

SILENT SPEECH ACTS AND THEIR COGNITIVE EFFECTS

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This paper addresses a number of related questions about cognition. How does a person reach new conclusions on the basis of old information, purely through self-consultation? How come people have so-called 'irrational beliefs', i.e. inconsistent assumptions? How is it possible to aim at objectivity, and fail? And, what does one do when one thinks hard? In every case, I suggest, the answer to these questions concerns the interest-relativity of information on the one hand, and the effects of formulation on the other. My strategy is to propose a model of what I take to be a typical human mind, and then to exploit the resources of the model to answer our questions.

I shall begin by putting forward my definition of relevance, since in the end everything follows from it. Relevance is always a relation to an interest. *X is relevant to an interest, if it arouses, expresses, or makes a difference to the outcome of that interest.* This is a maximally general definition, in four ways. Firstly, *X* may be anything at-all, including people, inanimate objects, pictures, actions, possibilities, other interests, as well, of course, as utterances, etc. Secondly, *interest* is proposed as the object of the relation because it is the most general term among a list of possible candidates such as topics, plans, purposes, issues, desires, and concerns, and it is entailed by every member of that set. Thirdly, it is a tenseless definition which is meant to embrace whatever may yet affect as well as what has already affected the interest in question. Fourthly, the definition as it stands is *too* general for conversation. In discourse, remarks count as fulfilling the

maxim Be Relevant (see Grice 1975) only if they contribute to a *common* interest (for elaboration of this point see Murray 1983). But our concern here is with the private and not the public species of relevance; and in every case, to grasp the relevance of X is to grasp its relation to an interest or interests.

Interests are the heart of the matter, so I shall now briefly discuss their character. Although all interests have objects, not all those objects are goals: that is, as well as desires and purposes, interests include such conditions as wonder, and love, and awe. We each have uncountably many in a lifetime, some are gone in a flash, others last from birth to the borders of death. They are richly interconnected with each other so as to form a network. And they are, as our definition indicates, capable of arousal, of expression, and of change. Setting aside for the moment arousal and expression, let us consider first the business of making a difference to the outcome of an interest.

For the purposes of this discussion, the crucial point about this strictest species of relevance is that the *outcome* of an interest may be *its own changed form*. Something which changes the form of an interest is *ipso facto* new relevant information relative to that interest. Information is an effect on the *form* of an interest, which we may think of as its frame or schema or background if we choose. An interest is an informed point of view. So, all information is acquired, stored, and accessible through an interest or interests — i.e. all information is interest-relative — and an interest network is also an information network. For some similar conceptions current in related fields such as artificial intelligence and cognitive psychology, see Collins & Loftus (1975), for discussion of networks, Minsky (1975) and Neisser (1976) for frames and schemas, and Norman (1981) for an approach which integrates schemas and networks.

When such a network receives input at some place, *activation* is assumed to spread 'horizontally' from the point of entry. Over a localised part or parts of the whole 'gates' open and close as the new information gets digested. From a different perspective this could equally well be described as inferences being drawn from a combination of the new information with some subset or sets of previously held assumptions (see Sperber & Wilson 1986). It would invite distortion, however, to view an interest network solely in its epistemic role: interests can also be *aroused* and *expressed*. In this respect, an account of psychological networks which is much closer to mine is to be found in the work of Fred Schwarz within psychoanalytic

theory, see for example Schwarz and Rouse 1961 or Schwarz & Schiller 1970. When we are talking about 'activation' we are always to some degree talking about *arousal*.

As well as affecting the transmission of information within an interest system, different levels of arousal have two further salient effects. One is that high arousal enhances receptivity, speeds up reaction times to new relevant input (see for example Collins & Loftus 1975; Kahnemann 1973). The more highly aroused an interest is, up to a point, at a given moment, the more likely it is to be affected by incoming information. Another way of putting this would be to say that new information gets interpreted against the background of the currently most highly aroused interest to which it is relevant. This very important point is central to Sperber & Wilson's theory of relevance (1986), though they do not use the 'interest vocabulary' I employ here. Generally, information relative to more highly aroused interests is more accessible, both for interpreting input, and for guiding *output*. The other most salient effect of arousal is that it is liable to lead to *expression* (i.e. output). The more highly aroused an interest is, the more likely it is to be expressed. So, above a certain level of arousal, interests get expressed. They do so in the shape of actions and utterances in both real space and what I have called 'cognitive space' (which I discuss below). Strictly limited output channels are available for innumerable many interests, and the livelier ones are 'lined up' waiting to take their chance. (This picture of energetic competition has parallels in psychology which go back at least as far as Freud, see, e.g., Freud 1911). Our subject matter here is those expressions of interests which appear in cognitive space' — *m-expressions* — in particular the verbal *m-expressions* — *m-utterances* — which are the silent speech-acts of my title; ('m-' indicates that the activity it prefixes occurs and may be attended to in cognitive rather than in public space). Whilst expressions in actual space may be witnessed by anyone who happens to be around, I am the only witness to what I put into my own cognitive space. With respect to *m-utterances*, I shall be arguing, I play both quasi-speaker and quasi-hearer.

Everybody knows what it is to 'see in one's mind's eye', i.e. to imagine: *cognitive space* is a name for the quasi-place in which images (which are *m-expressions*) appear. Just as actions and utterances often co-occur in actual space, I suggest that images and *m-utterances* often co-occur in cognitive space. Cognitive space is playground of the imagination, in which one may pretend to act and to be acted on, including seeing and being seen, speaking

and being spoken to. So, I am postulating a mind's ear as well as a mind's eye. For anyone who finds this an implausible notion, I suggest the following small mind-exercise: take a line from a song you know, and first say it, then sing it, *silently* to yourself. You will find, I believe, that not only can you m-produce it in those different ways, but you can m-hear what it m-sounds like.

Really this sequence of m-expressions which passes through cognitive space is none other than what used to be called the 'stream of consciousness'; that is, however, an odd way to describe something of which we are so rarely 'conscious'. I have preferred to avoid the terms 'conscious' and 'consciousness' because they are used in two ways which I think it important to keep distinct. In one sense it is a matter of attending to something, or being aware of it, as opposed to not attending to it or being aware of it. In this sense, what a person is conscious or unconscious of is entirely contingent, and furthermore is a matter of degree, since undivided attention is the exception rather than the rule (see Kahnemann 1973). But as it is used in psychoanalytic theory and in the folk psychology which derives from it, the opposition is between what *can* be directly attended to — 'the Conscious' — and what *cannot* be directly attended to, but must be inferred — 'the Unconscious'.

Most of the time we allot only a small share of attention to the contents of cognitive space, I had to make myself attend carefully to them for the purposes of the research for this paper and chapters Five and Six of my thesis (Murray n.d.). I found that, in my case at least, the stream of m-expressions is almost incessant, and I concluded that — at its most general — its function is to feed back into the interest system. I used introspection because there appeared to be no other way of getting at the material I wanted to investigate. (For an explication and limited justification of the methods I've used, see the opening pages of chapter Six of my thesis). I hope to mitigate the defects of introspection by exposing my findings to the widest possible audience, and awaiting disagreement. So, here they are.

I find that, just as my utterances do, my m-utterances include exclamations, imprecations, jokes, and proverbs. But it is the questions, injunctions, assertions and suggestions that I m-utter that I shall be discussing, because it is they — I want to maintain — that are the tools of cognition. M-expressions feed back into the interest system, I suggest, in a way which mimics the effects that the imagined objects or events would have if actual. For example, when I ask myself a question, I make a demand on myself to

answer it, just as another person who asks me a question makes a demand *x* on my interest system. So, I *m*-say to myself, "Supper, what shall we have for supper?" Then, scanning the larder in my mind's eye, I reply, "Sausages ... potatoes ... there's some lettuce". Or I say to myself, "Maybe I should go the Stanhope road way" and respond to this suggestion by imagining what it would be like at that time of day, and *m*-saying, "Yes". I also frequently tell myself what to do — and generally, though not always, then proceed to do it. 'I' and 'myself' — 'I' the creator or actor, and 'myself' the receiver or audience — play such distinct roles that I can even *m*-address myself as 'you' or 'Dinah', as in "Come on, Dinah, you can't do that". As well as *m*-addressing myself, I very often *m*-address other people, but more of that later. For now the essential point is that I respond to my own *m*-utterances in many ways as though they were genuine input from the outside world.

Here is a slightly more complex example of a sequence of *m*-expressions. I need to get some furniture moved, can't do it on my own, and am wondering who I can get to help me. I *m*-utter, "Someone to move furniture ... Oh good, Eleanor's around". I picture her standing before me in her running shorts, full of good health and evident vitality, and *m*-say, "She's a sturdy sort of person" (as is required). Then, "Her back, she's got a bad back". (Then, recognising this sequence as a good case of faulty thinking, I start *m*-addressing you people on the topic — but more of that later). For a brief moment I thought I'd solved my furniture-moving problem: Eleanor's a nice helpful sort of person, and my vision of her radiating strength and capability was absolutely convincing — exactly what I wanted. If I had simply *m*-uttered, "Oh good, Eleanor's around", I'd likely have committed the gaffe of failing to remember her back until she herself reminded me of it. However, "She's a sturdy sort of person" did the trick of shaking me out of my misplaced hope. By asserting that belief — turning it into something which claims to be true — its falsity hit home. For, just as a question demands an answer, so a claim demands to be assessed in regard of its truth.

Let us consider now the question of so-called 'irrational beliefs', that is, inconsistent contemporary assumptions. The last example was a clear case of how easy they are to come by. I knew perfectly well that my friend had a bad back, and that something like moving furniture causes acute pain to people with bad backs. Yet I was prepared to entertain the belief that she would be happy to help. The clash between those inconsistent beliefs

came about because the pursuit of an interest required them to be reconciled. Before that, being stored relative to different interests, they were not in a position to affect one another. In general, just so long as they don't clash within an interest, a person may have any number of inconsistent beliefs without any failure of reason or logic being indicated. In those cases — exotic or otherwise — in which, for example, institutionalised beliefs are apparently at odds with everyday beliefs, the interests to which they are severally relevant never meet and therefore never clash.

As well as being a case of my having an 'irrational belief', the Eleanor case is also an instance of my reaching new conclusions on the basis of old information. Indeed, any case of someone correcting inconsistent assumptions without any corrective input from the outside world, will be a special case of reaching new conclusions purely through self-consultation. And all such cases, I suggest, will have the same essential form. That is, they will involve the formulation of a *m*-utterance (or among the more eccentric, an utterer perhaps) which will then be capable in principle of affecting and combining with any part of the interest system, just as a real utterance is in principle capable of so doing. However, in practice, as I indicated above, different levels of arousal within an interest system will affect accessibility so that the currently most highly aroused interests will be the ones that are most likely to be affected. Therefore the same formulation may have substantially (though, being in a language, *never entirely*) different effects at different times. We shall come in a while to techniques people use to overcome the interest-skewed tendency in interpretation. First we must consider another example.

Looking at a hot-water-bottle stopper, I *m*-say, "Twisted, it'll break soon". Then in cognitive space I am before the chemist's counter, holding out the stopper and saying, "I bought this hot-water-bottle from you last Christmas". Then, deflated, no longer facing the chemist, "It was cheap, it was dirt cheap". From my point of view — being a fairly recent purchase which is shortly to become a useless one unless I can replace the stopper — the bottle is a threatened but still precious object. From the chemist's point of view it's one of a cheap lot of Chinese imports, and as I imagine the confrontation, so his point of view comes to me: I hear what I have said through his ears. From the standpoint of this paper, the crucial thing about this sequence is that I assess my *m*-utterance, and the project it is an *m*-expression of, by imagining how it will fall on other ears.

Sequences of *m*-utterances like the hot-water-bottle case are scattered

through my day. That is, being struck by something about which it would be appropriate to speak to another, I proceed to formulate it for their ears. How I put it, i.e. in what verbal form, in cognitive space as in public space, depends (interaction) on who I'm talking to as well as what I'm talking about. When I'm m-uttering actually to myself, then I treat myself as co-witness of all events, and don't spell out much background. When, on the other hand, I'm m-uttering actually to other people, then I will tend to be much more explicit. In short, my m-utterances vary in just the ways that they would if they were in reality uttered to those different imagined audiences (for a very full account of such variation, see Rommetveit 1974). To illustrate this, consider the fact that every sentence of this paper has been m-uttered (often in parts, assessed one after another) before being written down, and many have been rejected too.

Because, in this paper, I am putting a case which is debatable, I must be as sensitive as possible to potential objections, and as thorough as possible in meeting them. In order to be that, I must guess to the best of my ability what they may be. And in order to do that, I must try to hear how they sound to an audience about whom I can safely assume only three things: they speak my language (well enough to be reading this, anyway); they share my interest (closely enough to be reading this, anyway); and they have read everything I have said in the paper so far (or if they haven't then there's no way I can make allowances for that). Luckily, because to some extent you share my interest, I can count on you sharing at least my safest assumptions — that there are people, who talk to one another, for example, and that in so doing they use language to ask and tell each other things. Those beliefs of mine which I can't count on your sharing, I must not only make explicit, but must assess them with your ears, and defend them accordingly.

As it says in the Book of Job, "Give ear unto me, ye that have knowledge. For the ear trieth words as the mouth tasteth meat" (Job, 34,2,3). To sum up, in order to produce something of this nature (i.e. written down, public, and argumentative) I assess my m-utterances as far as possible with the ears of a sceptical stranger. This device has a dual effect. It obliges explicitness, that is, it obliges the appearance in cognitive space of a number of my relevant beliefs in the form of assertions, which as such invite assessment for truth (which, without consultation of the outside world generally means assessment for likelihood). It also has the effect of 'cooling' my interest system at large, so that my own most highly aroused interests,

greedy for input, do not automatically gobble up all the consequences of my m-assertions. By these means I can *aim* at objective truth, i.e. truth from any standpoint. Nevertheless, the sceptical stranger device is only a ploy. However earnestly I may strive for 'objective truth', however seriously I may be interested in the truth, I cannot in fact stop my other desires and preferences from being what they are (though I may intermittently succeed in holding them at bay, and even in the long run reordering them somewhat).

We are now in a position to examine the question of what it is to think hard. Cognitive space is a psychological resource which one can use in a variety of ways. As well as using it to abet my serious thinking, I also use it (*inter alia*) for repeating parts of old discourses, commenting idly on the events I'm going through, explaining my actions as I perform them (often in advance of doing so to some actual person), planning the initial remarks of phone calls, drawing up my shopping lists, and spinning ego-gratifying day-dreams. Hard thinking is distinct from those m-activities because it both always involves a serious interest in finding a fitting outcome or solution, and it is invariably devoted to some matter which is not quickly settled or resolved. Hard thinking takes *effort*: in what does that effort consist?

The effort consists firstly in paying much more attention than usual to the contents of cognitive space. Someone who is thinking hard tends to have little attention to spare for activities in the real world, and to be what gets described as 'lost in thought'. Cognitive space is home of the absent mind. Secondly, it consists in keeping other interests out of cognitive space — not letting one's thoughts wander. Instead of m-expressions of distinct interests succeeding one another freely in cognitive space, by making suggestions, asking questions, etc., I can keep one interest at the forefront of my mind. In doing so, I make room in cognitive space for m-expressions of any consequences, or any newly felt issues, and can assess and digest those in turn.

That persistence which is such a crucial part of hard thinking is largely a matter of attempting to be thorough, i.e. of flogging the interest system for all one's worth, in the hope of bringing in every relevant consideration. By coming back at my interest system again and again with expressions of the same interest, I maximise my chances of bringing in every bit of information which could conceivably make a difference to the outcome of the interest I am doggedly pursuing. M-utterances are particularly useful m-expressions in this respect because of their capacity to exert a demand on

the interest system for further relevant material (for a closely comparable conclusion, see Dennett 1982). When, as so often, completing one's hard thinking involves stating a case, then a further effort is required; namely, that of attempting to assess one's m-utterances with others' ears. In particular, where truth is in question, then one is required to be maximally explicit, and to play sceptical audience to oneself, greet one's own claims with doubt.

What is the result of that effortful combination of persistence and attentiveness which I have been describing? Its immediate result is prolonged activation within the interest system: m-expressions function, like input from physical and public space, to excite a person's interests in diverse ways. The consequences of that activity may be the emergence of expressions or m-expressions, of which one may be directly aware. But the activity itself, which (as I remarked above) one may think of as the opening and shutting of gates in a network, or as the drawing of inferences, is not itself accessible to direct perception. One might be inclined to say that what we are talking about here is the 'real thinking'.

However, without the capacity for self-challenging that we have found there would seem to be no way of deliberately pursuing a train of thought. (For an illuminating account of challenges in actual discourse see Labov & Fanshel 1977). And without a means of integrating information relative to disparate interests, then all conclusions would be local and narrowly interest-dependent to an extreme degree. Furthermore, without the feedback from cognitive space, one's only method of assessing one's results would be by exposure to the trials of the real world.

The ultimate result of all this private persistence and attentiveness ought to be that one settles on a well-motivated change to one's interest system, so that in future one need give those matters no more thought — because they have ceased to be at issue. Often the production of m-utterances will have given one's thoughts a form which can at once be shared, and thereby alter other people's interest systems in accordance with one's own. I hope I have shown in this paper how the subject matters of cognitive studies and of conversational analysis in certain respects overlap. They do so because language is a tool for manipulating interest systems which one can turn upon oneself.