Corpora worth creating: A pilot study on telephone interpreting

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Abstract & Keywords

English:

This paper reports on the development and use of a corpus of interpreter-mediated phone calls to study features of telephone interpreting (TI) in healthcare settings. After a short introduction on TI and corpus-based studies of remote and on-site community interpreting (CI), the paper discusses ways of exploiting the corpus to analyse interpreters' translation and coordination activities over the phone. It first shows that, notwithstanding some limitations due to data originally collected for non-linguistic purposes, even a small and raw resource can contribute to exploratory analyses of TI, using a qualitative (Conversation Analysis) approach. It then illustrates how opportunities for more systematic research are opened up by corpus annotation. The paper finally reports on some preliminary insights about linguistic and interactional aspects characterizing this type of remote interpreting and makes a tentative comparison with two on-site CI corpora, thereby paving the way to more refined and quantitative investigations.

Keywords: telephone interpreting, community interpreting, interpreter-mediated interaction, healthcare, coordination, remote interpreting

1. Setting the scene: Telephone Interpreting as a sub-type of Community interpreting

Although corpus-based research in the field of interpreting is still lagging compared to Translation Studies, mainly because of the specific challenges involved in the treatment of spoken language data, the last decades have witnessed an increase in the number and variety of interpreting corpora available across modes and settings (see Setton 2011 and Bendazzoli 2015 for a review of such developments, and specific studies in Straniero Sergio and Falbo 2012b). One interpreting modality that has so far escaped empirical, corpus-based research is *remote interpreting* (RI), that is the provision of interpreting services from a distant location using communication technologies (telephone, videoconferencing, web-conferencing); when a telephone line is used to connect the interpreter to some or all of the primary participants, who may be together at one site or at separate locations, RI is usually called *telephone interpreting* (TI), or *over-the-phone interpreting* (Braun 2015).

Demand for RI has been increasing steadily in the last decades, especially in public service settings – such as healthcare and court – that are highly affected by migratory patterns and language issues, and that are normally associated with face-to-face community interpreting (CI). RI's uptake in these contexts can be explained by its several logistical and financial advantages vis-à-vis traditional on-site CI, including a) improved interpreter availability, in terms of language coverage (especially for minority languages) and 24/7 availability with short or no notice, even at peripheral or isolated facilities; b) lower costs, mainly due to savings related to interpreters' travel time; and c) increased confidentiality in delicate situations (see, among others, Ko 2006; Rosenberg 2007; Braun 2015).

The expansion of RI has been accompanied by a number of surveys on user perception and satisfaction, which also brought to the fore some of its perceived disadvantages. According to such surveys, RI is at least as acceptable and effective as on-site interpreting for patients, whereas doctors and interpreters generally show preferences for on-site interpreting over RI, mainly due to the challenges of missing visual information, increased difficulty in building rapport, and possible technical problems (see, among others, Ko 2006; Lee 2007; Locatis et al. 2010; Price et al. 2012). Further studies found that (actual and perceived) difficulties with RI tend to diminish with training and experience, thus pointing to the need for both RI users and providers to be specifically trained to the different challenges of interpreting *in absentia* (see for example Wadensjö 1999; Braun 2006; Kelly 2008; Hlvac 2013).

On the other hand, empirical studies of authentic interactions in this particular communicative situation, aimed to identify typical features of RI as well as factors enhancing or threatening its success, are still scarce. Analysing interpreters' performance in simultaneous RI, for example, Moser-Mercer (2003; 2005) found that interpreting quality deteriorated faster than in on-site performance, possibly because lack of visual presence, among other factors, determined increased stress and an earlier onset of fatigue. Similar findings were reported by Roziner and Shlesinger (2010), who however highlighted considerable discrepancies between objective measures and subjective perception of performance quality. Experimental studies of videoconference-based dialogue interpreting in legal settings conducted in the context of the European AVIDICUS project basically pointed in the same direction, suggesting greater difficulties and a higher cognitive load for interpreters; however, they also found differences in the dynamics of the communication between traditional and video-mediated settings, the latter being characterized by a reduction in the quality of intersubjective relations between participants and greater discourse fragmentation (Braun and Taylor 2012; 2014).

As regards specific research on TI, Wadensjö (1999) compared on-site and telephone interpreting on the basis of two real-life encounters recorded at a police station. She found that the main difference between the two modalities lay in the possibilities they provided for the coordination and synchronization of interaction: telephone

interpreting was found to be characterized by different turn length, less overlapping talk and a greater coordination effort on the part of the interpreter, with difficulties also deriving from the lack of visual cues. Based on a larger sample of over 1,000 personally interpreted phone calls, Rosenberg (2007) argued that major difficulties in TI were caused by the lack of a shared frame of reference, but also by the lack of initial briefing, poor sound quality, and unusual turn-taking patterns due to the configuration of the call (speakerphone vs. telephone passing). More promising results are still to come from the ongoing European SHIFT project (Spinolo et al. forthcoming),[1] which sets out to provide training in remote CI based on the analysis of authentic telephone and video interpreter-mediated multilingual communication.

2. Corpus-based studies of Community Interpreting

The availability of authentic data on remote interpreting is extremely limited compared with the (slowly) growing number of corpus-based studies of traditional community interpreting, with which RI research shares a number of technical/practical problems and methodological concerns. To quote but a few, a) the difficulty of accessing data and getting permission to use them for scientific purposes, which impacts on corpus design and representativeness, and ultimately on the researchers' objectives (Straniero Sergio and Falbo 2012a); b) the time-consuming nature of data collection and transcription, which limits corpus size and also influences analysis (Niemants 2012); c) the problem of dealing with dialogue-like data including both monolingual and interpreted utterances, where overlaps and other conversational phenomena are hard to annotate or extract automatically (Angermeyer et al. 2012). There is consequently much room for improvement and the few existing CI corpora and corpus-based studies are our closest and most valuable reference.

Research in this field has been mostly qualitative in nature, relying on discourse-analytic and ethnographic methods, and especially on Conversation Analysis (CA; Sacks et al. 1974), which appears particularly well suited for observing interpreting as interaction (see Baraldi and Gavioli 2012; Straniero Sergio and Falbo 2012a; Davitti and Pasquandrea 2014; Dal Fovo and Niemants 2015 for recent overviews). As Meyer and his panelists reminded us at the *Corpus-based Interpreting Studies – The State of the Art* workshop, interaction sequences are usually investigated in detail to pinpoint systematic challenges of community interpreting, for example code switching, dyadic sequences, explanations of technical terms, and to substantiate Wadensjö's (1998) theoretical distinction between "translation" and "coordination" by observing it in professional practice.

As for interpreters' translating activity, a number of independently conducted investigations have shown that turn-by-turn translation is just one of the ways in which interpreters translate the interactions. Research conducted on authentic interpreter-mediated encounters has expanded on the categories of "renditions" identified by Wadensjö (1998) and provided extensive evidence of how interpreters translate and of the reasons why they do it that way (Mason 1999 and 2006; Davidson 2000 and 2002).

The coordinating function of interpreters has also attracted an increasing interest among researchers, leading to the publication of individual and collective endeavours that have further developed Wadensjö's pioneering categorizations. According to Wadensjö, interpreters play their coordinating function when they contextualize their translations in the interaction and when they manage the turn-taking. Coordination is *implicit* when interpreters translate, since the fact of producing a turn in a language implicitly selects the participant who speaks it; coordination is *explicit* when interpreters carry out other actions, which have no counterpart in a preceding original – she calls them "non-renditions" – and which overtly contribute to organizing talk in interaction. Wadensjö herself (1998: 145–151) suggested that the distinction between implicit (through renditions) and explicit coordination (through non-renditions) is not clear-cut, since there exist overlapping areas that can be as interesting as the distinction itself and pave the way to new dichotomies, such as the one introduced by Baraldi and Gavioli:

> We suggest that the distinction posited by Wadensjö between implicit and explicit coordination can be looked at as a distinction between basic and reflexive coordination, both of which can potentially be achieved by renditions and non-renditions. Basic coordination is the smooth achievement of self-reference, without any emergence of problems of understanding and/or acceptance of utterances and meanings. Reflexive coordination is the achievement of self-reference through actions that aim to improve (encourage, expand, implement, etc.), question or claim understanding and/or acceptance of utterances and meanings (2012: 5–6).

The edited volume by Baraldi and Gavioli gives a substantial contribution to research into reflexive coordination activity, as the chapters in it analyse, in different ways and from different perspectives, authentic data from some of the CI corpora available to the scientific community, e.g. the DiK corpus of Portuguese-German and Turkish-German interpreted doctor-patient communication (Bührig and Meyer 2004), the AIM corpus of Italian-English/Arabic/Chinese/French language-mediated interactions in healthcare (Baraldi and Gavioli 2012), and the CorIT corpus of Italian television interpreting (Falbo 2012).

Although CI corpora have so far been analysed qualitatively, their growing size is now opening paths to combine qualitative and quantitative approaches, where corpus technologies can be used to code, count and search existing collections. In this regard, Gavioli et al. (2016) suggested that coding CI corpora should primarily be done to search interesting data for analysis, i.e. to retrieve different types of encounters and interaction sequences, and only afterwards to count what has been searched for, for example lexical items or dyadic vs. triadic sequences. These considerations originate from their use of the AIM corpus, which is probably one of the biggest collections of this kind worldwide.[2]

The AIM corpus currently includes about 550 interpreter-mediated medical encounters for over 100 hours audio recording, whose transcripts have been mainly produced using a simple word processor. Although many AIM transcribers still prefer to rely on separate software tools to manage the recordings and produce transcripts, there is a case for using a single interface, where the transcript acts as a dynamic index to the recording. This would allow transcribers to keep symbols to a minimum and facilitate the adding and subtracting of details for the purpose of more precise analyses and of presentations to different types of audiences. Such interfaces include EXMARaLDA, which was used to experimentally audio-link a subset of 19 French-Italian encounters recorded in Italian and Belgian healthcare settings (Niemants 2015), and ELAN, which was tested to audio-link another subset collected for the purposes of a recent project on improved communication in Italian healthcare settings.[3] Both EXMARaLDA and ELAN enable researchers, just by clicking on the transcript, to listen to the corresponding audio segment, thereby playing a major role in keeping track of what different transcribers do on the data. Both

tools additionally allow for data extraction, enabling one to retrieve lexical matches, like concordances, as well as complex interactional sequences that can be later investigated in greater details.

While being far from the level of annotation added in the Community Interpreting Database,[4] the AIM corpus is representative of the efforts that are internationally being made to turn existing CI "spoken corpora", that is 'collections of transcripts of (video)recorded data not included in the corpus' (Straniero Sergio and Falbo 2012a: 31), into "speech corpora", that is multimodal collections where 'the audio and/or video tracks, with the relevant transcripts, are an integral part of corpora themselves' (ibid.: 31–32). As Straniero Sergio and Falbo underline when making such a distinction, 'this difference in the presentation of data decisively affects the analysis potential not only of corpora, but also of the aspects to be investigated' (2012a: 31–32), which is true for both on-site and remote forms of interpreting.

3. Creating and using a Telephone Interpreting corpus

The following sections introduce the work done to create a corpus out of a small existing collection of TI transcripts. Our aim is to show that, considering the paucity of authentic RI data available to the scientific community, even a small, unorthodox corpus can make a valuable – albeit exploratory – contribution to empirical research on this interpreting type.

3.1 Corpus description

Our corpus contains the transcriptions of 30 telephone calls to a remote interpreter made at a healthcare institution of the Emilia Romagna region (Italy) on the occasion of medical encounters involving at least one Italian healthcare provider (doctor, nurse) and a foreign patient with no or limited Italian proficiency. The phone calls were made between 2013 and 2014, when the institution was experimenting with a TI service to assess whether it could effectively be integrated with the existing face-to-face community interpreting service – or replace it in some specific contexts – in order to reduce costs and improve coverage.

The 30 recordings (a sample of about 1/5 of total phone calls made during the testing phase, kept by the external service provider for legal purposes) were listened to and transcribed within the institution to monitor how the TI service was being used, as well as the personnel's attitude towards the service itself. Most transcriptions were provided by some to-be translators during traineeships, mainly for phone calls involving language pairs that they could master (namely, Italian plus English/French/Albanian/Polish); some recordings involving Chinese or Arabic interpreters were also transcribed leaving out non-Italian turns, based on the assumption that even partial transcriptions would be sufficient for the non-linguistic quality control envisaged. For the same reason, transcribers were not provided with specific guidelines for the transcription nor for the annotation of paralinguistic features such as pauses, hesitations or overlaps. Plain, orthographic transcriptions were produced using a word processor. Access to the recordings was subject to a cumbersome procedure which involved asking permissions to listen to individual audio files; these would remain accessible for 4–5 days and could not be downloaded.

Lack of access to the original recordings implies that, when turning these texts into a corpus, we had to accept some major limitations as "irreparable". The quality of transcripts stands out as the most problematic aspect: a) some of them are incomplete, as they involved turns in languages unknown to transcribers; b) as they were produced by different translators, not specifically trained for the purpose and without any guidelines, inconsistencies – and even inaccuracies – are inevitable both within and across transcripts, especially as regards the annotation (when provided) of paralinguistic features. In addition, the lack of relevant audio tracks prevents any development of this *spoken corpus* into a multimodal *speech corpus* (see section 2).

The nature of the data directs and constrains the range of possible research objectives. On the one hand, the above-mentioned limitations affect the analysis potential of the corpus by preventing research on aspects that are specific to spoken language data, like phonetics, prosody, non-verbal features and so on. On the other hand, the small size of the corpus – about 22,500 total words – rules out the possibility to carry out statistical analyses of lexical frequencies. Moreover, the sample comes from a single source and is not sufficiently large to generalise. We believe, however, that by highlighting the recurrence of given lexical and interactional phenomena, the corpus can still be a precious resource to start identifying typical features of interpreting in this particular communicative situation.

3.2 Some insights obtained through qualitative investigations of the raw collection

Our first approach to the corpus was through manual, qualitative investigations of the transcripts, using conversation analysis (CA) methods. Despite the small size of the corpus, it was possible to identify common courses of interaction and recurring features of participants' verbal behaviour, mainly connected to the lack of visual information and shared contextual knowledge, and to observe their positive or negative impact on the success of telephone-interpreted phone calls. The main findings of this study (fully reported in Niemants and Castagnoli 2015) are summarised in the following paragraphs.

The analysis of transcripts shows that conversations in the corpus seldom follow the turn-taking sequence Speaker 1 – Interpreter – Speaker 2 – Interpreter – Speaker 1 – Interpreter and so on: while some examples of this pattern can indeed be observed within individual phone calls, the latter are essentially structured as sequences of monolingual dyadic exchanges between the interpreter and one of the primary participants (see Jefferson 1972 on *side sequences* in general, and Kelly 2007 on *side conversations* or *side talk* in the context of TI), which may or may not be subsequently summarized by the interpreter into the other language for the benefit of the excluded party (see Merlini 2015). Although, according to existing standards of practice, side conversations should be avoided by telephone interpreters (Kelly 2007: 118), the analysis of transcripts suggests that they play a fundamental role in establishing shared ground on which the conversation can then continue. In particular, corpus data suggest that an initial dyadic briefing between the healthcare provider and the interpreter – during which the former provides some basic information about the patient and the reasons for the encounter, and also informs the interpreter about how the conversation is to take place (for example if there is a speakerphone) – is essential to provide contextual information which would be taken for granted in on-site encounters but which is missing to remote interpreters, and may reduce the need for extensive negotiation afterwards.

Corpus data indicate that the lack of a 'shared frame of reference' (Rosenberg 2007: 75) between the primary participants – sitting together at the same location – and the remote interpreter determines knowledge asymmetries

at several levels. On a macro-level, remote interpreters are not only physically absent, but they may also not be familiar with the primary participants' local reality (towns, hospital/medical facilities, proper names and so on). Even more significantly, remote interpreters lack information about things that are happening in the room where the medical encounter takes place, including on-going non-verbal communication. The lack of visual clues, which several authors have described as the most problematic and stressing feature of TI (see section 1), has a negative impact on turn management and represents a major limitation in settings where practical information needs to be conveyed.

As far as turn management is concerned, the corpus contains several occurrences of interruptions and uncertainty about who is entitled to the next turn. While in face-to-face situations non-verbal behaviour such as gestures, posture, mimics and gaze have a role in guiding the interaction (see, among others, Wadensjö 1999: 254), in TI interpreters do not have access to these clues and need to rely on explicit verbalisations by the interlocutors (utterances like *Adesso te la passo così glielo dici* 'Now I'll put you through so you tell her', *Aspetta che te lo passo* 'Wait I'll put you through', *Adesso te la ripasso* 'Now I'll put you through again' are indeed common in the corpus). Difficulties in turn management also determine the presence of long, uninterrupted turns especially on the part of healthcare providers, who tend to accumulate (even unnecessary) information or questions before giving the floor to the interpreter. The major risk of such information overload is for interpreters to miss important details, which entails requests for clarifications and repetitions, and more extensive negotiation in general. Corpus data thus seem to confirm Wadensjö's remark that translating and coordinating the talk exchange is more complicated for interpreters in TI than in face-to-face interaction, so participants to a telephone-interpreted encounter should 'make a special effort to express themselves clearly and verbalize any non-verbal activities that may have an impact on the ongoing interaction' (1999: 262).

Overall, the corpus provides evidence that the success of TI may depend on the specific healthcare setting involved and the type of information to be conveyed. As suggested in previous literature (Villarruel et al. 1999: 268; Price et al. 2012), TI is generally smooth and effective in settings in which routine information is exchanged. It is the case, for instance, of interviews preceding paediatric vaccinations, whose contents are highly predictable, as questions and answers normally focus on the child's health, on reactions to previous vaccinations and on informed consent. On the contrary, TI turns out to be less effective in "educational" scenarios in which practical information needs to be conveyed and visual clues are virtually indispensable for mutual comprehension (as also observed by Price et al. 2012), as in the case of one interpreter being asked to translate instructions on how to perform an insulin injection; or when the patient is not cooperative, and building rapport through TI becomes more complicated.

In sum, qualitative analyses proved useful to identify recurrent actions and verbal behaviours which can have an impact on the success of telephone-mediated encounters, and ultimately point to the need to develop the participants' awareness of the additional challenges of TI compared to on-site interpreting.

3.3 Annotating the data for more refined, corpus research

In an attempt to enable more systematic investigations as well as comparative analyses (see section 4), we tried to turn the collection of transcripts into a "proper" corpus which can be searched with corpus-based techniques.

Transcripts were anonymised (by substituting personal and geographical names) and standardised as much as possible in their format. Original text files were converted into xml documents; each phone call is enclosed within a <text> element, with a unique identifier, and speakers' turns (possibly containing several utterances) are encoded as separate <s> elements, progressively numbered.[5] This allowed us to add annotations at different levels, in order to encode (implicitly) available extralinguistic information and make it searchable: while we cannot aim at any quantification of interactional aspects, given the size of the corpus and the limited control we had over transcripts, our goal is to be able to make more focused searches as well as retrieve all instances of given elements to be then analysed qualitatively. Because of the impossibility to access original recordings, we decided to annotate only information and features that required the least interpretive effort (see Angermeyer et al. 2012).

Basic categories include descriptive metadata about the date and the setting in which phone calls took place (mainly local vaccination centre or hospital department, such as Maternity, Obstetrics and gynaecology unit, A&E and so on). This information was derived from official reports and coded in a sort of "header" at the <text> level, together with details about the language pair involved and the transcriber's name. Additional descriptive metadata is provided at the turn level, where we annotated speaker's role (doctor/patient/interpreter) as well as the language(s) involved. Basic linguistic annotation, namely Part-of-Speech tagging and lemmatisation, was also introduced; however, as the corpus could only be processed as a single, monolithic entity – it is a single file, comprising parts written in different languages – and since POS taggers can normally handle one language at a time, we decided to treat it as if it were a monolingual Italian corpus (Italian being shared by all interactions within the corpus). Consequently, turns in other languages are not properly tagged.

This basic level of annotation can be leveraged to investigate a number of interesting aspects, for example from differences in interaction patterns across healthcare settings to interpreters' "formulations" of previous turns at talk (Baraldi and Gavioli 2010; Baraldi 2012). For instance, example (1) shows selected concordances obtained by searching for the lemma *dire* "to say/tell" in interpreters' turns, and suggests that the verb is often used within turns directed to healthcare providers containing either their renditions of the patient's utterances (as in cases *a* and *b*) or summaries of what they have just told the patient in a different language (*c* and *d*).[6]

(1)

(a) 676: <s_speaker int><s_trans rendition>: Eh , infatti **<dice>** che non è ... non è un infortunio .

Uh, he says that it's not… it's not an accident .

 (b) 3866: <s_speaker int><s_trans rendition>: Ha **<detto>** che ogni tanto la bimba soffre di mal di pancia . Dolori lievi .

He said that sometimes the girl has got stomach ache. Mild pains .

(c) 1166: <s_speaker int><s_trans non-rendition>: # sì , gli ho **<detto>** della farmacia che si deve informare # al pronto soccorso .

 # yes , I told him about the pharmacy that he needs to get information # at the emergency room .

 (d) 1395: <s_speaker int><s_trans non-rendition>: Sì . Sì . Le ho **<detto>** che deve portare il referto al pediatra per i controlli successivi .

Yes . Yes . I told her that she has to bring the medical report to the pediatrician for the next checkups.

We decided to additionally include two types of analytical annotations which – according to Angermeyer et al. (2012) – are usable with community interpreting data in general (thus enabling comparisons as those provided in section 4) and do not require much subjective interpretation (thus limiting decision-making at the annotation stage). To start with, we annotated the language of turns distinguishing monolingual (*unmixed*) and multilingual (*mixed*) turns: in community settings it is quite frequent for participants and interpreters to produce mixed utterances, as a result of code-mixing, code-switching or ad hoc borrowing (ibid.: 288–289; see also Anderson 2012; Meyer 2012), and it is arguably worth investigating whether the same occurs in TI. Turns were annotated as *mixed* whenever some kind of language mix – from a single lexical item to a longer code-switch – took place, so that a search for *mixed* turns would retrieve occurrences of any type of bilingual speech. The 75 *mixed* turns in our corpus (out of 1605 total turns) are interpreters' turns (with one exception, discussed in section 4.1); the large majority of such turns correspond to a change in the primary interlocutor, as exemplified in (2),**[7]** with only a few cases of real code-mixing (as in 3).

(2)

<s n="40" speaker="doc" langstat="unmixed" trans="original" lang="it"> Sì, va bene. Senta, potrebbe chiederle se l'allatta ancora al seno e se dalla nascita ad oggi ha avuto nessuna malattia? Sul bambino. Gliela passo. </s>

Yes, fine. Listen, could you ask her whether she's still breastfeeding him and whether he's had any illnesses since birth? About the baby boy. I'll put you through.

<s n="41" speaker="int" langstat="mixed" trans="rendition" lang="it-al"> **Va bene. Grazie. [***((in Albanian))*** Allora, signora. Come terza domanda il dottore vuole sapere se lei ha allattato il bambino al seno dalla nascita e continua tuttora?]** </s>

Ok. Thanks. [((in Albanian)) So, madam. As a third question the doctor wants to know whether you have been breastfeeding the baby since birth and whether you still continue to?]

(3)

<s n="55" speaker="int" langstat="mixed" trans="rendition" lang="it-en"> Hello. **The lady ha detto..** said that when you feel ill you have to eat something sweety and everything that you feel ill you have to eat something sweet to... okay? </s>

The second level of analytical annotation added to the corpus, which is called "translation status", is more interpretive in nature (it requires that the researcher actually looks at the data to make decisions) and is based on Wadensjö's (1998) classification of interpreters' utterances as *renditions* vs. *non-renditions*. This annotation is meant to record whether interpreters' turns correspond to translations of prior utterances made by the primary participants (whose turns are, consequently, always annotated as *original*), or do not have any counterpart in a preceding original turn, thus pointing to instantiations of interpreters' coordinating role. Identifying source-target pairs in dialogue interpreting is not a trivial task, not only because the extent to which interpreters' renditions relate to original utterances may vary (see Wadensjö's more refined categories of renditions), but also because source-target turns may not be adjacent. For example, in (4), the interpreter's turn n= "24" is arguably a rendition of two previous turns by the doctor (namely n= "11" and n= "17"), from which it is separated by a number of non-renditions, consisting mainly in (requests for) clarifications.

(4)

<s n="11" speaker="doc" langstat="unmixed" trans="original" lang="it"> Allora, dovrei dire alla mamma che **deve fare due iniezioni. Una sulla coscia destra, che contiene un attivo contro difterite, tetano, pertosse, epatite B, poliomelite ed emofilo B.** </s>

So, I should tell the mother that he has to get two injections. One on the right thigh, which contains an active ingredient against diphtheria, tetanus, whooping cough, hepatitis B, polio and haemophilus influenzae B.

<s n="12" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> Mi scusi, una sulla coscia ? </s>

I'm sorry, one on which thigh?

<s n="13" speaker="doc" langstat="unmixed" trans="original" lang="it"> Destra. </s>

The right one.

<s n="14" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> Okay, contro la difterite. </s>

Okay, against diphtheria.

<s n="15" speaker="doc" langstat="unmixed" trans="original" lang="it"> Non solo la difterite. Anche tetano, pertosse, epatite B, poliomelite ed emofilo B. </s>

Not only diphtheria. Also tetanus, whooping cough, hepatitis B, polio and haemophilus influenzae B.

<s n="16" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> Okay, okay. </s>

<s n="17" speaker="doc" langstat="unmixed" trans="original" lang="it"> **Mentre nella coscia sinistra farà una puntura che contiene il vaccino antipneumococcico**. </s>

Whereas on the left thigh he will get an injection which contains the vaccine against pneumococcus.

<s n="18" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> Anti? </s>

Against?

<s n="19" speaker="doc" langstat="unmixed" trans="original" lang="it"> Antipenumococco. </s>

Against pneumococcus.

<s n="20" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> Okay. </s>

<s n="21" speaker="doc" langstat="unmixed" trans="original" lang="it"> Le passo la madre. </s>

I'll put you through to the mother.

<s n="22" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> Okay, va bene. Grazie. </s>

Okay, fine. Thank you.

<s n="23" speaker="paz" langstat="unmixed" trans="original" lang="fr">Allo? </s>

Hello?

<s n="24" speaker="int" langstat="unmixed" trans="rendition" lang="fr"> Allo, bonjour. Alors, **le médecin dit qu'il va faire deux injections au bébé, une dans la cuisse gauche, et c'est contre la blessure (XXX) et l'hépatite. Et il va lui faire une autre injection dans la cuisse droite, et c'est contre la méningite.** Halo, vous m'entendez ? </s>

Hello, good morning. So, the doctor says that he will give two injections to the baby, one on the left thigh, and it's against the injury (XXX) and hepatitis. And he will give him another injection on the right thigh, and it's against meningitis. Hello, can you hear me ?

Considering that we can only establish correspondences at the level of speakers' turns (rather than more fine-grained utterances), we decided to annotate as renditions only turns containing a significant amount of propositional elements that are retraceable to something which was previously said by other participants. In other words, interpreters' turns including both translations of prior utterances and other coordinating activities were annotated as non-renditions whenever the latter were more numerous than the former.

Even so, the translation status of some turns is not easily determined. This is the case of turns like examples (1c) and (1d) above, where the interpreter summarizes for the Italian doctor what has just been negotiated with the foreign patient. Although these kinds of turns admittedly render talk for a speaker who was temporarily excluded, the corresponding *original* is the interpreter's turn and not a stretch of talk by a primary participant; as a consequence, strictly following Wadensjö's classification, these turns were treated as *non-renditions*.

The situation is possibly even less clear-cut when dealing with interpreters' replies to patients' requests for clarification, as in (5) below. A diabetic patient is receiving instructions on how to measure her blood sugar. Following the interpreter's rendition of the doctor's utterance, the patient asks for two clarifications on the content just rendered, and the interpreter responds with two turns in which he replies autonomously, albeit recalling some content he knows – and has already rendered – because the doctor first voiced it.

(5)

<s n="58" speaker="paz" langstat="unmixed" trans="original" lang="en"> In a week I control three times in a day? </s>

<s n="59" speaker="int" langstat="unmixed" trans="non-rendition" lang="en"> **No, no. All morning you have to control**. </s>

<s n="60" speaker="paz" langstat="unmixed" trans="original" lang="en"> All morning in every day. In the morning. </s>

<s n="61" speaker="int" langstat="mixed" trans="non-rendition" lang="it-en"> **Sì. You have to control in the morning.** </s>

From a certain viewpoint, the above interpreter's turns could be annotated as renditions – especially if more fine-grained categories were used, e.g. Wadensjö's "multi-part renditions" for multiple interpreting utterances corresponding to one original. We decided, however, to treat them as non-renditions, in order to show that rendering originals is not enough to ensure participants' mutual understanding, and that interpreters thus need to do more, such as recalling and repeating something that has already been said and translated, to encourage and promote understanding and participation. A more detailed analysis of the possible nature of non-renditions is provided in section 4.2.

4. Telephone vs. on-site interpreting – Comparing corpora and discussing results

Notwithstanding the corpus' small dimensions and the problems raised by some of the annotations added, the analyses in section 3 have already shown some of their potential. We believe, however, that the comparison with existing on-site CI corpora can yield even more interesting insights. For the purposes of this paper, we will use as reference corpora the two time-aligned subsets of the AIM corpus that we have personally transcribed, namely a small collection of interpreter-mediated interactions in Italian and Belgian healthcare settings (Niemants 2015)

and a recently collected corpus of mediated and non-mediated doctor-patient interactions in the Emilia Romagna region (see footnote 3). These were transcribed using two different multi-tier transcription tools – EXMARaLDA and ELAN – and will henceforth be referred to as "the EXMARaLDA sub-corpus" and "the ELAN sub-corpus", respectively.

4.1 A closer look at mixed turns

As we have seen above, mixed turns in our TI corpus amount to 75. Either by refining the quantitative search for speakers or by having a qualitative look at single occurrences, it appears that all the matches except one are in the interpreter's turns. In other words, with the exception of example (6) below, where the Italian doctor utters an *all right?* in English, doctors never switch code in our TI corpus.

(6)

<s n="1" speaker="doc" langstat="mixed" trans="non-rendition" lang="it-en"> Sì. Ha capito tutto. **All right?** Okay. Adesso mi deve dire, che non succede, però se dovesse, se ha delle crisi ipoglicemiche, che significa un abbassamento della glicemia, lei inizia a sudare, ad avere tremori, crampi, un malessere generale, deve prendere subito dello zucchero. Okay? E poi mangiare. Okay? </s>

Yes. She understood everything. All right? Okay. Now you have to tell, this doesn't happen, but in case it happened, if she has hypoglycaemic reactions, which means that her blood glucose level falls, she starts sweating, having tremors, cramps, general sickness, she must have some sugar immediately. Okay? And then eat. Okay?

The absence of mixed turns in doctors' talk might not be surprising if our TI corpus was only analysed on its own: it may simply indicate that doctors fully delegate the translation activity to interpreters – this is what they are contacted for in the first place – and never switch code to communicate with the patients who are sharing their physical space. While we cannot speculate on what precedes and follows the phone calls, we can state that in our corpus doctors never try to address patients directly during the call, and wonder whether this practice has some implications for the role of the telephone interpreter. As Mason (2006), Zorzi (2012) and Gavioli (2015), among others, have been showing for on-site CI, the interpreter's role is not fixed, but highly depends on the actions of other participants in the interaction, which may arguably be the case for telephone interpreting, too.

The absence of code-switches in doctors' turns, however, becomes more revealing if we compare our TI corpus with reference on-site CI corpora, which both contain instances of healthcare workers addressing patients directly.

Example (7) is taken from the "EXMARaLDA sub-corpus", where code-switches were explicitly annotated as such and can easily be retrieved using EXMARaLDA concordance tool EXAKT. Here a female Italian doctor (Doc) utters two words in French, asking the patient to breath-in through his mouth ('open mouth'). This piece of information is acknowledged by the interpreter (Int), who utters the acknowledgment token *ah* in partial overlap with the doctor's turn. She then redesigns this turn to make sure the patient follows the doctor's instructions ('ah okay good you breathe through your mouth').

(7)

Doc: bouche [ouverte]

mouth [open]

Int: [ah] okay bon tu respires avec la bouche

[ah] okay good you breathe through your mouth

Example (8) is taken from the "ELAN sub-corpus", where language status was explicitly codified as "Italian" (when turns are entirely uttered in this language), "non-Italian" (when turns are uttered in foreign languages, here mainly Arabic, English and French), "mixed" (when turns contain propositional contents in both Italian and one or more foreign language(s)) and "international" (when speakers utter minimal responses that are hardly falling within the other three categories – such as *mm hm*, *okay* and the like – or when they produce non-verbal vocalization like *laughter*, *cough* and the like), and where healthcare providers (mainly mid-wives) often switch code to address patients directly. Here the mid-wife partially self-translates what she has just said in Italian, for the patient (Paz) to understand what is about to happen (pressure measurement). In other cases, mid-wives retrieve foreign words uttered by the patients and integrate them into their Italian turns at talk (e.g. *te la do adesso la drugs sì*, 'I'll give it to you now the drugs yes').

(8)

Doc: ti provo la pressione [la tension]

I'll measure your pressure [your pressure]

Pat: [oui d'accord]

[yes, fine]

The tendency of healthcare workers to switch code in order to address patients directly is confirmed by other researchers working on bigger corpora of on-site CI in healthcare, such as Meyer (2012) analysing data from two projects on *ad hoc* interpreting for Turkish and Portuguese patients in hospitals in Hamburg, and Anderson (2012) studying a subset of the AIM corpus including out-patient visits with English speaking patients. Both authors show that primary participants can have some level of proficiency in their respective languages and try to communicate directly, which poses problems of coordination for interpreters and inevitably affects their role. More precisely, if primary speakers are able to understand and talk to each other, interpreters may be called to stop translating, to stay on a 'stand-by-mode', as Angermeyer suggestively describes it (2008: 391), and to monitor participants' understanding in order to decide when it is time to move in – because they do not understand each other – and out – because they manage to communicate directly – of the conversation.

The near absence of doctors' mixed turns in our small TI corpus might be due to the fact that the patients in the corpus mainly speak languages that are unknown to doctors, but might also suggest that telephone interpreters are not called to 'monitor and mould' code-switching and other 'participant behaviours that can potentially index an (at least partial) understanding of the 'other' language on the part of one or more primary participants' (Anderson 2012: 144). This hypothesis obviously needs to be tested using bigger TI and CI corpora, where translating and coordinating activities such as monitoring can be qualitatively and quantitatively compared. However, our tentative comparison raises an interesting question about the potentially different nature of on-site and remote interpreting, namely: does the absence of direct communication between doctors and patients project a mainly translating role for telephone interpreters? In other words, does their interpreting activity on the phone mainly consist in rendering primary speakers' talk?

4.2 A closer look at non-renditions

The number of renditions and non-renditions in our TI corpus (namely 207 vs. 584) in fact suggests that telephone interpreting does *not* mainly consist in rendering primary speakers' talk but involves a high dose of coordinating activities. This preliminary result is in line with recent studies on dialogue interpreting (see Baraldi and Gavioli 2012; Dal Fovo and Niemants 2015 for two recent collections) where, irrespective of the languages spoken, interpreters appear to do much more than translating.

Starting from the assumption that both on-site and remote interpreting consist in translating (mainly through renditions) *and* coordinating (mainly through non-renditions) work, we will now compare some non-renditions retrieved from our TI corpus with some of those recurring in our two reference corpora. Our objective is to see whether there are any qualitative differences between non-renditions in on-site and telephone interactions, and to make hypotheses on their possible implications for TI practice and training.

If we have a closer look at turns annotated as non-renditions in our TI corpus, it appears that many instances have to do with the medium and the interpreting service provided through it. This is the case of utterances such as *pronto?* (the Italian "hallo" when answering the phone) or of utterances having the following structure: 'good evening (or good morning), interpreter for the Chinese (or other) language' (as in example (9)).

(9)

<s n="1" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> Buonasera, interprete di lingua cinese. </s>

Good evening, interpreter for the Chinese language.

A number of non-renditions also have to do with meaning negotiation: they are used by interpreters to (dis)confirm that they are hearing and/or understanding properly, thereby signalling that the other speaker can(not) go on speaking. This is often done through minimal responses such as *sì*, *okay*, *mm hm* (see turns n= "8", "10", "11" and "13" in example (10)).

(10)

<s n="8" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> Va bene, okay. E poi?</s>

Fine, okay. And then?

<s n="9" speaker="doc" langstat="unmixed" trans="original" lang="it"> E poi se ha # allergie # alle medicine o agli alimenti.</s>

Then if he has # allergies # to drugs or food.

<s n="10" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> # poi # sì</s>

 # then # yes

<s n="11" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> Okay, sì, ha #</s>

Okay, yes, he has #

<s n="12" speaker="doc" langstat="unmixed" trans="original" lang="it"> # se ha avuto reazioni con i vaccini fatti finora.</s>

 # if he had reactions with the vaccines he's been given so far.

<s n="13" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> Okay, reazioni... va bene, okay. </s>

Okay, reactions... fine, okay.

<s n="14" speaker="doc" langstat="unmixed" trans="original" lang="it"> Okay.</s>

<s n="15" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> Sì? Ehm... posso parlare già con la mamma?</s>

Yes? Ehm... can I already speak to the mum?

<s n="16" speaker="doc" langstat="unmixed" trans="original" lang="it"> Sì, sì sì # parli</s>

Yes, yes yes # speak

As the example above shows, and Gavioli (2012) has also pointed out, *okay* systematically occurs when the translation is about to take place and plays the double role of (1) showing understanding of what has just been uttered by one primary speaker (for example the first *okay* in turn n= "13", *Okay, reazioni... va bene, okay*) and

(2) projecting the beginning of the translation for the other (for example the second *okay* in that same utterance). But the doctor does not understand that the translation is about to start and utters himself an *okay*, which requires a greater conversational effort on the part of the interpreter, who explicitly asks whether she can start translating for the mother and waits for the doctor to answer before doing so (in turns omitted here).

In addition to meaning negotiation, many non-renditions serve to summarize the gist of preceding turns and correspond to the formulations we problematized in section 3.3, which often contain the lemma *dire* followed by what has actually been said by primary participants and/or interpreters.

(11)

<s n="62" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> Dottoressa, eccomi. Lei ha detto che... le ho spiegato che c'è un costo e che non è necessario che lei debba stare per una semplice medicazione per giorni e giorni in ospedale. Possono fare un'eccezione due giorni ma non di più. Stop. Lei ha detto che stasera parlerà con il marito e poi provvederanno... le ho anche suggerito di andare nella parrocchia di appartenenza, di zona di residenza se c'è qualche volontario che, lo fanno di solito, la può accompagnare. Tutto qui. Io ho finito il mio lavoro. </s>

Doctor, here I am. She said that... I explained to her that there's a cost and that it's not necessary that she stays for a simple dressing for days and days in hospital. They can make an exception for two days but no longer than that. That's it. She said that tonight she's going to talk to her husband and they will take action... I also suggested her to go to the parish they belong to, where they live if there's some volunteer that, they usually do it, can accompany her. That's it. I've finished my job.

The interpreter here summarizes the gist of the previous turns in two ways: she first recalls what she has just told the mother (*le ho spiegato che*, "I explained to her that") and then formulates what the mother has actually said (*lei ha detto che*, "she said that"). Both summaries are addressed to the doctor, who is also informed of what the interpreter has autonomously suggested, that is to go to the local parish and ask for a volunteer to accompany her, as they usually do.

Some non-renditions finally have to do with the interpreter's need to take time and write things down. Utterances like *un attimo che scrivo* ("wait a moment I'm writing") make it explicit that there is a difficulty in dealing with long and dense doctors' turns, and arguably point to the importance of note-taking in telephone interpreting.

(12)

<s n="1" speaker="int" langstat="unmixed" trans="non-rendition" lang="it"> Un attimo che scrivo. Per 21 giorni, una al giorno.</s>

Wait a moment I'm writing. For 21 days, one a day.

If we now search for non-renditions in our on-site reference corpora, we are confronted with similar and divergent courses of action. Starting from similarities, both the EXMARaLDA and the ELAN sub-corpora also contain meaning negotiation sequences where minimal responses play a major role in showing understanding of what has been previously said or negotiated and signalling the transition to translation. This is the case in (13), where the interpreter (Int) first acknowledges receipt of what the Italian speaking patient (Paz) has just said (*va bene (.) okay*), then uses the same token *okay* – but with a French pronunciation – to address the healthcare worker.

(13)

Pat: no

Int: va bene (.) okay

fine (.) okay

(2)

Int: okay donc

okay then

In the ELAN corpus, *okay* is very widely used as a feedback token: when uttered with a rising intonation, be it on its own or at the end of longer turns at talk, it generally checks for the patients' understanding and is often followed by their confirmation; when uttered with a falling intonation, usually on its own or at the beginning of longer turns, it shows understanding and signals the transition to translation. The selected example is representative of the latter case, where the interpreter utters three *okay* in less than four seconds to acknowledge receipt of what the Arabic patient has just said and start rendering it into Italian for the midwife, who had explicitly invited the interpreter to tell her.

(14)

Int: [okay però]

[okay but]

Pat: [hata] khti [lama] bitihmil

[even] my sister [when] she got pregnant

Int: [okay] okay dice che loro in famiglia...

[okay] okay she says that in her family...

Both the EXMARaLDA and the ELAN sub-corpora also contain formulations that summarize the gist of previous turns at talk and that are similarly pre-faced by expressions like *ti dice che…* or *ti ha detto che…* (meaning "s/he tells" – or "told" – "you that…"), but they additionally present a number of non-renditions we have not found in our TI corpus, such as directions on how to reach local healthcare facilities or clarifications and explanations on routine examinations the patient shall undergo.

Example (15) is taken from the EXMARaLDA sub-corpus, where direction-giving sequences were explicitly annotated as "instruction" among departures from the traditional triadic sequence organization in interpreter-mediated interactions. Following the midwife's indication to go to a certain office, the interpreter provides the patient with all the necessary directions to reach that place alone, going so far as to write them down on a sheet of paper she can later use as an *aide-mémoire*.

(15)

Int: [scri-] écris si c'est écrire ça ehm allora (2) je te l'écris ici (.) via Mandorla (1) ehm autobus (1) numéro deux (.) pour aller (2) ça c'est l'autobus qui porte à Modena

[writ-] write if it's writing this ehm so (2) I'm writing this here for you (.) via Mandorla (1) ehm bus (1) number two (.) to go (2) this is the bus that goes to Modena

Example (16) comes from the ELAN sub-corpus and can be retrieved using the software multiple layer search, which allows one to investigate interactional patterns such as Patient-Interpreter-Midwife and to explore the translation status of interpreters' turns. On a closer look, while some instances unsurprisingly are Italian renditions of what foreign patients say, followed by the midwife reception, many interpreters' turns are uttered in the patients' language and are thus non-renditions playing a wide range of functions, for example providing feedback, giving directions, expanding explanations, and asking for or making clarifications, as is the case here, where the interpreter clarifies that the pap test would not have taken longer if it had been performed.

(16)

Int: w chufi (.) kun 'amlatu lik (.) kun 'amlatu nafs el waqt gha diri gha tghulik safi ['amaltu] (.) lahaqach had li bghat dakhlatu kant gha tamsah- ma'mlatuch hit 'ank des pertes ktira

and look that (.) if she had done that (.) it would have taken the same amount of time immediately she would have [told] you I'm done (.) because in the end she had already inserted- she didn't do it because you have heavy discharges

Clarification, explanation, and direction-giving are activities that the interpreter is more or less explicitly delegated to carry out on behalf of the healthcare staff, which again is not an isolated phenomenon, as the tendency to delegation is confirmed by analysts working with other corpora (such as different subsets of the AIM corpus: see Baraldi 2009; Gavioli 2015) and other methods (such as participant observation and interviews: see Hsieh 2010).

Given the near absence of these activities (both as delegated by healthcare workers and self-initiated by interpreters) in our small TI corpus, we can make the hypothesis that telephone interpreters are not called to play a role that has been variably and arguably labelled as co-interviewer (Davidson 2000), co-diagnostician (Hsieh 2007), co-therapist (Bot and Verrept 2013). Again, this preliminary result should be verified in bigger corpora, where quantitative approaches cannot do without the qualitative explorations that enable one to go deep into the nature of interpreter-mediated interactions and of interpreters' contributions to them. But as limited as it may be, our tentative comparison has the merit of exploring two possible research directions and of showing their implications for telephone interpreting users and providers.

5. Conclusions

This study set out to provide data-based reflections on telephone interpreting, in order to start filling the gap in empirical research about this particular interpreting type, which is increasingly common in some community settings. Starting from the widely-shared assumption that community interpreters both translate and coordinate the interaction, the results of our research suggest that TI is characterised by some linguistic and interactional specificities which distinguish it from on-site CI, and which are largely determined by interpreters' physical and experiential remoteness as well as by the lack of visual information that the medium entails.

Corpus data indicates that in TI primary speakers do not try to communicate directly: this may suggest that the monitoring role found in on-site CI could be irrelevant in its remote forms, where interpreters are called for translating and expected to do primarily this. These preliminary findings thus have significant implications for interpreters' training, as would-be-interpreters should be aware of the different roles they may be expected to play, and of how the actions of primary participants can affect their activity.

The study also highlights the need to raise healthcare providers' awareness of the peculiarities of TI, where the lack of a shared frame of reference requires adaptation of habitual on-site CI practices. For instance, some delegations that healthcare providers often make during on-site encounters are problematic in TI, mainly because interpreters may not be familiar with the local reality, and cannot therefore fulfil the same facilitating function that they are usually charged with in on-site CI. Healthcare providers should also be alerted to the fact that the lack of visual information entails a greater negotiation effort, thus requiring more thoughtful communicative behaviour.

From the point of view of interpreting research, the study confirms the worthiness of transcribing, annotating and analysing even the smallest collections of authentic (telephone/remote) interpreting data, as these can provide invaluable exploratory insights, encouraging and justifying the creation of more full-fledged corpora. In particular, further research in the field of RI would evidently benefit from the availability of multimodal corpora where transcripts are linked to original audio or video recordings, as the joint analysis of the two types of data can provide better descriptions of complex speech patterns and phenomena than is possible on the basis of transcripts alone.

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Notes

Note: The authors have jointly discussed the contents of the paper, but primary responsibility for writing the different sections is as follows: Sara Castagnoli wrote sections 1, 3 and 5, while Natacha Niemants wrote sections 2 and 4.

[1] The SHIFT project (*SHaping the Interpreters of the Future and of Today,* **http://www.shiftinorality.eu**) is a 3-year Erasmus+ project funded by the European Commission in 2015 which aims to develop solutions for training in remote dialogue interpreting through the cooperation of a European network of universities offering interpreting programmes and interpreting service providers.

[2] AIM stands for Analysis of Interaction and Mediation and is the name of an Italian research network that has contributed to this collective project by sharing already transcribed data and/or by transcribing new subsets of audio-recorded interactions (**http://www.aim.unimore.it/**).

[3] Project title: *Analysis of communication with migrant patients and suggestions for improvements in the healthcare system* - P.I. Prof. Claudio Baraldi, University of Modena and Reggio Emilia, financed under the FAR 2014 competitive programme and concluded with an international seminar which took place in Modena on December 13, 2016.

[4] http://www.yorku.ca/comindat/comindat.htm

[5] Although these tag names are normally associated to written language corpora, they are temporarily used because of the specific requirements of the tools used to annotate and encode the corpus.

[6] Concordances in example (1) are taken from a version of the corpus that was encoded with the Corpus WorkBench (**http://cwb.sourceforge.net/**) and searched with the related Corpus Query Processor. Relevant annotations at the turn level are displayed in angle brackets before each actual concordance, where the search term is also enclosed in angle brackets and shown in boldface.

[7] Examples formatted as in (2) are taken directly from the xml version of the corpus.