; Eteokleous et al., 2016, see appendix III)

Appendix 4. Problematization analysis: Coding frame and co-occurrence analysis

Code	Code format	Description and/or mode of coding
DISCURSIVE PROBLEMATIZATION STRATEGIES (RESEARCH IMPETUS)		
Obesity epidemic	YES/NO	Statistics about obesity, medical consequences, general facts and figures about the overweight and obese population and its trends, including correlated medical issues linked to lifestyle or non-communicable diseases (NCDs).
Costs of obesity	YES/NO	Consequences of obesity epidemic, framed in terms of either economic or immaterial loss, including i) increased costs of medical care connected to obesity or its health consequences (e.g. diabetes, coronary disease etc.), ii) costs of consumer education and promotion of dietary changes aimed at curbing obesity rates, and iii) social welfare consequences such as discrimination and stigma (immaterial, yet quantifiable damage).
Obesogenic environment	YES/NO	Accounts of new/changed social reality held accountable for imminent growth and promotion of obesity, such as: sedentary lifestyle, reduction of physical activity, the trend toward convenience, (unhealthy) food advertising, increased proportion of eating out, overwhelming presence of (unhealthy) food cues in the environment, nonlinear pricing favoring consumption of larger portions, etc.
Poor diet	YES/NO	Descriptions, facts and figures, medical and/or scientific findings about the link between diet and (good vs. poor) health.
Information environment	YES/NO	Description of information regulation for food producers and information sources available to consumers to guide their (healthy) food choices, including accounts of consumer struggles to make informed choices in a complex environment.
Regulation change	YES/NO	Recent actual or imminent potential change in the regulatory environment with direct implications for both consumers and food producers/marketers.
Regulation criticism	YES/NO	Critical discussions about (partly or completely) inefficient public policies (including labeling, taxes, economic policies, regulations, and laws etc.). Similarly to "information environment," "regulation criticism" focuses on topics related to nutrition and health-related information disclosure and other public health policies, but the difference is the clear-cut critical stance about policies' adequacy and efficiency.
Information asymmetry	YES/NO	Statements that focus on a particular element of information being unequally distributed in consumer-firm or consumer-expert relationship. Characteristic of discursive strategies that stress the gap between what is commonly known and what is known only to a limited group of experts (e.g. marketers, food producers, nutrition specialists, doctors etc.)
Market potential	YES/NO	Report on potential benefits for producer/marketer, including material benefits (e.g. higher profits, market expansion, competitiveness etc.) and immaterial advantages for the producer or the brand (e.g. reputation, image, equity, loyalty etc.)
Market trend	YES/NO	Accounts of market changes in course, facts and figures about past market innovations, singular examples of market successes (or failures) or massive tendencies resulting from either push or pull market innovations.
Consumer demand	YES/NO	Accounts of consumer demand, including facts and figures deriving from consumer polls, market research data, etc.
Literacy	YES/NO	Discussions about consumers' level of knowledge, (in)capacity to understand and interpret health and/or information, and level of motivation (or skepticism) to apply nutrition and/or health information to food-related choices.
Imperfect/bounded rationality	YES/NO	Discussions about consumers' tendency to use relatively simple decisions rules (not perfect rational thinking), such as rules of the thumb, heuristics, inferences, biases, etc. to solve food-related decision problems.
Market differences	YES/NO	Statements about heterogeneities between markets and consumers in various (intra-national or inter-national) market settings.
Sustainability	YES/NO	Discussion about sustainability as business trend, need for or benefits of integration of social and environmental concerns in the business operations and marketing activities of creating, communicating, and delivering value in such a way that natural and human capital are not endangered.
Special consumer groups	YES/NO	Special interests or problems of consumers that can be considered vulnerable from the public policy perspective and of particular (dis)interest from the marketing perspective, such as children, the poor, ageing population, etc.
PROPOSED SOLUTIONS (CONCLUSIONS & RECCOMENDATIONS)		
Consumer education	YES/NO	Intentional strategies by public entities and/or private companies to improve consumer knowledge and understanding of proper nutrition and/or health behavior, and to change their "problem" behavior regarding unhealthy food choices.
Information disclosure	YES/NO	Strategies of reducing information asymmetries by publicly revealing additional information about food products and their composition, as well as other types of dissemination of novel expert knowledge relative to food products and consumption.
Policy measures	YES/NO	Initiatives and campaigns of market control and/or stimulation targeted at consumer protection and promotion of health-related food practices on a social level (other than information disclosure or regulation).

Code	Code format	Description and/or mode of coding
Information simplification	YES/NO	Strategies of reducing information complexity and enhancing the quality of communication between food producers/policymakers/experts and (average) consumers.
Communication	YES/NO	Strategies involving persuasive (commercial or social marketing) communication campaigns intended to convince consumers to choose food with health-related benefits and appeal and/or change eating behavior.
Nudging	YES/NO	Strategic modifications of choice architecture that "slightly push" consumers toward making healthier choices and implementing "small step" modifications to everyday health-related behaviors.
Pricing & distribution	YES/NO	Approaches that involve revisiting of price and/or distribution strategies
Product (re)formulation & valorization	YES/NO	Strategies based on modification of food products' nutritional or sensorial composition and/or valorization via secondary product attributes (e.g. packaging, brand name, usage instructions, etc.).
Corporate responsibility	YES/NO	Responsibilization of food producing and marketing businesses via explicit strategic orientation at integration of social and environmental concerns, including health, at the level of organizations.
Segmentation & targeting	YES/NO	Strategies that emphasize the importance of diversification of proposed solutions by different consumer segments (e.g. demographic, geographic, psychographic etc.).
Market research	YES/NO	Approaches stressing the need to include the "reversed" flow of information (i.e. from consumers to experts) to continuously keep track of consumers' unmet needs, feedback on market situation, proposals, etc.
Criticism	YES/NO	Invitations to critically assess not only the outcomes of proposed solutions, but the very premises of supposed problems and how they are managed.
Other	YES/NO	Other strategies not fitting into previously mentioned groups, including: co-creation, consumer involvement, cooperative marketing, public-private, and other inter-sectorial collaborations etc.

Solutions: Examples from research papers

	Examples from research papers
"Consumer education"	"A final avenue for counteracting the effects of the unhealthy = tasty intuition is to educate consumers about what constitutes healthy. Determining what is healthy or unhealthy is a deceptively difficult task because, as we discussed previously, healthiness is not an inherent quality of food; rather, it depends on the conditions (e.g., quantity, genetic makeup of the person consuming it) under which it is consumed. Nevertheless, consumers can be educated to approach nutrition in a more balanced fashion than they currently do." (Raghunathan et al., 2006, p. 181 [84]) "Measures of nutrition knowledge showed the strongest relationship to accuracy, thus suggesting potential benefits that could possibly accrue from increases in knowledge across the population. We also view these results as reinforcing the specific educational and nutrition motivation-related objectives of the NLEA." (Burton et al., 1999, p. 478 [116]) "Based on the analysis of consumers' opinions, we suggested the use of sufficient and effective consumer education and public communication through product labels, and public broadcasting programs such as radio and TV, under the supervision of the government." (Jun & Yeo, 2012, p. 153 [77]) "As a result of consumers' lack of knowledge regarding the fat levels of many restaurant foods and the high disease and death rate directly related to obesity, the USDA has specified that the development of educational programs that enable consumers to better understand the nutritional implications of eating food prepared outside the home is a priority (Centers for Disease Control and Prevention 2002)." (Kozup et al., 2003, p. 20 [81]) "[…]merely disseminating nutritional information may not be enough; rather, how consumers categorize such information should also be considered as flexible categorizations that may reduce the efficacy of eat-healthy (eat less hedonic or indulge less) policies. To counter categorization flexibility's prohedonic effect, our results suggest that educating consumers about differences among meals and developing beneficial eating routines (so that fewer but beneficial food-situation associations are formed) can help to relax categorization flexibility's prohedonic effect." (Khare & Chowdhury, 2015, p. 558 [73])
"Information disclosure"	"Truthful, nondeceptive information about scientific discoveries are potentially very valuable to consumers. There is considerable evidence that many consumers do not know even the most well- established diet-health relationships. Regulatory policies should be designed to encourage the provision of such information. Tapping the resources of the private sector to promote products based on scientific relationships can play an important role in providing this information and encouraging innovations based on these discoveries." (Ippolito & Mathios, 1990, p. 440 [72]) "Making calorie and nutrient information easily accessible at the point of purchase, rather than requiring consumers to actively search for it as they now must do, may help consumers act in better accordance with their long-term health goals." (Howlett et al., 2009, pp. 501–502 [74]) "This lack of knowledge and misperception about the healthfulness of restaurant foods suggest that consumers who dine out frequently do not realize or consider the effect of their diet on long-term disease risk. We suspect that if restaurants were required to disclose nutrition levels for at least very unhealthy items, it would affect purchase behavior for many consumers and probably motivate restaurants to improve the nutritiousness of such items." (Kozup et al., 2003, p. 32 [81])

	"Results suggest that providing calorie and nutrient information for both the beef and chicken categories, given the substantial variance in healthfulness across the different items, is likely to help consumers make more informed choices. For example, horn disconfirmation may direct attention to objectively healthier alternatives. Findings also show that the total indirect effect of mandatory nutrition information on purchase intentions generally do not vary according to presentation format (i.e., when information is accessed from the package or a poster). Thus, even when the information is presented on a poster, as long as consumers choose to access it, they should be able to make more informed product evaluations." (Burton et al., 2015, p. 254 [114])
"Policy measures"	"Another mechanism to provide funding is to offer subsidies to those who produce and sell healthy products. The financial incentives offered are also likely to attract the attention of those food and beverage manufacturers so often vilified by their critics as contributors to the obesity epidemic. Since these types of organizations already have the product and marketing know-how to create demand, incentives to apply that knowledge to healthy food categories may provide the spark needed to revolutionize the selection of healthy food and beverage choices" (Bublitz & Peracchio, 2015, p. 2490 [42]) "Given the large gap between what consumers are willing to pay for organic food and the price premiums that are actually demanded in the market, additional measures are necessary to stimulate the consumption of organic food. Governments can subsidize organic produce (i.e., lower value-added tax) or increase prices (i.e., higher value-added tax) for regular products. These measures have important policy implications, and governments may be reluctant to interfere in markets because doing so significantly impacts the supply chain (i.e., farming). Negative consumer reactions and potential lower support for sustainable government policies are additional potential downsides of government tax measures. Nonetheless, similar policies have been used successfully to stimulate consumer demand for hybrid cars (e.g., Zhang et al., 2011). Apart from subsidizing organic products, governments could try to increase the segment of consumers who are willing to pay an additional price premium for organic products."(van Doorn & Verhoef, 2011, p. 177 [33]) "No labelling system or legislation can control the choices made by individuals and therefore the responsibility to select nutritional balanced food is personal. The difficulties of standardisation and the high costs involved in providing precise nutritional information suggest it would difficult for small businesses to achieve and these may be put at risk of closure if forced to scientifically calculate nutritional values. Without an appropriate, holistic, restaurant nutritional labelling system, there appears to be little point in the hospitality industry endeavouring to provide information that many customers may ignore or not understand" (Alexander et al., 2010, p. 578 [134])
"Information simplification"	"This study suggested that sufficient consumer education and public communication composed of easy and basic information will help consumers understand health claims and will enhance their interests in health and health claims. […] we investigated the opinions of both consumers and experts. By comparing and contrasting the two data sets, we found that consumer-friendly and non-confusing health claims regulations should be placed on processed foods." (Jun & Yeo, 2012, p. 153 [77]) "Food health branding might provide great benefits to the consumer. For instance, health brands communicate easily recognized promises that the products are healthy, which makes reading the nutritional product information superfluous (provided, of course, one trusts the promise) (de Chernatony 2006, 2009; Keller 2008). In this way, health brands could reduce the time and energy that should otherwise be invested in reading and understanding the nutritional information on the back of the pack and, thereby, make the healthy choice an easier choice." (Anker et al., 2011, p. 33 [41]) "To facilitate a comparison across categories and to ensure that nutrition knowledge about certain products does not remain vague (especially in less healthy cate gories), intuitive indicators should be applied to all types of packaged food products and even for out-of-home dining (Andrews, Burton, & Kees 2011; Kozup, Creyer, & Bur ton 2003)." (Mai & Hoffmann, 2015, p. 77 [160])
"Communication"	"In contrast, advertising is more often distributed through tele- vision, with a smaller portion in print media. Moreover, the health information is likely to be linked directly to product choices, making it simpler to incorporate the information into behavior. Consequently, for instance, advertisers may be more effective at reaching all educa- tion groups. Additionally, advertisers have the incentive to identify subgroups of the population that do not have the information and to design adverfising campaigns directed specifically at the target group. As a result, advertisers may be more successful in reaching culturaLly disfinct groups or other groups that have disadvantages in acquiring and processing information as it is disseminated by public sources." (Ippolito & Mathios, 1990, p. 419 [72]) "A positive mar- keting framework examines how consumers, businesses, and society can participate in an exchange that is mutually beneficial. Encouraging producers and growers to adopt a marketing communications strategy designed to successfully promote healthy foods may help advance consumer well-being and may also help the businesses that produce these products thrive." (Bublitz & Peracchio, 2015, p. 2485 [42]) "Also health, like any other product characteristic, can be conveyed through the brand, and therefore branding potentially plays an important role in the communication of a product's health benefits." (Chrysochou, 2010b, p. 70 [90]) "In policy terms, the key message that merges is the need to develop initiatives that deliver personal, customised messages n her than generic communications initiatives that exhort consumers to eat healthier foods. While, in the past, tailored communications messages designed individually for millions of consumers would have been impossible, new media such as the Internet and mobile telephony (including SMS messaging) and new marketing techniques such as customer relationship management (CRM) potentially provide the means to achieve mass customisation. The first step would be to provide lifestyle and nutrition diaries and calculators online, perhaps initially targeted at consumers identified by medical practitioners as 'at risk'. These could be combined, for example, with daily SMS message 'prompts' to complete the daily diet and exercise diary. It is important that consumers be convinced that their individual self-interest is central to the communications program, rather than perceiving it to be part of a generalised, impersonal educational campaign (Rothschild, 1999)." (Brennan, Dahl, et al., 2010, p. 649 [92])
"Nudging"	"One way, as was done with the "Got milk?" campaign, would be to raise inventory salience. This would reduce the likelihood of wasting healthful foods, which are often more perishable than less healthful ones. It would also accelerate the consumption rate of health foods. Studies of food-intake diaries have shown that the intake frequency of fruits and yogurts increases as their perceived expiration date approaches (Wansink 2006). Such efforts can also lead people to think of a recent instance in which they consumed the food, which in turns increases consumption intentions (Wansink and Deshpandé 1994)." (Chandon & Wansink, 2006, p. 134 [79])

	"At the same time, our finding that food demand response patterns may be nudged in a health- ier direction by merely priming participants to think about the enabling peer support aspects of social networks implies that investing in "virtual community" programs holds more promise for not only public policy makers but firms that aim to promote healthy lifestyles. Such firms may include supermarket chains (e.g.. Whole Foods) and companies pro- moting consumer and employee Wellness programs. Given the changing nature of communication and the influence of virtual communities (Chan and Li 2010), this appears to be a high-yield area in terms of influencing healthier food selection and consumption." (Talukdar & Lindsey, 2013, p. 136 [85]) "In contrast to fighting against regulations, an overlooked solu- tion would be for restaurants to more effectively guide consumers toward these healthier options while still giving them a wide range of choices (Reynolds et al., 2005). For instance, instead of hoping the display of nutritional facts will change ordering behavior, principles of psychology and behavioral economics can be used to engineer restaurant menus so they can guide customers to make healthier choices by (1) shifting attention, (2) enhancing taste expectations, and (3) increasing perception of value (Just and Wansink, 2013; Wansink et al., 2014). […] An initial step in engineering a restaurant menu to guide health- ier choices is to make certain those healthier items are more convenient to see and be considered (Hanks et al., 2012a). This could occur by drawing more attention to particular items, or shif- ting attention away from default items by using salience builders such as using a contrasting font, font color, or font size, or by using pictures, illustrations, or icons if appropriate (Zwicky and Zwicky, 1980). Graphics can serve as powerful motivators for order- ing (Poundstone, 2010)." (Wansink & Love, 2014, pp. 137–138 [143])
"Pricing & distribution"	"In addition, marketers should break from the current norm of pricing healthier alternatives at a premium. A comparison of SKU prices in our data reveals that the least unhealthy processed meat and cookies are priced at a premium of as much as 50% compared with unhealthy options, presumably because marketers believe the health-conscious niche segment is less price sensitive. However, the impact of price on purchases is as great as that of disease diagnosis. If marketers make their healthier options more affordable, more consumers whose poor health is making them cut unhealthy intake can buy these options, instead of reducing their category consumption. Indeed, Wal-Mart (2011) has recently announced such an initiative. That this would work is evidenced by our finding that diabetes households make a substantial switch from regular to low-sugar CSDs, a category in which there is no price premium for the latter. The finding that affordability, as reflected in income, becomes more important after diagnosis, also underscores the need for smart pricing." (Ma et al., 2013, p. 117 [82]) "Thus, marketers that offer their healthy foods with supersized pricing may encourage consumers to buy the larger size, which should ultimately increase the quantity of healthy food they consume. That is, if marketers can benefit financially from using supersized pricing for healthier foods (i.e., vegetables, fruits), this may benefit marketers, consumers, and society alike". (Haws & Winterich, 2013, p. 61 [86]) "Marketers should consider how other elements of the marketing mix such as product packaging and alternative distribution methods such as vending machines can be used to reposition their products in the minds of consumers. Packaging healthy food choices in convenient as well as visually appealing ways and making them readily available in the marketplace at competitive prices may entice consumers to make healthy choices. Retail displays offer yet another communication tool to persuade consumers to make a healthy choice. As the availability of snack options and product lines that target health conscious consumers have proliferated, consumer choices have become more confusing. Increasing the availability and selection of foods consumers immediately recognize as healthy choices (e.g., ready to eat fruits and vegetables) may help consumers navigate the confusing world of health claims." (Bublitz & Peracchio, 2015, p. 2490 [42])
"Product (re)formulation and valorization"	"Given differences in actual calorie and nutrient levels across restaurants, managers should consider the implications of nutrition information disclosure within distinct tar- get segments of consumers. Proactive restaurants may benefit from switching to lower calorie ingredients (e.g., reduce amounts of high calorie ingredients, such as oils and fats used in preparation) to improve nutritional profiles while also aiding consumer welfare. The serving sizes of higher calorie menu items could be reduced while, in order to counter consumer objections to changes in meal size, servings of the more healthful items (e.g., steamed vegetables and salads with low calorie dressings) could be increased." (Howlett et al., 2009, p. 502 [74]) "Another possibility for controlling the effects of the unhealthy = tasty intuition is to change the composition of unhealthy foods. One alternative is to reformulate high-energy-density foods (i.e., foods high in calories) to lower their energy density (i.e., calorie con- tent) by replacing some of the fat with water, fiber filler, or vegetables (Wansink and Huckabee 2005). [...] Research suggests that up to 20% of the fat in a high-energy-density food can be replaced with low-density items (e.g., fruits, vegetables) without consumers noticing a difference in taste (Rolls, Ello-Martin, and Tohill 2004)." (Raghunathan et al., 2006, p. 181 [84]) "Findings suggest branding, package size, meat cut, and seafood species as well as product and process forms add distinct value to value- added chicken and seafood products. Among the several contributions is the valuation of national manufacturer brands in light of strong competitive pressure from private label product lines (e.g., Loblaws President's Choice) that account for a 26% market share in the value-added chicken and seafood category. Sizable brand equities held by manufacturer brands and retail labels underpin the role of brand reputation and its implications for consumer loyalty and quality assurance to maintain retail price premiums." (W. Ahmad & Anders, 2012, p. 129 [5])
"Corporate responsibility"	"Given the rising trend in obesity, responsible managers of healthful foods could use our new insights into how con- sumers estimate inventory to influence their consumption of these foods." (Chandon & Wansink, 2006, p. 134 [79]) "Our research highlights the conundrum that packaged food companies are facing: they must continue to increase their sales and profits, but they also need to develop responsible products and marketing strategies to respond to the growing obesity and public health crises. If marketers fail to offer healthier food options that are priced competitively, they are likely to suffer sales drops and come under increased legislative scrutiny, as evidenced by the alcohol and tobacco industries. The CSD industry already is in the spot- light (Bittman 2010). It is in the interests of stakeholders of Coca-Cola and PepsiCo to encourage healthier product portfolios rather than resist this drive, as they are wont to do (Bauerlein 2011)." (Ma et al., 2013, p. 116 [82]) "Accepting the accolade, Roger Deromedi, the company's CEO stated that, 'our health and wellness program is an important business initiative that we believe is critical to the long-term success of Kraft. We're taking steps that are responsive to societal concerns, while at the same time driving our business results by transforming our portfolio to better align with consumer trends' (Kraft Foods Inc., 2005b). Kraft is not alone in recognising that long-term corporate growth within the food and drink industry (FDI) now rests on the efficient materialisation of societal concerns about health into product form and their public communication through Corporate Social Responsibility (CSR) strategies (see Margolis and Walsh 2003), a trend that this paper will both explore and critique." (Herrick, 2009, pp. 51–52 [132])

"Market research"	"here were some noticeable differences in the reactions of Australian and Dutch consumers, particularly in views about which foods were appropriate to carry health claims. This suggests that regulators need to conduct consumer research with their local pop- ulations to inform policy decisions." (P. Williams et al., 2008, p. 642 [10]) "While, in the past, forums of negotiation between experts and an ever-growing mass of individual food consumers (all with diverse situated histories and life projects) would have been extremely dif cult, new social media, "smart" technologies and mobile telephony coupled with new marketing approaches such as customer relationship management (CRM) potentially provide the means to roll out mass knowledge sharing, interdependent learning and counsel (Brennan et al., 2010). Developing a policy approach which in this manner engages consumers to speak on their own terms about their dietary behaviour across the three theoretical platforms identi ed in this paper may soften the repressive, one-sided administration of biopedagogies which problematise and marginalise obesity." (J. Cronin et al., 2014, p. 1573 [147]) "[...] marketers must know the relevant and perspective "consumer insight" to create the right "buyer benefits" and to deliver the consumers the right "reason why" causing them to buy the product." (Horska & Sparke, 2007, p. 350 [1])
"Segmentation & targeting	"This issue is especially important once we recognize that all consumers are not alike. A single message is unlikely to be equally effective in reaching different types of consumers. For instance, a message that is effective in getting an older person to consider a diet-health issue may not be as attractive to a younger person, for whom these issues seem far removed from current concerns. As a result, if all firms are required to use the same unchanging model language, we would expect the standardized message to be less effective in attracting the broad range of consumers over time, and thus, to substantially reduce producers' incentives to focus on diet- health issues in labeling. This effect would reduce the amount of truthful information flowing to consumers." (Ippolito & Mathios, 1990, pp. 436–437 [72]) "Specifically, it appears that firms tried to alter their current brands and manage the introduction of new brands so that each would occupy a distinct strategic position that different segments of consumers might value. A health-conscious segment of consumers, for example, would be more interested in brands that eliminate negative nutrients. This segment of consumers might be willing to trade some taste for the advantages associated with reductions in negative nutrients, such as sodium and fat. However, a less health-conscious segment of consumers, for whom taste is be a more important and determinant attribute (Myers and Alpert 1977), might be less willing to make such nutrient trade-offs. I speculate that firms anticipating such market reaction might have been more likely to increase the overall level of nutrition in their base brands by adding more positive nutrients (e,g,, calci- um, vitamins) that have no implications for the taste of the brand. Conversely, firms might introduce brand extensions with lower levels of negative nutrients for a small segment of health-conscious consumers who were willing to trade some taste for nutritional benefits. This approach was risk averse because it protected the firms' base brands from potentially negative attributions while enabling firms to compete for the health-conscious consumer." (Moorman, 1998, p. 93 [96])
"Criticism"	"Health promotion is frequently based on the problematic and contentious presumption that while 'most respondents know what constitutes a healthy diet ... they lack awareness of what such general information means in practice' (DoH 2004: 10). The statement seems particularly tenuous given the remarkable amount of practical information and advice concerning diets in the public realm. Set alongside this however, the deployment of 'health' and wellness as the strategic marketplace solutions explored in this paper would seem, in many respects, to hold the potential to not only add a potentially troublesome layer to existing consumer confusion, but also widen the gap between intention and action. Furthermore, while consumers still expect the government to assume some responsibility for addressing obesity and regulating the FDI (DoH 2004, Government Office of Science 2007), there needs to be more critical analysis of the potential implications of CSR activity for this. If left to the FDI's CSR, there is a marked danger that health promotion might reinforce the existing trend to render obesity and obese people 'visible proof of bad food choices and refusal to exercise' and as such, 'the relatively higher rates amongst poor and minority groups may be invoked to blame individuals – instead of structural issues such as poverty, lack of health insurance or violence – for their poor health' (Saguy and Riley 2005: 912). CSR strategies therefore hold the potential to perpetuate the propensity to blame individuals cast as making poor and 'uninformed' lifestyle choices for their health outcomes, with punitive consequences for existing health inequalities and social justice more broadly" (Herrick, 2009, p. 61 [132]) "To do this, we need to move beyond linear models of responsibility based on "traditional philosophical issues of free will and the possibility of moral judgement" (Fiore, 2003, page ix). This involves considering the practical outcomes of passing responsibility for children's 'healthy' eating to parents and how this responsibility is negotiated by parents and children alike. It also means considering the creation of specific moral knowledges surrounding what it means to be an 'un-healthy-eating body', and whose responsibility this body is, that is, the uncaring parent taking control of the child's unruly body." (Colls & Evans, 2008, p. 629 [7])
"Other"	"Another alternative solution implied by several examples cited in this paper (e.g., California Raisin Growers; California Milk Processing Board) is to encourage producers to form cooperative marketing agreements that promote a commodity generically rather than advertising a specific brand. An analysis of the effectiveness of cooperative agreements in the Dairy industry showed a net cost to ben- efit ratio increasing revenue for dairy farmers and milk processors (Nicholson & Kaiser, 2008)." (Bublitz & Peracchio, 2015, p. 2490 [42]) "Finally, policy makers should initiate a dialogue with consumers because consumers themselves can con tribute to the development of "healthy and tasty" products. If customers are active coproducers in this process (Etgar 2007), the levels at which healthier food options gain acceptance, customer satisfaction, and loyalty may increase." (Mai & Hoffmann, 2015, p. 77 [160])

Co-occurrence matrix of problematizations used in health and food marketing:

	Obesity epidemic	Costs of obesity	Obesogenic environment	Poor diet	Information environment	Regulation change	Policies criticism	Market potential	Information asymmetry	Market trends	Consumer demand	Literacy	Imperfect rationality	Market differences	Sustainability	Special consumer groups	Consumer education	Information disclosure	Policy measures	Information simplification	Communication	Pricing & distribution	Product valorization	Corporate responsibility	Segmentation & targeting	Market research	Nudging	Criticism
Obesity epidemic	**67**	16	32	8	26	3	15	5	2	13	7	15	23	2	3	16	16	13	9	11	21	2	9	4	6	1	6	2
Costs of obesity	16	**19**	6	3	5	0	4	1	0	1	0	3	8	0	0	2	3	2	2	2	8	2	3	0	3	0	5	0
Obesogenic environment	32	6	**51**	6	16	3	10	2	2	9	8	5	16	0	2	13	9	10	8	3	16	2	6	5	6	1	7	0
Poor diet	8	3	6	**32**	18	2	3	2	0	3	8	8	8	4	3	1	11	7	1	2	8	1	5	0	4	0	1	0
Information environment	26	5	16	18	**84**	4	1	3	10	14	11	31	14	5	5	7	23	19	10	16	23	0	11	4	7	0	2	3
Regulation change	3	0	3	2	4	**11**	4	0	2	3	1	4	3	2	0	1	1	5	0	2	4	0	0	1	2	0	0	0
Policies criticism	15	4	10	3	1	4	**31**	3	1	5	3	10	9	4	1	2	9	9	3	7	8	0	1	1	3	1	3	0
Market potential	5	1	2	2	3	0	3	**25**	1	8	11	3	1	5	6	3	3	1	3	0	8	3	3	1	6	2	0	0
Information asymmetry	2	0	2	0	10	2	1	1	**13**	2	1	6	0	0	1	0	1	2	0	3	4	0	0	0	3	0	0	1
Market trends	13	1	9	3	14	3	5	8	2	**42**	19	6	8	6	9	5	9	9	4	3	15	1	2	2	7	1	1	2
Consumer demand	7	0	8	8	11	1	3	11	1	19	**38**	5	9	4	11	2	7	9	1	2	14	2	3	2	9	1	1	0
Literacy	15	3	5	8	31	4	10	3	6	6	5	**49**	6	4	1	3	16	10	6	13	7	0	6	0	9	1	1	0
Imperfect rationality	23	8	16	8	14	3	9	1	0	8	9	6	**46**	0	3	2	12	10	6	7	10	0	5	4	3	0	10	1
Market differences	2	0	0	4	5	2	4	5	0	6	4	4	0	**17**	4	1	5	4	2	1	3	0	1	0	4	0	1	0
Sustainability	3	0	2	3	5	0	1	6	1	9	11	1	3	4	**22**	1	2	3	2	2	8	2	0	1	3	0	3	2
Special consumer groups	16	2	13	1	7	1	2	3	0	5	2	3	2	1	1	**20**	2	3	5	0	6	1	2	3	2	1	0	1
Consumer education	16	3	9	11	23	1	9	3	1	9	7	16	12	5	2	2	**43**	11	2	7	4	0	5	1	2	0	1	0
Information disclosure	13	2	10	7	19	5	9	1	2	9	9	10	10	4	3	3	11	**35**	3	5	6	0	2	2	0	0	0	0
Policy measures	9	2	8	1	10	0	3	3	0	4	1	6	6	2	2	5	2	3	**21**	3	2	1	2	1	0	0	1	0
Information simplification	11	2	3	2	16	2	7	0	3	3	2	13	7	1	2	0	7	5	3	**24**	1	0	1	0	3	0	0	0
Communication	21	8	16	8	23	4	8	8	4	15	14	7	19	3	8	6	4	6	2	1	**56**	2	2	0	2	1	2	1
Pricing & distribution	2	2	2	1	0	0	0	3	0	1	2	0	0	0	2	1	0	0	1	0	2	**5**	1	0	0	0	0	0
Product valorization	9	3	6	5	11	0	1	3	0	2	3	6	5	1	0	2	5	2	2	1	2	1	**20**	0	2	0	1	0
Corporate responsibility	4	0	5	0	4	1	1	1	0	2	2	0	4	0	1	3	1	2	1	0	0	0	0	**7**	0	0	0	1
Segmentation & targeting	6	3	6	4	7	2	3	6	3	7	9	9	3	4	3	2	2	0	0	3	2	0	2	0	**24**	1	0	0
Market research	1	0	1	0	0	0	1	2	0	1	1	1	0	0	0	1	0	0	0	0	1	0	0	0	1	**5**	0	0
Nudging	6	5	7	1	2	0	3	0	0	1	1	1	10	1	3	0	1	0	1	0	2	0	1	0	0	0	**13**	0
Criticism	2	0	0	0	3	0	0	0	1	2	0	0	1	0	2	1	0	0	0	0	1	0	0	1	0	0	0	**5**

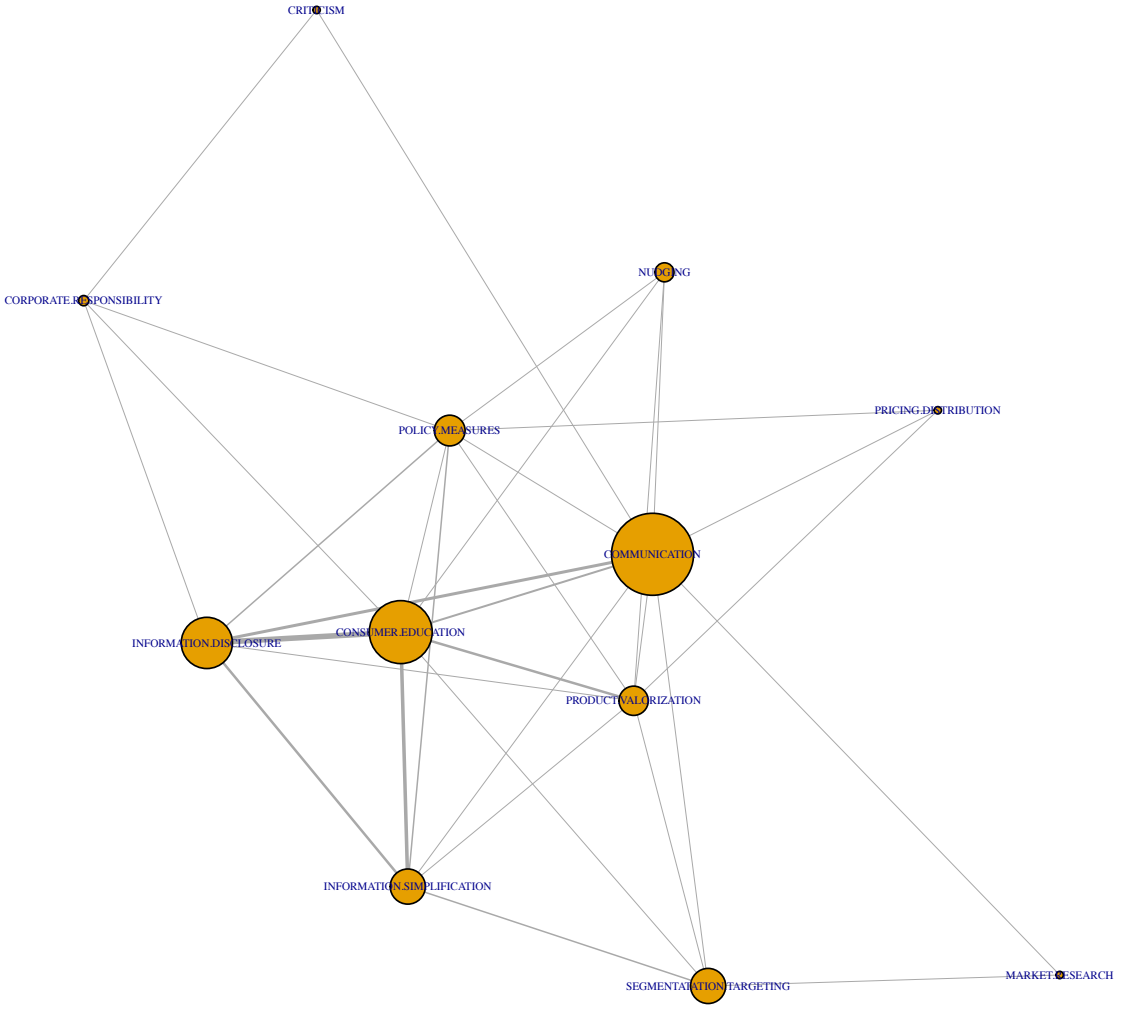
In **bold** *– the total number of each theme's occurrences in the analyzed sample, in black font – problematization themes, in gray – solution themes*

R script used for co-occurrence matrix visualization

```
PROBLEMATIZATION.MATRIX <- read.csv("~/Desktop/PROBLEMATIZATION MATRIX.csv", sep=";")

total_occurrences <- colSums(PROBLEMATIZATION.MATRIX)

data_matrix <- as.matrix(PROBLEMATIZATION.MATRIX)

co_occurrence <- t(data_matrix) %*% data_matrix

library(igraph)

graph <- graph.adjacency(co_occurrence,
                         weighted=TRUE,
                         mode="undirected",
                         diag=FALSE)

plot(graph,
      vertex.label=names(PROBLEMATIZATION.MATRIX),
      vertex.size=total_occurrences*0.3,
      vertex.label.cex = 0.4,
      margin=-0.1,
      edge.width=E(graph)$weight*0.08)
```

Adopted from: Schumacher, A. (2013, January 30). Visualize co-occurrence graph from document occurrence input using R package "igraph." Retrieved August 7, 2016, from http://planspace.org/2013/01/30/visualize-co_occurrence/

Co-occurrence map of solution typologies



List of researched articles[88]

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Altintzoglou, T., Birch Hansen, K., Valsdottir, T., Øyvind Odland, J., Martinsdóttir, E., Brunsø, K., & Luten, J. (2010). Translating barriers into potential improvements: The case of new healthy seafood product development. *Journal of Consumer Marketing*, *27*(3), 224–235. http://doi.org/10.1108/07363761011038293 [69]

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