



Content by Courtesy

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CONTENT BY COURTESY*

A fully naturalistic account of mind may be the next, perhaps the final, distinctive contribution of philosophy to human inquiry. Achievement of this goal requires, at a minimum, an account of how a wholly physical object in a physical world can be the subject of mental states. And since a science of the mind would seem to meet that requirement, many simply equate the naturalistic enterprise with the distinct task of providing a basis for a science of the mind.¹

A constraint on any science of the mind, as currently conceived by many,² is that individuals in the same physical states must be assigned the same psychological states. Philosophers divide over whether or not a psychology that invokes states identified by content, such as beliefs and desires, can satisfy the constraint. Some are dubious about the scientific promise of a concept like *content*³; others (perhaps the majority) see intentional psychology as "the only game in town" and, not surprisingly, invest enormous and ingenious effort into formulating an appropriate concept of content. For if content cannot be made scientifically respectable, then beliefs, desires, and

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¹ The fact that both Donald Davidson and Ludwig Wittgenstein raise doubts about the prospects of a distinctive science of the mind in the course of their impeccably naturalistic investigations of mind shows that naturalism does not require "scientism." See, for example, Davidson, "Mental Events," in Lawrence Foster and J. W. Swanson, eds., *Experience and Theory* (Amherst: Massachusetts UP, 1970), pp. 79-101; "Thought and Talk," in Samuel Guttenplan, ed., *Mind and Language* (New York: Oxford, 1975), pp. 7-24; "Psychology as Philosophy" in his own *Essays on Actions and Events* (New York: Oxford, 1980), pp. 229-239. And Wittgenstein, *Philosophical Investigations*, 3rd ed., G. E. M. Anscombe, trans. (New York: Macmillan, 1968), and *Remarks on the Philosophy of Psychology*, vols. I and II, G. E. M. Anscombe and G. H. von Wright, eds. (Chicago: University Press, 1980).

² In my forthcoming book, *Saving Belief*, I argue against this constraint, which follows from a particular conception of science, a conception which is now almost universally, though sometimes tacitly, adopted by practitioners of cognitive science. (Cf. Jerry A. Fodor, "Individualism and Supervenience," ch. 2 of *Psychosemantics*, forthcoming.)

³ For example, see Stephen Stich, *From Folk Psychology to Cognitive Science: The Case against Belief* (Cambridge, Mass.: MIT/Bradford, 1983); Paul M. Churchland, "Eliminative Materialism and Propositional Attitudes," this JOURNAL, LXXVIII, 2 (February 1981): 67-90; Patricia S. Churchland, "A Perspective on Mind-Brain Research," *ibid.*, LXXVII, 4 (April 1980): 185-207.

so on cannot be invoked by a science that hopes to give nonintentional, nonsemantic conditions for mental states. In that case, many would conclude that the mental states that we enjoy are not, in fact, states of believing, desiring, or other putative states characterized by content. Thus, the task of formulating a concept of content suitable for science has a degree of urgency.

The requisite concept of content is called upon to do two things: it must allow content to play a semantic role in the determination of truth conditions of an individual's beliefs, and it must allow "contentful" states to figure in the etiology of an individual's behavior in a way that permits generalizations about content. A concept of content that satisfies the general constraint on theories of the mind will be such that molecule-for-molecule replicas will have the same contents. Thus, the external environment is relevant to content only to the extent that it impinges on sensory surfaces. Since the needed concept of content abstracts from the environment in this way, it has been called *narrow content*.

If the concept of content is both to play its semantic role in the determination of truth conditions of attitudes and to be adequate for incorporation into a scientific theory that explains behavior, it must satisfy two more specific constraints, one semantic and the other physical:

(S) (Narrow content + context) \rightarrow Truth conditions of beliefs

and

(P) If C is a narrow content, and S has a belief with narrow content C , and S' is a molecule-for-molecule duplicate of S , then S' has a belief with narrow content C .

Any concept of narrow content that jointly satisfied both (S) and (P) would have this consequence: if molecular replicas were in the same contexts, their beliefs would have the same truth conditions. From the point of view under consideration, to avoid circularity, contexts must be fully specified nonintentionally and nonsemantically—roughly, without (even hidden) benefit of 'that'-clauses.

Informal motivation for these constraints is easy to find.⁴ As an instance of the general constraint on a science of the mind, (P) may be thought of as an entry condition for any candidate for narrow content. Although molecular identity is not necessary for sameness of narrow content, it must be sufficient; otherwise, a taxonomy of

⁴ Fodor discusses such motivation at length in unpublished manuscripts (for example, "Narrow Content and Meaning Holism"). Also see his "Cognitive Science and the Twin-Earth Problem," *Notre Dame Journal of Formal Logic*, xxiii, 2 (April 1982): 98–118. Also see "Individualism and Supervenience," *op. cit.*

states identified by narrow content would be useless for the kind of science of behavior under consideration.

(S) likewise seems natural. A major obstacle, brought out vividly in Twin-Earth cases, to the formulation of an appropriate concept of content is that truth conditions of beliefs (and satisfaction conditions of desires, etc.) seem to be determined in part by the believer's environment. Although at least one champion of content, Jerry Fodor, takes the Twin-Earth cases to be something of a red herring, he does take them to show (at most) that we must distinguish between broad contents and narrow contents. Broad contents must be relativized to contexts, and, when they are, they still determine truth conditions. Broad contents are functions from narrow contents and contexts to truth conditions.

The reductive strategy is to confine the intentional component of beliefs and other attitudes to narrow content; then, scientific respectability of intentional psychology is secured by the requirement that narrow content, whatever it turns out to be, must satisfy (P). A candidate for narrow content that fails to satisfy (P) is a nonstarter; a candidate for narrow content that fails to satisfy (S) is not a concept of content at all.

The picture is this: The truth conditions of a belief result from two vectors, the "internal" states of the believer and the "external" environment. On this assumption, the individual's contribution to her intentional states (narrow content) is distinguishable from the contribution due to her environment. Then, an adequate concept of narrow content would capture the contribution of the individual's internal states to her over-all states of believing, and so on. On this picture, the truth conditions of an individual's beliefs are the product of an "inner" semantic component (narrow content) and an "outer" nonsemantic component (context). (S) captures this requirement.

A number of possible candidates for narrow content clearly fail. For example, beliefs construed *de re* cannot be narrow contents, since they are not shared by molecular replicas. Anyway, according to Fodor, the beliefs that explain behavior are specified *de dicto*, but such beliefs are still "wider" than what is shared by molecular replicas. So, although they are to contribute to the truth conditions of *de dicto* beliefs, narrow contents must be construed still more narrowly than the content clauses of attributions of *de dicto* beliefs if they are to satisfy (P).⁵ A promising new proposal has been made recently by

⁵ For discussion of these and related issues, see Hilary Putnam, "The Meaning of 'Meaning'," in his *Mind, Language and Reality: Philosophical Papers*, vol. 2 (New York: Cambridge, 1975), pp. 215–271; Tyler Burge, "Individualism and the Mental," *Midwest Studies in Philosophy*, iv (1979): 73–122; and my "Just What

Fodor, who aims to construe narrow content as mental symbols denoting phenomenologically accessible properties of distal objects.

Here I shall examine Fodor's proposal, the next in a line of proposals for a concept of narrow content that is supposed to satisfy both (S) and (P). After arguing that that specific proposal, based on an observation/nonobservation distinction, fails to satisfy (P) alone, I shall present a general argument to show that *no* concept of narrow content can satisfy both (P) and (S). Alternatively, nothing that satisfies (P) can make the requisite contribution to truth conditions of attitudes, and, hence, no concept that satisfies (P) is a genuinely semantic notion.

PHENOMENOLOGICAL ACCESSIBILITY

On Fodor's view, the bearers of semantic properties, in the first instance, are mental symbols in a language of thought; so having such-and-such narrow content will be a property of certain tokens of Mentalese. Fodor's basic idea is that narrow content is expressible in a vocabulary that denotes phenomenologically accessible properties of distal objects, where phenomenologically accessible properties are discernible by casual observation.⁶ Then, the truth conditions of beliefs that explain behavior are a product of narrow content together with context.

The approach may be illustrated by showing how it applies seemingly in the right way to Twin-Earth cases. The cases are familiar enough: an Earthian and her counterpart on Twin Earth, where what is called "water" is not H₂O but XYZ, both think (or say), "Water is wet," and behave similarly toward the stuff; yet their utterances and beliefs have different truth conditions. How do we give a unified account of their similarities and differences? On Fodor's view, what they share is narrow content, expressed in a vocabulary denoting phenomenologically accessible properties of distal objects. The narrow content of both beliefs (Earthian's and Twin-Earthian's) may be expressed like this: The local stuff that is transparent, drinkable, sailable on, etc., is wet. On Earth, this belief gets evaluated with respect to H₂O; on Twin Earth, it is evaluated with respect to XYZ. So, as we may have hoped, the beliefs that both Earthian and Twin-Earthian would express by saying, "Water is wet," differ in truth

Do We Have in Mind?", *Midwest Studies in Philosophy*, x (1985): 25-48, and "A Farewell to Functionalism," *Philosophical Studies*, XLVIII, 1 (July 1985): 1-13.

⁶ Fodor, "Narrow Content and Meaning Holism." Narrow concepts may be expressed by Ramsey formulas as well as by constants denoting phenomenologically accessible properties of distal objects. [Distal objects/events are contrasted with ("proximal") surface irritations of, say, skin or retina.]

conditions; yet the Earthian and Twin-Earthian both seem to entertain the same narrow contents. A tidy resolution of Twin-Earth cases is significant motivation for a view of propositional attitudes.

Moreover, if Fodor is correct that sensory and linguistic input systems are "modular," the output of such systems may be understood in observation terms. In that case, there would seem to be independent psychological confirmation of a principled distinction between properties that are phenomenologically accessible (or, equivalently for Fodor, observable) and others.⁷

Although the attempt to construe narrow content in terms of phenomenologically accessible properties of distal objects is well motivated, I believe that it ultimately founders on the constraint (P). Recall that Fodor emphasizes—with good reason, in my opinion—that the properties denoted by representations are not just phenomenal properties (such as would be exemplified by sense data), but are properties of physical objects in the environment. Fodor's answer to the question: In virtue of what does a representation denote what it does denote? is broadly causal. In a critical discussion of causal accounts of representation, he remarks, "The point of all of this, I emphasize, is *not* to argue against causal accounts of representation. I think, in fact, that something along the causal line is the best hope we have for saving intentionalist theorizing, both in psychology and in semantics."⁸

Fodor has argued at length that "the internal language must be rich enough to express the extension of any natural language predicate that can be learned."⁹ So Mentalese in general is not restricted to denoting phenomenologically accessible properties. Nevertheless, it may be that Mentalese can aid the proponent of narrow content that is to satisfy (P). Perhaps Mentalese, unlike natural language, represents phenomenologically accessible properties in such a way that:

- (R) For any type of Mentalese representation, *R*, such that *R* denotes a phenomenologically accessible property, if *S*₁ and *S*₂ are molecular duplicates, then *S*₁ has a token of *R* if and only if *S*₂ has a token of *R*.

⁷ See Fodor, *The Modularity of Mind* (Cambridge, Mass.: MIT/Bradford, 1983), and "Observation Reconsidered," *Philosophy of Science*, LI, 1 (March 1984): 23–43. However, see also my forthcoming book for a discussion that shows that psychological considerations about modularity of input systems is idle as far as specifying a concept of narrow content is concerned.

⁸ "Semantics, Wisconsin Style," *Synthese*, LIX, 3 (June 1984): 231–250, p. 234. Emphasis his.

⁹ *The Language of Thought* (Cambridge, Mass.: Harvard, 1979), p. 82.

For the moment, suppose that (R) is true. Then, it may seem that a concept of narrow content that satisfies (P) is at hand. The proposal would be that narrow contents should be construed as Mentalese representations of phenomenologically accessible properties of distal objects. Then, by (R), molecule-for-molecule duplicates have the same narrow content.

Unfortunately, (R), together with two other constituents of Fodor's view and the assumption that *being red* is a phenomenologically accessible property, leads to a contradiction. For it will emerge that the following triad is inconsistent:

- (1) Mentalese representations denote properties of distal objects to which their tokens are causally connected.
- (2) If two tokens of Mentalese representations denote different properties, then they are of different types of representation.
- (3) (=R) For any type of Mentalese representation, *R*, such that *R* denotes a phenomenologically accessible property, if *S*₁ and *S*₂ are molecular duplicates, then *S*₁ has a token of *R* if and only if *S*₂ has a token of *R*.

To bring out the contradiction, I shall resort to a (regrettably exotic) thought experiment.

Consider another possible world; call it "Mars." Suppose that central to the Martians' religion (whose origins are lost in prehistory) is the wearing of special glasses. Imagine the elaborate "emplacement" ceremony practiced on infants near birth. The glasses are attached in such a way that they cannot be removed, except when exchanged for larger pairs as the youth matures. The actual exchanges, considered quite dangerous, are also attended by ritual, during which the young person is unconscious. Since attempts to remove the glasses (except during the exchange rituals) are taboo, no one has ever been known to remove the glasses.

Further suppose that, as it happens, there are no red objects on Mars; nothing on Mars reflects the appropriate wavelengths for red. Nevertheless, Martians do enjoy a full range of experiences, because their ritual glasses (little computers, actually) transform certain ambient energies that would be perceived as grey in the absence of the glasses, so that, when stimulated by light reflected from certain grey objects, the Martians' transducers are affected in exactly the same way that ours are when we see red.

Now suppose that there is an Earthly religion, practiced similarly. The only difference is that the glasses used by the Earthians are clear.

Now consider an Earthian and a Martian who are molecularly identical; the only differences between them are environmental: no red distal objects on Mars, but compensating red glasses; red distal objects on Earth, but clear glasses. Neither an individual's transducers nor visual input systems can detect whether the individual is in an Earthian or Martian environment.

Earthian and Martian are the same in their computational, functional, neurophysiological and other internal states. The relevant difference between the Earthian and her Martian counterpart is this: Most of the beliefs that the Earthian would express by uttering 'red' are about red things, but none of the beliefs that the Martian would express by uttering the acoustically identical sound are about red things; most are about grey things.

Now, suppose that the English-speaking Earthian, presented with a red ball, tokens the Mentalese representation that some round things are red, which in part causes her to utter in English, "Some round things are red." At the same time, the Martian is presented with a grey ball, which causes in her the same activity of transducers and input systems (and central processing, to whatever extent it figured in etiology of the Earthian's narrow content). The result of this mental activity is that the Martian tokens a Mentalese representation molecularly identical to the Earthian's. This representation in part causes the Martian to utter, in what sounds like English but is not, "Some round things are red."¹⁰

Now, by (1), the Earthian's and Martian's Mentalese representations denote properties of distal objects to which they are causally connected. The Earthian's relevant representations are caused in the most straightforward way by red things. The causal chain is traced from red objects that reflect light of a certain wavelength to stimulation of visual transducers by light of that wavelength, through the input systems, perhaps through some central processing; the output of these computations is a Mentalese representation, R_e . R_e denotes the phenomenologically accessible property of *being red*.

But, if it is by virtue of its causal connection to red things that the Earthian's Mentalese representation, R_e , denotes the property of being red, then the Martian's Mentalese representation, R_m , does not denote the property of being red. For no Mentalese representation of any Martian is causally connected in any way to any red thing;

¹⁰ The Martians do not speak English because what sounds like 'red' in Martian is a different word from the English 'red'. Unlike 'I', 'here', and 'now', 'red' is not an indexical, which gets evaluated differently in different contexts.

there are no red things on Mars. Indeed, the cause of the Martian's representation is traceable back to grey things, which reflect light of a certain wavelength, which is transformed by the glasses into light of the wavelength reflected by red things, and then impinges on her visual transducers in exactly the same way that the Earthian's transducers are stimulated. Moreover, this causal chain is not idiosyncratic; all over Mars, there is a systematic connection between grey things and Mentalese representations of the same type as R_m .

Now the contradiction is apparent: By (1) and (2), R_e and R_m are different types of representation, but, by (3), R_e and R_m are the same type. This vitiates the proposal that narrow content be construed in terms of Mentalese representations of phenomenologically accessible properties of distal objects.

The point can be made, specifically with regard to narrow content, from another direction. Assume that (1) and (2) are true. Now, what are the narrow contents of the belief expressed by the Earthian when she sincerely said in English, "Some round things are red," and the belief expressed by the Martian's emission of an acoustic twin? Since representations that constitute narrow contents are to represent phenomenologically accessible properties of distal objects, the narrow content of the Earthian's belief contains a representation of red, but the narrow content of the Martian's belief cannot be the same since the Martian has no representation of red. The narrow content of the Martian's belief contains a representation of fred, where 'fred' is an invented term denoting the representational property of those of the Martian's representations which are caused by grey things but which affect her transducers the way red things affect the Earthian's transducers. Since representations are typed by the properties of distal objects that cause them, a narrow content containing a representation of red is a different content from a narrow content containing a representation of fred. Hence, on the present proposal, our molecular duplicates fail to share their narrow contents, and (3) is false.

Or again: the extension of 'red' in English is the set of red things; the extension of 'red' in Martian is the set of grey things.¹¹ There-

¹¹ This seems in accord with Kripke's views as expressed in *Naming and Necessity* (Cambridge, Mass.: Harvard, 1980), fn 66, p. 128, and fn 71, p. 140. Kripke points out that "if we had different neural structures, if atmospheric conditions had been different, if we had been blind, and so on, then yellow objects would have done no such thing [as tending to produce certain characteristic sensations]." In that case, I take it, the extension of 'yellow', whose reference is rigidly fixed by "the external physical property that tends to produce in normal conditions such-and-such sensations," would have been different. Since different external physical properties

fore, 'red' in English and 'red' in Martian differ in extension. However, "for every predicate in the natural language it must be possible to express a coextensive predicate in the internal code."¹² So, 'red' in English and 'red' in Martian must have different Mentalese representations. So, it seems that recourse to Mentalese fails to show that molecular duplicates share narrow contents.

Let me dispose quickly of two objections: (i) Someone may object: Suppose that a child says, "Some animals are unicorns." We should say that she has a false belief about unicorns—even though there are no unicorns to have caused her representation of unicorns. Perhaps we should say likewise that the Martian had beliefs about red things, in which case Earthian and Martian may share narrow contents after all. But this objection is closed to someone who is trying to isolate an observation language (which is to exclude natural-kind terms). The advocate of an austere observation language would have a different story to tell about terms like 'unicorn' (or 'tiger') than about terms like 'red' in any case. Since 'unicorn' will not be an observation term anyway, beliefs about unicorns, like beliefs about water, will have different kinds of causal histories from beliefs about red things. So the fact that one may have beliefs about unicorns (in an intuitive sense of 'about') even if there are no unicorns to cause those beliefs is no grounds for supposing that one may have beliefs about red things even if there are no red things to cause those beliefs.¹³

(ii) Perhaps we should say that *if* the Martian's representations had had a typical or standard causal history, they would have been caused by red things. To this I should reply that we may assume that the Martians' case is atypical only in relation to a population that provides some norm of what is to count as typical.¹⁴ Different kinds of causal chains are typical or standard in different possible worlds. Since there is no sense to an idea typical or standard causal chains across possible worlds, the typicality of the history of the Martian's representations can be determined only relative to her possible world, where she is undoubtedly typical. Since the representations of red on Mars are typically (indeed, uniformly) caused by interaction with grey things that affect the Martians' transducers in the way that

satisfy the reference-fixing descriptions on Earth and on Mars, English 'red' and Martian 'red' have different extensions.

¹² Fodor, *The Language of Thought*, p. 85.

¹³ Cf. Descartes, *Meditations* I.

¹⁴ See David Lewis, "Mad Pain and Martian Pain," in Ned Block, ed., *Readings in the Philosophy of Psychology*, vol. I (Cambridge, Mass.: Harvard, 1980), pp. 216–222, for a population-relative version of functionalism.

red things affect ours, it would seem question-begging to deny that the Martians are in normal circumstances. They are in circumstances normal on Mars.¹⁵

The only way that I see to avoid the conclusion that Earthian and Martian differ in narrow contents and, hence, that (R) is false or at least incompatible with other assumptions of Fodor's view, is to resort to phenomenalism, a desperate move that Fodor is understandably unwilling to make. But even that desperate move would be to no avail unless it could be shown that narrow contents in terms of properties of sense data could make the required contribution to truth conditions of beliefs. In any case, what has gone wrong, I think, is that, in order to avoid phenomenalism, Fodor invokes phenomenologically accessible properties of distal objects, i.e., properties of objects in the environment; but, if narrow contents represent properties of objects in the environment, then there is no guarantee that molecular duplicates share narrow contents.

To sum up: the account of narrow content in terms of phenomenologically accessible properties of distal objects was recommended for the way that it accommodates the Twin-Earth thought experiment. It turns out, however, that this account is heir to difficulties analogous to those raised by the Twin-Earth stories. The same difficulties that arise for natural-kind terms like 'water', in English or in Mentalese, also arise for observation terms like 'red', in English or in Mentalese.¹⁶ So, it seems that narrow content understood as expressible in an observation language fails to satisfy (P).

SPEAKING ONE'S MIND

The hopelessness of narrow content satisfying (P) and (S) may be exhibited more generally. Not only does narrow content understood as mental representation of phenomenologically accessible properties fail to satisfy (P), but no genuinely semantic concept [such as would satisfy (S)] can satisfy (P). This is so because there can be molecule-for-molecule duplicates *with the same causal histories and in the same types of contexts*, described nonintentionally and nonsemantically, whose beliefs differ in truth conditions. In that case, if (S) is satisfied, then the duplicates' beliefs differ in narrow content and

¹⁵ If one suspects that wearing glasses *per se* abrogates normal conditions (a suspicion, I imagine, confined to non-glasses-wearers), we could modify the example so that the normal atmosphere on Mars has the same effect as the glasses.

¹⁶ Saul Kripke suggests certain similarities between natural-kind terms and terms like 'yellow'. See *Naming and Necessity* (Cambridge, Mass.: Harvard, 1970), note 66, p. 128.

(P) is violated; but if (P) is satisfied, then the duplicates' beliefs have the same narrow content and (S) is violated. A thought experiment will illustrate this possibility.

Suppose that two teenaged girls, both far from their respective homes, are invited to their first embassy party. Although their societies developed independently of each other, they are so similar in geography, climate, and so on, that the girls are molecular duplicates. One girl is from a country where standard American English is spoken, and the other is from a country where a language similar to English with a single exception is spoken. The exception is this: in English the word 'vodka' designates vodka, and in the mythical country the word 'vodka' designates gin. Assume that translators have established that the word in the remote language that sounds like the English word 'vodka' should be consistently translated as 'gin', because it occurs in contexts which are unproblematically translated into English as "x is what British officers in India drank with tonic in order to ward off malaria," "Hogarth depicted the tragic effects of excessive consumption of x in eighteenth-century England," and "Russia does not export x." Just as the Spanish word 'burro' means 'donkey' and the Italian word 'burro' means 'butter', so the English word 'vodka' means vodka and the mythical-language word 'vodka' means gin. In all other respects, translation between the mythical language and English is homophonic.

At the embassy party, one of the most popular refreshments is a clear liquid being served in shot glasses. Each girl gestures toward trays of drinks and utters what sounds like the English sentence, "Vodka is good to drink." In so uttering, one girl indicates in the mythical language that gin is good to drink, and the other girl indicates in English that vodka is good to drink. By producing the same "output," described nonsemantically, they say different things. There is no question about what each says.

Not only are the girls in the same current physical environment, but also they may have the same relevant histories, described nonintentionally. In particular, the episodes in which each acquires her beliefs may merit the same nonintentional descriptions. Suppose that the English speaker's beliefs about vodka have their origin in a training session for children of diplomats in which she is presented with a picture of a glass filled with a clear liquid and told that it is vodka and good to drink at receptions. Likewise, the non-English speaker's beliefs about gin have their origin in a training session in which she is presented with a picture of a glass filled with a clear liquid and told that it is gin and good to drink at receptions. The pictorial episodes

by which each girl acquires her attitudes may satisfy the same nonintentional descriptions; the pictures of the glass filled with a clear liquid may be indistinguishable. Both teachers may point to the pictures and emit the same sequence of sounds.

Thus, I think it plausible to conclude that, at the embassy party, the two girls are similar in all relevant nonintentional respects. They are in the same physical environment; they are in the same internal states; their relevant internal states are caused by the same physical environmental condition; they have the same relevant histories; they display the same linguistic and nonlinguistic behavior (nonintentionally described). Indeed, they are molecular duplicates in the same nonintentionally specified contexts.

We have seen that the girls' utterances, each in her own language, of what sounds like the English sentence, "Vodka is good to drink," have different truth conditions. Since each speaks sincerely and is a competent speaker of her native language, each expresses her belief—the English speaker that vodka is good to drink and the non-English speaker that gin is good to drink. These beliefs clearly have different truth conditions.¹⁷

Since the girls are in the same context, nonintentionally specified, and since their beliefs have different truth conditions, then, by (S), they differ in their narrow contents. But since they are molecular duplicates, then, by (P), they do not differ in their narrow contents. Therefore, (S) and (P) cannot both be satisfied.

The argument is perfectly general. Nothing hinges on whether or not the girls' beliefs are *de re* or *de dicto*. The point is independent of any particular specification of narrow content; I do not claim, for example, that "Vodka is good to drink" expresses narrow content. The claim is that, *however* narrow content is construed, according to (S), the girls differ in their narrow contents (since they are in the same contexts but their beliefs differ in truth conditions), but, according to (P), they do not differ in their narrow contents (since they are molecular duplicates).

(S) and (P) are not jointly satisfiable because they impose different identity conditions on narrow content—no matter how narrow con-

¹⁷ Tyler Burge and Stephen Stich have deployed similar thought experiments. Unlike their thought experiments, however, the thought experiment here attributes no linguistic confusion or mistake on the part of either girl. Stich's goal is to discredit content; Burge's target is individualism. Burge also rejects "the view that the intentional can be accounted for in terms of the non-intentional," ("Other Bodies," note 5, p. 119). See also his "Individualism and Psychology," *Philosophical Review*, xcvi, 1 (January 1986): 3–45.

tent is specified. I conclude that (S) and (P) put incompatible demands on a concept of narrow content and that, therefore, no coherent concept can satisfy both constraints. The semantic and the non-semantic [whether construed as physical, causal, functional, computational, syntactic, or any other states shared by molecular duplicates according to (P)] just do not pull in the same direction.

UNSPEAKABLE THOUGHTS

The suggestion of the argument just given is that the intentional and semantic, in principle, may be irreducible to the nonintentional and the nonsemantic.¹⁸ Since that suggestion, which elsewhere¹⁹ I pursue from other directions, flies in the face of the major thrust of the enterprise that has come to be known as Cognitive Science, I should defend the thought experiment against possible challenges. I anticipate two basic objections.

The first objection is that the girls really are not in the same context after all, and that the difference in context accounts for the difference in truth conditions of their beliefs. The other basic objection is that the girls really lack the beliefs ascribed to them, and that there is no difference between their beliefs correctly ascribed.

The first objection is that, although in many respects the girls are in the same context, in fact there is a difference in their contexts which accounts for the difference in the truth conditions of their beliefs. Now, how do the contexts differ? As the story was told, the girls are similarly located when they make their statements; they have similar causal histories (nonintentionally described); gin and vodka are both plentiful in their environments, past and present. The only differences between them are intentional or semantic. 'Vodka' denotes one drink in one language and another drink in a second language. One instructor intended to inform her pupil about vodka; the other instructor intended to inform her pupil about gin. It is even possible that the instructors themselves were molecular duplicates, who acquired their beliefs about gin and vodka, respectively, from other molecular duplicates. . . .

Suppose that these intentional chains eventually reach gin in the

¹⁸ Both Stephen Stich and Paul Churchland entertain the possibility of irreducibility. The conclusions that I draw from irreducibility are substantially different from those that they draw, however. I discuss the differences in "Cognitive Suicide," forthcoming in *Contents of Thought: Proceedings of the 1985 Oberlin Colloquium in Philosophy*, Robert H. Grimm and Daniel D. Merrill, eds. (Tucson: Arizona UP, 1986).

¹⁹ In "Just What Do We Have in Mind?," in "A Farewell to Functionalism," and in *Saving Belief*.

one case and vodka in the other. Since the dubbings of gin and vodka may be indefinitely remote in space and time from the girls, why should these chains constitute a (nonintentional) difference in the *girls'* environments? All the girls' (nonintentionally specified) causal interactions are identical. Perhaps the objector would be willing to let the notion of environment or context balloon in such a way that indefinitely remote events may help define a context. At the least, such a move would preclude identifying contexts in terms of values for antecedently specifiable sets of parameters.

Moreover, such a move would be to no avail anyway unless there are causal chains, identifiable without intentional assumptions, leading from the dubbings to the girls. However, the way that a word is passed along from one member of the community to the next, at least on Saul Kripke's picture of names (*op. cit.*, 96/7), is that the learner *intends* to use it with the same extension as the teacher. Thus, even if we took dubbings to be nonintentional—and I have my doubts even about this—still, no one has shown how nonintentional specifications could be adequate to describe the appropriate chains leading to the girls. Of the countless causal chains leading to the girls' utterances, there is no obvious way to specify the relevant chains nonintentionally. So, on the plausible assumption that a (nonintentionally specified) context is determined at most by spatio-temporal proximity or (nonintentionally specified) causal connection, the girls do not seem to differ in environment.

The girls differ all right. And it is no feat to specify the difference semantically; but for purposes of determining truth conditions of attitudes [as in (S)], context cannot be specified in semantic or intentional terms, on pain of vicious circularity.

The second objection may be elaborated like this. Not only do the girls fail to distinguish between gin and vodka, but also neither is aware that there is a second liquid similar to the one about which she was told. Since the girls have exactly the same behavioral dispositions toward *both* gin and vodka, one may reasonably ask: Do the girls have enough information about the drinks to be said to have the concept of one drink but not of the other? If not, then, on one intuitive sense of 'about', they do not have beliefs about gin or beliefs about vodka; in that case, the example fails to show two molecularly similar individuals in the same circumstances nonintentionally described, but in different narrow intentional states.²⁰

²⁰ Fred Feldman made a similar suggestion in conversation.

Since, however, we typically acquire beliefs in the fashion described and we typically lack omniscience, I see no credible way of denying that the girls have the beliefs ascribed. As the story was told, if either of the girls has the belief ascribed to her, the other has the belief ascribed to her. And, since the story may be filled in in indefinite detail, any principle that precluded both ascriptions would seem to be too strong. For it would seem to make the following a necessary condition of *S*'s believing that *F* is *G*: for any kind of thing that is *H* and not *F*, there are circumstances in which *S*, without acquiring new information, can distinguish things that are *F* from things that are *H*. (The murkiness of 'new information' does not affect the present point.)

Clearly, no such principle governs actual practice of ascription of belief. If it did, most of us would lack the belief that gold pieces are costly (since most of us are unable to distinguish gold from "fool's gold" without acquisition of new information), and most of us would lack the belief that U.S. hundred-dollar bills are green (since most of us are unable to distinguish them from counterfeits). Nor would adoption of such a principle seem desirable or even feasible; not only would it impoverish our store of beliefs, but also it would render miraculous our ability systematically to utter truths about, say, gold or hundred-dollar bills.

Thus, I think it unlikely that there is an adequate, principled way to deny that the girls have the beliefs ascribed. The English speaker believes that vodka is good to drink, and the non-English speaker believes that gin is good to drink. Each girl is simply unaware that there is a drink similar to the kind she has beliefs about. But there is no reason that this lack of further information should threaten the information that each has.

Moreover, if one wants to deny that the girls differ in belief, one will have to account for the difference in truth conditions of their sincere and competent utterances. For one said in English that vodka is good to drink, but, with the same kind of auditory emission, the other said in the mythical language that gin is good to drink. Anyone who claims that the beliefs they expressed thereby have the same truth conditions must conclude that the girls failed to express their beliefs.

Of course, from time to time, one fails to express one's belief in sincere utterance. For example, you might say, "The book on the table is well worth reading," if you believe that the book is Milan Kundera's latest. If Kundera's book has been replaced with one of Stephen King's, which you would not recommend, then you failed to

express your belief. Or, you might make a linguistic mistake; wrongly thinking that 'pusillanimous' means "stingy," you might fail to express your belief if you said, "Scrooge is the most pusillanimous character in all of literature."²¹ In both kinds of case, the speaker makes a mistake, and his failure to express his belief depends upon his having made that mistake. In the typical case, however, sincere and competent speakers succeed in expressing their beliefs.

If one tries to save narrow content by protesting that the girls really have the same belief, but fail to express it in their utterances, then one should give some indication, as I just did in the example above, of what prevents the girls from expressing their beliefs. Otherwise, the objector is just whistling in the dark.

Well, what would prevent them from expressing their beliefs? Nothing. Neither has made a mistake, linguistic or nonlinguistic. There is no further information on the basis of which either would be willing to admit that what she said was not really what she believed. Each is in excellent circumstances to say what she believed. However, I suppose that a friend of narrow content may just insist that such sincere and competent speakers of their language—whom no addition of new information, linguistic or nonlinguistic, would convince that they had "misspoken" themselves, or failed correctly to express what they actually believed—still did not express their beliefs.

The arbitrariness of such a "bite the bullet" strategy may be brought out by imagining a variation on the story. Suppose that there is no such country where what sounds like 'vodka' denotes gin, but that the course of the English speaker's life proceeds as before. Then, there are absolutely no grounds for denying that the English speaker expresses the belief that vodka is good to drink when she sincerely and competently says, "Vodka is good to drink." To insist in this case, with the non-English speaker out of the picture, that the English speaker fails to express the ascribed belief would be to impose an impossible standard on belief expression; any principle that precluded belief expression in the case of the English speaker considered alone would make it enormously difficult for us routinely to express our beliefs. Indeed, we may rightly wonder, if people fail to express their beliefs under the circumstances described, are we ever justified in supposing that anyone ever expresses her belief? And since there is no other belief that the English speaker would agree

²¹ 'Pusillanimous' was a favorite source of examples for the late Herbert Heidelberger.

that she mistakenly expressed when she said, "Vodka is good to drink," if any belief helped cause her utterance, it is one unknown to and unknowable by the English speaker, and incommunicable to anyone else; it is an unspeakable belief. Recourse to such "beliefs" has the desperate ring of the *ad hoc*.

If belief/desire psychology is to be saved, it is a Pyrrhic victory, at best, to have to rely on unknowable and incommunicable beliefs. It is difficult to see how such beliefs could have explanatory efficacy. Indeed, it is difficult to see what would entitle such to be called "beliefs" at all. Thus, I think, insisting that the girls actually had the same belief, which they failed to express, is not a promising line of objection.

CONCLUSION

(S) and (P) are not jointly satisfied by any concept of narrow content. It does not matter whether the language of thought is a conventional language or not, nor does it matter whether narrow content is expressed in a restricted observation language or not. Here is one final way to put the dilemma: if an individual's narrow contents depend on the individual's environment, then (P) is violated, as we saw in considering observation terms in Mentalese. But, on the other hand, if an individual's narrow contents are independent of the environment, then it is a mystery how *narrow content* can be a semantic notion at all. That is, if (P) is satisfied, then, as we saw in the gin/vodka case, "narrow contents" (understood now as what is shared by molecular replicas) do not make the requisite contribution to the truth conditions of the individual's beliefs. So, a concept of narrow content that honors (P) is a concept of content only by courtesy.

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¹⁷ **Individualism and Psychology**

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