Remarks on Fodor on Having Concepts

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Abstract: Fodor offers a novel argument against Bare-bones Concept Pragmatism (BCP). He alleges that there are two circularities in BCP's account of concept possession: a circularity in explaining concept possession in terms of the capacity to sort; and a circularity in explaining concept possession in terms of the capacity to draw inferences. We argue that neither of these circles is real.

1. Introduction

As Fodor sees it, two views about the nature of concepts are fundamentally in competition with each other. Pragmatism is the doctrine that 'concept possession is constituted by certain epistemic capacities'. On the other hand, according to the kind of Cartesian view of concepts Fodor advocates, concept possession 'is an *intentional* state but not an *epistemic* one'. Having the concept DOG is just being able to think about dogs ('as such').

This distinction is problematic since it's not entirely clear what the contrast between Cartesian and Pragmatist accounts of concepts is supposed to amount to. Presumably everyone who thinks that there are concepts thinks that one of the things that they do is allow their possessors to think about or represent part of the world. At least, every Pragmatist who isn't a behaviorist thinks this; certainly the cognitive psychologists Fodor attacks do. Since Cartesians do as well, and behaviorists are out, it's unclear at the outset how the contrast is to be drawn.

Granting that having concepts lets us think about the world, it's a further question what the properties are in virtue of which someone has a concept, hence has the ability to think about dogs as such. Having an account of those properties (ideally, non-intentional properties) would be having an account of the intentionality of thought. Conceptual or inferential role semanticists take it that how one gets to think about Xs is by having a symbol with the right kind of causal and inferential relations to other symbols and to Xs. Informational atomists, on the other hand, think that how one gets to think about Xs is by having a symbol that is nomologically locked to them, regardless of what mediates that locking or how that symbol is in turn related to other concepts.

Hence it's common ground that concept possession entails the ability to think about Xs. The differences among theories of concepts are over what capacities an organism must have to have concepts. Informational atomists claim that there are

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no *particular* cognitive capacities that are metaphysically necessary to become locked to a property, hence there are no particular capacities that are metaphysically necessary for concept possession (although it may be necessary that there be some such capacities or other present). Conceptual role theorists disagree, proposing a varying array of capacities that are constitutively linked to representation of a content. The locus of the debate, then, is not between those who think concepts are for thinking about things versus those who think concepts are for guiding certain kinds of behaviors or mental acts. Rather, it's between two views about how to understand what it takes to be able to think about things.

With this clarification, consider the family of Pragmatist accounts Fodor criticizes. According to Bare-bones Concept Pragmatism (BCP), 'concept possession is constituted by. . .capacities for INFERRING and SORTING'. Fodor levels three objections against BCP. Two of these, the objections from analyticity and compositionality, are extremely familiar. Since they have been discussed extensively in the concepts literature, we won't expend any more space commenting on them here. Rather, we'll focus on what Fodor claims to be a novel objection against BCP: the objection arising from circularity. This objection is leveled against both of the capacities BCP proposes are constitutive of concept possession, sorting and circularity. We'll address these in turn. Our claim is that neither argument is ultimately persuasive.

2. The Sorting Objection

Consider the circularity objection to the sorting condition first. The objection has the form: (1) *Having concept C* depends on *being able to sort Cs*; and (2) *Being able to sort Cs* depends on *having concept C* (or something conceptually equivalent to it). And this would be viciously circular. (1) is a premise of BCP, so the question is whether there is a case saddling the Pragmatist with (2). We'll argue that there is not, and that the appearance to the contrary depends crucially on an ambiguity about 'sorting'.

What is it to satisfy the sorting condition? As Fodor formulates the condition, for a concept C to have a sorting requirement in its possession conditions is for it to require 'the ability to sort things into those that C applies to and those that it doesn't'. He notes first that how subjects actually sort things doesn't distinguish contingently coextensional concepts from each other. So it matters how subjects *would* sort their environment. But even counterfactual sorting alone won't distinguish necessarily coextensional concepts like WATER and H_2O, or TRIANGLE and TRILATERAL. It's possible that subjects could sort the same under all counterfactual circumstances, *yet* their sorting could be under the control of different concepts. The result is this: possibly, a subject has two distinct concepts, C_1 and C_2, that are connected to necessarily identical sorting behavior.

This suggests a dilemma for the BCP theorist: either deny that two distinct concepts can produce necessarily identical sortings, or find another factor to

distinguish them. The second horn is, for good reason, the more popular one. Indeed, it is the horn Fodor himself takes when he claims that WATER and H_2O, although identical in content in virtue of being locked to the same property, are distinct concepts in virtue of their structural differences—and thus, incidentally, in virtue of their possession conditions, since structural differences entail differences in possession conditions (Fodor, 1990, p. 114). We will return to this point later in our reply.

The argument turns on how sorting is to be understood. Here are two possible ways to understand it. In the first sense, 'sorting' is an intentional term. It is something that a thinker does in virtue of representing her actions and environment in a certain way. Call this sense of sorting intentional sorting, or I-sorting. In this sense, whether or not I am I-sorting dogs depends on more than whether I am making a pile of dogs and a pile of non-dogs. It depends on my state of mind, in particular how I conceive of the entities I'm sorting. If I'm thinking BARKERS as I pile up dogs, then I am in fact I-sorting barkers, not dogs, even if, *de facto*, all and only the dogs are barkers. The same applies to the triangle and trilateral case, which shows that thought can make distinctions finer than necessary coextension.

On the other hand, sorting can be thought of in non-intentional terms. Any device or system that covaries with some condition can be said to sort in this sense, whether the response is purely internal (like changing some inner state) or external (like moving an object onto a pile). To mark the distinction sketched here, call this second kind of sorting mechanical sorting, or M-sorting. In the M-sorting sense even a simple mechanical device lacking any representational states may be able to sort its environment.[1] However, the sorts such devices can carry out are far more coarse-grained than those that creatures with intentional states can enact. A photo-electric switch may trigger when light hits it, in which case it is M-sorting light-on states from lights-off states. If the lights go on only when class is in session, and are off otherwise, then the switch may be M-sorting class-in-session states from class-out-of-session states (and, for that matter, students-unhappy states from students-happy states, and so on for other coextensional state description predicates). A person who is I-sorting objects can be regarded as M-sorting by decreasing the granularity of the distinctions she herself is making in I-sorting; so the subject who is I-sorting barkers (not dogs) may be M-sorting both dogs and barkers (supposing the set of barkers is the set of dogs).

Which sense of 'sorting' is at issue in Fodor's argument? Given that BCP is intended to be a theory of concept possession, and thus cannot presuppose further intentional notions, the appropriate sense seems to be M-sorting. The picture then is the following. There is an internal state of a subject, call it S, that is causally implicated in how that subject M-sorts her environment. Suppose it functions in a

[1] For those with pansemanticist tendencies, substitute no *robustly* representational states, or no *mental* representational states.

causally central way in her M-sorting triangles from non-triangles (and hence M-sorting trilaterals from non-trilaterals). If M-sorting were sufficient for concept possession and it functioned to determine the content of the concept possessed, then the subject would possess a concept that was ambiguous between TRIANGLE and TRILATERAL, since as we ordinarily individuate concepts, those two are constituents of different intentional states. This threatens the idea that M-sorting alone is sufficient to determine the content of a state. Simple M-sorting doesn't assign states to concept types. (Unless, of course, a better account of M-sorting could be developed.)

Fodor's continuation of the argument, however, seems to rely on the sense of 'sorting' being I-sorting, rather than M-sorting. The argument appears to be that the only kind of sorting that 'manifests' possession of one rather than another of a pair of conceptually equivalent concepts is sorting according to that very concept itself. But then sorting fundamentally relies on concept possession, which is just claim (2) above. Thus the circularity would be established. He concludes: 'the only sorting that ipso facto manifests possession of concept C is sorting *according to C*. . .sorting according to any other concept would manifest one's possession (not of the concept C, but) of that other concept'.

This appears to employ the wrong sense of 'sorting', however.[2] It's true that I-sorting is determined by the subject's state of mind as she sorts, and therefore by the concepts that she deploys in conceiving of her action. If she is thinking TRIANGLE, not TRILATERAL, then she's I-sorting triangles. But BCP wants a way to give conditions for concept possession in terms, *inter alia*, of M-sorting. Hence the question is what further constraints, beyond the way the subject's internal states M-sort her environment, are required for her to possess the concepts needed to engage in I-sorting.

Fodor's line of argument, if sound, would come perilously close to catching informational atomism (IA) in its net as well. IA requires that we have mentalese symbols that are nomically locked to their contents in spite of variation in what mediates those lockings. The notion of M-sorting is sufficiently wide to include responses like tokening a symbol in response to a distal stimulus. So differentially tokening a mentalese symbol is a form of M-sorting; it partitions the environment into causes of the symbol and non-causes of the symbol. IA can allow that symbols are frequently tokened wildly, i.e. not in response to objects in their extension. These familiar cases motivate the disjunction problem. The trick in overcoming the disjunction problem and naturalizing the *right* extension for a concept is to find a set of causes that include only the objects that are intuitively part of that extension. That is, we have to be able under some conditions to M-sort in the

[2] In addition, the issue here isn't what a subject's sorts would manifest about her concepts, but about whether her sorts (in the extensional sense) can be constitutive of her concepts. An (intentional) sort presumably manifests whatever concepts the person has in mind when she is carrying it out; that follows from the definition of an I-sort (and the usual conditions on individuating actions).

right way. In short: it's the way a symbol behaves in certain kinds of M-sorts (e.g. the ones on which all its other tokenings depend, and which does not depend on any of them) that determines its *identity as a concept* under IA.[3] So there had better not be anything circular about using M-sorting, or non-intentional discriminative responses, as a basis for concept possession.

How do we get I-sorting from M-sorting, according to BCP? Here's one account. I-sorting X's may depend on having the concept of X doing the guidance. But having the concept of X is a matter of M-sorting X's in the right way, plus some additional factor. What's the additional factor? Answer: it's the inferential tendencies that are connected with the state that guides the M-sorting. In this case it's the tendency to infer to, say, HAS ANGLES rather than HAS CLOSED SIDES (the former being constitutive of TRIANGLE, the latter of (CLOSED) TRILATERAL). Furthermore, these inferential tendencies are plausibly thought of as being underwritten by the constituent structure of the state in question: it's by detaching ANGLE from TRIANGLE that one is able to infer to HAS ANGLES. So inferential tendencies, ultimately determined by structural properties of the states in question, determine which of TRIANGLE and TRILATERAL is guiding the M-sorting behavior.[4] That makes the difference between M-sorting and I-sorting.[5]

These possibilities seem open to the BCP theorist. Further, they don't obviously differ from Fodor's own proposals about how to distinguish necessarily coextensive concepts. Nothing in BCP *per se* prohibits its appealing to structural properties to individuate concepts.

3. The Inferring Objection

Turn now to the inferring objection. Once again, the charge is that: (1) *Having concept C* depends on *drawing inferences* $I_1 \ldots I_n$; and (2) *Drawing inferences* $I_1 \ldots I_n$ depends on *having concept C*. And we're in another vicious circle. The issue, as before, is whether premise (2) can be supported.

Notice again that Fodor's arguments here, if sound, would undermine a doctrine that he has previously declared himself committed to, viz. the doctrine that conceptual role semantics (a form of BCP) is the best account of the meaning of

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[3] It's well known that it is non-trivial to produce an account of what kinds of indicators or detectors (roughly M-sorting devices in our terms) have the kind of content exhibited by intentional states as we typically individuate them.

[4] Of course, this leaves open the question of what representations are included in the constituent structure of a concept. Fodor thinks it's none for (most) lexical concepts. The question is too large to get into here, particularly since it takes us back to the arguments concerning holism and compositionality.

[5] This sort of argument is made by Fodor himself in his (1994), where he claims that this sort of move motivated the transition from Behavioristic Pragmatism to its mentalistic cousins.

the logico-mathematical vocabulary. Consider the following representative passages:

> I'm inclined to think that maybe there is *no* objection to the idea that '+', 'and', 'all' and the like have the meanings they do because they play a certain causal role in the mental lives of their users (Fodor, 1990, p. 110).

> [A] sufficient condition for a speaker's meaning *and* by 'and' [is] that, ceteris paribus, he takes 'P and Q' to be true iff he takes 'P' to be true and 'Q' to be true (Fodor, 1990, p. 111).[6]

This appears to be the view that Fodor now thinks is unsound. So one might ask: what *does* account for possession of the logical concepts if not their conceptual roles?[7]

Fodor argues that BCP needs to show 'cases where *grasping* a concept (understanding an expression) can be identified with grasping (or knowing, or being disposed to follow, or whatever) the very same rules that serve for its introduction/elimination'. But this isn't clearly what BCP needs to show. In particular, it depends on which of Fodor's proposed glosses on 'grasping rules' one adopts: (1) grasping the rules is knowing the rules;[8] or (2) grasping the rules is being disposed to follow the rules. Arguably, all BCP needs to show is that grasping a concept—which is presumably synonymous with possessing it—can be identified with having a state S that is implicated in causal transitions that *conform to* the inferential relations stipulated in the introduction/elimination rules. This is only the same as Fodor's condition if one assumes that 'grasping the rules' is interpreted as 'being disposed to infer in accord with the rules'. Since this requirement is both weaker and what conceptual role semanticists seem always to have intended, it is *prima facie* the one to adopt.

However, under this dispositional interpretation it isn't obvious, as Fodor later claims, that '[t]o grasp an inference, one must understand how the truth of its premises bears on the truth of its conclusion'. According to conceptual role theorists, in order to be disposed to token 'P' and 'Q' in response to tokening 'P *S* Q', one just needs a mechanism that is sensitive to complex states of the form '__ *S* __'. It's the presence of those mechanisms that makes S the concept AND (rather than OR). This claim doesn't appear to require any understanding on the part of the subject or, for that matter, the processes that implement the transitions. This is part of what is meant by the claim that psychological processes are

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[6] Fodor also adds the important proviso that 'taking X to be true' ultimately be explicable in non-intentional, dispositional terms.

[7] N.b., it's no good to answer that possessing logical concepts like AND is just a matter of being able to think conjunctive thoughts, since concepts *are* whatever structures that allow us to think about contents. Compare: my ability to swim is accounted for by my ability to stay afloat and maneuver unaided in water.

[8] Presumably 'knowing' here is a gesture towards explicitly representing the rules. Fodor's examples later in the paper seem to support this.

computational: they don't care about the content of the states that they're defined over, only their syntactic form (whatever that is).

This issue is muddled in Fodor's discussion of the sentence (/thought) 'If John swims and Mary swims then John and Mary swim'. He asks why English speakers 'recognize that the inference that this sentence expresses is primitively compelling', and his answer is that this recognition requires grasping that 'and' expresses AND. Otherwise, there could be no primitive compulsion. But there is no requirement that speakers (/thinkers) *recognize* that inferences are primitively compelling. The inferences merely need to *be* primitively compelling to them. That's why conceptual role theories gesture towards an eventual dispositional/functionalist reduction of the mental state *being disposed to draw an inference*. No one has yet produced such an account, but its possibility is presupposed by mainstream functionalism about mental states. An account of the ability to recognize the syntactic form of thoughts plus an account of mental processes that are sensitive to them should be enough to account for the primitive compulsion speakers (/thinkers) feel.

Fodor grants what Peacocke says about our being sensitive to, and moved by, these transitions in virtue of their form. He suggests, however, that 'whether you have CONJUNCTION depends not just on what inferences you accept, *but also on your reasons for accepting them*; at a minimum, your reasons for accepting them must include your having understood their premises and conclusions'. On the story just sketched, however, no such robust understanding is required. Rather, all that's needed is that there be mechanisms operating to effect the causal transitions among states that are isomorphic to those given in the implicit definitions of the terms. There is no need in addition to grasp the inference in the sense of being able to explicitly represent the inference. Only the weaker sense of being disposed to draw the inferences is required.

Do we need, nevertheless, to 'understand' the premises and conclusions of inferences that we draw? If we are speaking of thoughts and concepts, we need to be able to token the premises and conclusions, certainly, given that inferences are, in one sense, just a certain kind of reliable causal transitions among such states. If understanding the premises and conclusion is tokening them (or being able to do so), then circularity might appear to threaten again, since 'drawing an inference' would depend on an antecedent capacity to token the concepts whose possession conditions are putatively constituted by the capacity to draw that very inference. But this misstates the way the conceptual role account works. We begin with a set of states capable of something like syntactic combination or concatenation. Complexes of these states are causally related in various ways, as determined by the architecture of the system in which they're embedded. When the right patterns of causal relations obtain, some such states satisfy the conditions for being particular concepts. Where there are concepts, there are inferences in the sense of transitions among *contentful* states. The sense of 'inference' that is used in the BCP theorist's condition (1) must be understood as referring only to a causal transition among states individuated non-semantically (e.g. perhaps formally). Hence there is no

circularity; the capacity of a system to engage in such transitions does not depend on its possessing any concepts at all.

Incidentally, this sort of picture of what is involved in meeting the possession conditions for concepts seems to be what Peacocke himself has in mind. Although Peacocke's overall picture is complex, he claims that the job of an adequate psychology is to explain the mechanisms, states, and processes that enable organisms to meet the possession conditions for concepts. These explanations are intended to be 'subrational'—not individuated in reason-giving terms, or by states that are themselves individuated in reason-giving terms—and not to employ the concept whose possession is being accounted for (Peacocke, 1992, pp. 179–80). Whether or not one thinks that this is the proper explanatory goal of psychology, it's not clear that it is in principle unmeetable. In particular, Peacocke demands that the ultimate account of concept possession not be in terms of a subject's *reasons*, but in terms of the mechanisms that make inferences with the right form primitively compelling. (Indeed, primitive compulsion seems just to be compulsion for which the subject can give no further reason.) The account sketched above, according to which a state S is governed by mechanisms that implement its transitions according to the possession conditions for conjunction, would be one way of explaining, in Peacocke's terms, our mastery of conjunction in non-circular and non-reason-laden terms.[9]

4. Conclusions

If we are right about the foregoing, the circularity objections fail and BCP is no worse off than before (although arguably no better, either). Taking a step back, we might ask: How, if at all, does this debate between Pragmatists and Rationalists matter to cognitive psychologists? Consider first what they tend to be talking about when they propose something like the sorting requirement on concepts. More often than not they take it that, at a minimum, concepts are representational structures that are centrally implicated in categorization. Categorization is not often given much analysis, but at a minimum it involves coming to judge that a concept applies to a particular individual or class; judging, e.g. that *x is F* or that *Gs are F*. According to this view, categorization is one of the central things that concepts do for us, cognitively speaking. Thus, the reasoning goes, a theory of concepts ought to tell us something about how concepts are used in acts of

[9] The account does presuppose that something like the syntactic form of concatenated symbols is available to these causal processes. True, as Fodor notes, 'validity, goodness, and the like aren't syntactic notions'; but the processes that make one able to meet the possession conditions for AND needn't be sensitive to validity if they can be sensitive to syntactic form. A mechanism that responds to syntactic form is something we could hope to build, unlike something that responds directly to validity and other semantic notions.

categorization. This needn't imply that the role of concepts in categorization is *individuative* of concepts, but neither should that role be ignored.

Psychologists don't tend to care, however, about the question of what makes a concept represent the content that it does. (It's a virtue of interdisciplinary projects like cognitive science that they make possible this kind of division of labor.) Rather they take for granted that concepts are representations and focus on characterizing their formal properties and the mental processes that operate over them. But they nevertheless take them to be both mental devices with which we categorize the world and structures that represent part of the world. And they are *for* categorizing what they represent. Neither role can comfortably be carved off. If it were generally true of your putative concepts that you could not detect instances (e.g. you could represent ditches but could not recognize them when they're straight ahead), you aren't a model of mentation. If you can differentially respond to ditches but can't think about them, you've got cognitive blinders on. We need both to be able to categorize and represent the world, and the hope of psychologists (and many philosophers) is that one and the same set of structures will do both for us. This would be a kind of *rapprochment* between Pragmatism and Rationalism. Fodor isn't betting that any such compromise is possible. However, as we've argued, the circularity arguments can be circumvented. That constitutes some basis for optimism. Making the rest of the case is a large task best left for a later occasion.

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