

INTENTIONALITY, I

The term “intentional” is used by philosophers, not as applying primarily to actions, but to mean “directed upon an object.” More colloquially, for a thing to be intentional is for it to be *about* something. Paradigmatically, mental states and events are intentional in this technical sense (which originated with the scholastics and was reintroduced in modern times by Brentano). E.g., **propositional attitudes** such as beliefs and desires and regrets are about things, or have “intentional objects”: I have beliefs about Vladimir Putin, I want a beer and world peace, and I regret having agreed to review the tedious book I’ve just finished reading.

A mental state can have as intentional object an individual (John loves *Marsha*), a state of affairs (Marsha thinks *that it’s going to be a long day*) or both at once (John wishes *Marsha were happier*). Perception is intentional: I see John, and that John is writing Marsha’s name in his copy of Armstrong’s *A Materialist Theory of the Mind*. I’ve been known to see little frogs and toads that aren’t there. Many emotional states are about things too (“sad about...,” “jealous of...”).

The computational states and representations posited by cognitive psychology and other cognitive sciences are intentional also, since in the course of computation, something gets computed and something gets represented.

What is at once most distinctive and most philosophically troublesome about intentionality is its *indifference to reality*. An intentional object need not actually exist or obtain: the Greeks worshipped Zeus; a friend of mine believes that corks grow on trees as in *Ferdinand the Bull*; and even if I get the beer, my desire for world peace is probably going to go unfulfilled. An intentional state is the state it is and has the content it does quite regardless of whether that content corresponds to anything real.

Brentano argued both (A) that this reality-neutral feature of intentionality makes it the distinguishing mark of the mental, in that all and only mental things are intentional in that sense, and (B) that purely physical or material objects cannot have intentional properties--for how could any purely physical entity or state have the property of being “directed upon” or about a nonexistent state of affairs? (A) and (B) together imply the Cartesian dualist thesis that no mental thing is also physical. And each is controversial in its own right.

Thesis (A) is controversial because it is hardly obvious that every mental state has a possibly nonexistent intentional object. What about moods?: Depression, or free-floating anxiety. Bodily sensations such as itches and tickles?

Also, there seem to be things other than mental states and events that “aim at” possibly nonexistent objects. Linguistic items such as the name “Santa Claus” or the description “the Easter Bunny” are an obvious example; paintings and statues portray fictional characters; and one might ignorantly build a unicorn trap.

More significantly, *behavior* as usually described is intentional also: I reach for the beer; John sends a letter to Marsha; Marsha throws the letter at the cat; Macbeth tries to clutch the dagger he sees.

Finally, some natural phenomena seem to aim at real or nonexistent outcomes (wildfires, human immune responses, heliotropic plants), though here it may be replied that to anthropomorphize in that way is to think as if the relevant natural phenomenon has mental states.

The standard Brentanoist reply to the points about linguistic expressions and goal-directed behavior is to maintain that the aboutness of such nonmental things is second-rate because it invariably *derives from* the more fundamental intentionality of someone’s mental state. Linguistic expressions refer only because language users have intentions—in the action sense now—directed upon those expressions. (*King John* example.) Behavior is intentional in our sense only because it expresses the corresponding intention in the action sense. Thus, we distinguish **derived** intentionality or aboutness from intrinsic or **original** intentionality; theses (A) and (B) apply only to the latter.

And together they continue to entail that materialism is false. Thus, **Brentano’s Problem**: How can a purely physical thing be in intrinsically intentional states? —Of course Descartes and Brentano himself saw no *problem* or even explanandum here; they meant the question only rhetorically and their answer was simply “It can’t.” The problem is for the materialist. And it’s a nasty one.

The Behaviorist line

As Fodor acknowledges, the Behaviorists had a pretty good solution: The intentionality really is in the behavior intrinsically or “originally,” and mental states are intentional just because they’re defined in terms of intentional (in our sense) behavior. Propositional attitudes, in particular, are dispositions directed towards *sentences*, though surely they’re in part nonverbal dispositions as well. To believe that broccoli causes erysipelas is to be disposed to say “Broccoli causes erysipelas.”

Fodor (pp. 331-32) makes a number of criticisms of Carnap’s version of the view. Fusing numbers 2 and 3: The idea is that some people who believe that broccoli causes erysipelas may not be disposed to use the exact sentence “Broccoli causes erysipelas.” One may prefer the passive voice, and what he would say is

“Erysipelas is caused by broccoli.” Karl the German does not know English at all, and would say “Der Brokkoli hat zur Folge die Gesichtsrose.” The linguistic Behaviorist cannot focus on one particular sentence, but must acknowledge that any roughly synonymous sentence would do. That’s what Fodor means in talking of “translation sets.” Now, the objection is that the ideas of “synonym” and “translation” presuppose propositional attitudes such as communicative intentions; to appeal to them invites a charge of circularity in the analysis.

(The translation set move would not help the Behaviorist with Fodor’s next objection, 4, that languageless creatures can have propositional attitudes.)

Here is a further and more general objection that Fodor does not offer (though he’s well aware of it): The Cycle applies. Even if I believe that broccoli causes erysipelas, whether I come out and say “Broccoli causes erysipelas” depends entirely on *what else is going on in my mind*. If you ask, “What do you believe about broccoli,” I’ll produce “Broccoli causes erysipelas” only if I heard you correctly (had the right *aural experience*). And I’ll produce it only if I *want* you to know what I believe. More generally, although every (?) mental state has a corresponding normal or standard behavioral syndrome, what I will actually do in response to a given stimulus depends on what else is going on in my mind. I want beer; but I will reach for one and drink it if it is placed before me depends on whether I *perceive* it as beer (instead of a frosty, inviting cyanide preparation), on whether there is not some competing thing that I *want* more than I want the beer, on whether I *believe* that the beer is as refreshing and as harmless as it looks, and so on for just about (?) forever. The point is familiar by now.

Fodor’s Representationalist or “language of thought” theory

Many theorists, especially those influenced by cognitive science, join Fodor in believing that not only the intentionality of cognitive computational states but also that of everyday intentional attitudes such as beliefs and desires inhere in states of the brain. On this view (originated in the 20th century by Wilfrid Sellars), all intentionality is at bottom *mental representation* (depiction, portrayal), and propositional attitudes have Brentano’s feature because the internal physical states and events that realize them represent actual or possible states of affairs. The existent-or-nonexistent states of affairs that are their objects are just representational contents, akin to the meanings of sentences. It is thought that the brain contains at least one whole representational system.

So, to (e.g.) believe that P is to bear the belief relation to an internal representation whose semantic content is that P. As Sellars put it, the grammatical complements of propositional-attitude ascriptions are “sentences used in a special way.” What makes the belief that P a *belief* rather than a desire that P or a hope or a regret or a fear, and what makes the belief relation the belief relation, is taken to

be functional, a matter of the role being played by the representation in question. What makes the state the belief *that P* is its representational content.

Main arguments for the Representational theory:

1. The theory “meshes with,” and also but merely builds upon, our best current empirical accounts of mental processes. Cognitive psychology already posits internal representations, so we have excellent reason to believe there are such. So why not token-identify our propositional attitudes with some of those representations? [Not a strong argument; why not?]

2. Fodor notes “Vendler’s Condition”: There is a striking parallel between verbs of thinking and verbs of saying. Also, to “say to yourself” that P is to think that P, and to “think out loud” is to voice one’s thought without any communicative purpose.

(Also, the Representational theory solves various semantical puzzles about belief *ascriptions*, though that is not our business here.)

3. “Productivity”: Thinking is unbounded, in the sense that there is no clear limit to the length or complexity of a novel thought we might have. This unboundedness of thinking is just like the unboundedness of sentential meaning. Chomsky argues almost irrefutably that we understand novel sentences by knowing the meanings of their parts and projecting those meanings through grammatical composition to get the meanings of the whole sentences. So, too, presumably we are able to think long novel thoughts because we have the concepts of which they are made and the grammar or syntax by which they are composed and those two things determine their propositional contents.

4. As in 3, the objects of propositional attitudes are conceptual; they have the same sort of *parts* that sentences do. And they have logical form. More to the point, they have clearly semantical properties: truth-value, entailments, and of course aboutness. They depend for their truth on a match between their internal structures and the way the world is; so it is natural to regard their aboutness as a matter of mental referring or designation.

Also, let’s get the caricatures out of the way. What the Representational theory says is only this: Propositional attitudes are like sentences in that (i) they have conceptual parts, (ii) they have semantical properties such as truth-values and entailments, (iii) they have a grammar or syntax by which their conceptual parts are compounded into whole propositional contents, and (iv) they are physically realized in the brain (though probably in a distributed, not morphologically salient fashion).

Objections

1. (Dennett) What about languageless creatures? Higher animals and preverbal children surely have propositional attitudes, but no language. Reply: They do not have a *public, social* language. But the Representational theorists did not say they do. We need not doubt that their brains represent things.

2. There is a question of *priority* as between language and thinking. This was the basis of an objection made against Sellars' old version of Representationalism by Roderick Chisholm: The Representationalist explicates thinking in terms of language; to think is to use a language in one's head. But that gets the priority the wrong way around; as we saw last week, the aboutness of linguistic expressions is only derived, derived from the intentionality of propositional attitudes. Language has content and aboutness only because thought does—not the reverse. Reply: This too is an *ignoratio elenchi*. Again, the modern-day Representationalist does not explicate thinking in terms of a public, social language, but rather in terms of internal representations. Representationalism does not mention public natural languages at all. It is entirely compatible with the thesis that public-linguistic aboutness derives from the intentionality of thought.

3. (Dennett) Tacit propositional attitudes (the belief that New York is not on the moon, the desire that one not be beaten to death by angry insurance adjusters from northern Tibet, the hope that one will be alive five seconds from now). We have karbloofasquillions of such beliefs; they can't all fit into our finite brains, large as those brains are. Reply: The Representational theory applies only to "occurrent" states, not to tacit attitudes. Rejoinder: But what *about* the tacit attitudes? You said the Representational theory is a theory of the propositional attitudes, but now you're saying it's a theory of only a few of them.

Standard move: Tacit attitudes are only dispositions to be in the corresponding occurrent states. (Occurrent beliefs in particular are what Dennett calls "judgements," and he's willing to believe that those are representational brain events, but he complains that we can't infallibly read beliefs off of judgements.) But, Problem: Not every disposition to judge is intuitively an existing tacit belief (the Excited Raconteur, the Opinionated People). So at best a tacit belief is a disposition to judge *that meets some further restricting condition*. And no one has thought of a plausible further condition.

Suggestion: We may not need to solve that problem. How about letting the tacit beliefs be those logical consequences of "occurrent beliefs" or judgements, that are not themselves occurrent? (The idea would be that I tacitly believe the sun is more than 2 feet away because I have judged that it is 93,000,000 miles away, which entails that it is more than 2 feet away.) The tacit beliefs are implicit in judgements, by being logically contained in them.

That's as good an idea as I know. But it faces two difficulties. First difficulty: Intuitively, we don't want to count *every* proposition that's entailed by one of my judgements as a tacit belief of mine. To take the most extreme case, every logical tautology is entailed by every judgement I make, but it seems wrong to say that I even tacitly believe that blah-blah, where "blah-blah" abbreviates a gigantic tautology that would take fifteen years to write down. Second difficulty: It would not always be easy to identify the particular judgement of which a given tacit belief is supposed to be a logical consequence. Until I voiced it in class some weeks ago, I only tacitly believed that Chillicothe, OH, was not vaporized in a nuclear holocaust in 1972. But what is the relevant judgement? That there has never been a nuclear holocaust *in the USA*? I doubt that I have ever explicitly judged that. That the only two nuclear holocausts in history took place in Japan? Well, maybe I have judged that. But notice that we need a further premise to get the entailment: that Chillicothe, OH, is not in Japan—and I have not ever judged *that* (until now).

4. Paul Churchland and Patricia Churchland contend that the "language of thought" idea is distinctly *unbiological*. When one recalls that human beings are card-carrying members of the animal kingdom and that we have evolved in the usual way by natural selection, our linguistic abilities, and our cognitive functions on any highly linguisticized account of them, seem to be an evolutionary afterthought at best, and a tiny fragment of the psychology that actually gets us around in the world. Churchland and Churchland compellingly depict a brain that works by entirely distributed, holistic "connectionist" networking and by physically hard-wired coordinate transformation, not by digital-computer-like inferential computation over syntactically structured sentences or logical formulas. Reply: That is looking at an inappropriately low level of organization. Perhaps the brain's neural net architecture is *implementing* or realizing sentence-like internal representations; any argument for Representationalism is an argument for that hypothesis. Obviously we wouldn't expect to look at a brain from a neuron-by-neuron point of view and tell whether or not it is implementing higher-level representations. Second reply: We *produce* meaningful sentences (out loud), and that's a vitally important and valuable ability of ours. Where does the sentential structure come from if there hadn't been any sentential structure in the brain? [Fair question, but we can't simply assume that if sentential structure comes out, it must have been inside first.]

5. (The **BIG ONE**.) Public-linguistic meaning is (obviously) social and conventional, but the same cannot be true of the alleged internal representations. The main difficulty for the Representational account is that of saying exactly how a physical item's representational content is determined; in virtue of what does a neurophysiological state represent precisely that the Republican candidate will win? An answer to that general question is what Fodor has called a

“psychosemantics”; the question itself has also been called the “symbol grounding problem.” Several attempts have been made on it, all of them pretty pathetic. We shall look at one of them later on.