

Why Philosophical Pragmatics Needs Clinical Pragmatics

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ABSTRACT

This paper aims to show how clinical pragmatics (the study of pragmatic deficits) can fruitfully inform the classical theoretical models proposed by philosophical pragmatics. In the first part of the paper I argue that theories proposed in the domain of philosophical pragmatics, as those elaborated by Austin and Grice, are not plausible from a cognitive point of view and that for this reason they cannot be useful to understand pragmatic deficits. In the second part, I show that Relevance Theory overcomes this limitation (being consistent with the data about actual mind's functioning), but I also argue that it offers a restricted view of human communication which has to be integrated with a model of language use that takes into account a central pragmatic property: coherence of discourse.

Keywords: cognitive plausibility, discourse coherence, executive functions, pragmatic impairments, relevance theory.

1. The domain of pragmatics

Pragmatics, since its dawn as a branch of the sciences of language, has been the subject of numerous debates about the nature and definition of its object of study. While scholars of syntax and semantics agree, at least on a general level, on what should be their field of study, among scholars of pragmatics there is no general consensus on what constitutes the domain of study of their discipline. The absence of such a consensus is evident, for example, in the various definitions of pragmatics that it can be find among the authors who deal with it.

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For example, Sperber and Wilson (2005, p. 468), assuming language centrality, define pragmatics in general terms as “the study of the use of language”, and more specifically as “the study of how contextual factors interact with linguistic meaning in the interpretation of utterances”. Other authors, instead, focusing their attention on non-linguistic features (gaze, gestures, postures, etc), describe pragmatic behavior as not dependent on the use of language (Dronkers, Ludy, & Redfern, 1998). In some other cases, scholars distinguish, at least implicitly, between linguistic and non-linguistic pragmatics by using terms such as ‘pragmatic language impairment’ (Bishop, 2000) or ‘pragmatic language disorders’ (Martin & MacDonald, 2003).

In recent decades, the definition of pragmatics has been strongly influenced by the results from the field of clinical pragmatics: the study of clinical cases has offered valuable new sources of data with respect to traditional issues in philosophical and linguistic pragmatics (e.g. Cummings, 2009; Perkins, 2007). At the basis of this kind of methodological approach there is the idea that through the study of deficits it is possible to identify capacities and processes that underlie pragmatic behavior: here the maximum is that we become aware of the nature of a mechanism or process by examining what happens when it goes wrong. From this perspective, therefore, it is possible to propose a model of pragmatics that respects the cognitive plausibility (the interpretive model should be compatible with the knowledge about the functioning of our mind). In this paper I assume as working definition of clinical pragmatics the following proposed by Cummings (2009, p. 6):

Clinical pragmatics is the study of the various ways in which an individual’s use of language to achieve communicative purposes can be disrupted. The cerebral injury, pathology or other anomaly that causes this disruption has its onset in the developmental period or during adolescence or adulthood. Developmental and acquired pragmatic disorders have diverse etiologies and may be the consequence of, related to or perpetuated by a range of cognitive and linguistic factors.

My aim is to show that our understanding of pragmatics can be informed and extended by the study of pragmatic impairments. In the next section I aim to discuss the advantages of such an approach compared to some theories proposed in the area of philosophical pragmatics.

2. Pragmatic theories and pragmatic impairments

Although classical pragmatic theories, as those proposed by philosophers such as Austin (1962) and Grice (1975), have had a remarkable impact on the study of pragmatic impairments, understanding of communication deficits has not always been particularly well served by these theories. This is due to a large extent to the fact that these theories provide a means of describing pragmatics and pragmatic impairments that is rarely adequate for clinicians (for a discussion, see Perkins, 2007). Austin's Speech Act Theory, for example, although used to test communication in several clinical populations, including adult with aphasia (Wilcox & Davis, 1977) and children with Asperger's syndrome (Ziatas, Durkin, & Pratt, 2003) and autism (Loveland et al., 1988), shows some limitations (Allan, 1998) that can be problematic for clinicians. As an example, consider the following transcript, spoken by a man with traumatic brain injury (TBI).

I have got faults and. my biggest fault is. I do enjoy sport . it's something that I've always done. I've done it all my life. I've nothing but respect for my mother and father and. my sister. and basically sir. I've only come to this conclusion this last two months. and. as far as I'm concerned. my sister doesn't exist. (from Perkins, Body & Parker, 1995, p. 305).

As you can see, each single utterance is well formed and has the illocutionary form of a statement. However, considered as a whole, this piece of language appears inappropriate from a pragmatic point of view. Indeed, it lacks coherence: it is characterized by sudden and irrelevant topic shifts. So, according to Speech Act Theory, utterances produced by TBI subject are not problematic, although they are ineffective from a more general communicative perspective. Here the problem is that Speech Act Theory has tended to focus on single isolated sentences independent from discourse context (Geiss, 1995), but (as I will discuss more specifically in the last paragraph) a central property of pragmatics is coherence that pertains to the level of the discourse rather than of the single sentence.

Like Austin's Speech Act Theory, Grice's Theory has served as a conceptual framework for understanding pragmatic impairment and has been used for studying communicative problems of some clinical populations, including adults with aphasia and right hemisphere damage (Ahlsén, 1993; Bloom et al, 1999; Stemmer, Giroux & Joannatte, 1994) or children with autism (Surian et al., 1996). However, the application of theory of

Conversational Implicature proved problematic to study pragmatic deficits, and its application is not always easy and straightforward. The main problem of this failure is that Gricean Theory (but the same is true, at a general level, for philosophical pragmatics) doesn't explain the underlying causes of pragmatic behavior and pragmatic deficit. However, the need to distinguish between such levels, that of *description* and that of *explanation*, seems particularly outstanding. As an illustration of this, consider the following transcripts discussed by Perkins (2007, p. 31).

a.

Prompt: the man who sits on the bench next to the oak tree is our mayor

Gary: amen

b.

Adult: can you think of anymore?

Matthew: a remote-controlled cactus

Transcripts *a* is the response of Gary, an 8 year old boy, to a task where the subject is required to repeat the sentence heard. Transcripts *b* shows a piece of conversation between Matthew, aged 8, and an adult who has been asking names for pets. Gary's and Matthew's response may be apparently described in a similar way: they are examples of pragmatically anomalous behavior as they appear to violate the Gricean maxim of relevance. However, only Matthew's response is a genuine case of pragmatic impairment. Indeed, as Perkins (2007) shows, the underlying causes in each case are quite different. Gary's irrelevant response is due to his problems with verbal memory and syntactic comprehension: the sentence "the man who sits on the bench next to the oak tree is our mayor" is both too long and too syntactically complex for him. On the other hand, Matthew has normal syntax and verbal memory, but has a diagnosis of autistic spectrum disorder: his problems in social cognition are responsible for his incapacity to take proper account of prior and surrounding context during conversation.¹

¹ Here the distinction is between primary and secondary pragmatic disorders. Clinicians and theorists use the term 'secondary' to describe an individual's pragmatic disorder that is not related to any impairment of pragmatic competence as such – the disorder is secondary to an impairment of structural language. Instead, an individual with a primary pragmatic disorder has intact structural

The arguments discussed lead us to highlight an important issue: the idea that the development of a theoretical model about the nature of communication cannot be separated from the reference to empirical data. In our case, the idea is that the elaboration of a pragmatic theory should be constrained by clinical data. The analysis of the deficits permits building theoretical models (founded in human cognition) that can explain the actual communication processes rather than describe them in the abstract. Now, although the existence of a deficit does not constitute in itself evidence to support that a certain processing system is involved in a given function, in my opinion the study of the deficit, and therefore the reference to the functioning of cognition, remains an indispensable tool (while not sufficient alone) to test the empirical plausibility of a theoretical model. The issue of pragmatic impairments opens the way to question the relationship between pragmatic theory and the theory of cognition. In the next section I discuss such a question using Relevance Theory (Sperber & Wilson, 1986/95).

3. Pragmatics and cognition: Relevance Theory

Relevance Theory (RT) is a perspective on the nature of communication strongly related to theories on the architecture of the mind. Unlike Speech Act theory and Conversational Implicature, RT characterizes pragmatics referring to cognitive processing rather than contextualized action or usage principle. RT, in fact, tries to give an account of the processing systems at the base of human communication: the scholars who work within this perspective of research explicitly seek to respect cognitive plausibility to explain communication processes. In such a perspective assumptions about the nature of communication are subject to confirmation or refutation and reformulation in the light of experimental work concerning the nature of cognition (Noveck, Sperber, 2004). The methods adopted are, in fact, those of cognitive psychology: in addition to purely philosophical or linguistic arguments, the appeal of cognitive plausibility binds authors to construct models of communication processes in line with the evidence produced by experimental

language skills, but may fail to understand the significance of context features for his choice of linguistic utterance (Cummins, 2009).

studies on the deficit or with interpretations that come from evolutionary psychology.²

Following Grice's intuition, according to which an essential feature of most human communication, both verbal and non-verbal, is the expression and recognition of intentions (Grice, 1957), Relevance Theory sees communication as an inferential pragmatic process in which the generation and the detection of communicators' intentions is central. More in detail, Sperber and Wilson propose an ostensive-inferential model of human communication according to which the speaker provides just an evidence (e.g., an utterance) of his intention to convey a certain meaning and the listener comprehends speaker's meaning by producing a series of inferences that are governed by that evidence. In this communicative process two intentions are involved:

1. the *informative intention*, by which the speaker informs the listener of something (the ostensive stimulus has to attract the attention of the recipients);
2. the *communicative intention* by which the speaker intends to inform the listener of his own communicative intention (the ostensive stimulus has to lead the attention of the recipients on the speaker's intention).

Communication has a positive outcome when the recipient explicitly recognizes the communicative intention of the speaker (therefore his communicative behavior). To this end, the ostensive stimulus (behavior, verbal utterance, etc.) must capture the attention of the recipient and direct the attention on speaker's intentions. But, what does it make an ostensive stimulus worth attending to? Sperber and Wilson have argued that the answer to this question is based on a theoretical notion of relevance. They wrote:

Relevance, as we see it, is a potential property of external stimuli (e.g. utterances, actions) or internal representations (e.g. thoughts, memories) which provide input to cognitive processes. The relevance of an input for an individual at a given time is a positive function of the cognitive benefits that he would gain from processing it, and a negative function of the processing effort needed to achieve these benefits (Sperber & Wilson, 2002, p. 14).

² The reference to evolutionary psychology is due to the fact that according Wilson and Sperber (2004, p. 610) «humans do have an automatic tendency to maximise relevance, not because we have a choice in the matter [...] but because of the way our cognitive systems have evolved».

Relevance is a guiding principle of communication. From this perspective, the basic assumption of each conversational interaction is that speakers and listeners have tried to make their contributions as relevant as possible and that each one is interpreting the contributions of others taking relevance in mind. However, the principle of relevance is also intended to apply to the domain of cognition in general. The idea of Sperber and Wilson is that relevance is a feature of human cognition: human mind is geared toward the maximization of relevance:

the human cognitive system has developed in such a way that our perceptual mechanisms tend automatically to pick out potentially relevant stimuli, our memory retrieval mechanisms tend automatically to activate potentially relevant assumptions, and our inferential mechanisms tend spontaneously to process them in the most productive way (Wilson & Sperber, 2004 p. 610).

Since we have said that RT is a model of pragmatics that adheres to how the mind works, it is important to analyze connections between RT and theory of human cognition. At a general level, identification of the others' intentions is made possible by a specific cognitive system, Theory of Mind (ToM) module. This term is used to describe the ability to attribute mental states such as beliefs, intentions, and feelings to others and to explain and to predict the actions that derive from them (Baron-Cohen, 1995). Relevance theorists see pragmatics as a specific component - a "relevance-based comprehension module" - of the ToM module with its own proprietary concepts and procedures distinct from general ToM module (Carston, Guttentag & Wilson, 2002; Sperber & Wilson, 2002). From this point of view, communication, and more specifically verbal comprehension, is a form of mindreading. Happé (1993) identifies different levels of mindreading capacity that could be conceived as a continuum ranging from a basic capacity to represent others' mental state (i.e. representational ability) to the potentially infinite representation of mental states about other mental states (i.e. metarepresentational ability). According to Happé, representational ability appears to be sufficient to understand metaphor, while metarepresentational ability is needed to appreciate irony.

The condition most commonly associated with mindreading deficit is autism (Baron-Cohen, 1995; 2001). Since RT sees communication as an exercise of mindreading, it has been a useful framework to analyze communicative deficits of autistic people (e.g., Dennis, Lazenby & Lockyer 2001; Frith 1989; Happé 1995; Wearing, 2010). For example, a

mindreading deficit may be responsible for the incapacity of autistic subjects to understand indirect requests. Consider the following transcripts:

T: can you turn the page over?

C: yes (*non sign of continuing*) (from Perkins, 2007, p. 67).

This is a piece of an interaction between C, a 4-year-old child with autistic spectrum disorder, and T, a speech and language therapist. C seems unable to infer that T’s utterance is intended as a request and is not just a question. Another example of this kind of pragmatic impairment in autism is offered by figure 1 that shows the response of a child with autism who was given a paper with seven rectangles drawn on it and given the request to “write the days of the week in these seven boxes” (Perkins & Firth, 1991). It is evident that the child’s response could be ascribed to a misreading of the speaker’s intention.

The	Days	of	the	Week		
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Fig. 1. The response of a child with autism to the request ‘write the days of the week in these seven boxes’.

As we have seen so far, Sperber and Wilson (2002) characterize pragmatics as “inferential comprehension” oriented to relevance detection. This means that the “relevance principle” characterizes, from a pragmatic point of view, the essence of language. My opinion is that such a conception represents a too limited view of human communication (a view that is heavily focused on the aspects of language comprehension and therefore on the role of the hearer). More specifically, I believe that it is opportune to put together with Relevance Theory an interpretative model that takes into account another fundamental pragmatic property, coherence, which has a key role in discourse processing (clinical data show that it is a property that pertains, primarily, to the dimension of language production). In next section I aim to show why coherence is a central property of human communication and what kind of devices make it possible.

4. Beyond Relevance: how to build coherent discourses

Relevance is not the only principle that governs human communication. As highlighted, for example by Giora (1997, 1998), «speakers and hearers are not constrained only by the search for relevance. In addition, coherence considerations constrain communication and play a major role in discourse structuring and understanding» (Giora, 1997, p. 31). As I have said in a previous sections, my idea is that coherence pertains especially to the building of discourse – to the production – and, for this reason, it is an effort principally made by the speaker. To specify this point, I discuss briefly the case of TBI subjects. This example allows us to emphasize the importance of production dimension and the fundamental involvement of others cognitive systems, specifically the executive functions of planning and monitoring, beyond ToM, in pragmatic communication. Before addressing this topic, I need to specify more in detail the notion of coherence.

Coherence is a term that refers to conceptual organizational aspects of discourse at the suprasentential level. The coherence of a text or discourse depends, at least in part, on the speaker's ability to maintain thematic unity (Agar & Hobbs, 1982). When is a discourse coherent? The dominant idea, especially among linguists, is that the coherence of discourse (spoken or written) depends on the linear relations between adjacent sentences, that is to say on cohesion between pairs of consecutive statements (Bellert, 1970; Bublitz, 2011; Daneš, 1974; Halliday & Hasan, 1976; Tanskanen, 2006). The most influential work from this perspective is Halliday and Hasan's *Cohesion in English* published in 1976. Their concept of cohesion is semantic one. Indeed, in their opinion cohesion refers «to relations of meaning that exist within the text» (Halliday & Hasan, 1976, p. 4) and «enable one part of the text to function as the context for another» (Halliday & Hasan, 1989, p. 489). In a text, the relations of cohesion are realized through grammatical and lexical devices. Grammatical cohesion includes elements such as reference, substitution, ellipsis and conjunctions, while lexical cohesion is based on reiteration (repetition, synonymy, etc.) and collocation (co-occurrence of lexical item). Consider the following text:

After the forming of the *sun* and the *solar system*, our *star* began its long existence as a so-called *dwarf star*. In the *dwarf phase* of its life, the energy that the *sun* gives off is generated in its core through the fusion of hydrogen into helium (from Berzlánovich 2008, p. 2).

As we can see, in this text the sentences are connected through lexical cohesion: the lexical cohesive relations hold among the lexical items *sun*, *solar system*, *star*, *dwarf star* and *dwarf phase* in the text.

What is important to note for the purposes of my argument is that in this perspective cohesion is a necessary condition for discourse coherence (for a discussion see Giora, in press). Now, although the cohesive relations (grammatical and lexical) have an important role in the expression and recognition of coherence relations, my idea is that cohesion between consecutive sentences is not a necessary and sufficient condition for the coherence of utterances in the flow of speech. With reference to this a crucial distinction is that between global and local coherence. Global coherence refers to the relationship between the content of a verbalization with that of the general topic of conversation; local coherence concerns the conceptual links between individual sentences or propositions that maintain meaning in a text or discourse (Glosser & Deser, 1990). While local coherence is made possible by cohesion relationships, my hypothesis is that global coherence is independent from linguistic mechanisms (it is independent from cohesion). Consider the following sentences:

I bought a Ford. The car in which President Wilson rode down the Champs Élysées was black. Black English has been widely discussed. The discussions between the presidents ended last week. A week has seven days. Every days I feed my cat. Cats have four legs. The cat is on the mat. Mat has three letters (Enqvist, 1978, pp. 110-111).

In this text the sentences are connected through the mechanism of repetition. However, the set of sentences, despite the abundance of cohesive ties, is not perceived as a coherent whole. In this text the sentences do not “hang together” in a reasonable way: the text lacks of global coherence.

The example and the arguments discussed so far show that global coherence is a pragmatic property independent from linguistic devices. Indeed, my hypothesis is that coherence relies on more general cognitive processes such as the executive functions of action planning and monitoring. The processes of planning and monitoring play (even intuitively) an important role in building the flow of discourse. As speech is composed of linear sequences of words and expressions, the speaker must constantly form a plan of verbal expressions in order to decide what to say and how to organize what he says, if he wants to express himself in a coherent manner. Moreover, during the execution of a plan, that is, during the stage of discourse production, it is

necessary to continue estimation of the task in order to make sure that the elements introduced accord with the general topic of conversation. Empirical evidence confirms the effective role of these executive processes in processing discourse coherence.

The most interesting data in this regard comes from studies of patients with TBI with executive dysfunctions. These subjects have deficits in action planning and monitoring: they are unable to complete a goal-oriented behavior through a series of simple actions (e.g., Eslinger et al., 2011; Shallice 1982; Zalla et al., 2001). Because of this, TBI patients cannot organize and maintain global discourse coherence (while they have no problems at the level of local coherence). As an illustration of this, consider the following transcript discussed by Perkins (2007, p. 86) in which C, a man with TBI, is talking with T, a speech and language therapist, about trade unions.

C: I admit this government we've got is not doing a good job but the unions are trying to make them sound worse than what they are

T: mm

C: they . they . cos I'm a Tory actually but I I do vote . if there's a . er . a communist bloke there I will vote communist but . it all depends what his principles are but I don't agree . with the Chinese communism . and the Russian communism

T: right

C: but I believe every . should be equal but . I'm not knocking the royal family because y . you need them

T: mm

C: and they they bring people in to see take photos

Despite the local sequential links between trade unions–government, government–Tory, Tory–communist, communism–Chinese/Russian communism, communism–equality, equality–Royal Family, Royal Family–tourist attraction, C shows a form of ‘topic drift’: he is unable to monitor what has already been talked about or to relate each individual utterance to some overall coherent plan or goal. In fact, neurolinguistic experimental data show that TBI subjects connect sentences correctly by using cohesion ties (grammatical devices), but they are unable to construct and maintain the global coherence of their verbal productions (they cannot relate the individual sentences to a plan or to a more general purpose) and often introduce material that is irrelevant to the current context in their verbal productions (Biddle et al., 1996; Glosser & Deser, 1990; Hough & Barrow, 2003; Marini et al.,

2011). Because of their inability to formulate and to pursue a communicative goal, their discourses appear pragmatically inappropriate.

Conclusion

In order to elaborate an interpretative model of the nature of language, the analysis and the study of clinical data appear very important: they allow us to propose a theoretical model that respects the constraint of cognitive plausibility. I have showed that philosophical pragmatics does not respect this constraint and, because of this, it is not at all adequate for the study of pragmatic deficits. A cognitive plausible model of pragmatics is offered by Relevance Theory. However, the clinical data discussed here have pointed out the necessity to go beyond relevance: although pragmatic theory based on relevance detection explains many aspects of human communication, such a theory should be integrated with a theoretical model that takes into account discourse coherence.

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