

The Experimental Turn in Philosophical Pragmatics*

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Modern pragmatics has been defined as “philosophical” pragmatics, not only because its main representative authors, such as John Austin (1962) and Paul Grice (1989), were philosophers of ordinary language, but also because it has used linguistic and philosophical analysis as the key method to give an explanation of the communicative features of language. If we consider language in general as an object of analysis, on the one hand, psychological language models have focused on aspects that are studied through an empirical method: phonological and syntactic modules, models of acquisition and memorization or “storage” of lexis, biological foundations of language, etc. On the other hand, philosophical models have mainly focused on the notion of meaning and rhetorical-pragmatic aspects of verbal communication. This gap, which has deep-rooted historical origins, still persists in theories of language and in the approaches and methods of such theories, including pragmatics.

As Ira Noveck and Dan Sperber stated in their ground-breaking volume (2004), the understanding of language in context has been studied by two disciplines – pragmatics and psycholinguistics – even though there has been little communication between them. However, in the last years, plenty of studies have brought classical pragmatic theories in front of the tribunal of experience to test their power of explanation and prediction. The result has been the growth of a flourishing interdisciplinary, called “Experimental

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Pragmatics”, which claims that understanding an utterance requires access to the speaker’s intention in specific contexts and uses experimental techniques coming from psycholinguistics, cognitive science and psychology to highlight the comprehension mechanisms of non-literal and figurative language. The aim of this issue is to discuss the main empirical results of Experimental Pragmatics and to explore its theoretical influence on “philosophical” pragmatics in its most important research subjects, such as figures of speech, presuppositions, translation, etc. How and to what extent do experimental methods and conceptual analysis interact in pragmatics? Which consequences does this experimental turn bear upon theorizing in pragmatics?

Answering these questions is the aim of this special issue of *Humana.Mente*, entitled “Philosophical Perspectives in Experimental Pragmatics”. The issue collects eight papers, two book reviews, one conference review, and two interviews. The contributions are tied by a common thread, namely the view that philosophical pragmatics could and should pay attention to the main findings coming from other disciplines, such as psycholinguistics, corpus linguistics and cognitive science, to better understand the possibilities as well as the limits of its main theoretical proposals. The eight papers introduce different ways in which data and experiments can bridge the gap between concrete communicative behaviour and pragmatic theories. The range of experimental techniques presented in the volume vary from neurolinguistic experiments to the analysis of language corpora, from behavioural tests to the pathologies of communication, to show the ways data can be collected and analysed in order to test, support or falsify different theoretical perspectives.

The paper “Experimental Investigations of the typology of Presupposition Triggers” by Chris Cummins, Patricia Amaral, Napoleon Katsos, focuses on presuppositions (Van der Sandt 1988) and the problem of distinguishing backgrounded from foregrounded meanings (Shanon 1976), which influence the interpretation of incoming information in a communicative encounter. In particular, the authors address the problem of potential differences between presuppositions triggers, such as “continue”, “only” or “stop”. They discuss alternative theories, also coming from the study of implicatures, and present the results of a pilot study, a set of questions and answers containing presuppositions triggers, to underpin the hypothesis according to which lexical triggers entail their presupposed content and a negative answer to the presupposed content should count as a negative answer to the question.

Stavros Assimakopoulos, in his paper “On Encoded Lexical Meaning: Philosophical and Psychological Perspectives”, considers the account of meaning comprehension known as the “literal first hypothesis” (literal meanings are processed first, easier and faster than figurative meanings), and argues that the very psychological implausibility of this hypothesis is one of the reasons why Relevance Theory (Sperber & Wilson 1986/1995) shifts to the account of ad hoc concept construction. A pragmatic process of lexical adjustment, takes the linguistically encoded concept and generates an *ad hoc* concept in the proposition the speaker intends to communicate, in order to satisfy her expectations of relevance and make sense of the speaker’s utterance (Wilson & Carston 2006). The mutual understanding does not necessarily require that the speaker and listener share the same *ad hoc* concept: an *interpretive resemblance*, i.e. a partial overlapping of logic and encyclopedic knowledge of source and target concept, is sufficient (Wilson 2000). The author argues that this view would have been incompatible with Fodorian semantics, which instead had committed Relevance Theory with the “literal first hypothesis”.

A close look to the experimental data questioning the plausibility of the “literal first hypothesis” is given in the paper by Valentina Bambini and Donatella Resta, “Metaphor and experimental pragmatics: When theory meets empirical investigation”. In particular, the paper addresses an open problem in non-literal language experimental literature, exploring the opposition between the “literal-first hypothesis”, according to which the process of understanding figurative language is indirect since it is necessarily dependent on a previous literal interpretation (Janus & Bever, 1985) and the “direct access view”, which does not imply the mandatory step of literal interpretation, supposed by the “literal-first hypothesis” (Gibbs & Gerrig, 1989). The experimental method taken into account to discuss these alternative hypotheses is functional neuroimaging and the specific application field is the cognitive processes involved in the comprehension of metaphors. The discussion concludes that the process of metaphor understanding is far from being clear, but it shows that the problem can be handled only from an experimental point of view. The research on the cognitive architecture of mind-reading abilities can indeed advance the research on metaphor, narrowing down the questions and allowing the experimental paradigms to better address their theoretical key-points.

Advances in technology and artificial intelligence techniques represent another way in which language use mechanisms come into play in the

redefinition of many questions which were previously the object of philosophical disciplines. The possibility to explore many linguistic data applying algorithms and procedures allow scholars to discover regularities and generalize relationships on texts, which represent (or can be considered a mirror of) communicative behaviour. In the paper “Automated Translation between lexicon and corpora” translations issues are examined, focusing, in particular, on ways to solve representational and translation problems in polysemy. The authors, Elisabetta Gola, Nilda Ruimy, Stefano Federici and John Wade, use tools coming from linguistics, metaphor and polysemy studies, artificial intelligence and corpus analysis and review the state of the art of Machine Translation (Hutchins 1986). They present the computational products they contributed to build up and proposed an integration between lexical resources and corpus data throughout a machine learning technique.

Neuroimaging and behavioral evidence are instead discussed in Katarzyna Bromberek-Dyzman’s paper, “Affective Twist in Irony Processing”, whose main theme is irony. Verbal irony is one of the most difficult communicative tasks and requires a very complex social ability. Irony adds a nuance of meaning that changes the force of what is said and a full understanding of irony would entail some appreciation of why speakers choose this communicative strategy to express their thoughts. This question is even more urgent in case of sarcasm, in which speakers are perceived as more angry and scornful (Leggitt & Gibbs 2000), or as more verbally aggressive and offensive (Toplak & Katz 2000), or more insincere, impolite, non-instructional, and ambiguous (Katz, Blasko & Kazmerski 2004) than speakers who pronounce a literal sentence. In particular, the author focuses on the study of emotional meaning and she argues that recognizing the ironic attitude is profoundly influenced by the emotional load non-propositionally attached to the propositional contents.

Other complex communicative phenomena that could be classified under the umbrella-term “humour” are jokes and puns. To puns, in particular, and to the role of context in the comprehension process, is dedicated Alberto Voltolini’s paper, “Puns for Contextualists”. Voltolini discusses in detail different sentences and cases of punny sentences from two points of view: the contextualists (Recanati 2004) and the non-contextualists (Predelli 2005). He argues in favour of the contextualist stand, showing that, in order to understand a pun, it is not always necessary for the interpretive readings to affect the truth-conditional level of what is said through such utterances. It is indeed crucial to be able to grasp the speaker’s intention, which is a pragmatic

and contextual feature of meaning. The goal of experimental pragmatics is to experimentally underpin or falsify this hypothesis, by establishing which processes are in place among different possible ones, which range from the supposition that there is an interpretation that removes the previous one, to the judgment of “impossible” interpretations of the literal reading.

Marzia Mazzer’s paper, “The Text as a Context. Blurring the Boundaries between Sentence and Discourse”, shown one more time, that sentence is not enough to fully grasp a pragmatic phenomenon and thus a bigger unit of analysis is needed: the text. By reviewing data coming from recordings of event-related brain potentials, Mazzer argues that cognitive mechanisms in place in language understanding are better investigated when experimental design focuses on discourse instead of sentence. Therefore, as widely demonstrated by Josh Van Berkum and colleagues (1999, 2003, 2008, 2009), blurring the boundaries between sentence and discourse seems like a mandatory step for meaning comprehension.

Ines Adornetti’s paper “Why Philosophical Pragmatics Needs Clinical Pragmatics” shows the ways knowledge on communicative impairments (Perkins 2007), such as aphasia and autism, can fruitfully inform the classical theoretical models in pragmatics. Classical theories in pragmatics – as those elaborated by Austin (1962) and Grice (1989) – do not fulfill the cognitive assumption necessary to explain the effective communicative behaviour. An answer comes from Relevance Theory (Sperber & Wilson 1986/1995), which try to be consistent with the data on the actual functioning of the mind. Lastly, Ines Adornetti highlights that another important area, which remains underestimated in philosophical pragmatics, should assume a more central role through clinical pragmatics: the coherence of discourse.

The “book reviews” section is dedicated to the two main experimental methods discussed in this volume: psycholinguistics and corpus linguistics. The first book review, written by Roberta Cocco, is indeed a report and a discussion of Bruno Bara, *Cognitive Pragmatics. The Mental Processes of Communication* (MIT press: Cambridge, MA, 2010). In the reviewed book, Bruno Bara joins his own theoretical proposal on the cognitive mechanisms of behaviour and conversational games with psycholinguistic data coming from his own personal research. The second book review, written by Giuliano Vivinet, is instead an introduction to the main themes and techniques covered by corpus linguistics, presented in the recent published guide edited by Anne O’Keeffe, Michael McCarthy, *The Routledge Handbook of Corpus Linguistics*

(New York: Routledge, 2012). The computational analysis of corpora is used to highlight the linguistic mechanisms involved at various levels of language production: syntactic, semantic, pragmatic, translation, etc.

The “interviews” section is mainly dedicated to two figures of speech, irony and metaphor, through a discussion of the theories proposed by two influential scholars, both employing experimental methods coming, respectively from psycholinguistics and from artificial intelligence: Rachel Giora (Tel Aviv University, Israel) and Bipin Indurkha (International Institute of Information Technology, Hyderabad, India, AGH University of Science and Technology, Cracow, Poland). Rachel Giora discusses irony and other pragmatic phenomena, such as idioms and jokes, in the light of her Graded Salience Hypothesis (Giora 2003), a general view of language understanding that postulates the activation of salient meaning in the first stage of language processing, regardless of context. Bipin Indurkha, discusses his work on the problem of metaphor, which escapes formalized methods and might be better handled from an experimental point of view. The interactionist theory of metaphor he proposed (Indurkha 1992) relies on the interaction between the cognitive agent and her physical and cultural environment stands as the basic principle also used for related problems, such as categorization, analogical reasoning and creativity.

Finally, the conference report written by Tiziana Giudice (*Metaphor and Communication*, international conference organised by the Italian Society for Metaphor Studies and held in Cagliari in May 12-14, 2011) is also dedicated to the issue of metaphor in relation to different communication fields. Indeed, the main sections of the conference were concerned with i) the linguistic aspects of metaphors as an intercultural communication process; ii) the conceptual and imaginistic aspects of metaphors as an intercultural communication process; iii) the use of metaphors in political communications as a particularly relevant case study; and iv) metaphors in other forms of communication, as for instance in education, arts and media. Giudice presents the contributions of the various fields, by underlying the reasons why metaphor is a complex cognitive and communicative phenomenon, at the cross-road of semantics and pragmatics, and why it can be considered a good litmus test to experimentally investigate general hypotheses and theories.

The papers collected in this volume show that the tension between philosophical and experimental pragmatics seems to be the dialectic motor of the evolution of pragmatics itself. On the one hand, data, taken alone, do not

provide enough information to allow to produce a theoretically adequate pragmatics. On the other hand, without seriously taking into account the bottom-up constraints from neuroscience, corpora data, embodied communicative situations, we will not be able to go far in inquiring the pragmatic side of language and communication.

REFERENCES

- Austin, J. L. (1962). *How to do things with words*. Oxford: Clarendon Press.
- Gibbs, R. W., & Gerrig, R. J. (1989). How context makes metaphor comprehension seem special. *Metaphor and Symbolic Activity*, 4, 145–158.
- Giora, R. (2003). *On our Mind: Salience, Context, and Figurative language*. New York: Oxford University Press.
- Grice H. P. (1989). *Studies in the way of words*. Cambridge, Mass.: Harvard University Press.
- Hutchins, J. (1986). *Machine Translation: Past, Present, Future*. Chichester : Ellis Horwood Series in Computers and their Applications.
- Indurkha, B. (1992). *Metaphor and Cognition*. Dordrecht, The Netherlands: Kluwer Academic Publishers.
- Janus, R. A., & Bever, T. G. (1985). Processing of metaphoric language: An investigation of the three-stage model of metaphor comprehension. *Journal of Psycholinguistic Research*, 14, 473–487.
- Katz A.N., Blasko D.G. & Kazmerski V.A. (2004). Saying What You Don't Mean: Social Influences on Sarcastic Language Processing. *Current Directions in Psychological Science* October, 13, 186–189.
- Leggitt, J.S. & Gibbs, R.W. (2000). Emotional reactions to verbal irony. *Discourse Processes*, 29, 1–24.
- Noveck, I., & Sperber, D. (2004) (Eds.). *Experimental Pragmatics*, New York: Pallgrave.
- Perkins, M. (2007). *Pragmatic Impairment*. New York: Cambridge University Press.
- Predelli, S. (2005). *Contexts*. Oxford: Oxford University Press.
- Recanati, F. (2004). *Literal Meaning*. Cambridge: Cambridge University Press.

- Shanon, B. (1976). On the two kinds of presuppositions in natural language. *Foundations of Language*, 14, 247–249.
- Sperber D. & Wilson D. (1986/1995). *Relevance: Communication and Cognition*. Oxford: Blackwell.
- Toplak, M. & Katz, A.N. (2000). On the uses of sarcastic irony. *Journal of Pragmatics*, 32, 1467–1488.
- Van der Sandt, R. (1988). *Context and Presupposition*. London: Croom Helm.
- Van Berkum, J. J., Hagoort, P., & Brown, C. M. (1999). Semantic integration in sentences and discourse: Evidence from the N400. *Cognitive Science*, 11 (6), 657–671.
- Van Berkum, J. J., Zwitserlood, P., Brown, C. M., & Hagoort, P. (2003). When and how listeners relate a sentence to a wider discourse? Evidence from N400 effect. *Cognitive Brain Research*, 17, 701–718.
- Van Berkum, J. J. (2009). The Neuropragmatics of 'Simple' Utterance Comprehension: an ERP Review. In U. Sauerland, & K. Yatsushiro (Eds.), *Semantic and Pragmatics: From Experiment to Theory* Basingstoke: Palgrave MacMillan, 276–316.
- Van Berkum, J. J. (2008). Understanding Sentence in Context. What Brain Waves Can Tell Us. *Psychological Science*, 17(6), 376–380.
- Wilson D. & Carston R. (2007). A unitary approach to lexical pragmatics: relevance, inference and ad hoc concepts. In Burton-Roberts N. (Ed.) *Advances in Pragmatics*. Basingstoke: Palgrave Makmillan, 230–260.
- Wilson D. (2000). Metarepresentation in linguistic communication. In Sperber D. (Ed.), *Metarepresentations: a multidisciplinary perspective*. Oxford: Oxford University Press, 411–448.