Personal Notes on a Shared Trajectory

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The editors of the volume asked me to provide a broad overview of the beginnings of relevance theory back in the 1970s, how it has developed over the decades and where I see it moving in the future, reflecting in the process on the collective work that Deirdre Wilson and I initiated and that has been joined and considerably enriched by many others. Here are some personal notes to help address these questions.

Deirdre and I met at Oxford in the mid-sixties and started a long conversation about pop music, nihilism, and things. The works of Noam Chomsky and Paul Grice were evoked. Ten years later, Deirdre published her MIT doctoral dissertation, *Presuppositions and Non-Truth-Conditional Semantics*, and I published *Rethinking Symbolism*. Discussing our overlapping interests, we decided to write a joint paper exploring how to bridge semantics, pragmatics, and rhetoric. The paper became a book, *Relevance: Communication and Cognition* (published in 1986). And now, many years later, the conversation continues.

Our work started at a time when philosophy of mind, inspired by the emergence of cognitive psychology, was in the process of superseding philosophy of language as the main locus of challenging novel ideas (epitomised by Jerry Fodor's 1975 *The Language of Thought*). And the work of Chomsky was changing the way not just linguists but also philosophers would think of language and its relationship to mind. Exciting times.

Grice then was not a central figure. He had been developing his ideas independently of the cognitive and the Chomskyan revolutions. Still, his approach to meaning linked philosophy of language and philosophy of mind in a way that would appeal to cognitive psychologists: speaker's meaning, as he analysed it, was a higher-order psychological phenomenon; comprehension was, to an important extent, inferential. For a linguist working in semantics like Deirdre, Grice's idea led to novel insights on a variety of problems that had no easy solution in a grammatical or formal semantic framework. For a social scientist like myself, dissatisfied with semiotic approaches to communication and culture, Grice's work suggested novel ways of articulating the mental and the social.

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In his 1967 William James Lectures (Grice 1989), Grice had outlined an account of how comprehension can be achieved even when semantic encoding and decoding do not by themselves fully do the job (which, we were soon to argue, they never do). This offered him a way to answer a philosophical question much debated at the time: to what extent does the meaning of connectives like *and*, *or*, and *if* in English correspond to that of their logical counterparts? Grice's sketch explained how these English words might have a simple unambiguous semantics identical to that of logical operators and, yet, be interpreted in conversation in many different ways.

Grice's outline (the Cooperative Principle, the maxims, the distinction between what is said and what is implicated, and so on) had implications, some of which he himself discussed, that went well beyond the semantics of connectives. Still, this was a philosophical sketch not intended to provide a ready-to-use battery of conceptual tools and hypotheses for an empirical science of pragmatics.

Grice himself underscored the vagueness of some of his notions, 'relevance' in particular. Nevertheless, over the past fifty years his sketch has often been discussed as if it were a full-fledged theory; his ideas have been accepted and sometimes challenged as dogma. In philosophy in particular, the adjective 'Gricean' is often used as if it referred to a definite range of facts and to a clear enough account. In substance: these cumbersome facts can be taken care of by means of the Gricean maxims, so let's ignore them and resume business as usual.

For our part, Deirdre and I saw Grice's ideas as a starting point for an exploration of poorly mapped or unmapped territories. We accepted the insight that what makes it possible for the hearer to infer the speaker's meaning from her utterance together with contextual information is the existence of definite expectations raised by the very act of communication. We didn't, however, take for granted or even as particularly plausible that these expectations were exactly captured by the Cooperative Principle and the ten maxims. Like all pragmaticists, we wanted empirically well-supported, fine-grained analyses of pragmatic phenomena rather than allusions to what a proper analysis would look like. Even more importantly, we wanted to contribute to a scientific understanding of the cognitive mechanisms that produce such interpretations. Not all pragmaticists shared this latter goal.

So, between our initial project of 1975 and the publication of *Relevance* in 1986, we worked on a series of issues, from presuppositional effects to ironical interpretations, from mechanisms of inference to the interpretation of moods and speech acts, and, in so doing, we went far beyond our initial hunches that all the Gricean maxims could be reduced to relevance and that metaphorical and ironical interpretations were neither triggered by a violation of a maxim of truthfulness nor guided by simple relationships of similarity or opposition. The

issues, it turned out, were much more varied and intricate than we had realised and yet, we saw, they could be handled in a neatly integrated manner.

I have not re-read *Relevance* since Deirdre and I worked on the 1995 *Second Edition*. To prepare the present remarks, I have now looked at chunks of it and I am struck by how much, with the help of collaborators and also critics, we have moved, mostly ahead but also, in part, away from the 1986 version of the theory. While some aspects of the initial theory have been abandoned, some underdeveloped hunches in that early work have come to play a more important role.

For instance, much of the second chapter on 'Inference' has become quite obsolete. The way we would now think about mechanisms of inference is rooted in a modular view not just of peripheral but of all cognitive mechanisms. Still, the chapter provided a notion of contextual effects that was sufficiently explicit to help us develop two central claims: that cognition aims at maximising relevance and that comprehension is guided by precise expectations of relevance elicited by the very act of communication. In this same second chapter, we argued in passing that non-representational properties of mental representations (having to do, in particular, with the way they are neurally implemented) may contribute in important ways to the output of mental computations. This idea, which we then used just to introduce the notion of 'strength of assumptions', now plays a much more important role in our thinking about, for instance, competing inputs to cognitive processes or about the epistemic effects of saliency (as developed in our 2015 paper 'Beyond speaker's meaning').

Between the 1986 and the 1995 editions of *Relevance*, some twenty students of Deirdre defended their PhD and made a variety of important contributions to the theory. Diane Blakemore's work on procedural meaning (see Blakemore 1987) and Robyn Carston's work on the explicit–implicit distinction and the pragmatics of explicature (see Carston 2002), in particular, inspired much further research. Students, colleagues, and we ourselves did new work on many aspects of verbal comprehension, such as illocutionary force or figures of speech, and on implications of the theory beyond standard pragmatics, in philosophy of language, literary theory, and cognitive psychology. Collaboration with psychologists on experimental testing of relevance theory hypotheses took off.

The 'Postface' of the 1995 *Second Edition* shows what our attitude was at the time: the theory, we thought, needed minor revisions (in formulation more than in substantive content) but the main challenge was to take advantage of it to better explain a wider range of pragmatic phenomena than we had done so far. This is what the expanding community of relevance theorists did quite effectively in the following years.

How wide a range of phenomena is relevance theory in a position to better explain? Relevance theory has sometimes been criticised by pragmaticists

favouring a sociolinguistic approach for being anchored in a narrow cognitive perspective, but as we argued in our 1997 'Remarks on relevance theory and the social sciences', there is no principled discontinuity between cognitive and social aspects of communication. On the contrary, a proper pragmatic approach should help bridge gaps that are caused more by the parochialism of academic disciplines and sub-disciplines than by thought-through theoretical disagreements. Relevance theory work has, over the years, thrown light on a variety of sociolinguistic phenomena, from advertising and propaganda to politeness and verbal aggression, but much more could and should be done.

Linguists interested in pragmatics but who view it as an extension or complement of grammar have focused on a much narrower range of issues than we did. In Grice's 'conventional implicatures' and 'generalised conversational implicatures', and in presuppositions, in particular, the role of the context can be minimised (or so it seems). This is convenient if you would rather use tools borrowed from, or at least inspired by, formal semantics, which are not adapted to model actual cognitive processes or to deal with the role of open-ended contexts in ordinary comprehension.

Attention to open-ended contexts has been at the centre of much work in relevance theory, in particular in lexical pragmatics. A variety of phenomena falling under quite different explanations in other approaches: approximation, ad hoc narrowing and/or broadening of meaning, 'scalar' interpretations, hyperbole, and metaphor have all been shown to result from one and the same comprehension procedure: follow a path of least effort in constructing an interpretation of an utterance and stop when your expectations of relevance (which can be revised up or down in the course of comprehension) have been met. The whole process involves a progressive mutual adjustment of explicatures and implicatures. The hypothesis that this is how comprehension proceeds is specific enough to be experimentally testable. To improve the testability, it would be useful now to work on proper cognitive modelling of the comprehension procedure. Most current work in formal pragmatics is irrelevant to such modelling. Bayesian approaches, however (which, up to now, have been mostly used to formalise quite shallow pragmatic hypotheses), might be more useful.

Pragmaticists working within a relevance theory perspective have done experimental work on the development of pragmatic abilities in children's use of language. But what about pragmatic development before language? Highly relevant work about this has been done from a different perspective. Developmental psychologists Gergely Csibra and Györgi Gergely and their collaborators at the Central European University in Budapest have produced rich experimental evidence in support of their natural pedagogy theory (e.g. Csibra & Gergely 2009), which gives a central role to ostensive communication in the teaching and acquisition of general knowledge. According to this theory, children are able, already well before they acquire language, to

recognise ostensive signals and to interpret an adult's behaviour differently depending on whether it is presented to them ostensively or not. Research on natural pedagogy has given rich evidence that ostensive communication is already at work in infancy, extending the scope of relevance theory, not just in principle, but quite concretely, well beyond linguistic communication.

This is relevant not only to developmental but also to comparative psychology. Juan Carlos Gomez (e.g. Gomez 1996) had argued that ostension, or at least a simplified form of it, is already present in great apes' interactions. More recently, Josep Call, Michael Tomasello, and their collaborators at the Max Planck Institute in Leipzig (e.g. Bohn et al. 2015), in their studies of communication in great apes and in children, have thrown more light on the role of ostension in early human communication and on its possible role among humans' closest relatives. At this stage, the evidence concerning great apes is interesting enough to warrant more investigation but little more can be said with confidence. Let me, however, share a hunch. Progress in this direction will involve looking at possible precursors of ostensive communication not in the realm of animal signalling systems but in that of manipulation of attention.

There are many ways in which primates and other social animals influence the behaviour of conspecifics by manipulating their attention. This can be done without any mind-reading ability on either part. With some rudimentary mind-reading ability, however, the animal whose attention is being manipulated may recognise that such manipulation is intentional and this may enhance its expectation of relevance: a male chimpanzee is drawing a female's attention to his state of sexual arousal; she had noticed it by herself, but his drawing her attention to it may increase her willingness to mate with him. There is evidence that chimpanzees can influence the behaviour of others by manipulating their attention in such an overt way. Proto-ostension?

In 2015, Deirdre and I published an article, 'Beyond speaker's meaning', which is neither about evolution nor primate communication but which raises related issues. We revisit in particular the continuum of cases between meaning and showing. At the showing end of this continuum, optimally relevant information may be provided just by what is shown, and the fact that it is *ostensively* shown may add very little or nothing. Say Mary and Peter (who is distracted) are about to cross the street. She draws his attention to a fast-approaching car. Peter steps backward just as he would have if he had noticed the car by himself. Did ostension add anything over and above redirecting his attention? Not much, but still: it is now mutually manifest that she intended him to pay attention to the looming car and to warn him of the danger. There might be a weak implicature that he was being imprudent. He might be irritated by this, thinking he would have noticed the car anyhow, or he might be grateful. Or he might be oblivious of what Mary intended in directing his attention, in which case,

communication will still have been effective, even if not wholly so, without any mind-reading on Peter's part.

In other words, when ostensive communication involves displaying some direct evidence for a relevant conclusion that the communicator intended to convey, the addressee may be able to reach this conclusion without attending to the intention of the communicator. In such cases, attention to, and interpretation of, the communicator's communicative intention may not be necessary for communication to be largely successful. Conversely, an individual may, without having a full-fledged communicative intention, overtly display relevant evidence for a conclusion she intends her audience to accept. This behaviour may be mistaken for an instance of regular ostensive communication. Such a mistake, however, need not create much of a misunderstanding either.

Taking a behaviour to be ostensive (in the full sense) when it is not, or not recognising a behaviour as ostensive when it is, may occur fairly commonly without much compromising communication. This happens, for instance, with babies or with dogs (we seeing more ostension than there is in their behaviour, they seeing less in ours). As I suggested, chimpanzees may communicate in a proto-ostensive way without having or attributing communicative intentions.

What I mean by 'proto-ostension' is, more precisely, a form of interaction where A draws B's attention to some state of affairs in a manifestly intentional way and this elicits in B the expectation that this state of affairs is relevant to him or her. There is no communicative intention on the part of A, no attribution by B to A of an informative intention, let alone of a communicative intention. I suggest we may have missed how much proto-ostensive communication takes place in ordinary human interaction.

In each other's presence, people tend to monitor each other's mental states, at least in a shallow way. By the same token, people tend to behave in a way that may lightly impinge on others' attention and influence their mental states (not randomly but in a way desirable to the attention-manipulating individual). For instance, in the presence of others, we may adopt a bodily posture that suggests social ease and competence. This may be done with a low level of awareness and interpreted with a low level of attention. Or we may go more ostensive: if we have reason to suspect that others have noticed us slumping, we may change posture in an ostensive way, conveying that we are in control after all. It takes very little to move from a non-ostensive informative behaviour to an ostensive and communicative one.

In relevance theory, we have often noted that full-fledged ostensive behaviour typically conveys further information in a non-ostensive way; for instance, a lecturer may non-ostensively convey that she has an attractive voice. Still, we may not have paid sufficient attention to (1) the degree to which non-ostensive, proto-ostensive, and ostensive forms of interaction fall under a more general category of action on others by means of manipulation of their attention, (2) the

ease with which human interaction can take or lose in a fraction of a second an ostensive character, (3) the degree to which ostensive and non-ostensive communication co-occur in the same interactions, and (4) the fact that relevance theory provides useful tools to describe not only ostensive but also non-ostensive and proto-ostensive aspects of interaction and to explain what gets communicated to whom and how.

These points are relevant not only in an evolutionary, comparative, or developmental perspective, but also in studying ordinary human interaction. They may also be relevant in studying the role of both ostensive and non-ostensive forms of communication in arts such as music or literature.

A musical performer, for instance, is requesting her audience's attention to her performance as a whole in a manifestly intentional way. This overall ostension provides a frame within which the audience is encouraged to react throughout the performance in a personal way. To enjoy its emotional, aesthetic, and cognitive effects, listeners must pay attention to the music and to their own experience, but they need not pay attention at every juncture to the intentions of the performer – in fact, they should not. Still, there may be moments where the music (because of the score, the way it is performed, or both) is overtly requesting added attention to what is intended and, if this is recognised, produces extra effects.

So, the issue is not whether music is a form of ostensive or of non-ostensive communication. It is both. A better question is how a musical performance achieves its effects by hovering back and forth (to a different degree in different types of music and styles of performance) across a blurred zone, on one side of which the intentions of the performer (or of the composer) are irrelevant to appreciation, on the other side of which they are definitely relevant, while inside this zone, individual listeners may each differently optimise their experience by giving a greater or a lesser guiding role to what they sense of the intention of the performer.

Mutatis mutandis, similar suggestions could be made about dancing, painting, literature, and other art forms. With even more adjustment, such a perspective might help us think better about a variety of forms of social interaction, from clothing to flirting to ritual, many communicative aspects of which are neither wholly ostensive nor wholly non-ostensive.

When proto-ostension would be enough to achieve an intended effect in an addressee, why do we still so often resort to full-fledged ostension? Ostensive communication may involve a modicum of extra investment on the part of both the communicator and the addressee, but it carries extra benefits. To the extent that some information has been ostensively communicated, it is now mutually manifest (or 'common ground') and, therefore, can be taken for granted in future communication. Moreover, ostension makes it mutually manifest that the communicator intended the addressee to accept this information and

hence that she takes responsibility for it. Ostensive communication carries a commitment to the truth of an assertion, the desirability of a request, and so on. Ostension, in other words, is, among other things, a means to overcome an audience's epistemic vigilance.

Proto-ostension (in essence, an encouragement to pay attention to some state of affairs and derive whatever conclusions one wishes from it on one's sole responsibility) may be appropriate when there are no epistemic vigilance concerns. A fiction writer draws the reader's attention to a narrator of her own making who is fictitiously engaging in ostensive communication with them. The fictitious communicative intentions of this fictitious narrator matter throughout: they determine the content of the narration. Still, there may be ways in which the writer gives occasional evidence of her own communicative intentions. This is likely to happen, for instance, if readers are encouraged not just to follow and enjoy the narrative but to derive some moral lesson from it, or at least to form some moral impression. There, ostension makes manifest the commitment of the writer and may sway or at least nudge a vigilant reader to the intended conclusion or in the intended direction.

In pure argumentation, we have a different articulation of ostension and proto-ostension. The addressee must pay attention to the speaker's meaning to properly understand the argument. Once understood, however, the argument is intended to stand on its own and convince the audience by its own force, and not because the arguer intended her audience to accept the conclusion of the argument, not, that is, through trust in the arguer. (Of course, pure argumentation is rare; more commonly, arguers use mixed means of persuasion.)

To conclude, many intriguing questions continue to emerge, both from the foundational ideas of relevance theory that Deirdre and I worked on together in the 1970s and 80s, and from its subsequent collective development to the present day. To answer these questions, we must of course borrow from other disciplines and traditions. Still, there are some underused tools in our own toolbox.

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