

Ivana Bianchi & Roberto Burro

## The Experimental Phenomenology of Perception. A Collective Reflection on the Present and Future of this Approach

### 1. Introduction

The Experimental Phenomenology of Perception is part of an important tradition in the research into Psychology in Italy, and undoubtedly inspired by and connected to Gestalt Psychology—despite some specific theoretical differences (Giora & Bobbio, 2022; Kanizsa, & Caramelli, 1988; Kanizsa & Luccio, 1986; Sambin, 1980; Smith, 1988; Versteegen, 2000; Zanforlin, 2004; Zanforlin, & Sinico, 2004, 2005).

Independently of whether Fabio Metelli, Gaetano Kanizsa, Paolo Bozzi and Giovanni Bruno Vicario used the expression ‘the Experimental Phenomenology of Perception’ or not to refer to their own approach, these names are the first that come to mind as representatives of this school for the generation of researchers into perception to which we also belong. The names of other scholars will, of course, also immediately emerge, in an order that is most likely affected by the geographical origin of whoever is compiling the list: Riccardo Luccio, Walter Gerbino, Tiziano Agostini, Mario Zanforlin, Osvaldo da Pos, Luigi Burigana, Alberto Argenton, Natale Stucchi, Manfredo Massironi and Ugo Savardi...

Each of them worked according to their own personal interpretation of the approach. They did not shy away from the differences between them concerning certain specific theoretical or methodological aspects or their willingness towards integrating the perspectives and ideas of other approaches in the Cognitive Sciences. The various different nuances have often been warmly debated but there is still a common ground that is evident as compared to other schools of psychology. This common ground can perhaps be summarised as follows: *a careful investigation of the structure of phenomena* is the starting point for all of these *Maestri* and comes before we can talk of *perceptual processing*, or *the physiological conditions of perceptual experience* or anything else, if ever. For some of them, in fact, a careful investigation of the structure of phenomena is not only the starting point but also the final objective.

Articles and books are fortunately available, and it is therefore possible to study in detail exactly what these *Maestri* meant by ‘carrying out a careful analysis of

the structure of the human perceptual experience' (or of perceptual phenomena), both in terms of theory and methodology. These theoretical premises and methodologies have been rigorously forged and meticulously discussed and are part of a tradition of thought that has already been laid out (e.g. Bianchi & Davies, 2019; Bozzi, 1989; Burigana, 1996; Kanizsa, 1991; Luccio, 2004; Massironi, 1998; Metelli, 1982; Savardi & Bianchi, 2002, 2008; Sinico, 2008; Sinico & Parovel, 2008; Vicario, 1993, 2008), even though both theory and methodologies can obviously be developed further.

Is this the only way in which the Experimental Phenomenology of Perception can contribute to contemporary Cognitive Sciences? Or, to put it in another way: is this a complete exploration of how a careful analysis of the structure of phenomena can be important?

## 2. The 'Mosaic'

In order to answer the above-mentioned questions, a number of researchers working in different areas of Psychology, Language Studies, Philosophy and Art were consulted. This was done in the context of a symposium entitled 'The Experimental Study of Perception from a Phenomenological Perspective: from Present to Future', held in Macerata during 6–7 April 2022 and dedicated to Ugo Savardi. All those who were interviewed were people familiar with the Experimental Phenomenology of perception or, in general, Gestalt Psychology. We asked each of them to provide a brief message (90 s) explaining why they considered Experimental Phenomenology to be relevant to their field of study. All these messages form the 'tiles' that were then put together to form a 'mosaic' (you can access the mosaic here: <https://www.ephplab.com/gta-loop/>; <https://www.ephplab.com/mosaico/>), and we think the result makes a thought-provoking picture. If you take time to listen to the messages in each tile, they will certainly prompt you to reflect on a number of things. Here are some suggestions for reading this mosaic, inspired by one possible grouping of the ideas expressed.

- (i) Some tiles focus on the contribution of the Experimental Phenomenology of Perception in terms of *methodology*. If we pay careful attention to phenomena, we can discover amazing new things (Marco Bertamini). Phenomenology is the starting point of any study of perception (Marco Bertamini, Daniele Zavagno, Rossana Actis Grosso, Elena Capitani). If it is combined with Psychophysics, it allows rigorously controlled experimental set-ups that enable the study of how and why we perceive the world (Daniele Zavagno). It enables rigorous observation conditions to be established that are phenomenologically informed, giving the participants opportunities to formulate their responses without being in a forced choice condition (Michael Kubovy). The Experimental Phenomenology of Perception makes

it possible to study subjects' responses in relation to how a condition appears to him or her (known as Phenomenological Psychophysics), rather than focussing on the physical conditions of a stimulus, as in traditional Psychophysics (Roberto Burro). It combines multiple methods and this leads to new questions (Joost van de Weijer). The inter-observation method can be successfully extended to analyses of written texts and interactions, thus offering researchers a new method in conversational research (Andrzej Zuczkowski, Ilaria Riccioni, Ramona Bongelli). The Experimental Phenomenology of Perception can be used to develop new training programmes, for instance in Sports Psychology, to improve athletes' performance based on their perception of certain characteristics relating to an optimally performed movement (Tiziano Agostini). Today, we can also combine it with information about brain activation (Marco Bertamini) or use it as a non-invasive window to study brain mechanisms (Simone Gori).

- (ii) Other tiles focus on the contribution of the Experimental Phenomenology of Perception to the investigation of the expressive features of the world. We can use it to analyse human aesthetic experiences in order to discover, for example, what makes an artwork appealing (Alessandro Soranzo, Daniele Zavagno); it scientifically formalises the layer of qualitative experience that is central to current debates on Art as developed by art historians (Ian Verstegen). It allows us to understand, for instance, what makes a hat striking, traditional or modern, and as such it is useful in product design and development (Elena Capitani). And it can also help in definitions of the features of a restorative environment, something that is relevant for Environmental Psychology (Margherita Pasini). Or we can understand better why a particular perceived configuration, for instance an incongruity or a causal relationship, is comical—and this is of interest both for studies on humour and animation design (Giulia Parovel, Carla Canestrari). It is also central to the definition of 'user experience' in the domain of Computer Interaction Design (Rossana Actis Grosso).
- (iii) Yet other tiles regard how the Experimental Phenomenology of Perception which centres on how content is experienced by humans can clarify the perceptual grounding of linguistic conceptualisation and categorisation (Dirk Geeraertz). For instance, sameness, similarity, diversity and opposition are primal perceptual relationships that are studied in the Experimental Phenomenology of Perception, but they are central to categorisation and language use too (Ivana Bianchi). Similarly, salience, comparison and contrast as related to human experience are classic areas of investigation for the Experimental Phenomenology of Perception, but they are also of interest in the field of Cognitive Semantics with respect to the choice of language resources relating to those processes (Carita Paradis).

- (iv) Another group of tiles concerns how Experimental Phenomenology can be useful in the exploration of people's 'perception' of a process or situation, that is, how it appears to them, and what their representation of it is. The importance of this has been emphasised in relation to a variety of areas of research in the field of Psychology. In Psychometrics, for instance, it can be relevant to be more aware of the significance of participants' feelings and attitudes towards a test (i.e. how it appears to them or its face validity), and Experimental Phenomenology provides ways of emphasising the importance of this (Carlo Chiorri). In the context of the Psychology of safety, it can help us to understand how a situation that led to an accident was really represented in the mind of the operator before the accident occurred (Fabrizio Bracco). In the Psychology of risk and traffic, it can help us to understand how a situation is represented in terms of 'risk affordances' by a non-expert, and to compare this with the representation of experts (Federica Biassoni). Experimental Phenomenology is essential to the study of thought processes: if we do not have the benefit of people's subjective experiences, or participants' reports regarding what occurs during tasks involving specific types of thought process, then creating models relating to these processes will be nigh on impossible (Michael Öllinger). In the study of insight problem solving, it can help us to understand how a problem is initially presented in problem solvers' minds (which elements are relevant and which are initially disregarded) and how this representation can change during the process of searching for the solution (Erika Branchini). And it also makes it possible to investigate from a phenomenological perspective problem solvers' perception of being on the right or wrong track as exemplified in the 'Aha' moment (Amory Danek). More generally, Experimental Phenomenology can support psychological studies of the perception of how well a process is going (feelings of rightness, effectiveness and the subjective perception of certainty or uncertainty) in the metacognitive control processes relating to reasoning and decision making, as well as problem solving (Linden Ball). Outside the context of the laboratory, this approach is useful in helping us to understand people's representations of personal and interpersonal situations, and to arrive at suggestions concerning changes that are at the core of psychotherapeutical interventions (Gerhard Stemberger).
- (v) Finally, there are tiles suggesting that Experimental Phenomenology can be important in the field of Philosophy on various levels: from understanding how the world is given to human beings (Carla Danani) to providing new ways of looking at the world of phenomena and noticing details that stimulate philosophers to consider things in a new light (Arianna Fermani); and from highlighting the failures of the fit between what we

think we experience and how our experience of such things is really configured (Richard Davies) to making us challenge our basic cognitive forms (Roberto Casati).

### 3. Final Remarks

The picture that emerges from this mosaic demonstrates that there is in fact room for fresh input from the field of Experimental Phenomenology in current research in Psychology and beyond. The tiles suggest that what interests experimental phenomenologists in their *systematic analysis of the experiences of perceivers* can really enrich the theoretical constructs and methodologies used by psychologists nowadays. This may apply to many areas, including, for example, the Psychology of reasoning and meta-reasoning, as well as Empirical Aesthetics, the Psychology of safety and risk, Environmental Psychology, Psychophysics and Psychometrics, and also Sports Psychology and Psychotherapy. However, the mosaic also shows that a systematic analysis of the experiences of perceivers is fundamental to many areas of investigation beyond Psychology, which crucially involve observing 'how things look to perceivers'. We can understand how this can be useful in the design of products that match precise requirements modelled on people's real experiences and not on abstract notions. In fact, this can be relevant to Design in general, for example in interior and architectural designs, Interactive Websites Design and Ergonomics. A systematic analysis of the experiences of perceivers can also be useful in training interventions that start from the actual perception or representation of a situation and transform it into a more desirable final state. This was discussed earlier with reference to the mosaic in relation to problem-solving performance, psychotherapy interventions and the practice of sport, but there are many other contexts where this shift from an actual representation to a better or more functional one is crucial. Furthermore, the mosaic reminds us that a systematic analysis of the experiences of perceivers also has interesting implications for Semantics and Language studies.

We will refer to the philosophical tiles briefly in the next paragraph, but first it is important to emphasise that this collective reflection aims primarily to encourage psychologists to reflect upon the space that Experimental Phenomenology might occupy within contemporary Psychology. With respect to this primary aim, it seems to us that every tile shows us that there are many new areas of research for Experimental Phenomenology, and this is already in itself promising. However, what we believe is even more interesting is that there is a thread linking all of these areas—a thread that the mosaic makes visible, and one that these few pages have hopefully contributed towards clarifying. The existence of this thread suggests that the Experimental Phenomenology of Perception will add *a new*, meaningful chapter to what in the last 20 years has been referred to within the

field of Cognitive Science as either Grounded Cognition (e.g. Barsalou, 2008, 2010, 2020; Prinz, 2002) or Embodied Cognition (e.g. Ostarek, & Huettig, 2019; Varela, Evan, Rosh, & Kabat-Zinn, 2017; Wilson & Golonka, 2013; Zwaan, 2014). The interpretation of Grounded Cognition, which has been the most developed, involved anchoring cognition on motor and perceptual processing, at either a brain or behavioural level (e.g. Fisher & Zwaan, 2008a,b; Foglia & Wilson, 2013; Matheson & Barsalou, 2018; Tomasino, & Rumiati, 2013). A new chapter might arise from this *anchoring of cognition* (according to the various meanings touched upon in the tiles) to *a systematic analysis of the structure of phenomena*, whether it relates to the structure of a perceptual event, a memory of it or the anticipation of a future event (currently only imagined). This broader horizon does not betray the original intentions of the former Gestalt Psychologists, some of whom (e.g. Koffka, 1935, to mention only one) conceived of Gestalt Psychology as being applicable to not only the study of perception but also the study of memory, reasoning and language. An expansion of the horizons of the Experimental Phenomenology of Perception beyond its original application has already been pursued by the Zanforlin-Vallortigara school in relation to Animal Psychology (e.g. Vallortigara, 2012; Zanforlin, 1981), in a fruitful way. The broadening of these horizons that is emergent from the mosaic and discussed in these pages represents a new direction that future research might follow, investigating areas that have always been intriguing but have never really been developed. It is a way of interlacing the traditional aims of the past with current opportunities.

A further consideration concerns the potential elements of interest in the field of Experimental Phenomenology with regard to certain areas of investigation in contemporary Philosophy. This aspect is deliberately underdeveloped in the present form of the mosaic, the intention of which—as clearly stated in the previous paragraph—was to stimulate students and researchers in Psychology to reflect. There are, however, a few tiles that relate more closely to Philosophy. Might *a systematic analysis of the structure of phenomena* as detailed in this mosaic be of interest to those studying what goes under the name of Cognitive Phenomenology (e.g. Bayne & Montague, 2011; Breyer & Gutland, 2016; Chudnoff, 2015, 2020)? Might this analysis provide empirical evidence in support of the various statements that have been made in contemporary studies of the Philosophy of mind, explicitly referring to the benefits of a careful phenomenological analysis of the subjective experiences involved in perception, memory and imagination? This relates not only to the general debate on the role of Phenomenology in Cognitive Sciences that has been going on over the last 25 years (e.g. Gallagher, 2012; Jack & Roepstorff, 2002, 2003, 2004; Käufer & Chemero, 2015; Petitot, Varela, Pachoud, & Roy, 1999), but also to specific issues, such as, for instance, the defence of the usefulness of careful phenomenological analyses in the current new

debate on visual mental imagery (see the interesting position paper by Thompson, 2007). We also wonder if some of the results emerging from studies taking this broader view of Experimental Phenomenology might help researchers to operationalise the idea of ‘non-reflective self-consciousness’ (for a recent discussion, see Kriegel, 2002, 2003, 2006; Zahavi, 2004, 2005), or the reliability of first-person methods and experiments (e.g. Belt, 2020; Overgaard, Gallagher, & Ramsøy, 2008; Ramm, 2016, 2018). There is a lot of food for thought here regarding the directions that future studies in this area might take.

### Summary

The paper presents the result of a collective reflection inspired by the individual suggestions of 30 researchers working in different research areas. They are all familiar with the Experimental Phenomenology of Perception, and are aware of the importance that this approach might represent nowadays in their specific research field. The picture that emerges from this ‘mosaic’ stimulates us to consider the potential future developments of this approach if we accept that we need to push its borders beyond the traditional aims of the study of perception (as masterfully developed by the historic Italian *Maestri* of this approach). If we take this broader view, the Experimental Phenomenology of Perception can extend its perimeters from an analysis of strictly perceptual aspects to an analysis of cognitive and metacognitive aspects (such as aesthetic evaluations, the perception of risk, the experience of certainty/uncertainty in a reasoning process, the perception of proximity to/distance from the solution to a problem and meaning-making in language). The cognitive and metacognitive aspects referred to are grounded in and modelled on the perceiver’s experience of a given situation.

**Keywords:** Experimental Phenomenology of Perception, perceived structure of phenomena, from perception to representation, grounded cognition, embodied cognition.

### References

- Barsalou, L. W. (2008). Grounded cognition. *Annual Review of Psychology*, 59, 617–645.
- Barsalou, L. W. (2010). Grounded cognition: Past, present and future. *Topics in Cognitive Science*, 2(4), 716–724.
- Barsalou, L. W. (2020). Challenges and opportunities for grounding cognition. *Journal of Cognition*, 3(1), 31, 1–24.
- Bayne, T., & Montague, M. (2011). *Cognitive Phenomenology*. Oxford: Oxford University Press.
- Belt, J. (2020). Phenomenological skepticism reconsidered: A Husserlian answer to Dennett’s Challenge. *Frontiers in Psychology*, 11, 2058. doi: 10.3389/fpsyg.2020.02058
- Bianchi, I., & Davies, R. (Eds) (2019). *Paolo Bozzi’s Experimental Phenomenology*. London and New York: Routledge.
- Bozzi, P. (1989). *Fenomenologia Sperimentale*. Bologna, Italy: Il Mulino.
- Breyer, T., & Gutland, C. (2016). *Phenomenology of Thinking. Philosophical Investigations into the Character of Cognitive Experiences*. New York and London: Routledge.
- Burigana, L. (1996). *Singularità della visione*. Padova, Italy: Upsel.
- Chudnoff, E. (2015). *Cognitive Phenomenology*. London and New York: Routledge.
- Chudnoff, E. (2020). *Forming Impressions: Expertise in Perception and Intuition*. Oxford: Oxford University Press.
- Fisher, M. H., & Zwaan, R. A. (Eds.) (2008a). *Grounding Cognition in Perception and Action: A Special Issue of the Quarterly Journal of Experimental Psychology*. Hove: Psychology Press: Taylor & Francis Group.
- Fischer, M. H., & Zwaan, R. A. (2008b). Embodied language: A review of the role of the motor system in language comprehension. *The Quarterly Journal of Experimental Psychology*, 61(6), 825–850.

- Foglia, L., & Wilson, R. A. (2013). Embodied cognition. *WIREs. Cognitive Science*, 4(3), 319–325.
- Gallagher, S. (2012). *Phenomenology*. Basingstoke, Hampshire, UK: Palgrave Macmillan.
- Giora, E., & Bobbio, A. (2022). La psicologia della percezione nell'Università di Padova tra Otto e Novecento. In: *Locchio in Gioco. Il Gruppo N e la psicologia della percezione* (pp. 10–16) [eng. transl: *The Psychology of Perception at the University of Padua in the Nineteenth and Twentieth Centuries* (pp. 290–294)]. Silvana Editoriale.
- Jack, A. I., & Roepstorff, A. (2002). Introspection and cognitive brain mapping: From stimulus–response to script–report. *Trends in Cognitive Sciences*, 6, 333–339.
- Jack, A. I., & Roepstorff, A. (Eds.) (2003). *Trusting the subject? Vol 1. The use of introspective evidence in cognitive science*. Thorverton, UK: Imprint Academic.
- Jack, A. I., & Roepstorff, A. (Eds.) (2004). *Trusting the subject? Vol 2. The use of introspective evidence in cognitive science*. Thorverton, UK: Imprint Academic.
- Kanizsa, G., & Caramelli, N. (Eds.) (1988). *L'eredità della psicologia della Gestalt*. Bologna, Italy: Il Mulino.
- Kanizsa, G., & Luccio, R. (1986). Die Doppeldeutigkeiten der Prägnanz. *Gestalt Theory*, 8, 99–135.
- Kanizsa, G. (1991). *Vedere e Pensare*. Bologna, Italy: il Mulino.
- Käufer, S., & Chemero, A. (2015). *Phenomenology. An Introduction*. Cambridge, UK: Polity Press.
- Koffka, K. (1935). *Principles of Gestalt Psychology*. New York, NY: Harcourt Brace & Co.
- Kriegel, U. (2002). Phenomenal Content. *Erkenntnis*, 57, 175–198.
- Kriegel, U. (2003). Consciousness as Intransitive Self-Consciousness: Two Views and an Argument. *Canadian Journal of Philosophy*, 33, 103–132.
- Kriegel, U. (2006). Consciousness, Theories of. *Philosophy Compass*, 1, 58–64.
- Luccio, R. (2004). Gestalttheorie e sistemi dinamici. *Teorie & Modelli*, 9, 75–95.
- Massironi, M. (1998). *Fenomenologia della percezione visiva*. Bologna, Italy: Il Mulino.
- Matheson, H. E., & Barsalou, L. W. (2018). Embodiment and grounding in cognitive neuroscience. In: Wixted, J. (ed.) *The Stevens' Handbook of Experimental Psychology and Cognitive Neuroscience [4th edition]*. Wiley.
- Metelli, F. (1982) Some characteristics of gestalt-oriented research in perception. In J. Beck (a cura di), *Organization and Representation in Perception* (pp. 219–234). London, England: L. Erlbaum.
- Ostarek, M., & Huettig, F. (2019). Six challenges for embodiment research. *Current Directions in Psychological Science*, 28(6), pp. 593–599.
- Overgaard, M., Gallagher, S., & Ramsay, T. (2008). An integration of first-person methodologies in cognitive science. *Journal of Consciousness Studies: Controversies in Science and the Humanities*, 15(5), 100–120.
- Petitot, J., Varela, F. J., Pachoud, B., & Roy, J.-M. (eds.) (1999). *Naturalizing Phenomenology: Issues in Contemporary Phenomenology and Cognitive Science*. Stanford, CA: Stanford University Press.
- Prinz, J. (2002). *Furnishing the Mind: Concepts and Their Perceptual Basis*. Cambridge, MA: MIT Press.
- Ramm, B. J. (2016). Dimensions of reliability in phenomenal judgment. *Journal of Consciousness Studies*, 23(3–4), 101–127.
- Ramm, B. J. (2018). First-person experiments: A characterisation and defence. *Review of Philosophy and Psychology*, 9, 449–467.
- Sambin, M. (1980). La psicologia della gestalt. In P. Legrenzi (Ed.), *Storia della psicologia*. Bologna, Italy: Il Mulino. Sambin, 111–146.
- Savardi, U., & Bianchi, I. (2002). Una teoria (?) per i fatti e le relazioni. *Teorie & Modelli, n.s., VII(2–3)*, 219–228.
- Savardi, U., & Bianchi, I. (2008). The minimal features of experimental phenomenology of perception. *Teorie & Modelli, n.s., XIII(2–3)*, 79–94.
- Sinico, M. (2008). Demonstration in experimental phenomenology: How to bring out perceptual laws. *Theory & Psychology*, 18(6), 853–863.
- Sinico, M., & Parovel, G. (2008). Experimental phenomenology, a rhapsody. *Teorie & Modelli, n.s. XIII(2–3)*, 121–131.
- Smith, B., (Ed.) (1988). *Foundations of Gestalt Theory*. Munchen, Germany: Philosophia Verlag.
- Thompson, E. (2007). Look again: Phenomenology and mental imagery. *Phenomenology and Cognitive Science*, 6(1–2), 137–170.
- Tomasino, B., & Rumiati, R. I. (2013). Introducing the special topic “The when and why of sensorimotor processes in conceptual knowledge and abstract concepts”. *Frontiers in Human Neuroscience*, 7:498. doi: 10.3389/fnhum.2013.00498



- Vallortigara, G. (2012). The cognitive chicken: Visual and spatial cognition in a non-mammalian brain. In T. R. Zentall & E. A. Wasserman (Eds.), *The Oxford Handbook of Comparative Cognition* (pp. 48–66). New York: Oxford University Press.
- Varela, F. J., Evan, T., Rosh, E., & Kabat-Zinn, J. (2017). *Embodied Mind: Cognitive Science and Human Experience*. Cambridge, MA: The MIT Press.
- Verstegen, I. (2000). Gestalt psychology in Italy. *Journal of the History of the Behavioural Sciences*, 36(1), 31–42.
- Vicario, G. B. (1993). On experimental phenomenology. *Advances in Psychology*, 99, 197–219.
- Vicario, G. B. (2008). Experimental phenomenology and the sciences of perception. *Teorie & Modelli*, n.s., XIII(2–3), 17–46.
- Willems, R. M., & Francken, J. C. (2012). Embodied cognition: Taking the next step. *Frontiers in Psychology*, 3:582. doi: 10.3389/fpsyg.2012.00582
- Wilson, A. D., & Golonka, S. (2013). Embodied cognition is not what you think it is. *Frontiers in Psychology*, 4:58. doi: 10.3389/fpsyg.2013.00058
- Zahavi, D. (2004). Back to Brentano? *Journal of Consciousness Studies*, 11, 66–87.
- Zahavi, D. (2005). *Subjectivity and Selfhood: Investigating the First-Person Perspective*. Cambridge, MA: MIT/Bradford.
- Zanforlin, M., & Sinico, M. (2004). I recenti sviluppi della psicologia della gestalt in Italia, *Teorie e Modelli* (n.s.) (Numero monografico), 2–3. Italy, Pitagora editore.
- Zanforlin, M. (1981). Visual perception of complex forms (anomalous surfaces). *Italian Journal of Psychology*, 8(1), 1–16.
- Zanforlin, M. (2004). Gestalt Theory in Italy – Is it still alive? *Gestalt Theory*, 26(4), 293–305.
- Zanforlin, M., & Sinico, M. (2005). I recenti sviluppi della psicologia della gestalt in Italia, *Teorie e Modelli* (n.s.) (Numero monografico), 1. Italy, Pitagora editore.
- Zwaan, R. A. (2014). Embodiment and language comprehension: reframing the discussion. *Trends in Cognitive Sciences*, 18(5), 229–234.

**Ivana Bianchi** (b. 1971) is Associate professor of General Psychology at the University of Macerata, Department of Humanities (Section Philosophy and Human sciences). She is working in the field of experimental phenomenology of perception, in particular on perception of opposition, on mirror perception and on methodological issues concerning experimental phenomenology (such as inter-observation).

**Address:** Department of Humanities (section Philosophy and Human Sciences), via Garibaldi 20, 62100. Macerata, Italy;

**E-mail:** ivana.bianchi@unimc.it

**ORCID:** 0000-0002-5914-6042

**Roberto Burro** (b. 1975) Associate professor of General Psychology at the Department of Human Sciences, University of Verona (Italy). His main research interests are in perception and psychophysics, item response theory, fundamental measurement and experimental phenomenology of perception.

**Address:** Department of Human Sciences, Lungadige Porta Vittoria 17, 37129 Verona (Italy).

**E-mail:** roberto.burro@univr.it

**ORCID:** 0000-0002-4491-2015

