Pragmatic Inference Workshop
Centre for Research into English Language and Linguistics
University of Roehampton
Duchesne Building, Digby Stuart College
17th July 2014

9:30 to 10:30
Metacognition and inferential accounts of communication
Nicholas Allott, Centre for the Study of Mind in Nature, Oslo

10:30 to 11:30
Pragmatic reasoning as probabilistic social cognition
Michael Franke, Universiteit van Amsterdam

11:30 to 12:00 Coffee

12:00 to 1:00
The elusive pragmatics module
Mikhail Kissine, Université Libre de Bruxelles

1:00 to 2:00 Lunch

2:00 to 3:00
The long and perilous career of modus tollens: How inferences develop in the mind
Marco Mazzone, Università di Catania

3:00 to 4:00
Inferential pragmatics and the role of epistemic vigilance
Diana Mazzarella, University College London

4:00 to 4:30 Tea

4:30 to 5:30
The social side of language processing
Ira Novek, CNRS-Université de Lyon Institut des Sciences Cognitives
Abstracts

Metacognition and inferential accounts of communication
Nicholas Allott, Centre for the Study of Mind in Nature, Oslo

Recent work in philosophy, drawing on several traditions in psychology, suggests that there are mental processes that are dedicated to monitoring and controlling other mental processes, without metarepresenting them (e.g. Proust, 2013).

In this talk, I want to look at how this minimalist kind of ‘metacognition’ might be involved with, and in fact – crucial for – communication. There will be two prongs to the argument. The first is that the best (inferential) accounts of utterance interpretation (e.g. Sperber & Wilson, 2012) require feedback of this sort, even in normal smooth communication.

The second prong of the argument is provided by some experimental results that show that feedback occurs in comprehension without hearers being aware of this.

If the claim is right we learn something about the character of some of the mental processes involved in utterance interpretation. There are some tricky issues, though, about the level of explanation (in roughly David Marr’s sense) involved in pragmatics, on which I comment briefly.

References


Pragmatic reasoning as probabilistic social cognition
Michael Franke, Universiteit van Amsterdam

Ideal pragmatic reasoning involves considering the perspective of the interlocutor, her reasoning about one's own perspective and so on. This applies to production and comprehension. I survey a number of recent probabilistic models that place this social-cognitive interaction central stage. Since these models dispense with exaggerated assumptions of perfect rationality of language users, they plausibly and successfully predict quantitative data from simple pragmatic reasoning tasks.

References

http://staff.science.uva.nl/~mfranke/Papers/Franke_2014_Typical%20use%20of%20quantifiers%20A%20probabilistic%20speaker%20model.pdf


The elusive pragmatics module
Mikhail Kissine, Université Libre de Bruxelles

In this talk I will discuss two sets of empirical data that render the idea of a single pragmatic module, dedicated to inferential processing of communicative stimuli, unfalsifiable. First, I will discuss recent findings about the pragmatic profile of persons with Autism Spectrum Disorder. It turns out that while these individuals experience strong difficulties in accessing other people’s minds, a range of
context-dependent pragmatic processing remains intact. Second, I report two recent experiments on epistemic vigilance which show that participants are strongly influenced by false information even when this information is tagged and recalled as false. I will argue that together these two bunches of data force a conception of a pragmatic module as a black box, whose internal working cannot be shown to be inferential and dependent on mind-reading.

The long and perilous career of modus tollens: How inferences develop in the mind
Marco Mazzone, Università di Catania

What is reasoning from a cognitive perspective? In the course of the last fifty years, this specifically human ability has been explained by appealing to formal rules in the mind (Henle 1962), pragmatic schemas (Cheng & Holyoak 1985), the online construction of mental models (Johnson-Laird 1983), Bayesian models (Oaksford & Chater 1991), dual processing models (Evans 2003). Much effort has been devoted to arguing that this or that view is, or is not, able to account for the available evidence, and also Relevance Theory (Sperber, Cara & Girotto 1995) has contributed to the debate by arguing that none of the above theories is required to explain the results obtained in the Wason Selection Task, since a relevance-guided procedure for utterance understanding is sufficient to account for those results.

An assumption that is implicit in most of these (and other) studies is that reasoning is a simple and unitary faculty, not the result of the interaction between a plurality of factors in the course of individual development. Contrary to this assumption, I intend to offer some considerations in favour of the claim that accounting for propositional reasoning requires an understanding of the interaction – both in single episodes of reasoning and in a developmental perspective – between three factors: pragmatic understanding, world knowledge, and manipulations in conscious working memory. More specifically, I am interested in what I would call a process of “iterative construction” involving stored knowledge and effortful processing of information in working memory. While there is some evidence that consciousness is required for (some) reasoning abilities (De Wall, Baumeister & Masicampo 2008; Alonso, Fuente & Hommel 2005), we should also take into account the contribution of general knowledge and associations. Dual process approaches have in fact recognized the interaction between these two components; however, they have mostly focussed on the conflicts between them. My interest is instead in how conscious working memory and associative knowledge cooperate in reasoning tasks, and especially in the dynamic transfer between the two due to the fact that associative knowledge relevant to reasoning tasks may result from repetition of effortful conscious processing.

With regard to pragmatic inferences, my view implies that the neat distinction drawn by Sperber et al. (1995) between genuine reasoning and pragmatic comprehension is hardly tenable. As a matter of fact, they claim to base that distinction on the nature of the cognitive processes involved (versus on the nature of the tasks); specifically, their argument depends on the claim that the Selection Task can be explained by a relevance-driven comprehension mechanism without appealing to Pragmatic Schemas (in the sense of Holyoak & Thagard 1985). However, Pragmatic Schemas can be described as world knowledge affecting the relevance of interpretations both on the cost and the benefit side and therefore they actually seem to have a role to play in relevance-driven comprehension mechanisms. On the other hand, Pragmatic Schemas are related to conscious reasoning in interesting ways. We should better analyse this deep interaction between pragmatic
understanding, world knowledge and consciousness in reasoning, instead of taking for granted distinctions which then make it difficult to understand the whole picture. I will briefly exemplify this view with regard to a couple of cases of modus tollens.

References


**Inferential pragmatics and the role of epistemic vigilance**
Diana Mazzarella, University College London

In this talk, I argue for the following two claims: (i) pragmatic interpretation is ‘inferential’ in the sense that it relies on two distinct stages of ‘hypothesis formation’ and ‘hypothesis confirmation’. In the second stage, interpretative hypotheses are assessed against a criterion of pragmatic acceptability based on consideration of the speaker’s mental states (i.e. her beliefs and intentions); (ii) This two-stage process is underpinned by the interaction of two distinct systems: a relevance-guided comprehension procedure (Wilson & Sperber, 2004) and epistemic vigilance mechanisms, which assess the quality of incoming information and the reliability of the individual who dispenses it (Sperber et al., 2010).

With regard to (iii), I suggest that not only do epistemic vigilance mechanisms affect thebelievability of a piece of communicated information (as discussed by Sperber and colleagues), but they also contribute to the assessment of the acceptability of interpretative hypotheses (i.e. whether an interpretative hypothesis is retained and attributed to the speaker as the intended interpretation). Specifically, they may filter out interpretative hypotheses that, although relevant, are incompatible with the speaker’s mental states (i.e. her beliefs and desires) or may retain interpretative hypotheses that, although accidentally irrelevant, are compatible with the speaker’s mental states (Mazzarella, 2013).

**The social side of language processing**
Ira Novek, CNRS-Université de Lyon Institut des Sciences Cognitives

I will describe two sets of studies, one that is focused on irony and the other on intergroup relations between speaker and hearer (while the speakers tell jokes or provide referential instructions). Both
sets reveal that mindreading is critical to processing utterances or following through on comprehension. With respect to irony, the work shows that listeners rely on a ToM network and that the rate at which participants speed up over the course of a task is linked to measures of social behavior. As for the intergroup studies, the work shows that the way you view your interlocutor (as an ingroup member or not) will have a major impact on (a) the extent to which you laugh at and evaluate a speaker's jokes and on; (b) follow through on a speaker's instructions.