

Forensic Communication in Theory and Practice

Forensic Communication in Theory and Practice:

*A Study of Discourse Analysis
and Transcription*

Edited by

Franca Orletti and Laura Mariottini

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INTRODUCTION

FORENSIC COMMUNICATION: FROM THEORY TO PRACTICE

FRANCA ORLETTI, LAURA MARIOTTINI

The collaboration between linguists and jurists concerns many different fields and areas of expertise: the study of legal language, both in descriptive and didactic terms in the context of the so-called Language for Specific Purposes (LSP); the question of voice identification in the framework of forensic phonetics; the wider field of speaker/writer identification through stylistic, dialectological and sociolinguistic analyses; the transcription of uncovered recordings and the assessment of recorded data reliability (the conversation is to be integral and not interpolated); and the study of interactions in court during trials from many research perspectives, ranging from applied linguistics to discourse analysis and interactional sociolinguistics. All this offers the possibility for linguists to provide advice and expertise when it comes to interpreting forensic linguistic data.

An interaction such as this between the forensic and the linguistic world derives from an immediate need, which does not necessarily imply mutual knowledge. What is clear is that legal, juridical, and judiciary activities are intrinsically related to linguistic and communicative aspects. This means that the development of linguistic awareness should be one of the main aims when training professionals in the forensic field. The pervasiveness of language in each legal context is stated by all introductory works to the issue (Atkinson and Drew 1979). Handbooks even go so far as to equate law with language. As Palazzo (2003, 113) says, “law is language”, because every aspect of law is translated into words. What is more, De Mauro (2002, IX) shows how, in many languages, legal and linguistic words are strictly interrelated

“Let us consider the Latin words *iudex* and *ius*: *ius* was initially used in the field of worshipping and meant ‘consecrated formula’, to be respected and

handed down; *iudex* is clearly related to *ius* and *dico*. As such, the judge was the one who had the power of ‘saying *ius*’. Similarly, in Ancient Greek the words used to mean ‘law’, ‘jurisprudence’, and ‘judge’, all are related to ‘equal partitioning’, ‘stability’, ‘discriminating’. The words for ‘lawyer’ were *rhétor*, meaning ‘speaker’, and *sunégoros*, meaning ‘speaker at a public meeting’. Besides, in Latin the *advocatus* was also called *causidicus*, that is ‘the one who is asked to say the thing on behalf of defendants and plaintiffs’¹.

Law and jurisprudence are made of words. The validity and effectiveness of a step in the trial depends on the penetrating force of the spoken and written word. However, for the parties involved, words are not just a channel of expression. They are also the key to understanding texts which, in a trial, play two roles: narrating what has happened and expressing juridical rules. Words shape the so-called “procedural truth”, that is, the artificial truth that modifies reality because it is created by the words contained in the proceedings which collect the versions of events provided by witnesses and the words written in the documents of the judge and of the parties. All that is said and written during a trial gives rise to a linguistic mixture, made of the different languages spoken by the many actors participating in the trial itself.

Hence, we will talk of ‘forensic communication’ when referring to the many aspects belonging to the common ground where linguists and jurists meet, whereas we will use the expression ‘forensic linguistics’, typical of the English-speaking world, to refer to the disciplinary sector investigating forensic communication.

Forensic linguistics is already deeply rooted in the international scenario, though it is still less academically established in Spain and Italy, excluding some brilliant exceptions (e.g. the University of Pompeu Fabra). The IAFL-International Association of Forensic Linguistics, the major organism in the field, with its journal and its biennial international conference, is helping to improve the administration of the legal system by means of a better understanding of the interactions between language and the law. Important textbooks have been published—Coulthard and Johnson (2007, 2010), Coulthard, Johnson and Wright (2017), Tiersma and Solan (2012), Gibbons and Turrell (2008)—and there is also a growing number of specialist monographs.

The aim of this edited collection is to bring together, for the first time, contributions from different European language-contexts situations—mainly, Spanish and Italian—on linguistic communication combining

¹ Our translation from Italian.

theoretical and methodological studies with professional and technical capabilities. The comparative perspective adopted enables us to shed light on the variability of linguistic communication, e.g. linguistic practices in different social and political contexts. The contributions to the volume also address the extent to which the methods traditionally used to approach the field and gather data can provide us with a window onto linguistic practices, and challenge the sociolinguistic and linguistic categories conventionally evoked as a means of understanding and evaluating linguistic practices in a forensic context.

In this volume, the cover term ‘forensic communication’ is used. It refers to the study of the language used in the judiciary system, from the texts of laws and norms written in the codes to the texts pronounced by judges and juries, including all the linguistic uses of the different phases of the trial. In Italy, the different expressions used (e.g. juridical linguistics, judiciary sociolinguistics, etc.) only refer to some aspects of the complex interrelation between language, law, and jurisprudence. In this semantic field, in the present volume, we will reflect on the following aspects: a) institutional interactions; b) forensic speaker identification; c) discourse devices; d) transcription methods.

After this introduction, the book is organized in four sections.

The first one is on theories, practices and training. Contributors underline the lack of a register of experts in forensic transcription and also the lack of shared guidelines. Transcription systems are, therefore, discussed and new proposals emerge. Experts’ work involves speaker recognition and requires specific linguistic competences, acquired through specific training courses, whose protocol main lines are labeled here.

Franca Orletti specifies that interceptions are not only conversations, but, more generally, “events”. Her proposal’s starting point is the mistaken and distorting understanding about the “easiness” of transcription that generally exists in the forensic field. From this assumption, the author highlights: a) which linguistics is necessary for transcribers and b) how Conversation Analysis (CA) can help us to establish transcription guidelines. As far as the first is concerned, transcribers have to have dialectological competence, sensitivity to language varieties, phonetics skills and awareness of the differences between written and spoken language. Moreover, transcription is not a neutral action: the transcriber inevitably makes selections. As for the second point, CA can really help to establish guidelines because, at the basis of this theoretical and methodological paradigm, there is the concept that no order of detail in interaction can be discarded *a priori* as disorderly, accidental or irrelevant. All the resources used to perform social actions—even those considered

often unnecessary, such as mutterings, giggles, breaks, etc.—are to be taken into account. Following this perspective, Orletti proposes guidelines for transcribers and forensic training for the operators at all linguistic levels, since every stage of judicial activity is deeply connected with the facts of language and communication: in this sense, to pay attention to the linguistic component is to contribute to the realization of the institutional justice.

In the second contribution of this first section, the authors—Juana Gil, Marianela Fernández, Patricia Infante y José María Lahoz—maintain that, despite the several oral corpora designed for research in forensic phonetics, there are still few detailed descriptions of protocols for the elicitation of speech samples that allow later analysis. The team from the Phonetics Laboratory at the CSIC has developed a corpus of normal and disguised speech in Spanish over the last three years, called CIVIL (Individual Voice Quality and Speaker Identification [*Cualidad Individual de Voz e Identificación del Locutor*]), whose features are explained in their article and serve to support the proposal of a specific protocol for obtaining scientifically-based speech samples. They distinguish between the collection of speech samples in a laboratory setting for experimental research and the collection of speech samples in real forensic contexts aimed at the preparation of expert evaluations in the field of forensic phonetics.

Luciano Romito reinforces the necessity of properly structured training for the professional figure of forensic transcriptionist. In his chapter, he presents the most important features of the transcript, such as internal consistency, uniformity, objectivity etc. and explains that the transcriber is to be considered an expert in language instead of a “transcriber in graphic signs of a sound flow”.

Section two focuses on the linguistic approach to the speaker identification. In this sense, Jordi Cicres investigates the concept of ‘idiolect’—or ‘idiolectal style’—and proposes to apply it to forensic speaker identification. In the discussion, the author also includes data from a speaker identification case in which one ‘expert’ reached a wrong conclusion due to an inattentive analysis, which failed to take into consideration the linguistic and idiolectal aspects of the unknown and known voices. Finally, he mentions a new technique used at Pompeu Fabra University’s Forensic Linguistics Laboratory to measure the linguistic differences between several idiolects and each individual’s idiolectal distance so that an Index of Idiolectal Similitude can be obtained. The use of such an index is advocated to standardise the qualitative and quantitative analysis of non-phonetic parameters in speaker identification.

Along the same lines, María García Antuña offers a general reflection

on the nature of speech. She believes that the consideration of speech as a biometric index, subject to different factors of variability, is one of the most difficult challenges in forensic research, and speaker intravariability implies that it should be impossible to consider the concept of *voiceprint*. Within this theoretical framework, the author investigates the role of speaker identification evidence in legal proceedings, and the different methods of speech analysis in Spanish criminal laboratories.

Finally, Antonio Briz and Elena López-Navarro examine the feasibility of detecting grammatical and discursive markers in spoken spontaneous data, in order to include such elements in forensic speaker comparison. Among other features, idiolectal linguistic usages arise in syntactic and discursive structures in spoken unplanned texts, as observed for written and for planned spoken texts. Those linguistic mechanisms contribute to show idiolect in spoken spontaneous production, increasing the degree of certainty achieved by the phonetic and acoustic analyses.

Section Three of the volume presents engineering approaches to speaker identification.

Establishing the authenticity of audio evidence is one of the principal concerns of audio forensics. Over time several techniques have been developed for the authentication of both analog magnetic tape recordings and, in recent years, for modern digital audio files. However, the effectiveness of current methodologies in detecting tampering changes dramatically moving from analog to digital recording. In their paper, Giovanni Tessitore, Stefano Delfino, Luigi Bovio, Claudio Fusco, Giuseppe Feliciani and Gianpaolo Zambonini maintain that it is more difficult to establish whether an audio file has been tampered with in digital recordings. This is because most of the audio captured today does not contain any digital watermark or signature and it is necessary to passively check the integrity of the digital audio. In this context, the authors discuss some methods and approaches to audio authentication.

In their contribution, Francesco Sigona and Mirko Grimaldi sum up the issue: can someone be recognized by his/her voice beyond reasonable doubt? In other words, can the recorded voice of an unknown speaker be attributed to a known speaker? In a typical case, the questioned identity is that of an anonymous offender who has been recorded during a telephone or environmental interception, while the known speaker is the person who is suspected of being the offender. A true scientific paradigm requires the use of methodologies and approaches based on quantitative measurements and statistical modeling of data relevant to the case under investigation, and whose validity and reliability can be verified empirically. In their work, the authors present and discuss different software applications for

Forensic Speaker Recognition.

Finally, Section Four focuses on Courtroom discourses and texts. There emerges a complex and dynamic structure, in which different identities (lawyers, judges; experts, witnesses, interpreters, etc.) are played out according to the levels of linguistic, cultural and social competences of each participant. All these components intertwine in the building of the event's interpretations and meaning.

Laura Mariottini's work relies on the theoretical perspective of CA, particularly applied to institutional types of asymmetrical situations and, within them, to courtroom interactions. Within this framework, the author analyses, from a qualitative perspective, how disparities are interactionally built and negotiated within the sequential structure of the event. In particular, her study shows how the category of the "forensic illiterate" is made relevant by participants and how the interaction structure changes in order to balance knowledge asymmetries.

Marta Biagini explores what happens when court examinations are mediated by an interpreter and how interactional space is actively negotiated and constantly reconfigured by participants in a way that highlights changes participation dynamics.

Lastly, the contribution of Rossella Iovino analyses the role of Latin in the language of law by addressing two hundred Latin expressions. The corpus investigated consists of more than five hundred sentences passed by the Civil Section of the Italian Supreme Court of Cassation between 2010 and 2015. The aim of her work is to make a contribution to the study of the persistence of Latin in Italian forensic language.

To conclude, our volume sheds light upon some central subjects of Forensic Communication especially in Italian and Spanish cultural-linguistic areas: the necessity to establish a bond between practice and academic education in the training of phonetic and transcription experts; the role of linguistic and technological tools for speaker identification—a key issue in the field of Italian investigations, in which telephone and uncovered interceptions are a fundamental instrument for collecting evidence—the language of law and courtroom interaction as an intertwined body of language varieties, discourse genres and texts. This volume can, therefore, be considered a contribution towards the intersection of theoretical research and forensic practices.

References

- Atkinson, Maxwell and Paul Drew. *Order in Court*. London and Basingstoke: the Macmillan Press, 1979.
- Coulthard, Malcom and Alison Johnson. *An Introduction to Forensic Linguistics: Language in Evidence*. London and New York: Routledge, 2007.
- Coulthard, Malcom and Alison Johnson. *The Routledge Handbook of Forensic Linguistics*. Abingdon, Oxon: Routledge, 2010.
- Coulthard, Malcolm, Alison Johnson and David Wright. *An Introduction to Forensic Linguistics: Language in Evidence*. 2nd edition. New York: Routledge, 2017.
- De Mauro, Tullio. “Introduzione”. In *A onor del vero* by Patrizia Bellucci, IX-XIII. Torino: UTET, 2002.
- Gibbons, John and María Teresa Turrell, eds. *Dimensions of Forensic Linguistics*. Amsterdam and Philadelphia: John Benjamins Publishing Company, 2008.
- Palazzo, Francesco. “Dimensione linguistica del diritto e ruolo dell’avvocato”. In *La lingua, la legge, la professione forense*, edited by Alarico Mariani Marini, 113. Milan: Giuffrè, 2003.
- Tiersma, Peter and Lawrence Solan. *The Oxford Handbook of Language and Law*. Oxford: Oxford University Press, 2012.

PART I.

THEORIES, PRACTICES AND TRAINING

CHAPTER ONE

TRANSCRIBING INTERCEPTED TELEPHONE CALLS AND UNCOVERED RECORDINGS: AN EXERCISE OF APPLIED CONVERSATION ANALYSIS

FRANCA ORLETTI

1. Introduction

The word “transcription” has a long story and many meanings, depending on the research field using this word¹. In linguistics by “transcribing” scholars mean turning a spoken text into graphemes. It is not to be mistaken with the word “transliteration”, that is to say turning a written text into another alphabet. Transcribing has been around since the beginning of the 20th century. This practice was used by American anthropologists to collect data from American Indian languages. In dialectology, it has started playing an important role since the second half of the 1970s, when empirical data started to be pivotal in the research about spoken communication. In sociology, it has been used in the field of Conversation Analysis (CA), while in linguistics, in discourse analysis first, and then in interactional linguistics and other similar hybrid forms joining linguistics and CA.

Attention to spoken language has had numerous effects:

- collecting large quantities of interactional data and their transcription into written language. This process consisted in extrapolating

¹ Examples of transcription include hand copies by medieval amanuensis friars; the first written evidences of Romanic languages in the 10th century; and Dante’s *De Vulgari Eloquentia*, where he graphically quotes portions of spoken vulgar language, thus showing a use of transcription as it is intended today (Bürki and De Stefani 2006).

samples of spoken language from the social context in which they had occurred, thus turning them into autonomous items, to be analyzed into the ivory tower of a laboratory. This issue has been stressed from scholars in the fields of anthropology reflecting upon transcription (Bucholtz 2007; Duranti 2006).

- producing great quantities of theoretical reflections on the problematic nature of transcription, and on its status as an initial form of analysis and interpretation. Ochs (1979) was the first to stress the selective and interpreting nature of transcription, defining it as a theory. Several other contributions confirm this position: Orletti and Testa (1991); Bucholtz (2000, 2007, 2009); Duranti (2006).
- creating different notation systems, depending on the research aims of an investigation. The best known was ideated by Gail Jefferson in the 1970s (Sacks, Schegloff and Jefferson 1974; Jefferson 2004). Other successful systems include CHAT (the Codes for the Human Analysis of the Transcripts), by MacWhinney (1991) for the investigation of large corpora of data about language acquisition by children; the system by Gumperz and Berenz (1993) for the ethnographic research of interactions in urban institutional contexts; the system by Du Bois (1991), which describes transcription “as the process of creating a written representation of a speech event so as to make it accessible to discourse research” (Du Bois et al. 1993, 45), after having defined the peculiarities a good notation system has to possess.
- identifying criteria for the assessment and comparison of different noting systems. Orletti and Testa (1991, 267) analyze criteria for the selection of a notation system. They take into consideration accuracy vs. specialization, reliability, readability, inner consistency, flexibility, and reproducibility. Similar criteria are suggested by Du Bois, who talks of five maxims: first maxim, define high-quality categories; second maxim, create an accessible system; third maxim, make representations robust; fourth maxim, adopt economic criteria; fifth maxim, create an adaptable system (Du Bois 1991, 78).
- in social and cultural studies, reflections by sociolinguists and anthropological linguists upon the implications of extracting chunks of spoken utterances from social events and then transcribing them. This phenomenon is called *entextualization*, and it is followed by a re-contextualization of the same texts (Bucholtz 2000, 2007). According to this perspective, Bucholtz (2007)

stresses that the act of transcribing is not just a technique or a methodological resource to study spoken language, but it is a social and cultural practice of representing discourse. Extracting chunks of a social interaction and fixating its ‘flowing’ on a printed page turns those chunks into movable items that can be repositioned into other contexts. By doing so, they can change their meaning (Bauman and Briggs 1990; Silverstein and Urban 1996). Transcripts have their own life because the researcher has given them a new life. They can sound different simply because one can read them after many years and after having lost them somewhere (Duranti 2006, 307).

As has already been said, theoretical reflections on the written representation of spoken language have acquired impressive relevance and notoriousness. Besides, in many public contexts the practices used to translate speech into a written form can be easily defined as professions of diamesic translation, meaning both the practice of *verbatim* transcription and the one of summarizing spoken texts. Professionals in the field of diamesic translation include parliamentary reporters, interlingual and intralingual subtitlers, conference reporters, transcribers of intercepted telephone calls and undercover recordings in the forensic field. Apart from single exceptions, most of these professionals seem to completely ignore the critical relationship between speech and its written rendition as a transcript and the reflections of linguists on the written-spoken language dichotomy. Some of the professionals of diamesic transcription do not have a specific educational background. On the contrary they have learned their job in the field. This is particularly true for court reporters. Paoloni and Zavattaro (2007, 139) clearly show that there is no academic curriculum for the training of experts in the field of intercepted telephone calls and undercover recordings. Moreover, they also underline how such professionals can only rely on their experience. All their linguistic competences, meaning phonetic, dialectological, sociolinguistic, and technological are learned in the field. Similarly, Bellucci (2002) underlines the problems related to a lack of a specific training for both police professionals and experts of forensic transcription². Romito (2005, 7) clearly states that:

² On the basis of the examination of a judiciary mistake, Romito (2016, 6) shows how the problem of training and of specific competences is larger and also covers phonic expertise and other fields of scientific expertise. The lack of a specific training of such experts is the topic of a recent publication where the author, who is a phonic expert, says that her professional experience started from her ear for good music (Monasta 2015).

“transcription, for example, has always been considered as an activity which is so simple that it does not require an ad hoc educational background or specializations. Many professionals in the field do not even have studied linguistics. This means that in Italy a transcription, be it the transcription of a meeting of flat owners or of a kidnapping can be made by anybody, without any diploma or certificate”³.

2. Intercepted telephone calls and undercover recordings

Lawful interceptions are a widespread tool used during investigations and as evidence during trials. Lawful interceptions have also become very well-known thanks to their use by mass media. Technically, an interception is the process by which telephone calls or other kinds of conversations and communications occurring in whatever context are recorded by electronic devices managed by a third person who is neither part or the addressee of such interactions. Participants in the interaction ignore being recorded (Paoloni and Zavattaro 2007, 81). Depending on the environment of the interaction, a phone call or a face-to-face conversation, experts distinguish between intercepted telephone calls and undercover recordings. Given the evolution of technology and the possibility to easily record and store interactions on digital supports, the use of interceptions have increased during the last years. According to a research conducted by Eurispes on the data of the Direction General of Statistics of the Italian Ministry of Justice, from 2006 to 2010 the number of intercepted targets has increased by 22.6% every year. Another meaningful piece of data, that allows understanding how important the field of lawful interceptions is, is related to expenditure. According to the so-called *Rapporto Giarda (Elementi per una revision della spesa pubblica*⁴), dating 8 May 2012, lawful interceptions account for 40% of the total expenditure costs of Italian justice. In the *Relazione al Parlamento sullo stato delle spese di giustizia*⁵, dating 28 June 2012, rapporteurs show that the 2011 budget of the Ministry of Justice for interceptions (chapter 1363) was of € 249.8 million, but the Ministry actually spent about €260 million. However, it is worth noting that this amount is progressively diminishing when compared with that of last years, when it used to range between € 285 and 300 million. In 2012 the available budget for interceptions was of € 239.8 million, but the expected expenditure was of around €250 million.

³ My translation from Italian.

⁴ “Elements for a revision of public expenditure”. My translation from Italian.

⁵ “Report to Parliament on the state of justice expenditure”. My translation from Italian.

2.1. Interceptions in the code of Criminal Law

Articles 266 and following of the Italian Criminal Law regulate interceptions, which are considered as the typical tool to search for evidences. The use of every single interception is authorized and motivated by the so-called *Giudice per le Indagini Preliminari (GIP)*⁶, upon request by the prosecutor. For cases that are considered as urgent, the prosecutor is allowed to authorize the use of an interception, which needs to be confirmed within the following 48 hours by the *GIP*. Then, the prosecutor asks the Italian Judiciary Police to start interception activities, through different techniques. In the case of telephone calls or other forms of telecommunication to be intercepted by telecommunication companies, the content of the conversations under investigation is duplicated and transcribed by the *Centro InTercettazioni (CIT)*⁷ of the Italian Prosecutor's Office that asked for that interception. Article 266 of the Italian Code of Criminal Law defines restrictions and aims of interceptions and enumerates the kind of crimes for which the use of interceptions is allowed.

3. Interceptions as a form of entertainment

Recently, mass media have made extensive use of transcriptions of intercepted telecommunication and undercover recordings. They not only publish whole or partial transcriptions both online and on paper. They even dramatize them, by means of actors playing the role of the intercepted. For example, TV programs such as talk shows and information programs stage specific events through performances, similar to theater plays, of recorded conversations. The amount of information, even irrelevant, in such transcriptions or performances has a likelihood effect on the audience, who tends to consider a perfect reproduction of what is said by participants in the conversation possible. Hence, they can easily play the role of the investigator, pronouncing sentences on the basis of evidences, which are sometimes just a *souvenir* of what really happened. Talking about transcriptions, Bellucci (2002) says that a difference is to be made between the ones that the judge reads, which tend to be more realistic, and the ones performed by the mass media, which tend to be further manipulated.

⁶ Literally Preliminary Investigation Judge, the Italian GIP has no actual counterpart in Common Law countries.

⁷ Interception department of the Italian Prosecutor's Office. My translation from Italian.

The complexity of diamesic translation is further undermined by the fact that some aspects of the transcription process are not notified such as the possibility that: a recorded conversation is filtered to improve input quality; the transcriber interprets bits of incomprehensible conversation; anaphoric references and deictic items related to given persons or places are reconstructed on the basis of the transcriber's knowledge of the situational and social context of the conversation; some parts of the conversation are translated from dialect into standard Italian.

By doing so, an important tool to search for evidences is used in a banal way and the public opinion believes that transcribing is something that anybody can do, and that a written accurate rendition of a spoken text is always possible. However, transcribing is a selective and interpretive activity, oriented to the needs of the transcriber. Mass media further contribute to the unawareness of the difficulties a transcriber meets when trying to graphically represent all possible features of orality, and to remove the awareness of transformations that the recorded event necessarily undergoes when transcribing audio into a written text. This is true not only for the public opinion, but also for professional transcribers, who think they work in an objective and neutral way, being able to transcribe all the peculiarities of every single sound. Numerous authors—namely Shuy (1993), Bellucci (2002) and Fraser (2003)—stress that the results of linguistics and forensic phonetics have rarely been read by such experts⁸. More in general, transcripts performed as scripted dialogues reinforce the following misconception about language in the law domain:

“law is a culture of the written word, not the spoken. Once jurors see a written transcript, they think of it in the way they might view a written play: one actor says one thing and the next actor responds to that person with clear understanding, complete recall and perfect hearing. In real life, however, stage conditions do not exist” (Shuy 1993, 7)⁹.

⁸ Fraser's publications are available at the following link:

<http://helenfraser.com.au/publications/> (accessed December 11th, 2016). This gap between research and world of job is not due to a lack of interest by linguists in applied topics. The work by John Trumper is an example of that, as well as that of Italian linguists, mainly dialectologists and sociolinguists, who have extensively investigated the issues of speaker's identification and speech community.

⁹ Coulthard and Johnson (2010, 608) report that in UK it is a normal procedure to perform transcribed dialogues in court. They write: “In the UK it is normal not only to transcribe investigative interviews, but also to perform them in court. Paradoxically, rather than play the original recordings of the police interviews in court, the preference is to reconvert the transcribed version into a performed dialogue, for which the police witness usually plays him/herself and the

To be noted, that such remarks are not to be considered as a way to support those proposals which are oriented to restricting the freedom of the media, such as some legislative proposals defined as *leggi bavaglio*¹⁰. Instead, they are meant to underline the importance of the manipulations that an original audio undergoes, be they summaries or translations from dialect or foreign language, and that publishers shall make explicit to their audience or readership.

4. Criticalities of transcriptions in the forensic field

Forensic transcriptions have a different goal as compared to transcriptions used in linguistics and social sciences. In linguistics, the content is never the primary piece of data¹¹. The researcher's attention is focused on the form, whose details are very accurately noted, such as false starts, overlapping, reformulations and all other typical phenomena of the spoken language. A linguistic transcription may also consider all suprasegmental features, both vocal and non-verbal, such as intonation, pauses, rhythm, timber, speech rate, etc. and all events related to the vocal utterance being interrupted, mainly pauses and silence.

Such orientation in research was proposed by CA, which is based on the notion of "no order of detail in interaction can be dismissed *a priori* as *disorderly, accidental, or irrelevant*" (Heritage 1984, 241). In order to identify those social actions carried out by interactants, it is necessary to consider all the details of conversation, meaning not just the words that are used but how they are used, and all those phenomena, such as laughter, sighs, inspirations, expirations, extra sounds, etc., which may seem useless, hence not to be transcribed. In the second half of the 1960s, Jefferson develops a noting system that can seize even such smallest details. Moreover, in CA, a transcription should accurately reproduce everything which is said, without manipulations or omissions. In the analysis, the search for a convergence of the interpretive perspectives of the researcher with those of the interactants requires a written representation of

prosecuting lawyer plays the accused". They underline the risks such practice implies: "What all playwrights and actors know only too well is that performance involves interpretation; lawyers are either blissfully unaware of this or choose to exploit its significance". Given the non-neutrality of performance, they call for a critical forensic linguistic approach arising out a close analysis of data.

¹⁰ Literally, gag law. My translation from Italian (see Gialuz 2009).

¹¹ In conversation analysis, primary data are the ones related to the recording of the spoken utterance. This should be the case even in the criminal process. In any case, even the primary data suffer from restrictions, mainly technological.

conversation in its smallest details. When the conversation is unintelligible, it is to be noted without trying to interpret it.

On the contrary, in forensic transcriptions the main goal is to understand the content of a conversation. The message is transcribed to understand who is speaking—that is quite easy with intercepted telephone calls but not with undercover recordings—and what is said. This means that the spoken language is simplified, by omitting specific features of orality that are considered as irrelevant peculiarities of the spoken utterance, such as pauses and hesitations which are often omitted. However, they play a fundamental role in making an utterance clear. While analyzing the transcription of an intercepted telephone call between people involved in a case of drug trafficking, Grimaldi (1996) shows how an accurate use of pauses manages to make interactants understand when an expression is to be interpreted literally and when it is to be interpreted inferentially. For example, though the word *scarpa* (literally shoe) does not mean ‘drug’ in the jargon used by dealers, it is here used to mean ‘drug’, because it comes after a pause that suggests the addressee to forget about the literal meaning and to consider it as a metaphor. The pause clearly determines the activation of an inference.

With the aim of making the content of the interaction clear, transcribers introduce some comments based on their knowledge of the social and situational contexts which are aimed at disambiguating the meaning of deictic expressions, anaphoric references, or indefinite expressions. These are mainly due to the peculiarities of the spoken language and to the fact that people are more and more afraid of being intercepted. Hence, recordings are full of references to the encyclopedic and situational contexts, and of indefinite expressions such as *quella roba lì* (that stuff), *il nostro caro amico* (our dear friend), *il quartierino* (the neighborhood), *quello lì* (that one), *la patata bollente* (the hot potato), *la combriccola* (the gang), *i cari amici tuoi* (your dear friends), etc.

Let us now consider an example from the *Gorini-Nava* intercepted telephone call, Court of Monza (Italy):

Example 1

1. GORINI: Sì perché questi qua... una roba del tipo... tutta la mattina,
2. che questa qua
3. (la revisore dei conti dr.ssa CERIBELLI, ndr) l’ha tediata e quindi...
4. eh... per cui c’è chi mi dice
5. il 2004... il 2004 glielo posso raccontare però io non ero certo
6. responsabile, perché chi faceva

7. cose non ero... cioè non avevo questo riconoscimento, quindi ...come
8. età...
9. per fortuna, quindi come tale le dico come sono andati i fatti,
10. questo glielo posso raccontare, così lei vede cosa vuole raccontare.

1. *GORINI: Yes because these here ... something of the kind ... all*
2. *morning, that this one*
3. *(the auditor Ms. CERIBELLI, note of reporter) bored her and so ... eh ...*
4. *that is why some say to me*
5. *that 2004... 2004 I can tell you that but I was not for sure in charge,*
6. *because those who did*
7. *things I was not... I mean I did not have such a recognition, then... as*
8. *for my age...*
9. *fortunately, then as such I tell you what happened,*
10. *I can tell you that, so you see what you want to tell*

Here, the note of the transcriber clarifies the reference expressed by “*questa qua*”, as in the following:

Example 2

1. GORINI: Allora (inc.) dice ma ascolta ma cosa c'entra per lei (la
2. revisore dei conti, ndr) il 2004?
1. *GORINI: Then (unintelligible) she says listen what does 2004 matter to*
2. *you (the auditor, note of reporter)?*

These are examples of *Deixis am Phantasma*, meaning a reference to something which or somebody who is not contextually perceivable, but is encyclopedically memorized¹². However, expliciting a reference is not always easy. Moreover, making use of personal interpretations based on the knowledge of a given process may introduce subjectivity in the transcription, which can be questioned, thus weakening the value of the interception as evidence. When a transcriber tries to interpret unintelligible utterances, the risk of an interpretive intervention is even higher. Sometimes the quality of the audio signal is so low that conversations cannot be understood and transcribed. A transcriber should notify it by means of a note (in Italian “inc.”, standing for *incomprensibile*, meaning unintelligible). However, sometimes transcribers tend to interpret the unintelligible spoken utterance, thus running the risk of projecting their professional view on the interaction (Goodwin 1994; Bucholtz 2009), meaning reading the events through the lenses of a transcriber. To be

¹² See Bühler in Mazzoleni 1985.

noticed, here, is the fact that the more the transcriber is involved in the process (as in the case of a policeman who has participated in the investigation), the more her/his expectations will drive her/his interpretations. In the case of a freelance transcriber, the risk for overinterpretation is lower (Fraser 2014).

Research in the field of cognitive phonetics (Fraser, Stevenson and Marks 2011, 262) describes another similar phenomenon, that of priming, i.e.

“the tendency, especially with a degraded signal, for the ear to hear words that have been suggested. This means that the very act of telling the jury one of the interpretations to be evaluated might cause them to hear that particular interpretation. Further, having heard one interpretation ‘with their own ears’, they might find it difficult to ‘unhear’ it sufficiently to consider an alternative interpretation with equal objectivity. Indeed, the primed perception might subconsciously affect their opinion of the defendant and the case as a whole, even if it is later shown to be based on an incorrect interpretation of the disputed utterance”.

Here, again, we find a case of overinterpretation, where previous knowledge suggests the interpretation of a disputed utterance.

Another hot topic of forensic transcriptions is characterized by the use of dialect or of substandard language in the text to be transcribed. Normally, chunks in dialect should be, first of all, transcribed¹³ and, then, standardized. However, this implies that the transcriber knows that dialect or variety. Knowing the meaning of an expression in the speaker’s culture allows the transcriber to avoid misinterpretations or literal translations of idiomatic expressions, which could mislead the reader of a transcript. When considering the case of dialectal fillers such as *ammazza*, *ammazzate*, *ammazzalo* (literally ‘kill’, ‘kill yourself’, ‘kill it’, used to mean ‘wow’ in the dialect used in the area of Rome), a literal transcription may be dangerous in a criminal process.

A last critical aspect to consider is the use of *omissis*, in the case of long chunks that are considered as irrelevant and then omitted in the transcription. As CA shows, the structure of a spoken interaction is organized into sequences, where the last element of a sequence sheds light on the following one. At the same time, the first element of a sequence

¹³ The best way to transcribe dialect is by making use of the IPA. However, since the transcript is to be readable by people who are not experts of phonetics, such as lawyers and judges or third parties, this option cannot be considered as a solution. Conversation Analysis makes use of eye dialect, meaning the use of nonstandard spelling to report mispronounced words.