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Questions on Relevance

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Abstract

The following questions (prepared by Isao Higashimori and answered by Deirdre Wilson) were used to introduce a general discussion on relevance theory at the end of a Relevance Theory Workshop organised by Yuji Nishiyama and Isao Higashimori at Keio University in March 1996. We would like to thank Yuji Nishiyama and the other organisers of the Keio Conference on the Interface between Grammar and Cognition, of which this Workshop formed a part. Many of the questions relate to changes proposed in the Postface to the second edition of Relevance (Sperber & Wilson 1995). Others relate to more general issues currently under discussion. We thought them worth circulating as a contribution to that discussion.

1 The second edition of *Relevance*

1.0 The second edition of *Relevance* preserved the original text, but added a Postface surveying recent developments in the theory and proposing several changes of terminology or substance. The following questions relate to the Postface, or to the explanatory Notes to the Second Edition, which commented on the original text.

1.1 One or two principles of relevance?

Question: In the first edition of *Relevance*, there was only a single Principle of Relevance (Sperber & Wilson 1995: 155-63). In the second edition, this is renamed the Second, or Communicative, Principle of Relevance, and a First, or Cognitive, Principle is added (260-66):

The First (or Cognitive) Principle of Relevance:
Human cognition tends to be geared to the maximisation of relevance.

The Second (or Communicative) Principle of Relevance:

Every act of ostensive communication communicates a presumption of its own optimal relevance

Why is it necessary to propose 'not one but two principles of Relevance'? In other words, what is the difference between 'maximisation of relevance' and 'optimal relevance'?

Answer: The move from one to two Principles of Relevance was purely terminological, and was designed to draw attention to the distinction between maximal and optimal relevance, which our earlier formulation had obscured.

In the first edition, we distinguished between maximal relevance (the greatest possible effects for the smallest possible effort) and optimal relevance (adequate effects for no unjustifiable effort), and argued that while cognition tends to be geared to the maximisation of relevance, communication merely creates an expectation of *optimal* relevance. Two generalisations were made, but only the second was singled out and called a Principle of Relevance. This led to misunderstandings. Reviewers tended to overlook the distinction between maximal and optimal relevance, and took us to be arguing for a single principle of maximal relevance, governing both communication and cognition. By distinguishing two Principles of Relevance, we hope to avoid this situation.

The first edition gives several reasons for distinguishing maximal and optimal relevance. The Postface offers some more. On the cognitive side, we cite evolutionary arguments for the view that cognition tends to be geared to maximal relevance (Postface, sections 3.1-3.2). On the communicative side, our concern has been to show how the addressee's expectation of relevance is *justifiable* given the Cognitive Principle of Relevance; in the Postface we modify our original definition of optimal relevance to deal with a range of cases we had previously not incorporated.

It is easy to show that, despite what the addressee might want, a communicator cannot always be expected to produce the most relevant possible utterance: she may be unwilling or unable to give the most relevant information, or to present it in the most appropriate way. The notion of optimal relevance is designed to spell out what the addressee *is* entitled to expect in terms of effort and effect. For reasons given in the Postface (section 3.3: 270), we propose the following revised formulation:

Presumption of Optimal Relevance:

(a) The ostensive stimulus is relevant enough for it to be worth the addressee's effort to process it;

(b) The ostensive stimulus is the most relevant one compatible with the communicator's abilities and preferences.

1.2 Positive cognitive effects

Question: In the revised definition of *relevance to an individual* (Postface: 265) why did you introduce the notion of 'positive cognitive effect'? How does this notion relate to your distinction between 'cognitive effects that are merely treated by the individual as true' and 'cognitive effects that actually are true' (Wilson 1996a), and to your comment that 'Relevant information is information worth having. False information is generally not worth having; it detracts from cognitive efficiency' (Sperber & Wilson 1995: 264)?

Answer: Our original aim was to capture an intuitive connection between relevance and cognitive efficiency. In the first edition, we hoped to do this by defining relevant information as information that can be productively processed. On this account, relevance depends on contextual (cognitive) effects and processing effort: the greater the contextual effects, and the smaller the processing effort needed to achieve them, the greater the relevance. Relevant information (whether true or false) is information that can be productively processed, yielding contextual effects that might themselves be either true or false.

In the Postface (section 3.2.1), we raised the following question. Suppose I acquire some false belief, which can be productively processed to yield many further false beliefs: does this really contribute to cognitive efficiency, and hence to relevance, or does the information merely *seem* relevant to me?

Our answer was that information which leads only to false beliefs should not be treated as relevant, however much it may seem so to the individual processing it. We proposed to capture this intuition by distinguishing two types of cognitive effect: positive cognitive effects (e.g. true beliefs), which contribute to cognitive efficiency, and hence to relevance, and others (e.g. false beliefs), which are not worth having, and hence irrelevant. In the second edition, relevance to an individual is defined in terms of positive cognitive effects and processing effort: the greater the positive cognitive effects, and the smaller the effort needed to achieve them, the greater the relevance. Thus, cognitive efficiency and productive processing come apart.

Notice that on this new account, false information may still be relevant, as long as it has positive cognitive effects. Stories, jokes, hypotheses may all contribute to cognitive

efficiency. Truth of the input is neither a necessary nor a sufficient condition for relevance; it is truth of the output that counts.

1.3 Contextual effects and weakening of assumptions

Question: In the first edition (107-17), relevance is defined in terms of three types of contextual effect: contextual implication, strengthening of existing assumptions, and contradiction and elimination of existing assumptions. In Notes to the Second Edition (2d: 294), you consider 'a fourth type of contextual effect, namely weakening of existing assumptions'. Are there any reasons for adding this fourth type of effect?

Answer: It has sometimes been noted that if relevance can be achieved by strengthening existing assumptions, it should also be achievable by weakening existing assumptions. The question then arises, what place is given to weakening of assumptions in our framework?

There are two separate issues here. The first is whether weakening contributes to relevance. We have always assumed that it does, and that any alteration in the strength of existing assumptions contributes to relevance. This is taken account of in our formal definition of the conditions under which a contextualisation has contextual effects (note 26: 286). The second issue is whether weakening of existing assumptions should be treated as a distinct type of contextual effect, on a par with contextual implication, strengthening, and contradiction and elimination of existing assumptions. We assume that it should not. Our claim is that weakening of assumptions is never achieved directly, but only as a by-product of some more basic contextual effect: for example, contradiction and elimination of an existing assumption weakens all contextual implications which depended on it for some support. We therefore do not treat weakening of assumptions as a distinct type of contextual effect; it contributes only indirectly to relevance.

1.4 Pragmatics and modularity

Question: In the first edition of *Relevance* (chapter 2), you treat pragmatics as an inferential system involving central, non-specialised thought processes. In the second edition (1995: 293), you modify this treatment, with the comment that:

> In the last ten years, there has been growing evidence that so-called central systems should be analysed in modular terms.

This view is reiterated in Wilson 1996b. What are its implications, in particular for the domain-specificity of central thought processes?

Answer: In *The Modularity of Mind* (1983), Fodor distinguished modular from central systems and proposed a 'First Law of the Nonexistence of Cognitive Science', which says, in essence, that the central thought processes are too complex to be understood. For Fodor, pragmatics is a central system, and as such lies beyond the scope of cognitive science. In *Relevance*, Dan Sperber and I tried to show that even if pragmatics is a central system, interesting pragmatic theories can be produced.

In recent years, there has been increasing evidence against a sharp division between central and modular systems, and for a substantially modular view of mind (see e.g. Hirschfeld & Gelman 1994, Sperber 1996). Sperber (1996) directly addresses the issue and argues for an alternative, fully modular picture. There is room for debate about the appropriate level of generality for a modular pragmatics: for example, should it deal with ostensive communication in general, or only verbal communication? Whatever the answer, it would be an inferential rather than a decoding system, and our arguments against a modular pragmatics viewed as an extension of the language module still stand.

2 Relevance and concepts

2.1 Ad hoc concepts

Question: According to the classical view of concepts, concepts form discrete, all-or-none categories. The classical view is often combined with a decompositionalist approach to word meaning, which is rejected by many relevance theorists in favour of a more Fodorian view (cf. Carston 1985: 30; Sperber & Wilson 1995: 91).

Sperber & Wilson (1995, chapter 2) treat concepts as consisting of lexical, logical and encyclopaedic entries. Not all the encyclopaedic information at our disposal is accessed in interpreting an utterance on a given occasion. The Communicative Principle of Relevance is a good tool for determining which set of assumptions will be assembled for a given concept on a given occasion.

However, novel (or creative) categories such as 'things that could fall on your head' cannot be explained in terms of memorized prototypes or ready-made encyclopaedic schemas. How does Relevance Theory deal with the understanding of novel categories, concept acquisition, complex concepts such as SWEET WATER, which refers to 'water which is fresh and pure and free from pollution' rather than 'water which tastes sweet', novel uses of idioms as in (1), and so on?

(1) George: Did the old man kick the bucket last night?
Edward: Nah, he barely nudged it.

Answer: Relevance theory provides several means of extending the individual's conceptual repertoire. The role of concept narrowing, loose use and attributive use in language acquisition and language change was discussed in a draft of *Relevance* (Sperber & Wilson 1983) and developed in more recent work (e.g. Sperber 1996, Sperber & Wilson forthcoming). For example, on hearing a new word like 'gerbil' in a situation which makes it clear that a gerbil is a kind of pet, the child might construct an attributive concept, to represent what others are referring to when they use the word, with partial lexical, logical and encyclopaedic entries to be filled out over time. Similar accounts, based on loose use or attributive use, might cover the borrowing of words from other languages, and pragmatically conditioned changes in meaning (e.g. *greve*, from 'river bank', a place where strikers used to gather, to mean 'strike').

2.2 Concept narrowing or enrichment

Question: In the Postface to the second edition, you stress the importance of concept narrowing, or enrichment. How would this notion apply to the following types of case?

In (2), the encoded concept APPLE can be understood as referring not to the whole apple but merely to the edible part, excluding the core and even the skin (in Japan we normally don't eat apple skins) (cf. Higashimori 1996).

(2) I ate an apple.

In (3), the encoded concept FLOWERS can be understood as referring to the whole plant (i.e. root, stem, blossoms, leaves) rather than the blossoms alone:

(3) I planted some flowers in my garden.

Answer: Neither (2) nor (3) looks like a typical case of enrichment (e.g. BACHELOR understood as ELIGIBLE BACHELOR), in which only a subset of the original extension is picked out. In (2), the question is not how many apples or what type of apples, but rather what parts of an apple were eaten; (3) looks more like a case of polysemy, or of loose use, than a case of enrichment.

Both examples raise interesting issues. In the draft of *Relevance* (chapter IV, 'Implicit import and implicatures'), we argued that an utterance like 'I've read the paper' or 'The stamp was blue' is understood as communicating merely that enough of the paper was read (or enough of the stamp was blue) for the fact to be worth mentioning. It is easy to see how this interpretation might follow from considerations of relevance, perhaps combined with the notion of loose use. In (3), 'flowers' might also be treated as strictly defined and loosely used; alternatively, it might be analysed as a case of polysemy. (For further discussion, see Carston 1996; Papafragou 1995, in preparation; Sperber 1996; Sperber & Wilson forthcoming.)

2.3 Concepts and bridging

Question: Bridging assumptions are defined as 'assumptions which are not directly mentioned in the preceding utterance, but which are constructed by a series of inferences on the basis of what the hearer knows or believes' (Blakemore 1992: 25). How can we deal with the following case of long-distance bridging?

(4) "I had a sister once," I say. "She died when she was four. Some sort of heart disease. I was an infant. I didn't know her. There I was sucking bottles while my parents watched their first born become unable to run, walk. After she died they left her bedroom exactly the same. They didn't put away *the toys* (= my sister's toys) or clear out *the drawers* (= my sister's drawers) or even go into there for three and a half years. When I went to a nursery school, they finally made it into a laundry room.
(M. Leimbach, Dying Young, p.129)

Answer: I don't really see this as a case of long-distance bridging. The antecedent for *the toys* and *the drawers* in (4) seems to be the NP *her bedroom* in the previous utterance (which is salient enough to be pronominalised later by *there* and *it*).

However, (4) does raise an interesting issue about how the NP *the toys* is mentally represented. One possibility is to treat it as a case of concept narrowing, with *the toys* being enriched to something like *the toys in my sister's bedroom*. Another is to treat it as a quantified NP ranging over a pragmatically narrowed domain of discourse, consisting only of objects in the sister's bedroom. Both types of narrowing seem necessary in different circumstances (see Larson & Segal 1995, chapter 9; Rouchota 1994a, 1994b. On bridging within the relevance-theoretic framework, see Matsui 1995).

3 Stylistic and poetic effects

3.1 Metonymy

Question: Papafragou (1995: 157) claims that 'in metonymy, the propositional form of the utterance is a literal interpretation of the thought it purports to express. This thought, however, is complex to the extent that it contains an echoic concept.' For example, in (5), the expression *the sheep* can be echoically used to refer to a person who was born in the Year of the Sheep, and in (6), the expression *the brain* can be echoically used to refer to someone whose nickname is 'the brain':

(5) You should avoid marrying a sheep at all costs.

(6) Where's the brain now that we need him?

Are all so-called metonymic expressions cases of echoic use, or can they involve concept loosening or concept widening, as has also been claimed?

Answer: Papafragou's suggestion that some cases of metonymy are analysable as varieties of echoic (or attributive) use, while others fall together with metaphor as varieties of loose use, seems to me well worth pursuing.

3.2 Repetition

Question: In *Relevance* (1995: 219), the repetitions in (7) are analysed as requiring extra processing effort, to be offset by extra effects:

(7) a. Here's a red sock, here's red sock, here's a red sock.
b. We went for a long, long, walk.
c. There were houses, houses everywhere.
d. I shall never, never smoke again.
e. There's a fox, a fox in the garden.
f. My childhood days are gone, gone.

Blass (1986, 1990) argues for a relevance-based account of the repetitions in (8), and against a coherence-based account:

(8) a. Help. Help.
b. Go down Washington Street, Just follow Washington Street three blocks to Adams Street.
c. ?A box of cornflakes, please. A box of cornflakes, please. A box of cornflakes, please.
d. ?I'd like a box of cornflakes. I'd like a box with cornflakes in it. Just take some cornflakes off the shelf and bring them to me, please.

Is it possible us to explain all the stylistic effects of repetition in terms of a single factor like processing effort?

Answer: Our analysis of the examples in (7), which illustrate the variety of effects achievable by planned repetitions, still seems to me on the right lines. It has been extended by Furlong (1996), who has looked at a wide range of literary examples, and compared the relevance-theoretic account with stylistic accounts based on a notion of foregrounding. Blass's arguments against the coherence-based approach to repetition also seem to me largely correct. Even if a coherence relation of Repetition (or Elaboration or Restatement) could account for the two-clause repetitions in (8), it would shed no light on the the one-clause repetitions in (7b-f), thus missing a generalisation.

3.3 Tautology

Question: What is the main difference between REPETITION (as shown above) and TAUTOLOGY, as in (9), in which the same encoded concept is repeated in a single sentence?

(9) a. Boys will be boys.
b. A red sock is a red sock.

Answer: Ordinary stylistic repetitions, as in (7) and (8), are syntactically superfluous, and the processing effort required is gratuitous unless offset by extra effects. By contrast, the repeated phrases in (9) occur in different syntactic positions, with different functions, and could not be eliminated without ungrammaticality. Grice treats the tautologies in (9) as deliberate violations of the Quantity maxims, with resulting implicatures. In the relevance-theoretic framework, where there are no maxims and hence no maxim-violation, an alternative account must be provided. One possibility would be to treat these cases as reminders, implicating that an obvious truth has been overlooked.

4 Conceptual and procedural encoding

4.1 Conventional implicatures and procedural meaning

Question: In the Postface (1995, section 2.2), you stress the importance of the distinction between conceptual and procedural encoding. Is there any significant difference between Grice's notion of conventional implicature and your notion of procedural meaning when it comes to analysing expressions such as *actually*, *oh*, *well*, *even* and *but*? (cf. Grundy's Gricean analyses of these expressions (1995: 47) versus Higashimori's relevance-theoretic analyses (1995, 1996b).)

Answer: As Grice makes clear in his 'Retrospective Epilogue' (Grice 1989), his notion of conventional implicature is quite narrow. It applies to non-truth-conditional 'discourse connectives' such as *so*, *moreover*, *but* and *on the other hand*, and involves the performance of a non-basic or higher-order speech act of commenting on a more basic speech act. For example, *so* is associated with a higher-order speech act of explaining, *on the other hand* with a higher-order speech act of contrasting, *moreover* with a higher-

order speech act of adding, and so on. It is not clear how *actually, oh, even* or *well* would fit this pattern, since it is not clear what higher-order speech act they might perform.

Relevance theory offers a richer range of possibilities. For example, *actually* might be treated as a case of conceptual rather than procedural encoding, along the lines of Ifantidou 1993, 1994. If *oh* is part of the language, it might be treated as encoding a procedural constraint on higher-level explicatures, as suggested in Wilson & Sperber 1993, Higashimori 1995. *Well* has been interestingly analysed as a procedural constraint on implicatures by Jucker 1993; and the behaviour of focus particles such as *even* and *only* is discussed by Breheny (this volume). More generally, the idea that all meaning, or even all non-truth-conditional meaning, must be cut to a single pattern is no part of the relevance-theoretic framework, and there is little reason to think it is correct (see Sperber & Wilson 1995: 90-93; Sperber 1996).

4.2 Combining procedural meanings

Question: How are we to compute the effects of combining two discourse connectives, or one discourse connective and another procedural element, as in (10) and (11)?

(10) Michiko: The weather is usually really good in October.
Joe: *Well*, I'll try for October, *then/*so*.

(11) I don't know why I settled on Aberdeen, *but anyway* I did.

Answer: The relevance-theoretic framework, which allows for fine-grained differences among types of procedural encoding, should shed some light on these and other cases (e.g. *but oh, oh but, well after all, so therefore*). As noted in Wilson & Sperber 1993, procedural elements do not seem to combine to form more complex units: for example, *well* and *then* do not function as a semantic unit in (10). However, it would be interesting to see to what extent procedural elements can interact: whether one can take scope over another, or whether they tend to operate independently. The interaction between procedural elements and intonation would also be worth investigation.

5 Explicatures and implicatures

Question: What is the relation between Grice's *saying/implicating* distinction and Sperber & Wilson's *explicit/implicit* distinction?

Answer: Grice's *saying/implicating* distinction is not exhaustive. It does not accommodate the sort of speech-act and propositional-attitude information illustrated in (13), which might be communicated by Mary's utterance in (12):

(12) Mary (sadly): Susan has gone away.

(13) a. Mary is saying that Susan has gone away.
b. Mary believes that Susan has gone away.
c. Mary is sad that Susan has gone away.

It is also not clear whether Grice's notion of saying corresponds merely to expressing a proposition, or to *communicating* a proposition, i.e. committing oneself to its truth (see Wilson 1995).

Our notion of explicature (like Grice's notion of implicature) applies only to communicated propositions. It applies not only to the proposition expressed by an utterance (when this is communicated), but also to the sort of speech-act and propositional-attitude information in (13), and is thus more comprehensive than Grice's notion of saying.

Our notion of implicature is modelled quite closely on Grice's, although in several cases we would argue that what he analysed as an implicature is better treated as part of an explicature (see Carston 1988). There is a further difference. For Grice, entailments and implicatures were mutually exclusive. We allow for the possibility that entailments and implicatures may coincide, as in the following example:

(14) a. Peter: Would you like to listen to my Rolling Stones record?
b. Mary: No. I'd rather hear some music.

Here, Mary's utterance suggests that Peter's Rolling Stones record is not music, and this suggestion has all the hallmarks of a Gricean implicature. However, it is also an entailment: Mary's statement that she would rather hear some music than hear Peter's Rolling Stones record entails that Peter's Rolling Stones record is not music. Thus, what

is recovered as an implicature may also be an entailment, and our definition of implicature does not rule this out.

6 Comunication and understanding

Question: What is the goal of communication and understanding? How can communicative success and failure be analysed in the light of the following comments?

(a) Communication alters the mutual cognitive environment of the communicator and audience. Mutual manifestness may be of little cognitive importance, but it is of crucial social importance (Sperber & Wilson 1995: 61).
(b) The purpose of communication is not to 'duplicate thoughts' but to 'enlarge mutual cognitive environments' (Sperber & Wilson 1995: 193).
(c) It (= Mutual knowledge) arises as a result of comprehension rather than as a precondition for it (Garman 1990: 366).
(d) The Communicative Principle of Relevance does not generally warrant the selection of more than one interpretation for a single ostensive stimulus (Sperber & Wilson 1995: 167).
(e) The Communicative Principle of Relevance is an exceptionless generalization about utterance interpretation (Sperber & Wilson 1995).

Answer: One important issue raised by the above comments, and more generally by the relevance-theoretic account of communication, is whether 'uptake' is essential to successful communication. This and other questions are currently being investigated by Gary Holden in his University of London PhD on Communication Failure.

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