

Meanings just ain't in the head

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What makes my image of him into an image of *him*?
Wittgenstein (1953), p. 177

1. Introduction

The descriptive paradigm for theories of reference ruled unchallenged for decades. According to this paradigm, the reference of a term is determined by the descriptions that competent speakers associate with it. Around the end of the 1960s, a radical challenge was mounted, most notably by Saul Kripke and Hilary Putnam. The challenge saw description theories of reference for proper names and natural-kind terms as wrong not merely in details but in fundamentals. It proposed an alternative: the causal paradigm. According to this paradigm, the reference of a term is determined by an appropriate causal chain. With characteristic flair, Putnam coined what might be regarded as the slogan of this challenge: "Meanings just ain't in the head."

Like all new paradigms, the causal paradigm was particularly vulnerable to criticism in its early days. And like all new paradigms it received plenty. Despite this, the causal paradigm slowly but surely gained ground. The re-establishment of the old order clearly called for a more sustained response.

Gareth Evans gave one such response in *The Varieties of Reference* (1982). He makes a significant concession to the causal paradigm: an appropriate causal link to an object is *necessary* for singular reference

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in many cases. He would accept Putnam's slogan. However, Evans thinks that the causal link is never *sufficient*. He attempts to restate a central tenet of the descriptive paradigm: To think "about an object, one must *know which* object is in question" (p. 65); one must have "*discriminating knowledge*" of the object (p. 89).

Evans hopes for the best of both worlds. John Searle has no interest in such ecumenicalism. His aim in *Intentionality* (1983) is to take us back to the old world. He rejects Putnam's slogan: Meanings *are* in the head. He is dismissive, even contemptuous, of causal theories of reference.

I have criticized Evans's response at length elsewhere (1985). In this essay, I shall criticize Searle's response.

Searle has become well known for his attack on contemporary cognitive science, an attack he launched with his ingenious Chinese-room fantasy (1980a and b; 1981; 1984). We shall see that his rejection of Putnam's slogan is central to that attack.

2. Putnam's slogan

Putnam's slogan concludes a discussion of three now-famous examples in "The Meaning of 'Meaning'" (in Putnam 1975).¹ He is concerned with two assumptions of traditional semantics:

- (I) That knowing the meaning of a term is just a matter of being in a certain psychological state
- (II) That the meaning of a term (in the sense of 'intension') determines its extension (in the sense that sameness of intension entails sameness of extension). (p. 219)

(The extension of a term is, of course, its reference.) Putnam aims to show that "these two assumptions are not jointly satisfied by *any* notion, let alone any notion of meaning" (p. 219).

He establishes first that if the meaning of a term determines its extension then so also must *knowing* its meaning (pp. 221–2). So it follows from assumptions (I) and (II) that a psychological state determines the extension. Putnam's three examples are to show that psychological states do not determine extension.

The first example is about the meaning of 'water' on Earth and Twin Earth (pp. 223–5); the second is about the meaning of 'aluminum' and 'molybdenum' on Earth and Twin Earth (pp. 225–6); the third is about Putnam's use of 'elm' and 'beech' (pp. 226–7). We need only discuss the first. It is so well known that I shall be brief.

We are to consider the use of the word 'water' by Oscar on Earth and by Twin Oscar on Twin Earth in 1750, before the chemical composition of water was known. Twin Earth is exactly like Earth except that the liquid on it with all the superficial properties of water is not H₂O but XYZ. Twin Oscar is an exact duplicate of Oscar. Putnam claims that when Oscar uses 'water' he refers to H₂O, that is, to real water, but when Twin Oscar uses 'water' he refers to XYZ, that is, to what we might call 'Twin water'. Yet Oscar and Twin Oscar are in the same psychological state, for they are duplicates. So their psychological states do not determine the extension of 'water'.

Crucial to understanding this claim is Putnam's stipulation that the psychological states in question are "narrow": that is, they are states according with the assumption of "methodological solipsism." Such a state does not presuppose "the existence of any individual other than the subject to whom that state is ascribed" (p. 220). The idea is that narrow psychological states are entirely supervenient on the intrinsic inner states of the individual; the individual does not have the states in virtue of its relation to anything else, in particular, not in virtue of its relation to environmental causes or effects of the states. Putnam rightly thinks that methodological solipsism is an assumption of the tradition he is criticizing.

The importance of this stipulation to Putnam's claim is clear. It is easy to find "wide" psychological states that can plausibly be thought to determine extension. For example, Oscar's intention in using 'water' is to refer to water, whereas Twin Oscar's is to refer to Twin water. These intentions differ in having different intentional objects. It is plausible to think that such intentions do determine extension. However, they are wide psychological states. Indeed, Putnam is arguing not only that narrow psychological states do not determine extension, but also that they do not determine the intentional objects of thought. Oscar and Twin Oscar have identical narrow states and those states do not determine either intentional object or extension.

Putnam concludes his discussion of the three examples: "Cut the pie any way you like, 'meanings' just ain't in the head!" (p. 227).

3. Consequences of the slogan

All the terms treated by Putnam in this discussion are natural-kind terms. However, the discussion has general implications that Putnam brought out in a later book, *Reason, Truth and History* (1981).² He raises there the Wittgensteinian questions: "How on earth can one thing represent (or 'stand for', etc.) a different thing?" "How can

thought reach out and 'grasp' what is external?" (p. 2). Putnam emphasizes, with the help of a vivid discussion of brains in vats (pp. 5-17), that "thought words and mental pictures do not *intrinsically* represent what they are about" (p. 5). If you were a brain in a vat, you could not think that you were, for to think that you were you need to be causally linked to brains and vats in a way that a brain in a vat is not. Even if the words, "I am a brain in a vat," were to run through your mind, they would not mean *I am a brain in a vat*.³ To suppose otherwise is to suppose that the brain's system of representation has "an *intrinsic*, built-in, magical connection with what it represents" (p. 5); it is to believe in "magical theories of reference" (p. 3). There is nothing in my head that makes my image of him into an image of *him*.

Putnam's discussion helps to bring out something that I am fond of emphasizing:⁴ the essential incompleteness of description theories of reference. A description theory explains the referential properties of one category of term by appeal to those of other categories. This cannot be the whole story. To complete the story, we need an explanation of the referential properties of those other categories. Perhaps description theories can be used again. But this process cannot go on forever: There must be some basic terms whose referential properties are not parasitic on others. Otherwise, language as a whole is cut loose from the world. The ultimate explanation of reference cannot be by a description theory.

Consider an example. A description theory might explain the reference of the natural-kind term 'tiger' by appeal to its association with the description 'large carnivorous quadrupedal feline, tawny yellow in color with blackish transverse stripes and white belly'. Suppose that the theory is right. How does it explain the reference of 'tiger'? The answer is that 'tiger' refers to tigers because the associated description refers to them. But then in virtue of what does that description refer to tigers? Its reference cannot be taken for granted. To explain that reference we need a theory for each of the description's contained terms. Perhaps a description theory will work for one of them. It will rest on another description whose reference cannot be taken for granted. So more theories of reference will be required. In the end, we must look for something other than a description theory, because *description theories simply pass the referential buck*. The buck must stop somewhere with a different sort of theory.

One should not need Putnam's discussion to see that description theories are incomplete. However, that discussion does drive the point home dramatically. The explanatory power of description theories comes from their appeal to the associations of one term with another, for

example, the association of 'tiger' with the above description. These associations are entirely in the heads of speakers and so *could not* be complete explanations of reference. Description theories are not only incomplete, they are looking in the wrong place for the ultimate explanation of reference. For that explanation we must look also to what is outside the head.

What sort of relation between a speaker and the external world *could* determine reference? From a naturalistic viewpoint, there is only one possibility: a causal relation. We have a "transcendental argument" for the causal paradigm!

The idea that psychological states do not determine reference, like many of the best ideas, seems obvious once it is pointed out. *How could* something inside the head determine reference, which is a relation to particular things outside the head? Nothing internal and intrinsic to an object could ever determine such a relation. Consider some examples. (1) Yvonne is playing netball and receives a pass from Raelene. In virtue of what was the pass reception from Raelene in particular? Nothing internal to Yvonne determined that property. It was in virtue of what Raelene did to the ball that Yvonne caught. (2) Norm is Bruce's son. In virtue of what? Nothing internal to Norm determines that he is the son of Bruce in particular. It is because of what Bruce did to Dawn many years ago that Norm has that property. To suppose that these relational properties of Yvonne and Norm are internal is to have magical theories of passing and fathering. Similarly, to suppose that one's thoughts can reach out to particular objects outside the mind is to have magical theories of reference and intentionality.

Putnam does not offer this general argument that meanings cannot be in the head, but it is in the spirit of *Reason, Truth and History*. It turns out to have interesting problems, as do also Twin Earth arguments. (See Section 7 of this essay.)

I have been emphasizing the consequences of Putnam's slogan. It is important to notice some things that are *not* consequences.

First, it is not a consequence that *no* aspect of meaning is in the head. The point of the slogan is simply to deny that meanings are *entirely* in the head. In my view, the meaning of a term is likely to involve many psychological states; so the brain in the vat can have a rich set of proto-thoughts (1989a). The slogan emphasizes that extra-cranial links to reality are also necessary for meaning.

Second, the slogan does not commit one to a theory of "direct reference". The direct-reference theory of names is the view that there is no more meaning or content to a name than its referent. Searle finds the view incomprehensible (1983, p. 220). I sympathize. Yet this curious

view has been associated with the causal paradigm by friend and foe alike.⁵ My attempts in several publications to break this association seem to have failed.⁶ The slogan is quite compatible with the idea that a term has a sense that determines the term's reference. What the slogan denies is that any such sense can be explained solely in terms of what is in the head.

Third, it is not a consequence that any particular description theory of reference is false. One could even adopt the slogan while holding to a description theory of natural-kind terms. Although the Twin Earth discussion shows that this would be a mistake, in my view, it certainly does not show that some other terms are not dependent on associated descriptions for reference; 'pediatrician' is a likely candidate for one that is so dependent.⁷ This buck passing does not matter provided the referential buck finally stops with some terms that are explained by a causal theory.

Fourth, accepting the slogan does not involve acceptance of any currently available causal theory of reference. Indeed, all available theories, including my own, seem to me to have severe problems (Devitt and Sterelny 1987, pp. 63–5, 72–9). But these problems are no excuse for giving up the causal paradigm and resorting to magic.

I shall argue that Searle does resort to magic.

4. Searle's response

Chapter 8 of *Intentionality* (1983) is titled, "Are Meanings in the Head?" Searle's answer is an emphatic "Yes."

Searle starts by emphasizing that the question of the relation of language to reality – reference – reduces to the question of the relation of mind to reality – intentionality (1983, p. 197).⁸ He offers an account that is "internalist" in that it is in virtue of "some mental state in the head" (p. 198) that the Intentional, and hence the referential, relation holds: "The internal operations of the brain are causally sufficient for the phenomena"; "if I were a brain in a vat I could have exactly the same mental states I have now" (1980b, p. 452).

Searle describes the view that he rejects as follows:

The speaker's internal Intentional content is insufficient to determine what he is referring to, either in his thoughts or in his utterances. ... we need to introduce (for some? for all? cases) external contextual, non-conceptual, causal relations between the utterances of expressions and the features of the world that the utterance is about. (1983, p. 199)

Searle has described, with characteristic clarity, the view of Putnam that I have been outlining and defending. (The answer to Searle's parenthetical

ical question is that *all* words require external causal relations, either directly, or indirectly via the words they depend on for their reference.)

Searle discusses various reasons that he thinks have led people to reject the internalist view. I shall consider only his discussion of the reasons I have drawn from Putnam. And I shall consider only what I take to be essential to Searle's response.

One way that Putnam draws the moral of his Twin Earth example is as follows: "Words like 'water' have an unnoticed indexical component" (1975, p. 234). We can capture this aspect of Putnam's theory of meaning in the following ostensive definition:

'Water' refers to *x* if and only if *x* is the same (liquid) as *this* (pointing to water).

So what 'water' refers to as the result of a definition of this sort depends on what the indexical 'this' refers to (pp. 229–34). Searle points out, quite rightly, that the definition substitutes an indexical Intentional content for "the traditional cluster-of-concepts Intentional content" (1983, p. 204). So Putnam's definition will support his slogan only if indexical contents are not in the head.

Searle thinks that indexical contents are in the head. There is something intrinsic and internal to the mental state of someone using the definition that "sets certain conditions which any potential sample has to meet if it is to be part of the extension of 'water'" (p. 206). Searle calls such conditions, "conditions of satisfaction."

Putnam would deny that an indexical Intentional content is internal, as Searle notes (p. 205). Indeed, Putnam thinks that indexicals provide "trivial" counterexamples to the idea that what goes on inside our heads determines meaning and reference (1981, p. 22). Suppose that Oscar and Twin Oscar are in the identical narrow mental state of having the above ostensive definition running through their minds. According to Putnam, their states will nevertheless have different Intentional contents. That difference is explained by things external to the mind: the fact that Oscar's indexical arose from causal interaction with water, whereas Twin Oscar's arose from causal interaction with Twin water. Using Searle's terminology, Putnam's view is that the states have different conditions of satisfaction, and different Intentional contents, determined by external causal relations.

Putnam's mistake, Searle claims, is to assume that because narrow mental states are the same, they cannot determine different conditions of satisfaction and different Intentional contents (pp. 206–7). Searle (1983) thinks that there is something in the head that determines a state's content, even an indexical content. Furthermore he thinks that Oscar and Twin Oscar, having identical mental states, visual experi-

ences, and other experiences, in using the definition, nevertheless have different Intentional contents, and those contents are internal and intrinsic to the mental states (p. 22).

This is *prima facie* mysterious. If the states are internally the same how can they have different internal contents? How can narrow states determine Intentional content? Searle's answer draws heavily on his account of perception in Chapter 2 of *Intentionality*. For, the Intentional content of the indexical 'this,' hence the Intentional content of the ostensive definition, includes the Intentional content of the visual experience that accompanies the definition. So we must consider Searle's account of visual experience.

Searle believes that a visual experience has an intrinsic Intentional content. "Internal to each phenomenon is an Intentional content that determines its conditions of satisfaction" (p. 40). Indeed "the phenomenal properties" of the experience determine its conditions of satisfaction (p. 61). This makes vivid the sense in which the Intentional content is, for Searle, intrinsic and internal to the experience: It is phenomenological, just as the feeling of a sensation is phenomenological.

The content of an experience is always propositional for Searle. "Visual experience is never simply of an object but rather it must always be *that* such and such is the case" (p. 40). So the content must be expressed by a sentence. Searle's favorite example is seeing a yellow station wagon. Its content is given by:

There is a yellow station wagon there and that there is a yellow station wagon there is causing the visual experience. (p. 48)

A crucial feature of this, both for his account of visual experience and for his view that meanings are in the head, is that the content is "self-referential":

The Intentional content of the visual experience requires as part of the conditions of satisfaction that the visual experience be caused by the rest of its conditions of satisfaction, that is, by the state of affairs perceived. (p. 48)

The experience "figures in its own conditions of satisfaction" (p. 49).

So, according to Searle, the visual experience has an Intentional content – a way the world seems phenomenologically – that specifies as a condition of satisfaction that a certain worldly condition caused that very experience. The experience is veridical if there is such a worldly condition that did cause the experience; otherwise, it is illusory. And a particular yellow station wagon is the object of experience if it did, as a matter of fact, cause the experience. Something internal to the experience determines that the car is its Intentional object.

Both Searle and Putnam think that the car's role in causing the experience is important to its being the Intentional object, but they make it important in very different ways. For Putnam the causal role is important because it determines that the car is the Intentional object, thus determining the Intentional content. (The determination may be only partial if previous sightings of the car play a role in determining the content. I shall ignore this complication.) It is "essential" to Searle's account that the causal role have a different importance: The role is represented in the Intentional content (p. 48). The content specifies that the object playing that causal role is the Intentional object, thus determining that the car that in fact played that role is the Intentional object. Briefly, Putnam thinks that the car determines the Intentional content; Searle thinks that the Intentional content determines that the car is the Intentional object. More briefly still:

Putnam: Object determines content.
Searle: Content determines object.

Putnam and Searle have things the opposite way round.

The distinction between the two views is a little difficult, just as the use/mention distinction in the philosophy of language is. Where Searle thinks that the Intentional content's "mention" of the causal role of the object is determining, Putnam thinks the causal role itself is determining. The distinction is vital because though it may be possible to think that the mention of the causal role of the object is in the head, it should be impossible to think that the causal role itself is.

The distinction needs to be kept firmly in mind in reading Searle because he often writes in ways that blur it. Thus he talks of the presence and features of the object that causes the visual experience "enter[ing] into the Intentional content" (p. 48); he says that "the relationship of causation is part of the content" (p. 124; see also pp. 66, 241); and that various "contextual elements" that Putnam would regard as having a role in determining reference "are part of the Intentional content" (p. 212). Now what are actually parts of the content, according to Searle, are not objects, causation, and contextual elements themselves, but *representations* of them. According to the Putnam view it is the objects, causation, and contextual elements that play the determining role, not the representations of them in Intentional content.

Searle immediately draws a consequence from his discussion of visual experience that is the basis for his later rejection of Putnam's slogan.

Two 'phenomenologically' identical experiences can have different contents because each experience is self-referential. Thus, for example, suppose two

identical twins have type-identical visual experiences while looking at two different but type-identical station wagons at the same time in type-identical lighting conditions and surrounding contexts. Still, the conditions of satisfaction can be different. Twin number one requires a station wagon causing his visual experience and twin number two requires a station wagon causing his numerically different visual experience. Same phenomenology; different contents and therefore different conditions of satisfaction. (p. 50)

We can now return to the ostensive definition of 'water'. A visual experience accompanies that definition; in particular it accompanies the use of the indexical 'this'. A straightforward application of the above account yields the following statement of the content of that experience:

There is some stuff there and that there is some stuff there is causing this visual experience.

This content is contained in the Intentional content of the whole definition (pp. 207, 225-7). It is because it is so contained that the identical mental states of Oscar and Twin Oscar can have different internal Intentional contents. Oscar's Intentional content specifies the cause of his experience; Twin Oscar specifies the cause of his numerically different experience. And because of this difference in content, the states have different Intentional objects: The object of Oscar's is water because water caused his experience; the object of Twin Oscar's is Twin water because Twin water caused his experience.

This concludes my account of Searle's response to Putnam's slogan. In the next section, I shall consider the bearing of that response on two controversies involving Searle. In the following sections I shall criticize Searle's response.

5. Applications: proper names; cognitive science

Proper names

Putnam's slogan is linked to causal theories of reference and the critique of description theories, as I noted in Section 1. Searle was one of the founders of the modern description, or "cluster," theory of names in his classic paper, "Proper Names" (1959). Saul Kripke (1972) and Keith Donnellan (1972) subjected this theory to severe criticisms and suggested the causal alternative. Searle is not impressed. He devotes a chapter of *Intentionality* (1983, Chapter 9) to telling us why.

Searle has a number of objections to the causal theory, but the fundamental one arises from the following view of the issue:

Do proper names refer by setting *internal* conditions of satisfaction... or do proper names refer in virtue of some *external* causal relation? (p. 233)

From this perspective, Searle argues that *even where causal theorists are otherwise right* about names,⁹ they are wrong in claiming that they have shown description theories to be false. Indeed, what causal theorists are really offering, despite their misleading claims to the contrary, is another version of the description theory. They are offering an internalist view, not a view that makes reference depend on external causal relations.

Searle's line of argument rests entirely on his case against Putnam's slogan. Thus, Searle points out that the causal account of the ostensive introduction of a name makes reference depend on the Intentional content of perception (pp. 234, 240-1). This, we have noted, he thinks to be internal. He has a similar response to the causal theory of how people get their reference with a name from others in communication situations (the theory of "reference borrowing," pp. 244-6), and to some well-known objections to the description theory (pp. 250-5).

In brief, the center of Searle's argument against causal theories of names rests on the case, outlined in the last section, for meanings being in the head.

Cognitive science

Using his famous Chinese-room fantasy, Searle has caused a stir by dismissing contemporary cognitive science in general and the computational theory of the mind in particular (1980a; b). His claim is not just the relatively plausible one that no computer program has come close to capturing Intentionality yet. He claims that it is *impossible* for a program to capture it; the project of finding the right program is "doomed from the start" (1984, p. 39).

His initial case (1980a) can be put briefly: Programs are purely formal and syntactic, whereas Intentional states have content and semantics. This is a good point, but it only counts against a rather naive cognitivism, as the peer commentary on Searle's case showed. Sophisticated cognitivists would claim that the computer running the program has to be linked up to the world before it can have Intentionality; the semantics Searle demands comes from that linkup.¹⁰ Searle, however, rejects even this more sophisticated cognitivism (1980b, pp. 452-4; 1984,

pp. 34–5). The basis of Searle's rejection comes down to his argument for meanings being in the head. That argument is the core of his case against anything but rather naive cognitivism.

We must now return to the main issue: Putnam's slogan.

6. Searle's magic

The lines are drawn. What Putnam thinks trivially true, and I think obviously true, Searle thinks false. My main aim is to argue that Searle's view of meaning, reference, and Intentionality is magical. That will be the concern of this section and the next. It seems to me relatively easy to argue, but I have another aim that is more difficult: to bring out the dualistic and vitalistic elements in Searle's thinking. These elements underlie his rejection of Putnam, causal theories of names, and cognitive science. They will be the concern of Section 8, but I will begin this one with some brief words foreshadowing the later discussion.

The dualistic element is to be found in Searle's attitude to the Wittgensteinian question: In virtue of what does a mental state have its particular Intentional content, a content that specifies certain conditions of satisfaction? To dismiss this question is to take it as simply a brute fact of the world that the mental state does have that content. This as a sort of dualism. It need not be a dualism about entities, but it must be at least a dualism about properties – "Dual Aspect" theory. It supposes that a mental state's property of having a certain content cannot be explained in more basic physical terms. Searle does *not quite* dismiss the question, and so he is not straightforwardly dualist. However, he comes close to dismissing it, and his only response to it is an unsatisfactory appeal to biology, an appeal that amounts to a sort of vitalism.

The magic is to be found in his view that the property of having a certain content is internal and intrinsic to the mind. Intentional content is not only inexplicable, it is in the head.

Dualism and vitalism may be magic enough for most people. However, it is important to see that Searle's rejection of Putnam's slogan requires a higher level of magic. Consider orgasms. Some "qualia freaks" will insist that orgasms have phenomenological properties that cannot be explained physically. That's dualism. But the qualia freak is not committed, as Searle is, to a mental state having intrinsic properties that reach out and grasp things that are outside the head. That's real magic.

We have seen that the disagreement between Putnam and Searle comes down to one over the Intentional content of visual experience.

According to Searle, the content of Oscar's visual experience specifies that water is the Intentional object. The content specifies this because it is given by

There is some stuff there and that there is some stuff there is causing this visual experience;

and water is the stuff causing the experience. So, it is because of that content that Oscar's brain reaches out and grasps water.

According to Searle we *give* the Intentional content of a visual experience with a sentence, but what *is* the content? The simple answer would be that it actually is a sentence. Various remarks of Searle's (1983, pp. 12, 40, 49) suggest that this would not be his answer. Nevertheless, it will help our discussion to start by supposing that it is his answer.

On this supposition, as Oscar has his visual experience, a whole lot of words are running through his brain. Now *if we assume* that each bit of this brain writing has the appropriate meaning and hence reference, we can see how the brain reaches out and grasps water. Part of the content of Oscar's experience is a brain word meaning the same as the English word 'stuff' and hence referring to stuff; another part, a word meaning the same as 'cause' and hence referring to causation; and a third part, words meaning the same as 'this visual experience' and hence referring to the visual experience itself. Because of these referential properties, and others, and the way the brain words are put together into a sentence, the sentence picks out water as the Intentional object.

The problem with this explanation lies, of course, in its assumption. By virtue of what do brain words mean *stuff*, *causation*, and *this visual experience*, and hence have the appropriate referential properties? Searle gives no answer. For him these properties of brain words are simply brute facts. Let us waive the problem of how some brain words manage to refer to the visual experience. The experience is in the brain and so this referential relation is at least internal to the brain. In virtue of what does one brain word refer to stuff and another to causality, instances of which are mostly external to the brain? How can something inside the head refer to something outside the head? Searle sees no problem: It just does. That's the real magic.

Consider the brain word that refers to stuff. What relates that bit of the brain referentially to stuff rather than to electricity, kangaroos, Mars, or indeed, to causation or nothing at all? No phenomenological property of the brain can do that. For there can be nothing intrinsic to Oscar's body, hence nothing intrinsic to his brain, that determines this referential relation to something external, anymore than there can be

something intrinsic to Yvonne's body that determines her pass-reception relation to Raelene; or than there can be something intrinsic to Norm's body that determines his filial relation to Bruce. The relational properties of something are not internal to it.

I have relied here on my general argument about relational properties: Nothing inside an object is alone sufficient to determine its relation to something outside it. Can we produce also a Twin Earth argument? It is difficult to do so because it is difficult to say what Twin stuff and Twin causation might be. However, here is an attempt with Twin causation.

Suppose, as Searle does, that causation is a non-Humean relation. When Oscar thinks 'cause' here on Earth, he refers to that relation. When Twin Oscar thinks 'cause' on Twin Earth he appears to refer to a relation with all the superficial characteristics of causation. However, on closer inspection it turns out that Twin causation is different from causation: It is Humean; there is nothing more to it than constant conjunction. So although Oscar and Twin Oscar are in the same narrow psychological state in having their visual experiences, their brain word 'cause' has different referents.¹¹ Nothing in the head is sufficient to determine the reference of 'cause'.¹²

The magic reappears in Searle's account of *Intentional causation*. This is his name for the causal relation that features in explanations "having to do with human mental, states, experiences, and actions" (1983, pp. 117-19). So the relation between Oscar's visual experience and certain stuff is one of Intentional causation.

In cases of Intentional causation, the cause and effect are "logically related... regardless of how they are described" (p. 121; my emphasis). The idea of such logical relations in nature is rather shocking. Searle believes in them because in every case of Intentional causation "there is an Intentional content that is causally related to its conditions of satisfaction" (p. 121). He notes that this "cuts across the distinction between the Intentional content and the natural world" (p. 74). Consider the case of Oscar's visual experience. This experience is causally related to certain stuff. Searle thinks there is also a logical relation between the experience and the stuff because the experience, however described, has an Intentional content that specifies conditions of satisfaction requiring that the stuff, however described, caused that very experience. So the shocking logical relation arises because of the magical power of a mental state to reach out to its own cause.

Searle thinks that part of what has prevented philosophers seeing Intentionality his way is that they have a Humean theory of causation (p. 65). My criticism does not rest on a Humean theory nor indeed on

any theory. I can go along with much of Searle's interesting discussion of causation. In particular, I am not committed to denying that "every experience of perceiving or acting is precisely an experience of causation" (pp. 123-4). The part of Searle's view that I do deny is that there is something intrinsic to an experience that makes it represent causation; that it is in virtue of satisfying the internal content of the experience that the causal relation is the particular one referred to.¹³

I have been supposing that not only do we give the Intentional content of an experience with a sentence but that it is a sentence. However, the evidence suggests that Searle may not suppose this, as I have indicated. The essence of the supposition is that the content is a complex representation: It has parts that have content, and these parts are arranged in a syntactic structure to yield the whole content. This supposition strikes me as the most plausible way to take Searle's notion of content. It has the consequence, for example, that the representation accompanying a person's visual experience when seeing a yellow station wagon has a part in common with that accompanying his experience when seeing a yellow submarine: a representation of yellow. It also has a part that differs: a representation of a station wagon.

Note that it is not essential to the supposition that we call the parts of the representation 'words' nor that we call the reference-determining properties of the parts 'meanings'. Searle objects to applying the term 'meaning' to Intentional states (p. 28), but I take that to be simply a verbal point.

Dropping the supposition is certainly a possibility. There are many examples of simple representations with complex contents, for example, a naval flag that means *there is yellow fever on this ship*. But dropping the supposition is no help to Searle. His account requires that there be something in Oscar's brain during his visual experience that is a representation with the content *there is some stuff there and that there is some stuff there is causing this visual experience*; and because of this content the representation specifies a whole state of affairs including water. My supposition has the small advantage of reducing the problem of explaining the content of this representation to that of explaining the contents of its parts. Without the supposition, Searle would be telling us that Oscar's brain state has that complicated content and we can say absolutely nothing about how it does. It cannot be analyzed or explained. It simply reaches out and grasps water, and that's that. In other words, if we drop the supposition, the resort to magic comes earlier.

Indeed, if we are going to drop the supposition, the content of Oscar's experience would be much more appropriately expressed in the

following simple way:

There is some water there.

Searle's more complicated expression suggests that the content specifies water because parts of the content specify stuff, causality, and the visual experience itself. Yet if the supposition is dropped, this is not so and the complicated expression is thoroughly misleading. Once the content is expressed in the simple form, the flaw in Searle's response to Putnam is obvious. It assumes precisely what is in question: that the mental state of thinking 'water' has the intrinsic power to reach out and grasp water (rather than Twin water).

In Section 4, I pointed out that Putnam and Searle have things the opposite way round. Searle's way is exactly the wrong way. It is our interaction with the world that determines that we have mental states that refer to parts of that world and hence have Intentional contents. It is not the internal Intentional contents of mental states that determine that those states refer to parts of the world.

7. Saving Searle?

Two objections to this discussion might seem to be ways of saving Searle.

1. My general argument could be summed up:

Nothing internal in, and intrinsic to, the body can determine a relation to an object outside the body.

Intentional content does determine a relation to an object outside the body.

So, Intentional content is not internal and intrinsic to the body.

The following objection might be made: "Consider the water solubility of salt. Isn't it something internal in, and intrinsic to, salt that determines its relation to something external and hence falsifies the first premise of this argument? Note that salt would have this dispositional property even if there were no water: Having that property does not presuppose the existence of anything other than the salt. So if knowledge of meaning were a disposition, it could satisfy the constraint of methodological solipsism and be in the head, and yet still determine a relation to something external."

First response: The objection is right that water solubility does not presuppose the existence of water. Nevertheless, that solubility is not internal in, and not intrinsic to, salt. For, salt is soluble in water

not only by virtue of its own nature but also by virtue of the nature of water. What is intrinsic to the salt is the disposition to dissolve given certain stimuli, whether caused by water or whatever.

Despite this, the objection still has force. Consider the sense in which meanings are in the head according to the tradition Putnam is criticizing. There is supposed to be something in the head that, *given the way the world is*, determines that some part of that world is the Intentional object. In Searle's terminology, what is in the head determines a condition of satisfaction and the Intentional object is whatever, as a matter of worldly fact, satisfies that condition. In characterizing the tradition, Putnam explains his use of 'determines': "Sameness of intention entails sameness of extension" (1975, p. 219). Obviously, it is sameness of intension *in the same world* that is doing the entailing.

In the light of this, taking knowledge of meaning to be a disposition like solubility is indeed a way of avoiding my general argument. Given the way the world is, particularly the way water is, something internal in the salt determines that it is soluble in water: Water, as a matter of fact, "satisfies" the internally determined "conditions of satisfaction" of the disposition.

If meanings are dispositions, we need to know what sort of dispositions they are. What is Oscar disposed to *do* as a result of knowing the meaning of a term? What is the meaning analogue of dissolving in water? The natural answer seems to be: *recognizing* the referent. This verificationist path is of course the one taken by many who were part of the tradition, most notably by Carnap and the positivists. It has well-known problems as a theory of meaning.

Perhaps, however, we can avoid verificationism or, at least, avoid falling quickly into a crude version. If the view that meanings are dispositional states answers the general argument, then so also must the view that meanings are functional states. Functional states differ from dispositional ones in being defined by reference to other states as well as to peripheral stimuli and responses. So there may be a complicated story to tell about what Oscar is disposed to do with respect to the referent as a result of knowing the meaning. It is not obvious that this story must be entirely verificationist.

The objection is successful against the general argument, but it is not one that Searle can embrace. He thinks that meaning lies in the phenomenal or functional character of experience. He would reject the dispositional or functional view of meaning on which the objection depends (Section 8).

Second response: Although this objection avoids the general argument, it does not avoid the Twin Earth argument. Nothing intrinsic to

salt is sufficient to make it the case that it is soluble in water *rather than in Twin water*, or than in anything else that can supply the appropriate stimuli. No disposition in the head is sufficient to make it the case that 'cause' and 'stuff' refer to causation and stuff rather than anything else that can supply the appropriate stimuli.

This discussion is interesting for the comparison of the causal-historical theory of reference, favored by Putnam and Kripke, with the causal-dispositional theory of reference favored by Fred Dretske (1981) and other "information-theoretic" semanticists. The examples of Yvonne and Norm are good analogues for reference if the causal-historical theory is right, whereas the example of solubility is a good analogue if the causal-dispositional theory is right. The causal-dispositional theory, with its talk of the reliable correlation of a representation and its referent, is a return to some sort of verificationism.

2. The first objection strikes at only the general argument against meanings being in the head. The next strikes at both this argument and the Twin Earth argument. And it does so using Putnam's very own causal-historical theory of reference. Consider what determines the reference of a basic (nondescriptive) term like 'water' according to that theory. It is determined by two facts:

- (i) The nature of the samples demonstrated in ostensive definitions of 'water'
 - (ii) Which objects share that nature
- (ii) "projects" the reference of 'water' from the sample to the full extension. As a result of (ii), the reference of 'water' will vary from possible world to possible world without any change in its meaning; it will refer to whatever water there happens to be in each world. Facts of sort (ii) are obviously not in the head. However, this mind independence is *not* the significant respect in which meanings are not in the head. I have just emphasized that the tradition Putnam is attacking accepts that what is in the head determines reference only relative to the facts about what there is in the world. The significant respect in which meanings are not in the head, according to Putnam, is that nothing in the head is sufficient to determine reference even given those facts. For, to determine that reference, (i) is required, and (i) involves a relation to something outside the head, namely, water.

Now the objection: "Notice that on Putnam's own theory, reference is not determined by what is in the head – in the significant respect – *only because the samples of water mentioned in (i) are not in the head*. It would be crazy to say that they were in the head. However, suppose that we follow Searle in thinking that 'water' is not a basic term but

rather a descriptive one dependent for its reference on other terms, which are basic; for example, the terms 'stuff', 'cause', and 'this visual experience'. You have already conceded that the reference of 'this visual experience' may be determined by what is in the head. Why should we not suppose further that the references of 'stuff' and 'cause' are fixed by ostensive definitions relating them to *samples of stuff and causation in the head*? These definitions would supply the facts of type (i) needed for reference, and these facts *would be* in the head. So, despite the general argument and the Twin Earth argument, meanings could be in the head. Of course, the determination of reference also requires facts of type (ii). These facts enable 'cause' to refer to all instances that share the nature of the internal reference-determining samples. These facts, varying from world to world, are certainly mostly outside the head. But that is not significant for the present dispute. Putnam has shown that meaning is not intrinsic to the symbol, but that does not show that it is not intrinsic to the head."

Response: I agree that this objection does circumvent the arguments in this essay. It has problems of its own, however. First the objection requires that the description theory of reference exemplified in its discussion of 'water' is correct and can be generalized to cover all nonbasic terms. This seems very dubious. Second, and more important, the objection depends on it being the case that the basic terms according to this theory of reference – terms like 'stuff' and 'cause' – really do get their reference from internal ostensive definitions. With our inner eye we notice some token mental stuff, and a token of one mental item causing another, and use what we notice in ostensive definitions that fix reference: Reference is to tokens, including very many outside the mind, that share the nature of these mental samples. Perhaps this view is not crazy. The absence of a plausible theory of reference for 'stuff' and 'cause' makes it hard to give a decisive response to it. Nevertheless, the view is a highly implausible return to Cartesianism.

Searle's view of meaning, with its emphasis on phenomenology, does have a Cartesian ring to it (on which more below), but it is nothing like the Cartesianism of this objection. There is no sign that Searle would want to save himself this way.

In sum, objection (1) could save Searle from my general argument at the risk of verificationism, but it could not save him from the Twin Earth argument. Objection (2) could save him from both arguments at the price of a highly implausible Cartesianism. However, Searle would not accept either objection. So I take the conclusions of the preceding section to stand. Searle's theory of Intentionality ascribes to the mind a power that is unique in nature, a magical power. That is my main

charge, but I also think that Searle's view has dualistic and vitalist elements. Demonstrating this is not so easy.

8. Searle's dualism and vitalism

Searle acknowledges hardly any need to explain Intentional content. It is in this that I see the dualism.

Searle is well aware, of course, that an explanation of Intentional content is a central part of the causal theories of Putnam and others. He is scornful of such explanations. His objection to them is that they are from "a third-person point of view" whereas the problem is "a first-person internal" one. We need to know "what is it about the experience" that makes one object and not another the Intentional object (1983, p. 63). We need an account of the conditions in which the person "takes himself to be seeing," or "means to refer to," one thing and not another (p. 64). Cognitive science and the computational theory of the mind cannot be saved by adding the causal theory of reference:

Even if the formal tokens in the program have some causal connection to their alleged referents in the real world, as long as the agent has no way of knowing that, it adds no intentionality whatever to the formal tokens. (1980b, p. 452)

Causal interactions are irrelevant unless they are "represented" in the mind (1984, p. 35).

Searle's objection to the causal theory, hence the core of his case against a sophisticated cognitive science (Section 5), comes down to this. The causal theory appeals to external relations to explain Intentional content and yet *that content is essentially internal and intrinsic*. Searle insists on this view of content time and again. Why? He offers no argument. He insists because when he adopts the first-person perspective and looks into his own mind, he can *just see* that the content is intrinsic. The core of his case is a piece of Cartesian dogma.

And that is not the end of it. Searle can *just see* that Intentional content is not causal at all. It is not to be explained, at least not fully, even by *internal* causal relations. Searle thinks that to give a causal account of mental states, as functionalists do, is to eliminate them (1983, pp. viii-ix, 262-3); it is to deny their essential mentality. Functionalists are not "even close to the truth" (p. 262). For Searle, mentality consists in phenomenological properties that cannot be captured causally. Such a view of bodily sensations is familiar enough from the "qualia freaks." Searle takes it further to cover Intentional states: Even the essence of an Intentional content lies in the way it feels (1981, pp. 417, 420-1). This is the rest of Searle's case against cognitive science. It is just more Cartesian dogma.

We have seen that Searle dismisses attempts to explain Intentional content. He seems not to be struck with the problem. Thus, in contrasting the view that we perceive sense data with his own "naive realism," he has this to say:

What is the relationship between the sense data which we do see and the material object which apparently we do not see? This question does not arise for the naive realist because on his account we do not see sense data at all. (1983, p. 58)

Indeed, that question does not arise, but a very similar one does: What is the relationship between the Intentional content and the material object it represents? This is our question about Intentional content.

To insist on the need to answer this question is not to insist that Intentional properties be *reduced* to the physical in some strong old-fashioned sense; it is not to insist, for example, that they be identified with physical ones. It is to require that they be explained in more basic physical terms. What the requirement amounts to is not perfectly clear to me nor, I suspect, to anyone else. Still, we are all fairly good at recognizing a satisfactory explanation when we see one.

So far, I think, my case that Searle is a dualist is strong. In brief, he thinks that the Intentional contents of mental states are brute phenomenological facts of the world that do not stand in need of explanation. I have, however, ignored one important aspect of his discussion: his appeal to biology.

Searle thinks that

mental phenomena are biologically based: they are both caused by the operations of the brain and realized in the structure of the brain. (p. ix)

So how can he be a dualist? The water gets muddy here. Certainly the view that Intentional content is biologically realized is inconsistent with dualism. However, given what Searle has said, and failed to say, about Intentional content, he does not seem entitled to the view: It is a gratuitous addition. We need some hint, at least, of how an Intentional content *could be* biologically realized.

Suppose someone were to posit a really bizarre mental state - some form of ESP perhaps. Clearly the scientific respectability of this state could not be established simply by claiming that it was realized in the brain. This procedure for avoiding dualism is just too easy.

Consider, for example, Searle's account of the Intentional content behind the utterance "That man is drunk":

((there is a man, *x*, there, and the fact that *x* is there is causing *this vis exp*) and *x* is the man visually experienced at the time of *this utterance* and *x* is drunk). (p. 227)

How does the brain realize that content in particular? In virtue of what would it be that one and not one about a stoned woman, a sleepy cat, an exploding star, or whatever? Searle has something to say about what goes on in the brain when a person sees something (pp. 266-7; 1980b, p. 452). But that sort of story is beside the point. We need some idea about how these brain activities might relate to Intentional contents. Searle tells us nothing about that.

Searle might object that *nobody* knows much about how the mind is realized in the brain, and yet almost everybody claims that it is. Why should he be any more open to criticism on this score than his opponents? The answer is that Intentional contents – for example, the one above – are not appropriate primitives *at the mental level*. They are not the sorts of thing that are, on the face of them, obviously realizable in the brain. We need to break them down *at the mental level*, relating them to other mental states and to input and output, in order to see that they have a place in a properly scientific worldview. That is the sort of explanation that Searle's opponents attempt and which he scornfully dismisses.

In sum, I think that Searle is not entitled to save himself from dualism simply by claiming that Intentional contents are realized in the brain. That does not constitute a satisfactory explanation in more basic physical terms.

Searle's appeal to biology goes further than that claim. Not only are mental states realized in human brains but they can *only* be realized in such brains, or things *very* like them. He describes his theory of Intentionality as "a kind of biological naturalism" (1983, p. 230). Indeed, he writes often as if mental states were "essentially biological" (1984, pp. 28-30; 1981, pp. 414, 417). For computers to think, they would have to be made of meat. But what is so special about meat? What is special, for Searle, is that brains have the appropriate causal powers, and brains are made of meat. *Perhaps* structures made of some other stuff could have those powers, but Searle seems to doubt it. What he is certain of is that structures made of windmills, water pipes, old beer cans, toilet paper, and paper clips could not have those powers (1980b, pp. 453-4; 1981, pp. 413-15).

Two comments: (1) What are the appropriate causal powers? They are powers to produce Intentionality. Now, of course, everyone who believes in Intentional states will agree that the brain has the power to have them. But whereas Searle's opponents struggle to determine the nature of this power, Searle is content to leave it as a mysterious and unexplained biological phenomenon. (2) Given that Searle says absolutely nothing about the nature of this power it is extraordinary that he

is so confident about what cannot have it. I don't think that there is any practical possibility that a system with Intentionality could be built out of old beer cans. I have a half-baked theory of Intentional content that makes me think this. How on earth does Searle know since he has no theory at all?

Searle's appeal to biology seems to make Intentionality into a mysterious and inexplicable property of living things. He escapes from dualism into neovitalism.¹⁴

9. Conclusion

I have found dualistic and vitalist elements in Searle's approach to Intentionality and hence in his criticisms of causal theories of reference and contemporary cognitive science. However, my main point is that Searle's theory of Intentionality ascribes a magical power to the mind, an intrinsic power that is sufficient to relate the mind to particular things external to it. If the mind had this power it would be unique in nature. Searle supplies no reason to suppose that the mind does have this power. Putnam is right: Meanings just ain't in the head.

Notes

- 1 The parts of this discussion that are most relevant to the slogan first appeared in Putnam 1973.
- 2 Searle does not refer to this work.
- 3 Putnam goes on to argue that because you could not *think* that you were a brain in a vat you could not *be* a brain in a vat. I have criticized this conclusion, and other aspects of Putnam's recent antirealism, elsewhere (e.g., 1984, Chapter 11; Devitt and Sterelny 1987, pp. 206-9).
- 4 1981a, pp. 123-4, 200; Devitt and Sterelny 1987, pp. 51-2, 60, 69-70.
- 5 Recently, for example, by LePore and Loewer 1986, pp. 600-1.
- 6 1980, pp. 271-4; 1981a, pp. 152-7; 1984a, pp. 388, 403-5; 1985, pp. 222-3. My most recent attempt is 1989b. I also reject the similar view of natural-kind terms: 1983, pp. 675-7.
- 7 I think that Putnam (1975, pp. 242-5) goes way too far in his application of causal theories of reference to sociological and artifact terms (Devitt and Sterelny 1987, pp. 75-9).
- 8 I shall follow Searle in using a capital 'T' for this technical notion.
- 9 Searle's other objections amount to arguing that causal theorists are *not* mostly otherwise right. These arguments seem to me to have no force.
 - (1) He thinks that two aspects of the causal theorist's view fail to capture something *essential* about names. First, it is not essential that a name be introduced in an ostensive confrontation with an object: They could all be introduced by descriptions (p. 241). He cites me as if I would disagree (p. 235). I do not. Indeed, I think that some names are *actually* introduced by descriptions (1974, pp. 195-6; 1981a, pp. 40-1; 1981b, 1981a is the work that Searle cites). Second, Searle claims that it is not essential that people borrow their reference from others in communication situations; each person might manage reference on his own. No causal theorist has ever denied

this. In any case, the issue of the essence of names is an unimportant one about the ordinary concept of *name*. What matters to the causal theory is that there be names that it is true of and that the others not be excluded in an ad hoc manner. I think that the causal theory of name introduction – what I call the theory of “grounding” – is true of most names and that there is nothing ad hoc about excluding the others (1981a, Chapter 2). The reference of any name *can* be borrowed, even if those of a few are not in fact borrowed. So I think that the causal theory of reference borrowing applies to all names.

(2) Searle trots out Gareth Evans's old chestnut ‘Madagascar’ (pp. 237–8), to show that the causal links specified by Kripke and Donnellan are not sufficient to determine reference. But what Kripke and Donnellan were offering was a new paradigm, not a worked-out theory. The interesting question is whether developments within the paradigm can give plausible accounts of cases of mistake and confusion such as those raised by Evans and others. I have argued that such developments can give very plausible ones with the help of the notions of *multiple grounding* and *partial reference*, and of the Gricean distinction between speaker meaning and conventional meaning (1981a, pp. 138–52).

(3) Searle claims that “no causal theorist to date has given a satisfactory answer” to questions about the occurrence of proper names in identity statements, existential statements, and intensional statements (p. 244). He gives no details of his dissatisfaction. I have written a book to answer just those questions (1981a; see also 1989b). His dissatisfaction is striking since his own answer is so ad hoc: A name's contribution to the meaning of those troublesome statements is different from its normal contribution (pp. 258–60).

Searle's discussion is constrained by his assumption that names “obviously lack an explicit intentional content” (p. 231). This reflects the common, and always unargued, view that content must be descriptive. I think the view should be rejected.

10 On this, see also Putnam 1981, pp. 8–12.

11 I have not claimed that Twin Oscar's ‘cause’ refers to Twin causation in order to avoid a nice *ad hominem* point made by Michael McKinsey (unpublished) against such a claim: According to the causal theory, Twin Oscar's ‘cause’ couldn't refer to Twin causation because it has no causal relations to anything. It is enough for my purposes that it fail to refer. Alternatively, perhaps we should adopt a causal/Twin-causal theory of reference, with the consequence that Twin Oscar's term does refer to Twin causation.

12 I owe this paragraph to George Pappas. His inspiration came from Malebranche's idea that God was the only genuine causal power.

13 My remarks here are reminiscent of some of Putnam's in the course of his “model-theoretic argument” against realism, e.g., his suggestion that ‘causes’ is not “glued to one definite relation with metaphysical glue” (1983, p. 18). I see no reason here for antirealism, however (1984b, pp. 188–91).

14 The description “neovitalism” is due to Stephen Stich.

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