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Consciousness and Common-Sense Metaphors of Mind*

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ABSTRACT

The science of the mind, and of consciousness in particular, needs to carefully consider people's common-sense views of the mind, not just what the mind really is. Such views are themselves an aspect of the nature of (conscious) mind, and therefore part of the object of study for a science of mind. Also, since the common-sense views allow broadly successful social interaction, it is reasonable to look to the common-sense views for some rough guidance as to the real nature of the mind. On the other hand, to the extent that common-sense views are inaccurate, and perhaps even in gross conflict with the true nature of the mind, one interesting scientific question is: why do we hold such views, given our access to our own minds? Why should introspection be limited in a way that allows inaccurate views to hold sway? Now, common-sense views of the mind are revealed in natural language discourse that describes mental states, and such descriptions are largely metaphorical. The metaphors are used within thinking about the mind as well as in language. Therefore the study of metaphor is central to the study of mind. The present article is a preliminary study of the importance of metaphor in the scientific study of consciousness. It concentrates on analyzing the nature of a range of important metaphors of mind, briefly discussing the extent to which they can be used to describe or qualify states of consciousness, and pointing to important questions about the nature of consciousness that the study of the metaphors raises. The article further conjectures that the reason people use metaphors in describing themselves is often not (just) that they have intellectually worked out some structural analogy — e.g., between interactions of physical objects in physical space and interactions of ideas in the mind — but rather that they *feel* their own minds to be as described by the metaphor — e.g., they feel that the ideas in their minds are interacting physical entities. This matter of how a mind feels to itself is an aspect of the central issue of consciousness, namely its phenomenal quality.

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1 Introduction

At the workshop on which this volume is based, consciousness was a focal issue, because of its importance to any fully-fledged science of the mind. In the present paper, I take the line that such a science needs to carefully consider *people's common-sense views of the mind,* not just what the mind really is.[1] This is for more than one reason. First, such views are of course themselves an aspect of the nature of (conscious) mind, and therefore part of the object of study for a science of mind. Secondly, the common-sense views allow people to interact with each other in broadly successful ways — to predict each other's mental states and behavior with enough success for most mundane communications and other interactions to proceed fairly smoothly. Therefore, it is reasonable to look to the common-sense views for some rough guidance as to the real nature of the mind. The three words "some", "rough" and "guidance" are, naturally, to be stressed here. But, thirdly, to the extent that common-sense views are inaccurate, and perhaps even in gross conflict with the true nature of the mind, one interesting scientific question is: why do we hold such views, given our access to our own minds? Why should introspection be limited in a way that allows inaccurate views to hold sway? Finally, I shall claim that metaphors of mind can lead us to useful considerations concerning the phenomenal quality of consciousness.

Now, I adopt two major working hypotheses:

(1) Mundane natural language discourse that refers to mental states often reflects rich common-sense views of the mind. For instance, when someone says "Perhaps some part of John realized that Sally was right," the idea of *part* of a person having a mental state reflects a prevalent, conceptually rich, common-sense view of the mind (which will be discussed below). Talk of parts of people having thoughts is not just an idiomatic form of words with no underpinning in the thinking of the speaker.

(2) Common-sense views of the mind, at least those reflected in natural language discourse, but plausibly also those that are not, are highly metaphorical. The study of metaphor is, for this reason by itself, central to the study of mind (quite apart from other possible reasons for its being central). The part-of talk in (1) is metaphorical. (The metaphor is one I call MIND PARTS AS PERSONS. It will be discussed below.)

These claims involve a further, broader claim to the effect that metaphor is not primarily a linguistic matter, but rather a conceptual one. A metaphor is, metaphorically, a *view* of one "target" subject-matter, T, that uses descriptive resources from another "source" subject matter, S. Roughly, at least, the view is a matter of "seeing T as S."[2] Such a view can, importantly, be *manifested* in ordinary natural language discourse. But it can also be manifested in other external ways (see, e.g., Woll 1985 and Kennedy, Green & Vervaeke 1993). and it can affect

[1] The topic of common-sense views of the mind is closely allied to the topic of "folk psychology." However, I will not be addressing the particular concerns that have gyrated around the latter term (see, e.g., Churchland 1989, Goldman 1993, Ramsey, Stich & Garon 1991, Stich 1983), so I will continue to use the former.

[2] Cooper (1986) strongly objects to this characterization, largely because the notion of "seeing as" is itself unclear and metaphorical.

purely private thoughts about the target T. The argument that metaphor is not just a linguistic phenomenon has been championed by Lakoff (1993b), and rests on the open-ended and systematic way in which mundane, non-literary metaphorical expressions can be varied and still be easily understandable. See Barnden *et al.* (1994b) for some argument that sentences like some of those listed above do indeed contain non-frozen manifestations of metaphors as opposed to frozen (canned) forms of language that may once have been non-frozen. The arguments are similar to those used by Lakoff (1993b).

Thus, I shall assume that when people use metaphorical sentences such as "Perhaps some part of John realized that Sally was right," they are, typically, thinking in terms of the metaphor, or in other words describing the thing to themselves in terms of the metaphor, at the time of utterance. The metaphor is not just a convenient, superficial tool for verbally describing something that the describer is actually thinking of in other terms.

I should say straight away that I am not claiming that someone who holds a metaphorical view of T as S at some moment necessarily does so consciously, or really believes an identification of the two domains. For instance, I am not claiming that if John says "The idea was deep in the recesses of my mind" then he really believes that his mind is a three-dimensional space in which there are recesses. Rather, the metaphor is, for John at the particular time in question, a convenient way of (consciously or unconsciously) thinking about his mind. But notice carefully that John's lack of belief in the metaphor need not be salient for him, and the metaphorical view may even seem non-metaphorical to him. Also, even if he is conscious of taking the metaphorical view and consciously believes the view to be a false one he may not have any non-metaphorical way of thinking the same thought (though he may have a number of other metaphorical ways of doing so).

There have been previous discussions of (a) metaphors for mind and, more particularly, consciousness (see papers cited in section 2.10) and (b) the role of metaphors for mind in introspection. However, work of type (a) that has looked at a wide range of metaphors has not had the particular goals of the present paper (as laid out in the first paragraph of this Introduction), and work of type (b) has largely focused on a small range of metaphors — notably COGNIZING AS SEEING (mind's eye), for instance in Banks (1993), Dennett (1991), Gopnik (1993), Jaynes (1982) and Rorty (1980), and MIND AS PHYSICAL SPACE, especially in Jaynes (1982). For other related work, see Shoemaker 1994 for an argument that introspection should not be seen as a type of perception. See Dennett (1991) and Jaynes (1982) for accounts of consciousness that are centrally informed by a consideration of inner speech (a phenomenon which I encompass under the metaphor of IDEAS AS INTERNAL UTTERANCES).

Thus, the present work points towards a more broad-ranging study of metaphor than heretofore as a way of illuminating the nature of consciousness.

And it does only point towards such a study. The paper is preliminary, and concentrates on analyzing the nature of a range of important metaphors of mind, briefly discussing the extent to which they can be used to describe or qualify states of consciousness, and pointing to important questions about the nature of consciousness that study of the metaphors raises. The paper represents a very recent offshoot from some research that was not originally aimed at elucidating the nature of consciousness. This research is reported in Barnden (1989a,b, 1992, 1995) and Barnden *et al.* (1994a,b, 1995). It has recently led to an implemented, prototype computer program that reasons in a specialized way on the basis of metaphors of mind in discourse. The article is not concerned with this program, but rather with the concepts underlying the research.

The research just mentioned involves a rather unusual meld of the field of metaphor and the field of representing and reasoning about mental states. Although cognitive linguists have considered metaphors of mind in some detail, they have not developed detailed schemes for mental-state representation/reasoning. On the other hand, investigators in the latter area, mainly philosophers and artificial intelligence researchers, have largely ignored the involvement of metaphor in mundane language about mental states. I believe, however, that metaphor is a crucial consideration for mental-state representation/reasoning, at least when it is concerned with mental states as reported in natural language (and this is indeed the concern in much of the work in philosophy and artificial intelligence on mental-state representation/reasoning). The reason why it is crucial are brought out at greater length in Barnden (1989a,b, 1992) and Barnden *et al.* (1994a,b, 1995).

Metaphor is often used to convey details or qualifications that would be difficult to convey by other means. In the mental realm, this is evident in talk of "fringes" of consciousness, ideas "surfacing" in the mind, things being in the "recesses" of one's mind, "seeing" mental things "clearly" or "obscurely," and so forth. In using the word "consciousness," I will mean the type of consciousness that one has when one is "consciously thinking" about something, or consciously feeling an emotion, or feeling pain or pleasure. Indeed, it is the *feeling* of being conscious with which I am most concerned, and which, together with qualia in general, I take to be the central, unsolved problem of consciousness. Not all of this article directly addresses this problem, however.

2 Some Metaphors of Mind

When we speak or write, we often describe mental states (and processes) using metaphors of mind. Some examples are as follows. They are all closely modeled on examples found in real text and speech that I have encountered.[3]

(1) *"One part of Mike knows that Sally has left for good."*
(2) *"Part of Mike was insisting that Sally had left for good."*
(3) *"John was leaping from idea to idea."*
(4) *"Veronica caught hold of the idea and ran with it."*
(5) *"In one part of his mind, Bob was thinking about the party."*
(6) *"George put the idea that he was a racing driver into Mary's mind."*

[3] I have amassed about a thousand discourse chunks exemplifying metaphors of mind. They are in a publically accessible database on the World Wide Web, at home page ((TO BE SPECIFIED LATER)).

(7) *"Peter hadn't brought the two ideas together in his mind."*
(8) *"That belief was firmly fixed in his mind."*
(9) *"In the recesses of her mind, Cynthia knew she was wrong.."*
(10) *"His desire to leave was battling with the knowledge that he ought to stay."*
(11) *"Martin had a blurred view of the problem."*
(12) *"It was crystal clear to Susan that Tom was unfaithful."*
(13) *"Things didn't smell right to Kevin."*
(14) *"In John's mind, terrorism is getting worse every day."*
(15) *"Sally told herself, 'Mike is untrustworthy.' "*
(16) *"Sally said to herself that Mike was untrustworthy."*

We will now look at the metaphors manifested in these sentences. We will comment in this section on the extent to which they address conscious states of mind, but will leave further discussion of the light they may eventually throw on consciousness to section 3.

The above examples are all in the third person, but second-version versions occur occasionally, while first-person versions are common and especially important for the present paper.

2.1 MIND PARTS AS PERSONS

Sentences (1) and (2) manifest a metaphor of MIND PARTS AS PERSONS. Under this metaphor, a person's mind is viewed as having "parts" that are themselves people — or, at least, complete minds — having their own thoughts, hopes, emotions, and so forth. I will call these parts "inner persons." Different inner persons can have conflicting mental states, or a mental state held by one can fail to be held by another. In addition, the inner persons can communicate in ordinary language, as the word "insisting" in (2) indicates. Another example of this phenomenon is:

(17) *"Half of me whispered that I'd drive all the way there."*[4]

MIND PARTS AS PERSONS in general is not specifically directed at consciousness, but particular manifestations can explicitly bring in consciousness, as in:

(18) *"It was as if his consciousness didn't want him to be without anxieties."* [5]

Here the agent's consciousness is being reified as a thinking, desiring entity.

But even without an explicit mention of consciousness, it is often natural to interpret the sentence as implying consciousness. For example:

(19) *"Part of you wants to talk about your personal problem but part of you hates the idea."*[6]

Also, if this sentence is indeed interpreted as describing a conscious mental state, it also shows illustrates the point that, under MIND PARTS AS PERSONS, several different parts of a mind can be conscious, and that none of them needs to have clear dominance over the others. Notice

[4] Mona Simpson, *The Lost Father,* New York: Vintage Books, 1992, p.265.
[5] Ruth Rendell, *The Bridesmaid,* London: Hutchinson, 1989, p.172, with minor adaptations.
[6] Adapted from a lecture by Ann Dale, Wycombe Abbey School, England, 10 May 1995.

further that in (18) the mind-part is identified as a special component of the mind that has long-term existence, whereas in (17) and (19) the parts do not have any special nature and might well be very short-lived.

MIND PARTS AS PERSONS is related to the multiple-selves metaphors discussed by Lakoff (1993a).

2.2 IDEAS AS EXTERNAL ENTITIES

Sentences (3) and (4) manifest a metaphor of IDEAS AS EXTERNAL ENTITIES, under which an agent is conceived as being *within* a space populated with some of their own ideas, hopes, etc. (I use the word "IDEAS" broadly in the name of the metaphor.) That is, some of the agent's ideas are viewed as external to the agent. The ideas are typically conceived of as concrete physical objects. The ideas can move around, or be active in other ways, and the person can move relative to the ideas, or physically manipulate an idea as in (4). Other manifestations of the metaphor, illustrating various types of activity on the part of person or ideas, are:

(20) *"The idea came to him to replace the statue in the garden."*[7]

(21) *"The facts, the truth slammed back at him once more, the reality that she had murdered someone."*[8]

(22) *"He would have shunned the idea if he could. He would have escaped from the knowledge that ..."*[9]

(23) *"An idea had come to him out of the air, out of nothing, an idea of stupendous magnitude, a total solution. It felled him so that he spoke to her in a tone of vagueness, hesitantly, unable to find the ordinary simple words."*[10]

(24) *"But I was cheap. Cheap enough that the idea of paying the detective more after what he'd done so far tugged at me."*[11]

(25) *"I set the notion aside, but I had a feeling it was going to stick to me with a certain burrlike tenacity."*[12]

(26) *"She laughs and shrugs, as if to shake off gloomy thoughts."*[13]

All these examples plausibly refer to conscious ideas (no. 20 less clearly so than the others), even though consciousness is not explicitly mentioned in any of them. This is partly because the physical interactions between person and idea that are described in the sentences are largely of types that would normally involve a conscious state of mind on the part of the person.

[7] Ruth Rendell, *ibid.,* p.264, with minor adaptations.
[8] Ruth Rendell, *ibid.,* p.255, with minor adaptations.
[9] Ruth Rendell, *ibid.,* p.162.
[10] Ruth Rendell, *ibid.,* p.142.
[11] Mona Simpson, *ibid.,* p.432.
[12] Sue Grafton, *I is for Innocent,* London: Penguin Books, 1993, p.182.
[13] Jane Rogers, *Mr Wroe's Virgins,* London: Faber & Faber, 1991, p.91.

For example, one is normally conscious of setting something aside or of someone or something tugging at one. Again, if an idea "strikes" you "forcibly" then the you are likely to be vividly conscious of the idea, because physical things that literally strike you forcibly typically lead to your having vivid conscious awareness of the object (unless you are knocked unconscious, of course!).

2.3 MIND AS PHYSICAL SPACE

As a contrast to IDEAS AS EXTERNAL ENTITIES there is the extremely prevalent metaphor of MIND AS PHYSICAL SPACE. Sentences (5) to (9) are manifestations of it. Under this metaphor, a person's mind is a physical region within which ideas, thinkings, hopings, etc. can lie at various positions. and such entities can move in and out of the region, as in (6). The person is not within the space; rather, the space is at least partially within the person. An important aspect of the metaphor is that ideas that have not been "brought together" (cf. sentence 7) are likely not to interact. For example, conclusions are unlikely to be drawn from them as a group. Another significant aspect is that one one's mind is "full of" something, there is little "room" to think of anything else.

Different positioning of ideas in the mind-space can be used to convey differing degrees of consciousness. For instance, things that are to the "back" or one "side" of one's mind, or are in the "far reaches" or "recesses" of one's mind, are less within consciousness than are things at the "front" or that are "uppermost." Indeed, they may even be out of consciousness. Examples in which thoughts are "deeply buried" strongly indicate unconsciousness. The notion of the "fringes" of consciousness is also relevant here, and was the target of a special issue of the journal *Consciousness and Cognition* (namely Vol. 2, No. 2, 1993). Notions of conscious thoughts as occupying a special subregion within the mind-viewed-as-physical-space is evident in phrases such as "pop up into consciousness" and "seep into [one's] consciousness."[14]

A complication is that the word "mind" is ambiguous as between meaning the whole mind, including unconscious aspects, and meaning only the conscious mind. Both cases are common. The latter case is explicit in the following sentence from D.H. Lawrence's *Women in Love*, quoted in Cohn (1978:p.49): "All this Gudrun knew in her subconscious, not in her mind." That the mind can, on other occasions, include things that are not in consciousness is graphically illustrated by examples like "His unconscious mind had known what his conscious mind had refused to know."[15] See also Bruner & Feldman (1990).

The metaphor has been studied by other researchers (e.g., Gentner & Grudin 1985, Hoffman, Cochran & Nead 1990, Jäkel 1993). Jaynes (1982) adopts the extreme stance that people's use of MIND AS PHYSICAL SPACE (combined with COGNIZING AS SEEING) concerning their own mental states is an essential aspect of self-consciousness. MIND AS PHYSICAL SPACE has often been called MIND AS CONTAINER, but in this name the word CONTAINER

[14] Latter example is from *My Story* magazine (Editions Press Ltd, Gibraltar), May 1995, p.35.
[15] Joanna Trollope, *The Rector's Wife,* U.K.: Corgi Books (Black Swan ed.), 1993, p.235.

often means no more than a bounded region, as opposed to a physical container like a box (Lakoff, personal communication). Some sentences do cast the mind as a physical container, however. I take MIND AS PHYSICAL CONTAINER to be a special case of MIND AS PHYSICAL SPACE.

In sentences (6,7,8), it is possible to replace "mind" by "head" without changing the meaning much. (The replacement seems less acceptable in (5) and (9).) I still take the modified sentences to manifest MIND AS PHYSICAL SPACE, where the mind-spaceis conceived of as being within the head-space. It is not clear, however, that this spatial inclusion carries over to cases where the mind is mentioned but not the head. I take this issue up again below.

2.4 IDEAS AS PHYSICAL OBJECTS

It is common for the MIND AS PHYSICAL SPACE metaphor to be accompanied by the metaphor of IDEAS AS PHYSICAL OBJECTS, which is manifested most clearly in (8). However, in (9) there is no particular reason to think that Cynthia's realization is being viewed as a concrete physical *object*; rather, her realizing is an *event* that is localized in the "recesses."

Of course, IDEAS AS EXTERNAL ENTITIES is a special case of IDEAS AS PHYSICAL OBJECTS, when the external entities are physical objects. Sentence (10) manifests a metaphor of IDEAS (etc.) AS BATTLING ENTITIES. This metaphor is a special case of IDEAS AS PHYSICAL OBJECTS. Notice that the sentence does not strongly suggest MIND AS PHYSICAL SPACE. It would also be possible for the sentence to lie within a context that suggests that the ideas are external to the agent.

The IDEAS AS PHYSICAL OBJECTS metaphor has, in general, nothing special to say about consciousness. Nevertheless, when an idea is cast as an especially "visible" physical object, it is especially present to consciousness. I say more on this in section 2.9.

2.5 COGNIZING AS SEEING

Sentences (11) and (12) manifest a metaphor of COGNIZING AS SEEING. This is an extremely common metaphor, and is manifested most simply and palely in phrases like "see that [something is the case]."[16] Other common phrases or words manifesting it include: see as, see how, see through, in [one's] view, view as, looks like, look to, look forward to, shortsighted, lose sight of, blind to, focus on, outlook, viewpoint, flash of insight, flicker of recognition, bright, brilliant, having an eye toward. Under "cognizing" I include understanding, believing, thinking, predicting, and so on. Further examples of the metaphor's manifestations are:

(27) *"Primakov looks at Saddam, and he sees a longstanding Soviet relationship that he wants to preserve if he possibly can."*[17]

[16] It may be tempting to regard "see that" as an example of a frozen manifestation of the metaphor. However, the phrase can be productively and systematically varied in ways that suggest the metaphor is live even here. Consider, for example: "he could only see in a blurred way that ...." In any case, the major points made in this paper are tolerant of the possibility that some phrases are only frozen manifestations of the metaphors of interest.

[17] *Newsweek,* 19 November 1990, p.25.

(28) *"Iacocca concedes cost cutting slowed development of the LH, but sees a silver lining."*[18]

(29) *"There may be a flicker of recognition, but it's snuffed out immediately. Darkness is preferable to threatening self-awareness."*[19]

Notice that at least the first two of these examples, as well as (11) and (12), portray the agent as looking outside himself; the object of sight is external to the agent. Thus, there is an implicit use of IDEAS AS EXTERNAL ENTITIES. On the other hand, many other manifestations of COGNIZING AS SEEING accompany MIND AS PHYSICAL SPACE instead. I will take up this point in section 2.9.

Forms of COGNIZING AS SEEING, especially when allied with MIND AS PHYSICAL SPACE, play a prominent role in the literature of consciousness. This is perhaps most topically so in Dennett's (1991) discussion of the "Cartesian theatre" view of consciousness (which he attacks). Under this view, the mind contains a homunculus that sees the contents of consciousness as if on a stage. But the more common notion of the "mind's eye" is of course a reflection of COGNIZING AS SEEING. Rorty (1980) places great blame on the mind's-eye metaphor, and the related metaphor of the mind as mirror of nature, as perverters of the philosophy of mind. Sweetser (1990) contains a discussion of UNDERSTANDING AS SEEING from a linguistic standpoint. See also Richards (1989). Gopnik (1993) addresses COGNIZING AS SEEING in conjecturing that folk psychopsychology (the study of the relationship between mental states and our experiences of them) may arise from the folk psychophysics of visual perception.

Visual images, which are normally considered to be an aspect of conscious as opposed to unconscious mentation, are usually described by analogy to external pictures, diagrams, etc. That is, visual images are often metaphorically viewed as pictures, etc. It is common in ordinary language to talk of "picturing" things or of having "pictures" of objects or situations in one's mind.

Aside from one major type of exception (discussed in the next paragraph), manifestations of COGNIZING AS SEEING almost always imply consciousness. This is because literal seeing is normally a conscious matter, at least in the ordinary, common-sense view. It would seem possible to say "He unconsciously saw that he was wrong" — presumably because we realize that we sometimes literally see things without consciousness — but such examples seem to be rare in real discourse.

A phrase like "Martin's view of the issue," however, does not strongly connote consciousness on Martin's part, possibly because one can have a (literal) view of something without looking at the thing at all, consciously or otherwise. For example, "Martin's view of the mountain was the best in town" does not of itself imply that Martin ever looked at the mountain.

[18] *Newsweek,* 6 January 1992, p.30–32.

[19] *Cosmopolitan,* March 1994, p.192.

2.6 COGNIZING AS PHYSICALLY SENSING

COGNIZING AS SEEING is an important special case of a more general metaphor, namely COGNIZING AS PHYSICALLY SENSING. I will return to this matter below. A further, less common, special case is COGNIZING AS SMELLING, which is manifested in (13). A COGNIZING AS BEING TOUCHED metaphor touch is manifested in examples like (21-26), along with IDEAS AS EXTERNAL PHYSICAL OBJECTS. A metaphor of COGNIZING AS HEARING is evident in sentences like *"It sounds a good idea to me,"* but its manifestations appear to be considerably more frozen than other physically-sensing metaphors such as COGNIZING AS SMELLING and COGNIZING AS SEEING.[20]

Manifestations of COGNIZING AS PHYSICALLY SENSING generally suggest consciousness, because physical sensation is, common-sensically at least, a quintessentially conscious matter.

2.7 MIND AS WORLD-DEFINER[21]

Sentence (14) manifests the metaphor of MIND AS WORLD-DEFINER. Other examples are:

(30) *"He was, in her mind, an unquestionably beautiful child."*[22]

(31) *"I'd just invented a date at the Ritz, hadn't I? It wasn't true. It hadn't been arranged. Only in my mind."* [23]

(32) *"His six officers have not fired a shot in his memory."*[24]

In a manifestation of this metaphor, a belief (or other mental state) of an agent X is reported by describing the believed situation (e.g. terrorism getting worse every day) and adding a qualifier like "in X's mind." This is analogous to the use of qualifiers like "in the novel," "in the movie" and "in the painting," where the "in" takes us into a fictional world. Let us call a novel, movie, play, painting, etc. a *world-definer*. (This is an intentionally bland term, chosen to abstract away from a multitude of different ways in which a world can be defined; and I intend "defined" in a loose way – I do not mean to imply a complete, clearcut or unique definition.) I claim that (14) and the examples just above cast the agent's mind as a world-definer. Notice, for one thing, that in all the given examples the in-so-and-so's-mind qualifiers can be meaningfully replaced by phrases like "in the novel," "in the movie" or "in the newspaper report."

The metaphor is a tricky one to analyze because of various complications. All the examples so far given of the metaphor convey a state of belief on the part of the agent. However, qualifiers

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[20] See also Richards 1989 for discussion of a range of physically-sensing metaphors, and other metaphors. However, Richards is reluctant to accord metaphorical status to some sentences I would say are metaphorical.

[21] This metaphor supersedes the IDEAS AS MODELS metaphor that I have discussed elsewhere.

[22] George and Weedon Grossmith, *Diary of a Nobody,* London: Penguin, 1965, p.212, with minor adaptations.

[23] *My Story* magazine (Editions Press Ltd, Gibraltar), May 1995, p.46.

[24] *Newsweek,* 19 November 1990, p.59. Whether or not the memory is normally regarded as part of the mind, I allow this type of example under the heading of MIND AS WORLD-DEFINER, taking the word "MIND" broadly.

like “in his mind” can indicate states such as planning (“He was writing the letter in his mind”) or merely entertaining or imagining (“In his mind, he was scoring goal after goal”). Which state is conveyed is delicately dependent on the nature of the target situation (e.g., terrorism getting worse) and syntax. On the question of syntax, compare the goal-scoring example just given with “He was scoring goal after goal in his mind.” The latter is more susceptible to an interpretation in which the goal-scoring is a metaphorical description of successful problem solving events. I have not sorted out these matters fully in my own mind [sic] and so will not go into them further here.

Another complication is that it is often, but not always, reasonable to assume that the agent has a visual image of the target object or situation. For instance, it is reasonable to impute visual images to the agent in (30). Also, in “In John’s mind, Sally was winning the race,” John’s mind is analogous to a play or film in which Sally is winning, and we can hypothesize that the agent has a visual image of a showing of this film or play. (Under this view there are two distinct things: the film/play; and the showing of it.) An example where a hypothesis of visual imagery is less called for would be “In Sally’s mind, Clinton is morally weak.”

Cases where the agent can be expected to have a vivid visual image (intermittently at least) — such as “In Sally’s mind, Mel Gibson is sexy” — naturally convey consciousness of the imaged state of affairs. In other cases, the extent of consciousness is much more unclear. In the case of “In Sally’s mind, Clinton is morally weak,” it is not clear to what extent or intensity Sally has conscious occurrent thoughts about Clinton being weak. It could well be that Sally has a only a background belief that he is weak, much like a background belief that, say, apples are fruit.

However, in those cases where consciousness is clearly conveyed, the responsibility is not entirely with the content. It also lies in part with the “In X’s mind” qualifier itself. To see this, compare “In Sally’s mind, Mel Gibson is sexy” with “Sally believes that Mel Gibson is sexy.” With the latter sentence, it could easily be that Sally has never seen that star – perhaps she has merely heard from a reliable friend that he is sexy. This possibility seems less likely with the former sentence.

This contrast can be neatly explained through a much more more general claim: *viz.* the claim that “In X’s mind, P” causes us to attribute to X a belief in or other cognition about a whole plausible, rich scenario involving P, whereas this is much less the case with “X believes that P.” Moreover, the richness comes from standard information, images, etc. we ourselves have concerning P. These claims follow from the analogy with “In the novel, P” or “In the picture, P.” Unless a novel is of a special genre such as a fairy tale, we assume that normal relevant facts about the real world hold in the novel unless contradicted. For instance, in interpreting “In the novel, the detective meets Queen Victoria” we assume that standard facts about Queen Victoria, meetings with royalty, and detectives hold in the novel unless contradicted. We may also form a visual image of the meeting and assume (tentatively) that extra features of the image, such as the nature of the room containing the meeting, hold in the novel. Similar observations hold for

"In the picture, the detective meets Queen Victoria" (unless the picture is of a strange sort). By analogy, I claim we do a similar thing in interpreting "In X's mind, the detective met Queen Victoria." We attribute standard facts to X as part of his/her belief state, and we attribute to X any visual image we ourselves might have of the putative meeting, because the image depicts a plausible form that the whole believed scene could take. By contrast, "X believes that the detective met Queen Victoria" does not strongly suggest that X has a visual image of the situation, or any beliefs about extra features such as the room.[25]

A related observation is that MIND AS WORLD-DEFINER sentences describe holistic, unified mental states as opposed to highlighting specific, discrete ideas as is often the case in manifestations of MIND AS PHYSICAL SPACE and IDEAS AS EXTERNAL PHYSICAL OBJECTS. Even in sentences such as *"These ideas were were seeping into his consciousness"* (MIND AS PHYSICAL SPACE), where there is a liquid quality to the ideas (individually or as a mass), there is no strong suggestion of unity among the ideas.

A final complication:- In a sentence like "The embarrassment he had caused her was in John's mind all day long" it is tempting to see a manifestation of MIND AS WORLD-DEFINER. However, note that the "in his mind" qualifier is not being used adverbially to qualify a situation description but is rather used predicatively of something (the embarrassment). I therefore suggest that the sentence actually manifests MIND AS PHYSICAL SPACE, and the phrase "the embarrassment he had caused her" is being used metonymically to refer to *some idea* that John had of the embarrassment. This hypothesis is backed up by the fact that we get natural variants by referring to particular locations within the mind, for instance by using "in the back of John's mind" in place of "in John's mind." Such localization is not natural for examples like (14) — the sentence "In the back of John's mind, terrorism is getting worse every day" sounds peculiar.

2.8 IDEAS AS INTERNAL UTTERANCES

Sentences (15) and (16) manifest the metaphor of IDEAS AS INTERNAL UTTERANCES, as long as these sentences are not describing an out-loud speaking event. This metaphor casts a thinking event as an event of "internal speech." Internal speech is not *literally* speech.

Sentence (2) also involves the same metaphor, combined with MIND PARTS AS PERSONS, since what an inner person says is an idea of the overall person's. Conversely, sentences (15) and (16) can (in many contexts) be taken to involve MIND PARTS AS PERSONS: one part of Sally is saying it to another part.

Sentences (2), (15) and (16) use a speech verb, and no speech verb seems to be barred from being used to describe an internal-speech event. For instance, recall example (17), where

[25] According to Jackendoff (1983), belief reports are cognitively similar to statements about states of affiars depicted in stories and pictures. Here the belief reports can use "In X's mind" or "X believes that," among other devices. My claim is that mental state reports using "in X's mind" are cognitively much more analogous to story or picture reports than are "X believes that" statements.

"whisper" is used. And a modifier like "to herself" is not even needed, if it is clear from context that a thought is being reported. But, on the other hand, the use of a speech verb is not necessary for the metaphor to be manifested. Consider:

(33) *"Everyone here immediately thought, 'Wow, I'm going to have access to the world's largest market.' "*[26]

(34) *"What bothered him was that he didn't want to live the rest of his life with the thought, 'There's Norm Schwarzkopf, the Butcher of Baghdad.' "*[27]

The use of quotation and speech-based mode of expression within the quotation strongly suggest that the agent's thoughts are being likened to speech.[28]

The examples above that do use a speech verb also happen to manifest MIND PARTS AS PERSONS. However, an involvement of that metaphor is not necessary, as shown by:

(35) *"Sharon pulled herself out of her jeans, the words 'How could he? How could he?' jumping about her wearied brain."*[29]

(36) *" 'I should never have got engaged,' I groaned inwardly."*[30]

We should be aware of a complication and ambiguity arising with IDEAS AS INTERNAL UTTERANCES examples. It appears to be common for people to experience some of their own conscious thoughts as internal speech. Therefore, it is often reasonable to take a sentence like (15) as reporting a situation in which the agent herself would say she was using internal speech. Nevertheless, there is no compulsion to take the sentence in this way. It could be that the author of the sentence is describing a mental state merely *as if* it were one of those in which the agent herself would say she was using internal speech. A similar point is made by Cohn (1978: p.76). Chafe (1994) points out that the use of IDEAS AS INTERNAL UTTERANCES in a past-tense self report, such as *"I said to myself, 'Time to go!' "* the original thought may not have appeared to the agent as internal speech, but the agent reconstructs it as such at a later time. There can thus be a sort of double metaphor in IDEAS AS INTERNAL UTTERANCES manifestations: one metaphorical step is in describing a thought as if it were internal speech (even though it isn't really); the other step is in the metaphorical relationship of internal speech to real speech.

Cohn (1978) also points out (e.g., pp.62–63, 95–98) that, in novels, manifestations of IDEAS AS INTERNAL UTTERANCES (which she calls "quoted (internal) monologue") are often more fragmentary than real dialogue, and the words used can have more flexible or idiosyncratic meanings. It may be that novelists are obeying an intuition that "internal speech"

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[26] *Newsweek,* 20 May 1991, p.42–45, with minor adaptations.

[27] *Newsweek,* 11 March 1991, p.32–34.

[28] It is common, especially in fiction, for speech-like thoughts to be portrayed in much more implicit ways, without even the use of a mental verb let alone a speech verb. See, for instance, Cohn (1978) and Wiebe (in press). However, the more explicit forms are enough for the present paper.

[29] *My Story* magazine, May 1995, p.17.

[30] *My Story* magazine, May 1995, p.8.

differs from real speech in important ways, much as visual images can be less distinct and more fragmentary than visual perceptions or external pictures.

In addition, even when the quoted expression is a properly formed discourse chunk, and we can assume the agent would agree that (s)he was experiencing inner speech, we should not assume that the agent's actual internal speech is identical to the quoted expression. That expression could still only be an idealization. This observation is backed up by the experimental study of Wade & Clark (1993), supporting the contention that direct quotation is in general used merely to depict *some features* of an utterance (actual or hypothetical, out-loud or mental); the use of a direct quotation to depict an utterance *verbatim* is just a special case.

In any case, virtually all manifestations of IDEAS AS INTERNAL UTTERANCES appear to indicate conscious, occurrent thoughts. This is presumably because almost all real speech is consciously produced and, when interpreted at all, consciously interpreted. However, the degree of consciousness can be modified, as in the (17) and through the use of "murmur" in :

(37) *"Perhaps somewhere in the back of his brain there ran a murmur telling him that ... "*[31]

Also, the consciousness can be attenuated and/or made non-central, so to speak, by the speech being ascribed to just one mind subregion as in (37), or to one inner person, as in (17) again and in:

(38) *"Did part of you think, 'Yes, I'm flattered'? "*[32]

2.9 Relationships between the Metaphors

The above metaphors are not independent of each other, both in that there are some taxonomic relationships between them and in that some are often smoothly combined in the same sentence.

We have already noted that COGNIZING AS SEEING and COGNIZING AS SMELLING are special cases of COGNIZING AS PHYSICALLY SENSING, and that MIND AS PHYSICAL CONTAINER is a special case of MIND AS PHYSICAL SPACE. Also, IDEAS AS INTERNAL UTTERANCES and MIND PARTS AS PERSONS are special cases of MIND AS PHYSICAL SPACE. Internal utterances are "internal" to the agent's mind, and inner persons inhabit the agent's mind. Nevertheless, the particular locations of the utterances or inner persons are typically not salient or significant. Sentence (35) is an example where the location of an internal utterance is significant. Although MIND PARTS AS PERSONS examples rarely mention a specific location of an inner person, there is an implicit positional factor of great significance: the inner persons are often taken to be in verbal communication with each other, so that presumably they are assumed to be in relatively close physical proximity.

As for combinations of metaphors, we have already seen that IDEAS AS PHYSICAL OBJECTS and MIND AS PHYSICAL SPACE are often combined, as are MIND PARTS AS

[31] R. Barnard, *Little Victims,* U.K.: Corgi Books, 1993, p.129, with minor adaptations.

[32] Program presenter Sue Lawley to interviewee in Desert Island Discs program, Radio 4, England, 12 May 1995.

PERSONS and IDEAS AS INTERNAL UTTERANCES. This is extremely important, as it allows communication and other interaction between inner persons to take on the full complexity of real linguistic and social interaction. As one small illustration of the implications of this, consider (2) again. A person normally only insists that something, X, is the case when someone in the same conversation has objected to X. (This is a common-sense observation about social interaction.) Thus, in the example we can take it that some other inner person has probably objected to X. Thus, the agent is in a strongly conflicting state of mind.

One must be careful to note that most of the examples of combinations of MIND PARTS AS PERSONS and IDEAS AS INTERNAL UTTERANCES given above only cast the internal utterances as occurring *between* inner persons. Distinctly different is the combination in (38), where internal speech occurs *within* an inner person. The first type of combination is a "parallel" mixing of metaphors: two different metaphors are used to get at different aspects of an overall situation that are, so to speak, side by side: the division into inner persons, and their interaction. The second type of combination is "serial" mixing (or "chaining") in that a source-domain item of one metaphor (namely an inner person) is itself described metaphorically in terms of the other metaphor (IDEAS AS INTERNAL UTTERANCES).

Manifestations of MIND AS PHYSICAL SPACE are often enriched by COGNIZING AS SEEING. Some examples of this are:

(39) *"It seems to me in some dark recess of my mind that ... "*[33]

(40) *"All animation departed from her face, and it was as if those eyes turned inwards to contemplate the workings of her mind."*[34]

(41) *"Cheryl's name and a kind of vague picture of her had been in his mind."*[35]

(42) *"All these things flowed through U Po Kyin's mind swiftly and for the most part in pictures."*[36]

(43) *"His youthful prank of being a policeman had faded from his mind."*[37]

(44) *"Blotting out the whole business from his mind, he had avoided everything that might be associated with it."*[38]

[33] In lecture by John Locke (Harvard University) at Psychology Department, Sheffield University, England, 27 April 1995.

[34] Ruth Rendell, *ibid.,* p.162, with minor adaptations.

[35] Ruth Rendell, *ibid.,* p.55, with minor adaptations.

[36] From Orwell, *Burmese Days,* p.7, quoted by M. Jahn, 1992, "Contextualizing represented speech and thought," *J. Pragmatics, 17,* pp.347–367.

[37] G.K. Chesterton, *The Man Who Was Thursday: A Nightmare,* London: Penguin Books, 1986, p.66. In this example and the following two, the item apparently stated to be in someone's mind (the prank) is actually a non-mental object. However, we can take the reference to the prank to be a metonymic reference to some idea or image of the prank. Similarly for the "whole business" and the dog in the following two sentences.

[38] Ruth Rendell, *ibid.,* p.181.

(45) *"Now his mind had curiously blanked, emptied but for the presence in it of a small black Scottie dog."*[39]

From such examples it it is clear that the mental "space" need not just be a repository for ideas, but can also be a space within which visual perception is an important consideration. If something that is/was within the mind cannot (now) be seen, then it is not available to the agent's consciousness. Something which is seen is in the focus of consciousness. Something in a "dark" part of the mind might be visible, but only dimly, and is therefore not prominent to consciousness. Note how "dark" intensifies the effect of "recess" in (39). An idea that is cast as a large object is therefore that much more visible. A "flash" of insight is strongly present to consciousness because sudden and bright.

It is also plausible that inner "vision" is part of the reason why phrases like "back of the mind" and "front of the mind" mean what they do. Why should things in the back be less prominent than things in the front? One reason is no doubt that in many physical contexts, items in/at the front of something (an person's body, a car, a stage, a line of people) are more prominent or interactive in some sense.[40] And in some of these cases, at least — a stage, for instance — the extra prominence comes from higher visibility. So "front" and "back" may have general associations with higher and lower importance/prominence and often also with higher and lower visibility.

But there may be an additional visual effect that is more special to the PHYSICAL SPACE metaphor for mind. If we assume that a person often conceives of his or her "inner self" as a homunculus sitting within the space of the mind (Banks 1993), looking frontwards out into the world as well as looking at the contents of the mind, then mental things the self-homunculus can easily "see" are those towards the front, and things he/she/it cannot so easily see (or does not see without special effort) are towards the back. The suggestion of a *forwards*-looking homunculus also accounts for why the front-back axis of the mind is aligned with that of the head, as evidenced by "at back of X's mind" having a similar effect to "at the back of X's head." (But the front of the head is not used in mental metaphor examples, to my knowledge.)

We also get an interesting illumination of the import of the phrase "back of the mind." Sometimes this seems to indicate a lack of consciousness, whereas at other times it indicates only some fringe type of consciousness. Consideration of the seeing-homunculus suggests that what "back of the mind" conveys is that the thing is for most of the time not seen by the homunculus, but that the homunculus may nevertheless remember its existence and be able to turn round to see it. That is, "back of the mind" arguably conveys *potential and/or intermittent consciousness:* a low level of consciousness of the thing most of the time but the possibility of fuller consciousness of it when the agent is not concentrating on more salient things.

[39] Ruth Rendell, *ibid.,* p.250.
[40] This accords with the discussion of the notions of front and back in Allen (1995).

Finally, IDEAS AS EXTERNAL ENTITIES and MIND AS PHYSICAL SPACE are not altogether easy to distinguish. It is not clear whether the mind is always viewed as a part of the space within the head, or sometimes the other way round. It might seem natural for the mind-space to be viewed as being within the head. However, some people say that, especially when they close their eyes, the mind-space they are aware of is *larger* than the head. If this is allowed for, one could say that in the case both of MIND AS PHYSICAL SPACE, in some manifestations, and of IDEAS AS EXTERNAL ENTITIES, some part of the mind forms a space that is outside the person. The real distinction is that in IDEAS AS EXTERNAL ENTITIES the whole agent, body and all, is conceived of as being within the idea-populated external space, and no space within the person's head is taken into account, whereas in MIND AS PHYSICAL SPACE the space does not contain the person's body and at least overlaps the interior of the head. Another complication is that sometimes MIND AS PHYSICAL SPACE seems to involve a self-homunculus inside the mind-space. To the extent that this entity is person-like, it is then in much the position of a real person who is being thought of by means of IDEAS AS EXTERNAL ENTITIES.

2.10 Other Metaphors

The above example sentences and metaphors merely scratch the surface of the possibilities for metaphorical description of mental states, events, and processes. Not only can each metaphor be manifested in an indefinitely large variety of ways, using different extents and types of coloration from their source domains (PHYSICAL SPACE, UTTERANCES, etc.), but also there are other metaphors. For more examples and analysis of metaphors of mind, see for example Asch (1958), Belleza (1992), Casadei (1993), Cooke and Bartha (1992), Fesmire (1994), Gallup and Cameron (1992), Gentner and Grudin (1985), Gibbs and O'Brien (1990), Hoffman, Cochran & Nead (1990), Jäkel (1993), Johnson (1987), Katz *et al.* (1988), Lakoff (1993b), Lakoff, Espenson and Schwartz (1991), Larsen (1987), Leary (1990), Lehrer (1990), Pollio (1990), Richards (1989), Roediger (1980), Smith (1985), Sweetser (1987), (1990), Tomlinson (1986), and Weitzenfeld *et al.* (1992).

3 Relevance to Consciousness: Part A

The discussion of various metaphors in section 2 well illustrates the fact that manifestations of metaphors of mind often help to indicate or qualify the extent, type, or level of the agents' consciousness. Now, the metaphors we have been discussing are used by people who typically are not cognitive psychologists. Therefore, there is no a priori reason to think that a metaphorical description captures some scientific truth about the mind (or about consciousness in particular). For instance, there is no reason to think that mind "parts" correspond to modules in some scientific, information-processing account of the mind. However, different ways of metaphorically describing mental states point to different real types of mental state (including different types of consciousness), even though the metaphorical descriptions taken individually may not help much with the construction of scientific accounts of those types. To the extent that people have found the metaphorical descriptions useful in ordinary life it is worth considering what scientific reality about consciousness etc. could underlie them.

To take the mind-parts case again, it does make a difference to describe *one part of* Veronica as believing that the recipe was wrong, rather than just saying that Veronica believed it was wrong. In particular, different parts can have differing beliefs. Questions that then arise include:

- What scientific sense can be made of the notion that one part of someone believes something but another part lacks that belief, or even believes something inconsistent with it?
- In particular, what does this say about the nature of consciousness, when both parts are conscious?
- Is there, in ordinary, healthy people, a common state where either the whole mind or the conscious mind is well modeled as including components that are about as independent from each other as different people are? In other words, just how accurate or inaccurate is the MIND PARTS AS PERSONS account?
- If MIND PARTS AS PERSONS does reflect different mental components postulated by some scientific theory, do those components arise dynamically (so that the mind could have different components at different times) or do they exist over the long term? This question is obviously affected by whether the mind "parts" are special and long-lived, as in (18), or non-special and possibly short-lived, as in (17) and (19).
- Again, if the metaphor reflects different scientifically-postulated components of the mind, how well is communication between them modeled by natural language communication (as revealed for instance by the word "insisting" in sentence 2 or "whispering" in sentence 17)?

This last question is clearly similar to questions we could ask in connection with IDEAS AS INTERNAL UTTERANCES. For example:

- How well does IDEAS AS INTERNAL UTTERANCES reflect one mode of conscious thought? Are conscious thoughts in that mode really as well structured even as spoken language (let alone written language)?

For any given broad metaphor, such as MIND AS PHYSICAL SPACE, there is a wealth of possible manifestations that draw on different aspects of the "source" domain (PHYSICAL SPACE in this case). For instance, one can talk about ideas being "at the back" of a mind, "in the recesses" of the mind, "to one side," "hidden away," "buried" and so forth. Although these particular terms have a rough similarity of effect — they all suggest that the ideas in question are not playing a central, active role in the person's thoughts or behavior — we should at least entertain the possibility that they allude to importantly different mental states. For instance, perhaps things that are at the back of a mind are more liable to become central than ideas that are in the recesses. Thus, metaphorical language about the mind could reveal fine differences between mental states (including conscious or partly conscious ones) that would be crucial to account for in any good theory of consciousness.

Similarly, what reality underlies the difference between, say, "blotting [some idea] out" (a manifestation of COGNIZING AS SEEING) and "burying [some idea] in a corner of [some] mind"? Both stop the idea being consciously attended to. Or is it a mistake to think that either phrase means any more than "stopping [some idea] being consciously attended to permanently or for a long period"? Such questions can be multiplied indefinitely for each individual metaphor.

4 Relevance to Consciousness, B: Metaphorical Self-Description

Sentences (1) to (16) are all in the third person, but first person versions are also common. Thus, it is common to hear people say things like "Part of me wanted to stay at home", "I thought, 'Shall I stay at home?' " or "I'd pushed the idea to the back of my mind."[41] The claim I wish to pursue is that the first-person case may provide valuable insights or avenues of research into the nature of consciousness, over and above those I suggested in the third-person case.

First, the sheer fact that people use metaphors such as the ones above to think about their own mental states, including conscious ones, may tell us something about the nature of the mind's own capabilities for conscious self-inspection. If it is true that the typical person X generally uses a metaphor of A as B because X has more effective or richer understanding of B than of A, then, when A is X's own mind and B is, say, PHYSICAL SPACE, we are confronted with the possibility that X is more at home with thinking about PHYSICAL SPACE than about thinking directly about his own mind without metaphorical intervention. This is an interesting proposition in view of the high degree of intimacy people might a priori be thought to have with their own minds.

Secondly, the particular metaphors of mind used for self-description may give us insight into the detailed nature of the self-inspection capability. What is it about this self-inspection capability that leads someone to cast her mental state in terms of mind "parts," or vision, or "recesses"? Possible inaccuracies in the metaphors that rest on such notions may be especially revealing here. Suppose the mind in reality is *not* very accurately describable as having (temporarily) a number of "parts" that are about as independent of each other as real people are. (Recall the list of questions at the start of section 3.) Then the use of MIND PARTS AS PERSONS in self-description could betray a limitation in the self-inspection process: perhaps the metaphor is the closest that the self-inspection capability is able to get to the realities.

Notice the difference between the point being made here and one made above. Above, I claimed in effect that metaphors of mind may be *accurate* enough as tools for third-person

[41] It is plausible that the third-person use of metaphors of mind is parasitic on their first-person use. A number of psychologists have favored the notion that we ascribe mental states to others by analogy to our own mental states: see, e.g., Beckwith (1991) and Frye (1991). However, the truth of this claim is not essential for the present paper, though certainly friendly to it.

mental description for them to provide useful pointers towards the nature of the mind. The point I am now making is that scientific investigations aimed at exposing *inaccuracies* of first-person uses of the metaphors may provide insight. Of course, the third-person point does carry over to the first-person case as well, so that accuracies in first-person metaphorical descriptions could still reveal things, or guide research, about the mind.

A complicating factor is whether the self-inspection we have been discussing is conscious. When someone says something about himself verbally, using a metaphor, it is a good guess that he is thinking about himself *consciously* in terms of that metaphor. But there could be unconscious usage of the same metaphor during unconscious self-inspection episodes (that are not allied to the making of verbal statements).[42] Now, the descriptive tools available to unconscious thought may be different to those available to conscious thought. Therefore, any evidence about self-inspection capabilities to be drawn from verbal self-description by people is of less clear relevance to unconscious self-inspection than to conscious self-inspection.

In the previous section we commented on such things as the difference between something being in the back of a mind and being in the recesses, or between blotting an idea out and burying it in a corner. We queried whether there is any real difference within these contrasts or whether instead we just have alternative modes of expression for the same state of affairs. Now consider what happens in the first-person case. If an agent thinks in terms of, say, COGNIZING AS SEEING and MIND AS PHYSICAL SPACE to *think* consciously about his own mind, rather than just to describe it to other agents, then there is a case for saying that those metaphors are partially constitutive of his consciousness at that time. Therefore, if at one moment the agent perceives himself as being unable to see something in his mind clearly because it is obscured by something else, and at another as being unable to see something in his mind clearly because it is in a dark corner, then that sheer fact creates a difference between his states of mind at those two moments. To put the point more strongly, to the extent that visual images are analogous to ordinary visual perceptions, subtle differences between different conditions of ordinary vision can have analogues in imagery. Equally, to the extent that internal speech is similar to external speech, subtle differences between external utterances can have analogues in internal speech.[43]

5 The Phenomenal Quality of Consciousness

I now turn to an issue that gets closer to the central problem of consciousness, namely the *feel* or *phenomenal quality* of being conscious. This feel may include ordinary perceptual qualia, but, more importantly for this section, can include the phenomenal quality of the "perception"

[42] By unconscious self-inspection I mean merely a situation in which an agent X has unconscious cognitive states/episodes (thoughts, reasonings, etc.) concerning the mind of X or the mental states/processes of X. This does not necessarily involve cognitions about the conscious "self" of X. However, it might do so; there would be no contradiction, any more than there is in supposing that a person (or computer program) X could unconsciously think about the conscious self of some *different* person Y.

[43] Of course, anything spoken out-loud can also be inwardly imagined or rehearsed. This is not the type of internal speech I wish to allude to. I am focusing on internal speech that arises as a natural part of thinking about some issue.

of one's own mental state.[44] I contrast the matter of the feeling of consciousness to other aspects of consciousness — such as the sheer self-inspection quality of consciousness — as does Goldman (1993). After all, many artificial intelligence computer programs that are presumably not conscious have self-inspection aspects. See, e.g., Lenat (1983). There is no mystery to self-inspection in itself.

Now, it is reasonable to suppose that

(a) The IDEAS AS INTERNAL UTTERANCES metaphor is commonly used in mental-state description because conscious thinking often *feels* like making and/or hearing natural language utterances.

I contrast this proposition with the proposition that

(b) people use that metaphor because they have worked out or learned about a structural analogy between conscious thinking and utterance-making/hearing.

By a structural analogy I mean a bundle of correspondences between the parts/aspects of one subject-matter and the parts/aspects of another. (This is the main type of analogy studied in artificial intelligence and cognitive psychology: see Hall 1989 and Vosniadou & Ortony 1989.) Propositions (a) and (b) are not inconsistent with each other: conscious thinking could both feel largely like utterance-making/hearing *and* bear a structural analogy to it. But, if there is any truth to (a) then it is an important aspect of the *feel* that consciousness has.

Claim (a) can be broadened to a conjecture about metaphors other than IDEAS AS INTERNAL UTTERANCES. For instance, perhaps we are prone to using MIND PARTS AS PERSONS in self-description because the mental state thereby described *feels* somewhat like having several inner persons (or at least sub-minds akin to whole minds) inside oneself. Equally, perhaps when one talks of the "side," "back," recesses," etc. of one's mind one really *feels* (or internally *sees*) that one's mind is a physical region and that the ideas in question are at a particular position within it. Perhaps one *feels* that ideas are physically interacting when one is drawing conclusions from them. Analogous statements could be made about other metaphors of mind, and possibly about all of them, though we do not need to claim universality here. Vision-based metaphors are a clear case, because thinking that is based on visual imagery feels much like seeing. These points are related to observations in Asch (1958), amounting to a claim that metaphorical talk about psychological states or attributes is partly grounded in feelings.[45]

Relatedly, there is a case for saying that the use of sentences like

(47) *"Experts feel that the economy is slowing down"*

[44] Nelkin (1989) may be right in saying that neither believing nor introspection of believing *essentially* involves any feeling. But that does not mean they cannot do so.

[45] Of course, it is conceivable that a person's use of some particular metaphor of mind arises solely from immersion in a language community that uses that metaphor; moreover, the person's learned usage might conceivably then *lead* to him or her having corresponding feelings.

hints at our recognition of thought as having a *feeling* for us, not just being a (somewhat-)logical structure or process. The type of feeling here would presumably be more akin to emotional feeling than ordinary physical sensation such as sight, smell, indigestion, or physical pain. However, the line is difficult to draw, and we also need to account for sentences such as

(48) *"Experts feel in their guts that the economy is slowing down."*

The exact way metaphor is involved in sentences such as (47) and (48) is unclear. If thought literally includes feelings of one sort or another, then (47) is arguably literal and (48) manifests an EMOTIONAL FEELING AS PHYSICAL SENSATION metaphor (and, consequently, the COGNIZING AS PHYSICAL SENSATION metaphor as well).

In addition, Goldman (1993) discusses the possibility of different mental states (believing, hoping, etc.) having a different feeling from each other. It is surely reasonable to say that this is part of the common-sense view of mental states. This could be true even if Nelkin (1994) is right in repudiating difference of feel as an *essential* difference between mental states.

The conjectures in this section are friendly to Johnson's (1987, 1991) claim that we understand abstract matters, including mental states and processes, through metaphorical projection from bodily experience. However, his account appears to rest on structural analogy as in (b) above rather than on direct feeling as in (a).

6 Conclusion

The purpose of this article has been to advocate the detailed study of metaphors of mind in the study of consciousness (and indeed mind in general). Such metaphors are used by us within our minds when we think about minds (including our own), and so are part of the object of study. Apart from this, any loose scientific accuracy in the metaphors is worth uncovering, and the undoubted inaccuracies they involve present an interesting research issue in themselves. Additionally, metaphors of mind can give us clues to the nature of the phenomenal quality of consciousness. This does not solve the problem of consciousness – the problem of why and how there are any feelings in the universe at all — but at least it leads us into the right ballpark of discussion.

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