Having Concepts: a Brief Refutation of the Twentieth Century

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Abstract: A certain 'pragmatist' view of concept possession has defined the mainstream of Anglophone philosophy of language/mind for decades: namely, that to have the concept C is to be able to distinguish Cs from non-Cs, and/or to recognize the validity of certain C-involving inferences. The present paper offers three arguments why no such account could be viable. An alternative 'Cartesian' view is outlined, according to which having C is being able to think about Cs 'as such'. Some consequences of the proposed paradigm shift are briefly considered.

" . . . *the silliest of all the centuries, philosophically speaking* . . . "-Galen Strawson (in conversation).

1. Introduction

It was just a couple of weeks ago that nobody asked me (and not for the first time) what I thought was *the* characteristic doctrine of twentieth century philosophy of mind/language. I was ready for the question. *The* characteristic doctrine of twentieth century philosophy of mind/ language, I explained, was that *concept possession is some sort of dispositional, epistemic condition*. Maybe it's some sort of 'knowing that'; or maybe it's some sort of 'knowing how'; or maybe it's a bit of both.[1] In any case, 'knowing', 'believing' and the like must come into the story somewhere, and what you have to know in order to have a concept ipso facto constitutes the concept's content.

Because epistemic states are prior to concept possession, both in the ontological order and in the order of explanation, epistemology is likewise prior to psychology in both respects. It is also prior to semantics since one's grasp of a linguistic expression consists in knowing-what it means and/or knowing-how to use it. All sorts of interesting things are said to follow. For example: thoughts are made of concepts, so, if concept possession is a dispositional state, the causation of behavior

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[1] Knowing-how generally gets most or all of the emphasis; in this respect, the idea that concept possession is an epistemic condition is a species of pragmatism much more often than not. I'll call it that in what follows, but the arguments don't trade on doing so.

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by thought isn't 'event causation'; it's not to be construed on the analogy of billiard balls colliding. Rather, thought causes behavior in the way that fragility might cause the glass to break. Also, epistemic states are inherently normative (knowing-that-P is *getting it right* about P; knowing how-to-X is having one's attempts at X-ing *come off properly)*; so claims about concept possession are inherently normative too. Having the concept of a partridge (as it might be) involves generally getting it right about such matters as whether partridges are birds and whether *this* bird is a partridge.

That was all very rough; there'll be some smoothing presently. Meanwhile, I need a term of art for the galaxy of views according to which concept possession is epistemic, dispositional, and normative. I shall (with some trepidation; see fn. 1) call such views 'concept pragmatism'.

I do think that concept pragmatism is practically all of what the last hundred years of Anglophone philosophy of mind (/language) has been about. For example, concept pragmatism is what crude behaviorists (like Quine and Skinner) have in common with sophisticated behaviorists (like Ryle, Wittgenstein and Davidson). Both kinds of behaviorists take for granted that concept possession is a kind of knowing how. The issue between them is only whether the know-how that constitutes the possession of a concept can be specified in a 'purely behavioral' vocabulary (as opposed to a vocabulary that is, at least in part, intentional). Crude behaviorists think it can, sophisticated behaviorists think it can't, and I think a plague on both their houses. Likewise, philosophers who stress the social, interpersonal character of thought (Dewey, Quine, Wittgenstein, Davidson, etc.) take it for granted that behavior is prior to thought in the order of analysis; their point is just that it's in the nature of the relevant kind of behavior to be accessible to public appraisal. (Discriminative responses are the traditional paradigms.)[2] In fact, it's hard to think of more than a handful of important twentieth century philosophers who weren't concept pragmatists about the mental and/or the semantic according to my criteria (excepting, of course, those who were eliminativists). I'm told even Continental icons like Heidegger hold some or other version of concept pragmatism. Maybe one day I'll read them and find out. Or maybe not.

It was not always so. Philosophers didn't always construe concept possession epistemically; nor have they always asserted the priority of mental dispositions to mental events, or the priority of behavior to thought. Before there was Pragmatism about concept possession, there was (what I'll call) 'Cartesianism' about concept possession. (Here too my nomenclature is debatable; it might be argued, for example, that Hume was a better Cartesian about concept possession than

[2] It's not just philosophers of course. Cognitive psychologists routinely assume without comment that *the* test for a creature's possession of the concept C is whether it can discriminate things that fall under C from things that don't. Thus Paul Bloom summarizing the cog sci consensus in his recent book: 'These accounts all share the assumption that knowing the meaning of x involves being able to tell the differences between those things that are x and those things that are not' (Bloom, 2000, p. 18).

Descartes was.) What's important about Cartesianism, for my purposes, is that it understands concept possession *non*epistemically; Cartesians hold that concept possession is an *intentional* state but not an *epistemic* one. In particular, it's not what you know (-how or -that) that determines what concepts you have; *it's what you are able to think about*. To have the concept DOG is to be able to think about dogs as such; and conversely, to be able to think about dogs as such is to have the concept DOG.[3] That's all there is to concept possession, according to (my kind of) Cartesian. Polemics aside, I do find that view plausible on the face of it.

There are all sorts of interesting consequences of the Cartesian story too. Notice that *thinking about a dog* is plausibly an episode rather than a disposition; so, the Cartesian account of concept possession is committed to there being (not just mental states, but also) mental events. Indeed, according to the usual elaboration of this view, episodes of thinking-about are paradigms of the sorts of thing that mental dispositions are dispositions to do or suffer. Swann's obsession with Odette consisted, in large part, of his not being able to stop thinking about her; obsession is to thinking-about much as fragility is to breaking.

Also, there's nothing particularly normative about thinking-about as Cartesians understand it; not, anyhow, absent a lot more argument. It's just a matter of fact that Swann couldn't get Odette out of his head. Indeed, according to (my kind of) Cartesian, mental episodes qua events belong to the causal order. If the normativity of the mental somehow implies that they don't, so much the worse for the normativity of the mental.

The difference between concept pragmatism and concept Cartesianism matters a lot (philosophically if not really). If concept possession is an intrinsically epistemic condition, then mental states are intrinsically subject to epistemic evaluation. And, plausibly, evaluability implies the possibility-in-principle of an evaluator. So the facts to which psychology is supposed to be responsible are interpretation-dependent in a way that the facts to which geology (say) is supposed to be responsible presumably are not. A fortiori, the facts of psychology are somehow *mind*-dependent in a way that the data of geology are not. This kind of flirting with Idealism is part of what makes concept pragmatism bona fide pragmatist. Davidson, for example, says that ... the basic triangle [of perceiver, percept and interpreter] is a condition of thought [and] none is conceptually or temporally prior to the others[4]. ... It takes two to triangulate the location of the distal stimulus, two to provide an objective test of correctness and failure. ... The possibility of thought comes with company (Davidson, (2001) p. 88) That there are lakes, mountains, sinkholes and the like presumably doesn't depend on there being an 'objective test

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[3] The 'as such' is marks the intentionality of concept possession. Since extensionally equivalent concepts can be distinct, your being able to think about Granny's favorite animals doesn't ipso facto manifest your possession of DOG; not even if dogs are your Granny's favorite animals. What *would* show that you have DOG is your thinking about Granny's favorite animals *as dogs*.)

[4] I suppose this is a slip; surely Davidson thinks the world is prior to the mind?

of correctness and failure'; still less on there being an interpreter to apply it. Either a mountain is there or it isn't. But, because facts about the mind are epistemically constituted, they lack full ontological autonomy. All you need to have a sinkhole is a glacier; but you need an interpreter to have a thought. Very surprisingly, it takes two even to *think* about changing a light bulb.

Well, to come to the point at last: I claim there are persuasive arguments why no version of Concept pragmatism can be true. In particular, I claim *that there aren't any epistemic clauses in the analysis of concept possession*. I propose, in what follows, to remind you briefly of two such arguments that are, by now, pretty familiar. Then I want to sketch a new one that I've recently thought up. The bottom line is that, despite it's practically universal acceptance, concept pragmatism is a dead parrot. I come to bury this parrot not to praise it; the funeral is long overdue.

Here is how I shall proceed. First, I'll set out what I take to be a bare bones version of Concept Pragmatism. (Call it 'BCP'). Though Concept Pragmatists disagree among themselves about all sorts of things, I think they hold BCP as their common ground; and I think BCP is the heart of what Cartesians are per se committed to rejecting. Having put BCP in play, I'll then turn to the polemics which (according to me) show that BCP can't be true. Strictly speaking, a refutation of bare bones concept pragmatism amounts to less than a refutation of Concept pragmatism as such. But I think it's pretty clear that BCP is the canonical form of the doctrine, so if BCP goes, probably the rest go too. I would, however, like my talk of 'refutation' to be taken with a grain of salt. I think that BCP is clearly false, but I don't think that it's *necessarily* false. I'll settle for nondemonstrative arguments that are merely overwhelmingly persuasive.

So much for caveats.

2. BCP

According to standard formulations, Concept pragmatism either is or contains the thesis that concept possession is constituted by certain epistemic capacities. Which epistemic capacities? According to BCP, they are capacities for INFERRING and SORTING.[5] So, let's have a look at these. I hope what I'm about to say will sound entirely familiar and plausible. I hope that your reaction to my account of BCP will be: '*well, of course* that's what concept possession is; how on earth could it not be?'[6]

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[5] The standard view is that *all* concepts have possession conditions of the first kind but that some do not have possession conditions of the of the latter kind. (For example, the logical constants presumably don't). In this version, BCP is incompatible with conceptual atomism.

[6] I take BCP to be a rough, informal version of the kind of Concept pragmatism endorsed in Christopher Peacocke's *A Study of Concepts*. Some of the details of his view will be under discussion further on.

2.1 Inferring

Consider the concept TREE. It's presumably characteristic of concepts as such that they (can) occur as the constitutents of thoughts.[7] Clearly, the concept TREE often does. So one might think: *this tree is taller than that tree* or *some trees are deciduous*, or *there was an old woman who swallowed a tree*, and so forth indefinitely. I assume that all these thoughts share the very same concept TREE. Likewise, *mutatis mutandis* for logical constants (connectives, quantifiers and the like); there are indefinitely many conjunctive thoughts, and I assume that they all share the very same concept AND.[8]

So, then, consider an arbitrary thought T of the form ... *tree* ... (viz an arbitrary thought of which TREE is a constituent). It's plausible that T has certain of its entailments *in virtue of* TREE being part of it. For example, it follows from there having been an old woman who swallowed a tree, that there was an old woman who swallowed something vegetable. But that doesn't, of course, follow from 'there was an old woman who swallowed a fly'. Likewise, it's plausibly in virtue of containing AND that thoughts of the form 'P and Q' have both P and Q among their consequences. That isn't, of course, true of thoughts of the form 'P or Q'. Well, then, according to BCP, a possession condition for the concept C is that *one is disposed to draw (or otherwise to acknowledge) some of the inferences that thoughts have in virtue of containing that concept*.[9] That way of putting it is, once again, pretty rough, but with one caveat it will do for the purposes at hand: Namely that 'inference' is to be construed concessively. So, for example, the inferences at issue needn't even be *necessary* according to some formulations of BCP. Suppose it's true *de facto* that all trees, when adult, are taller than an inch. Then it is an (empirical) consequence of an old woman's having swallowed one that she swallowed something which, if it was adult, was taller than an inch; and that she swallowed something which, if it *had been* adult, *would have been* taller than an inch.[10] And so forth. Being prepared to draw, or otherwise to acknowledge, such inferences might thus be a possession condition for TREE as the present treatment of BCP understands it. (Or, of course, it might not.)

2.2 Sorting

Among the various kinds of concepts, there are some that count as *observational*. It is, putting it mildly, a matter of dispute exactly which concepts these are. RED is a

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[7] We could run the discussion on the *word* 'tree', in which case the present assumption would be that it's characteristic of words to be constituents of sentences. Everything I will claim about concepts (/thoughts) is supposed to translate painlessly into claims about words (/sentences) unless notice to the contrary is explicit.

[8] The argument for the assumption is that it is required to explain how thoughts are compositional; see below.

[9] Peacocke (1992) says that it's part of having a concept that one find some such inferences 'primitively compelling.'

[10] That is, constitutive inferences are counterfactual supporting.

candidate; and so, perhaps, is TREE. But AND, I suppose, is not. Fortunately, it doesn't matter much for our concerns exactly which concepts are observational. What matters is that *if* a concept C is, then included among its possession conditions is the ability to sort things into those that C applies to and those that it doesn't; the ability, that's to say, to recognize things in the extension of C. So, if RED is an observation concept, then the ability to distinguish things that are red from things that aren't is plausibly one of its possession conditions. A fortiori, it's plausible, on these assumptions, that you can't have RED if you are colorblind. Likewise for TREE assuming that it's observational.

Two hedges: First, it may be vague whether a certain capacity is among the possession conditions for a certain concept. Perhaps there's no real matter of fact as to whether people who are colorblind can have RED. If so, so be it; nothing in what follows turns on this. Likewise, it's perfectly alright (indeed it's the usual case) that a concept should have possession conditions of both the inferring and the sorting kind (see fn. 5). Thus, it may be that being able to sort red things is a possession condition for RED, and that so too is finding such inferences as . . . *red* . . . → . . . *colored* . . . 'primitively compelling'. If so, so be it too.

We turn now to the interesting stuff. I claim that there are three kinds of objections that any theory of concept possession that's even remotely like BCP is ipso facto prone to. I think these objections are fatal when taken severally and that they're annihilating when taken together. I'll expand on them in reverse order of their familiarity, with most of the discussion devoted to the third. I should note that some of the objections apply to the *inferring* kind of possession conditions, some of them apply to the *sorting* kind, and most of them apply to both. For want of space, I won't try to map out the whole of this polemical geography. Suffice it to provide, for each of the two kinds of conditions, at least one of the three kinds of objections.

3. Three Refutations of BCP

3.1 The analyticity argument

(Since this is very well-know territory, I'll be extremely sketchy.)

Suppose that C is a concept that has inferential possession conditions; so acquiescence in some of the inferences that are valid for a thought in virtue of its containing C is a possession condition for C. Well, which such inferences? Clearly, questions of this kind aren't to be answered by brute enumeration; if acquiescing in inference I is a possession condition for having C, there must be some principled reason why that's so. What, then, is the principle?

One finds two kinds of answer in the literature. There's 'holism', which says that *every* C-involving inference is ipso facto a possession condition for C; and there's 'molecularism', which says that some, but not all, such inferences are possession conditions for C. These would seem to exhaust the options. It is, I think, a serious objection to BCP that neither is plausibly true.

Holism can't be true because it's incompatible with the PUBLICITY of concept possession; viz. with the possibility—indeed, the dead certainty—that lots of concepts are shared by lots of people. Suppose that everything I believe about Cs is ipso facto a possession condition for my concept C. Then, surely, you don't share my concept C and nobody else does either. The point generalizes; since practically everybody has some eccentric beliefs about practically everything, holism has it that nobody shares any concepts with anybody else. Or even, come to think of it, with other time-slices of themselves, since one's beliefs change by the millisecond. Related embarrassments: Nobody ever (dis)agreed with anybody about anything; *modus ponens* is a fallacy of ambiguity (because accepting the conclusion alters the content of the concepts in the premises); nobody can remember what he used to believe; and so, horribly, on. (There are those who think this situation can be remedied by supposing that the fundamental content relation among thoughts can be defined in terms of concept *similarity* rather than concept *identity*. But it can't (see Fodor and Lepore, 2002, ch.8.) The sum and substance is surely a reductio of holism. And, in fact, people who are holists about concept possession are often hard to distinguish from people who are eliminativists about concept possession. It's unsurprising that some philosophers seem unable to decide, from day to day, which of these they are. Paul Churchland is a paradigm.

Molecularism says that acquiescence in some, but *not* all, of the inferences that a concept licenses is constitutive of having the concept. This sound all right as far as it goes, but it doesn't answer the question *which* C-containing inferences are possession conditions for C. I'm prepared to argue (elsewhere) that a substantive molecularism requires an analytic/synthetic distinction (a distinction between *conceptually* necessary inferences and the others); which, as the poet says, 'in our case we have not got'. Arguments about molecularism therefore reduce to arguments about conceptual necessity, and arguments about conceptual necessity reduce to arguments about a/s. Since, so far, nobody has been able to explain what a/s might amount to, the presumption is that molecularism can't be sustained.

It is, I think, not an accident that nobody is able to delineate a viable analytic/synthetic distinction. Quine's epistemological objections to a/s are, of course, part of the folk culture of analytic philosophy. They amount to insisting on answers to certain rhetorical questions: '*How do you know* (/tell) whether an inference is analytic?' '*How do you know* (/tell) whether a necessity is conceptual?' and so forth. I think Quine is right that such questions can't be answered; but I disapprove, as a matter of principle, of attempts to draw ontological conclusions from epistemic premises. The right direction of argument is the other way around: It's because there *is* no a/s distinction that we don't know how to distinguish the analytic truths from the others.

So I doubt that Quine's sort of arguments, taken by themselves, are decisive against semantic molecularism. There is, however, a persuasive metaphysical (hence non-epistemic) reason for a theory of concept possession not to rely on a/s; namely that nobody has the slightest idea what the *truth makers* for claims about analyticity could be; since nobody knows what analyticity *is*, nobody can give a

clear account of what might make ascriptions of analyticity true (/false). People have, to be sure, made suggestions over the years, but none of them now appears tenable. So, for example, Hume thought (as did very many who followed him, Rationalists and Empiricists alike) that analyticities arise from facts about the constituent structure of concepts. In effect, there are analyticities because complex concepts entail their parts. It turns out, however, that Hume (and everybody else) vastly overestimated the number of concepts that *have* parts. There is, to my knowledge, no reason to think that the concept UNMARRIED is part of the concept BACHELOR; for that matter, there is, to my knowledge, no reason to deny that the concept BACHELOR is primitive.[11] For centuries, claims about analyticity and claims about the structure of complex concepts have taken in one another's wash. There is, however, no independent argument for believing either of them.

It has also been suggested that analyticity is somehow truth by convention (or by stipulation). But this parrot too is pretty certainly dead. For one thing, even if *linguistic* truths are supposed to be conventional, it's unclear how conventions or stipulations could apply to *concepts*. (Did somebody stipulate that the concept BACHELOR applies only to men who are unmarried? If so, when, and who was it, and how did he go about it?) And, for another thing, these days even the friends of analyticity often admit that it's hard to see how there could be conventional truths if these are supposed to hold 'in virtue of meaning alone' (for discussion, see Harman; Boghossian; Fodor and Lepore). Doesn't the world always have to cooperate in truth making? Isn't it inter alia because copper is a metal that 'copper is a metal' is true? This problem is, to repeat, ontological rather than epistemological. So, prima facie, it has some claim to being taken seriously.

Well, then, BCP can't be true unless molecularism or holism is. Since holism is preposterous, BCP can't be true unless molecularism is. But molecularism can't be true unless there is an a/s distinction; which, as far as anyone can make out, there isn't. This line of argument could, of course, be much elaborated; it very often has been. I think that the conclusion is intact at the end of the day. That is the first, and most familiar, of my reasons why Concept pragmatism can't be right.

3.2 Compositionality

Excepting only the occasional connectionist outlier, there's a pretty general consensus on the following, not just in philosophy, but also in cognitive science:

A. Human thought and human language are both productive and systematic. Productivity says that there are approximately[12] infinitely many thoughts that one

[11] Likewise, the arguments that the concept DIE is part of the concept KILL are underwhelming. For discussion, see Fodor and Lepore, 2002, ch. 6.

[12] The caveat is on account of 'performance constraints'. I think they are a red herring, and I propose to ignore them.

can think (/sentences one can understand) each of which is distinct from arbitrarily many of the others both in its structure and in its content. Systematicity says that there are, apparently as a matter of psychological law, certain symmetries of expressive power in human conceptual systems/languages. So, if a mind can entertain the thought that John loves Mary it can entertain the thought that Mary loves John. And any language that is able to express either of these thoughts is also able to express the other.

B. Language (/thought) is productive and systematic because it is compositional (so the consensus continues.) It's a little difficult to say this right, but the general idea is clear enough: there is, for each natural language, a finite set of 'lexical primitives' (words, more or less) and a finite system of constructive principles that the primitives fall under. The latter apply recursively and may iterate without bound. This is true at both syntactic and the semantic levels of analysis, with the consequence that natural languages are productive in respect both of the well-formed formulas that belong to them and of the propositions they can express. Similarly, *mutatis mutandis*, with respect to thoughts, except that primitive *concepts* take the role of *lexical* primitives. If there really is such a thing as Mentalese, then the productivity of Mentalese and English are strictly analogous.

The story about systematicity is in much the same spirit; if being able to say (/think) that John loves Mary implies being able to say (/think) Mary loves John, that's because both sentences (/thoughts) are made out of the same set of primitive elements by the application of the same constructive rules. Because the explanation of systematicity parallels the explanation of productivity, it's unsurprising that the two are always found together.

Since it's required to explain productivity and systematicity, compositionality is, as one says, 'not negotiable'. An account of concept possession that is incompatible with the compositionality of thought is, ipso facto, out of the running. So now to the point: There are, I think, very good reasons to suppose that any epistemic account of concept possession must preclude the compositionality of thought. If so, then that too refutes BCP.

Here's how the argument goes. Consider sorting. Suppose, in the style of BCP, that to have concept C is inter alia to be able to sort objects in its extension; so, to have the concept DOG is at least to be able to sort some dogs from some not-dogs. Well, but which dogs and under which conditions? Surely not just any dog, since it may be that some dogs live outside our light cones, and we can't sort them in point of nomological necessity. Likewise dogs that died long ago and left no traces; and dogs that are so like cats that, as a matter of nomogical necessity, minds like ours can't ever tell them apart. And so forth. If it is required of DOG-owners that they be able to distinguish just any dog from just anything else, then only God has the concept DOG; and if, as one may suppose, there isn't any God, then *nobody* has the concept DOG. Which I take to be a reductio. The moral is that if sorting is one of the possession conditions on C, then what it demands is, at most, the ability to respond selectively to *good (e.g. typical) instances* of C under *favorable conditions*. Much the same applies to inferring. To master *modus ponens* is not to find just

any old inference of that form 'primitively compelling'; at most, it's to find one primitively compelling if its form is perspicuous. If the minor premise of a *modus ponens* argument is, say, five hundred thousand words long, failure to recognize the form of the argument is quite compatible with having the concept MODUS PONENS. In short, epistemic constraints have caveats (or, at least, the epistemic constraints do that are plausibly germane to the present issues). At a minimum, they must be relativized to such notions as *good instances*, and *transparent conditions*. As it turns out, it's because that is so that an epistemic account of concept possession is ipso facto incompatible with the compositionality of concepts.

Let an 'AN concept' be one of the kind that is typically expressed by phrases of the form $(\text{adjective noun})_{\text{noun}}$ in English. (So, BROWN COW is a paradigmatic AN concept.) Well, being able to recognize good instances of N in favorable conditions, and good instances of A in favorable conditions does *not* guarantee that one is able to recognize good instances of AN in favorable conditions. For, something that's a good instance of an A (or of an N) needn't be a good instance of an AN (or vice versa); and conditions that are favorable for sorting As (or Ns) aren't guaranteed to be favorable for sorting ANs. *So knowing how to sort As and Ns isn't, in general, sufficient for knowing how to sort ANs*. So, if there are sorting constraints on having the concepts A (or N; or both) then the concept AN won't be compositional. In which case, we lose the standard (so far as I know, the only) account of why minds that can think A and can think N are, practically invariably, able to think AN.

Consider the ornithological case of the Night-Flying Bluebird (a creature that I just made up). There are, we may suppose, favorable conditions for spotting good instances of that sort of bird; perhaps there's a song that practically all its good instances sing after dark and that practically nothing else does. But, in such a case, the condition favorable for spotting ANs needn't be a function of the conditions favorable for spotting As and the conditions favorable for spotting Ns. Indeed, it is entirely possible that the former should 'screen' the latter or vice versa. Your best chance to recognize a blue thing is in broad daylight; but your best chance to recognize a night-flier is at night. This is a version of what cognitive scientists call 'the pet fish problem'. Good instances of pet fish aren't good instances either of pets or of fish; and (because pet fish generally live in bowls, but typical pets and typical fish generally don't) the best conditions spotting pet fish are generally bad for spotting fish or pets per se.

The moral: epistemic capacities are ipso facto relativized to factors like good instances and favorable conditions, neither of which composes. So epistemic capacities don't themselves compose. But BCP says that there are epistemic conditions on concept possession. So BCP isn't compatible with the compositionality of concepts. So BCP isn't true.[13] Indeed, according to this argument, BCP

[13] There's a lot more to be said about this, but none of it alters the drift. See (Fodor, 1998, Chapters 4–5; Fodor and Lepore, 2002).

wouldn't be true even if there were an a/s distinction (which, I imagine, there isn't. See previous).

3.3 Circularity

I think it's quite likely that neither the sorting constraint on concept possession nor the inferring constraint can be formulated without vicious circularity. This argument is less familiar than the two just reviewed, so I propose to be relatively expansive.

Circularity and sorting. I remarked earlier that the kind of sorting that is plausibly germane to concept possession is ipso facto not extensional. Someone who has the concept BARKER, but does *not* have the concept DOG, may nevertheless be able to sort dogs from not-dogs if dogs bark and nothing else does. The intuition in such cases is that which concept a sorting manifests depends on the criterion according to which the agent does the sorting. It is notoriously hard to cash this intuition, but I suppose some of the consequences are pretty clear. Thus, which concept a sorting manifests depends, inter alia, on how it *would* proceed in *counterfactual* conditions (in the present case, on how the agent would sort things that bark but aren't dogs and/or things that are dogs but don't bark.) And how the counterfactual sorting would go depends on what the what the agent 'has in mind', in virtue of which he sorts the way he does. Whatever, exactly *that*, means.[14] I think this is so far untendentious; and even if it isn't, it ought to be.

The problem, however, is that the extension of a sort doesn't determine the concept that it manifests *even if the counterfactuals are counted in*. Consider necessary equivalences like TRIANGLE and (CLOSED) TRILATERAL, or TWO and THE ONLY EVEN PRIME (to say nothing of WATER and H_2O). I take it that, in each case, one might have the first of these concepts but not the second. In particular, one might sort according to the first but not the second, even though all and only *possible* triangles are closed trilaterals, and two is the only possible even prime. And so forth; the examples are legion. Well, if even the *necessary* coextension of two sorts needn't imply that both manifest the same concept, *what sort of sorts would*? Answer: sorts according to *conceptually equivalent* concepts would; i.e. sorts that have the same extensions in point of *conceptual* necessity. If you assume (wrongly in my view; but let it pass) that conceptually equivalent concepts are ipso facto identical, then the only sort that manifests the concept C is a sort according to the concept C.

But, surely, one can only sort according to a concept that one has? So the present account of the sorting condition for possessing concept C presupposes the possession condition for some concept C' that is either identical or conceptually

[14] I think that 'having a sorting criterion in mind' involves having a representation of the criterion play 'the right kind' of causal role in determining the sorting. But you don't have to agree with this in order to accept what's in the text.

equivalent to C. That, it seems to me, is a very small circle; much smaller than a circle ought to be.

I remark, in passing, that this sort of circularity problem has created real antinomies for real philosophers. Consider Wittgenstein who held (I think) that having a concept typically involves knowing a criterion for applying the concept; one that is, at a minimum, reliably satisfied by good instances, in favorable conditions, etc. And he also held (I think) that the application criteria for a concept are constitutive of its content. Well then, consider the concept PAIN. Presumably the criteria for its (second-person) application are behavioral. So, to have the concept PAIN is, at least inter alia, to be able to sort pains from not-pains according to certain of their behavioral manifestations. But, on the face of it, the concept of a PAIN isn't the same as the concept of a BEHAVIORAL MANIFESTATION OF A PAIN; indeed, it looks, on the face of it, as though the second concept presupposes the first. So being able to sort pains according to criterial behaviors needn't manifest possession of the concept PAIN after all; it might only manifest possession of the concept of the criterial behavior.[15] So, now, is PAIN the concept of a certain kind of behavior or isn't it? Is (a good instance of) behaving in a certain way (in favorable conditions) ipso facto a case of having a pain, or isn't it? Search me. And search Wittgenstein too, I think. No wonder he said that a pain isn't a something, but isn't a nothing either (a remark which, if anybody else had made it, would strongly suggest serious confusion).

As far as I can tell, the only sorting that ipso facto manifests possession of concept C is sorting *according to C*. This would seem, after all, not very surprising. In fact, it would seem to be truistic, since sorting according to any other concept would manifest one's possession (not of the concept C, but) of that other concept. If I've got this right, then either there is no sorting condition on concept possession or, if you prefer, the sorting condition that there is is circular. Either way, I take this to be quite a serious argument against BCP.

Circularity and inference. There has been (at least since Sellars, I suppose) a sort of friendly alliance between, on the one hand, BCP and 'conceptual role' semantics and, on the other hand, the idea that *implicit definition* is a key notion in the theory of concept possession (/individuation). Successful implicit definitions are supposed to provide examples of how the content of a concept might be determined by the rules of inference that apply to it, and of how compliance with such rules might be constitutive of having the concept. Unsurprisingly, the most persuasive cases are the logical constants. Since these are, plausibly, not referring expressions, it might be that an account of the rules that determine their conceptual roles is the whole story about why they mean what they do and what it is to understand them.

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[15] Sorting pains according to behavior would, to be sure, manifest PAIN-possession if one sorts according to behaviors *that one takes to be pain symptoms*. But that would be patently circular as a candidate possession condition for PAIN.

Here for example, is Paul Boghossian, in a recent paper. (Analyticity, forthcoming, p. 348): 'It is by arbitrarily stipulating that certain sentences of logic are to be true, or that certain inferences are to be valid, that we attach a meaning to the logical constants. More specifically, a particular constant means that logical object, if any, which would make valid a specified set of sentences and/or inferences involving it'. And here's Christopher Peacocke (*A Study of Concepts*, p. 6) employing the framework of implicit definition to formulate a possession condition for the (truth functional) concept of conjunction: 'Conjunction is that concept C to possess which a thinker must find [inferential] transitions of the . . . forms [I] primitively compelling, and must do so because they are of these forms.'

I:

$$\frac{pCq}{p} \qquad \frac{pCq}{q} \qquad \frac{\begin{array}{l}p\\q\end{array}}{pCq}$$

The idea is that the first and second of these rules validate inferences from premises that contain CONJUNCTION to conclusions that don't; and the third validates inferences from premises that don't contain CONJUCTION to conclusions that do. The validity of these inferences is all there is to CONJUNCTION, according to the present view. Likewise, according to Peacocke, accepting that such inferences are valid in virtue of their form is all there is to having the concept CONJUNCTION.

Now, it's important to bear in mind that the *mere* possibility of providing introduction and elimination rules for some or other expressions doesn't, in and of itself, argue for conceptual role semantics. For, trivially, such rules can be formulated for any expression that has a definition. If it's definitional that bachelors are unmarried men, then (reading the definition in one direction) "unmarried man" → "bachelor" is an introduction rule for 'bachelor', and (reading the definition in the other direction), "bachelor" → "unmarried man" is a corresponding elimination rule. There is, to repeat, nothing in that to comfort (or to perplex) a conceptual role semantics. What *would* plausibly bear on the issue, however, are 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. That's what's claimed for the case of the logical particles according to the treatment we're now considering. And that's the claim that I'll argue can't be made good.

Notice, to begin with, that Peacocke's formulation of the possession condition for CONJUNCTION is equivocal. For, does the caveat '[one] must [accept such inferences] because they are of these forms' just mean that the inferences having the forms they do is (e.g. causally) sufficient for one's finding them compelling? Or does it mean that their having the forms they do is one's *reason* for finding them compelling? In effect, the main burden of the rest of the discussion is that neither choice will work.

But a brief digression prior to so arguing: There is perhaps a prima facie worry as to the generality of the sort of treatment Peacocke proposes for CONJUNCTION. The logical constants are, after all, very special kinds of words, so it's not obvious why an account that works for 'and' (if it does) should also work for 'tree', 'gall-nut' or 'galloon' (all of which, according to my dictionary, are bona fide English words, and all of which purport to refer). I'm actually quite sympathetic to this line of objection, but let's put it aside since there's worse to worry about. I think it's quite unclear that the implicit definition story can be made to run *even* for the logical constants. If I'm right, then it would seem that there are *no* examples on offer of how the conceptual role of an expression might determine its content and its possession conditions. This strikes me as a serious objection to conceptual role semantics and hence to BCP. Notice that it's a sort of objection one might reasonably tender even if one assumes (contrary to fact) that conceptual role semantics can account for the publicity and the compositionality of concepts.

Here's what I take to be the source of the problem. The basic idea is that implicit definition can specify a concept's inferential role and *thereby* determine its possession condition. But, even if you like inferential role semantics, you might well wonder whether any one stone could kill both these birds. After all, the inferential role of a concept has to do with which of the arguments it's involved in are valid.[16] Whereas which concepts a creature possess depends on what mental state it's in.[17] In consequence, the constraints on formulations of possession conditions are arguably quite different from the constraints on implicit definitions. As Peacocke himself remarks, formulations of possession conditions 'must avoid . . . ineliminable mention of the concept F as the concept F within the scope of psychological attitudes of the thinker'. This is because '[any] ineliminable use of an expression of the concept F inside the scope of a verb of propositional attitude will just take for granted what we wanted to explain, possession of the concept' (Peacocke, 1992). But no such caveat applies to the specifications of inferential roles per se. They don't invoke propositional attitudes *at all*, since whether an inference is valid doesn't depend on anybody's mental state. That being so, it's implausible even prima facie that concept possession (which belongs to the mental state family) can be reconstructed in terms of validity, goodness and the like (which do not).[18] The implicit definition of 'and' specifies what it contributes to the truth conditions of its hosts: namely, that something of the form 'p and q' is true iff 'p' and 'q' both are; I don't at all wish to quarrel with this way of saying what 'and' means. But it doesn't follow from the (presumed) fact that rules for its introduction and elimination can define 'and' *that they can also determine its possession condition*.

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16 Or perhaps, more leniently, in virtue of which the arguments it's involved in are 'good' ones.

17 Notice that this is true according to either the Pragmatist or the Cartesian account. The difference is Pragmatists think that the crucial mental states are knowing/believing and the like, whereas for the Cartesian they're thinking of, thinking that and the like.

18 It's sometimes suggested that doxastic logic should link the two by reading 'believes P' as closed under P's entailments. Not an edifying proposal.

One mustn't just take it for granted that success in one project implies success in the other.

For example, it would be perfectly OK to say that you fix the meaning of 'and' by stipulating the rule *R*.

R: the inference to 'p and q' is valid iff p and q are both true.[19]

Notice that *R* is a perfectly OK way to say what 'and' means even though the second occurrence of 'and' is *used* (not just mentioned) in this formulation. The reason it's OK is that the 'and' that's used (unlike the one that's quoted) is metalinguistic. In effect, *R* tells us how to introduce conjunction into English by employing a language in which a term expressing conjunction is *already assumed to be available*. That's fine, because such a language *is* already available; it's the very one that we use to formulate *R*. But, just as a thought experiment, consider an account of *how conjunction is learned* that runs along the same tracks; viz. that you might do it by learning *R*. This story clearly would 'take for granted what we wanted to explain' since learning this conjunction rule would presuppose mastery of some formula (viz. 'and') that expresses conjunction in a metalanguage. And, presumably, anybody who has conjunction in a language he can use, meta- or otherwise, ipso facto has CONJUNCTION *tout court*. Notice, in passing, that the circularity of this learning theory wouldn't be fixed by assuming that acquiring CONJUNCTION is *learning how* rather than *learning that*. The problem remains that this account presupposes either knowledge of how to use 'and' or knowledge that 'and' is used in that way (or both). In a nutshell: It's alright for a theory about the *content* of 'and' to presuppose a language in which CONJUNCTION can be expressed. But a theory of learning CONJUNCTION mustn't presuppose a mind to which CONJUNCTION is already available. That would be cheating.[20]

A similar story can be told about why *understanding a sentence* mustn't be identified with grasping its inferential role. Inferential roles are, after all, roles in inferences. To grasp an inference, one must understand how the truth of its premises bears on the truth of its conclusion. But to understand *that*, one must first understand the premises and the conclusion. So, although implicit definitions can fix the meanings of sentences by specifying their inferential roles, still *understanding S* is prior in the order of analysis to *grasping its role in inference*.

The moral isn't that either Peacocke, or anybody else, has actually committed the kind of circularity I've been trying to illustrate. Rather it's that implicit definitions don't (as I'm told one says in Australia) cure wooden legs. One mustn't take for granted that a theory about what CONJUNCTION is, is ipso facto a theory about how CONJUNCTION is learned or what it is to understand it. The difference is that an implicit definition of CONJUNCTION constrains

[19] I'll be damned if I'll bother with corner quotes; but purists may supply them as needed.

[20] It's also alright (with me, anyhow) for a theory about learning *the word* 'and' to presuppose a mind to which CONJUNCTION is available. In fact, I can't imagine what else it could do.

what inferences are acceptable, but a theory about learning (/understanding) CONJUNCTION constrains *one's reasons for accepting them*. Accepting ('p and q') iff one accepts 'p' and accepts 'q' testifies to a grasp of CONJUNCTION only if your *reason* for accepting 'p and q' is that you believe that p *and* [sic] q are both are true. But, on the face of it, having *that* as a reason is possible only for a mind that already has the concept of conjunction.

I think much the same objection holds against Peacocke's attempt to reconstruct the *possession condition* for CONJUNCTION from the inferential role that its implicit definition specifies. First blush, this may seem not to be so; rather, Peacocke's account of CONJUNCTION seems devised precisely to avoid circularities of this kind. Notice, in particular, that *I* is unlike *R* in a crucial respect: in effect, *I* has a universally quantified variable (viz. 'C') that ranges over expressions for conjunction; whereas, by contrast, *R* has a metalinguistic term that translates *and* (viz. 'and'). A fortiori, understanding *I* does not seem to presuppose prior understanding of 'and' *or of any other expression for conjunction*. To the contrary, according to Peacocke's treatment, to understand 'and' (and the like) is to be compelled by arguments that are obtained by substituting 'and' (or the like) for the variable in *I*. So there's no circularity after all; everything seems to be fine.

But maybe not. Consider the English sentence 'if John swims and Mary swims, then John and Mary swim'. This sentence expresses (slightly mutatis mutandis)[21] the sort of thought which, according to Peacocke, you must find primitively compelling in order to have CONJUNCTION. But, now, just *why is it* that English speakers are able recognize that the inference that this sentence expresses is primitively compelling? Surely it's because (qua speakers of English) *they know that the word 'and' expresses conjunction*. It's *only* because they know that, that they are compelled by the kinds of arguments that you get if you substitute 'and' for 'C' in *I*. Quite generally, it looks like satisfying Peacocke's possession condition for having CONJUNCTION requires already taking some representation or other ('and' in English, 'et' in French, 'und' in German, God-knows-what in Mentalese) as expressing CONJUNCTION. But anybody who can do that sort of thing ipso facto has the concept CONJUNCTION already. It appears that the circularity is back.

I think it's clear that Peacocke is alert to this; I think it's why his account of CONJUNCTION- possession includes the caveat 'one must find the inferences in question primitively compelling *in virtue of their form'* (hence, presumably, not in virtue of understanding the English word 'and' or any other word that expresses CONJUNCTION.) So, the question whether Peacocke's use of implicit definition to provide possession conditions for CONJUNCTION is circular comes down to the question: *WHAT NOTION OF FORM DOES PEACOCKE*

[21] To ease the exposition, I assume that NP conjunction is equivalent to sentence conjunction in the cases that matter to us.

HAVE IN MIND? I'm inclined to think that *there isn't any* (unquestion-begging) one that will do the job.

Notice to begin with that, circularity aside, Peacocke can't just drop the 'in virtue of form' clause from his possession condition for CONJUNCTION. For, there are all sorts of things *other than having CONJUNCTION* that might explain why somebody accepts a substitution instance of 'John CONJUNCTION Mary swim' iff he accepts both that John swims and that Mary swims. For example, his doing so might be a reflex; or there might be some rare disease (conjunctivitis?) among whose symptoms is that its victims accept conjunctions iff they accept both conjuncts. And so forth. We return to a point previously encountered: Prima facie, 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 their conclusions.

So then, what notion of form could be such that you have CONJUNCTION iff you find instances of *I* compelling in virtue of their form? I can think of only two candidates; and, as far as I can tell, neither works.

It can't be *logical* form that Peacocke has in mind; for, the logical form of an inference is what you get if you put variables, (or schematic letters, or whatever), for everything *except the logical constants*. Since 'and' is a logical constant, the logical form of 'John swims and Mary swims' is 'P *and* Q'. So someone who accepted 'John swims and Mary swims → John swims' on account of its logical form would *thereby* manifest prior possession of CONJUNCTION. So appealing to the logical form of the premises or the conclusion doesn't mitigate the circularity problem.

The only other candidate I can think of is *syntactic* form, and that *surely* won't work. The reason it won't is that validity, goodness, and the like aren't syntactic notions. 'p and q → p' is valid (not in virtue of its syntax, but) in virtue of the meaning of 'and '. It is, to repeat, (only because you accept the argument (because you know the meaning of 'and')) that your accepting it manifests your grasp of CONJUNCTION.

This connects with another aspect of Peacocke's formulation that I want to complain about a little; viz. that he tells us less than we need to know about what sort of thing 'accepting' is. Peacocke says that to accept conjunction introduction (elimination) as primitively compelling is essential to the mastery of CONJUNCTION (a fortiori, to the mastery of 'and'). But, one might wonder, primitively compelling *as what?* Not, surely, as well-formed; not, surely, as an elegant arrangement of epithets; not, surely, as a pretty argument, or a pretty short argument ... etc. Accepting p and q → p manifests the possession of CONJUNCTION only if one finds it primitively compelling that such transitions are *valid* (or otherwise good); i.e. that they preserve (or tend to preserve) *truth*. But, to repeat, validity and the like aren't syntactic properties of the arguments that have them. So 'accepting such inferences as valid in virtue of their form' can't mean accepting them as valid in virtue of their syntax.

Here's a (slightly) different way of putting much the same consideration. I suppose you can't grasp an inference unless you are able somehow to represent it. NB to grasp the inference, you have to be able represent *it*; just being able to represent its *form* isn't good enough. But to thus represent an instance of 'p and q → p' is, inter alia, to represent its premise as a conjunction. Which one can do only if one has CONJUNCTION. So the circularity is back again again.

Well, but if having the concept CONJUNCTION doesn't reduce to accepting rules of introduction and elimination by which conjunction is defined, then *what* (you may be wondering) *is it* to have the concept of conjunction? Why, it's being able to think conjunctive thoughts of course. Which is to say that it's being able to think thoughts whose syntax is conjunctive and whose truth depends on the truth of their constituents in the familiar way. What on earth else would you expect having the concept of conjunction to be?

4. Conclusion

Where we've got to, locally speaking, is this: Implicit definitions work fine to afford semantic characterizations of lexical items that express logical constants. Or, at least, they do for all I know; if Gentzen says that they work fine, who am I to say otherwise? But it doesn't follow that they work fine (or at all) as accounts of possession conditions for concepts (or as formulations of what you learn when you learn a concept). In fact, I don't see any way to use them for that at all; it looks to me as though as soon as you try, vicious circularities arise.

I think that, deep down, this is because implicit definition reverses the natural order of analysis both of thoughts and of sentences; which is to say that it reverses the order of analysis that their compositionality requires. The meanings of sentences, thoughts and the like are constructs out of the meanings of the primitive words (/concepts) they contain, *not the other way around*. Likewise, since you can't draw an inference unless you *already* understand its premises and its conclusion, understanding a sentence is prior to grasping its inferential role, *not the other way around*. I'm aware that canonical versions of concept pragmatism (as per, e.g. Quine, Davidson and Wittgenstein) invariably and explicitly deny that, but I'm not moved.

Maybe, as Pragmatists say, assumptions about the semantic properties of sentences (e.g. that most of the ones an informant utters are true) are presupposed by assignments of meanings to words. And maybe the assumption that most of the informant's inferences are good is presupposed by attempts to translate his sentences. And maybe both kinds of assumptions are involved in the story about where a translator/ interpreter 'breaks into' a language that he doesn't know. But that's epistemology. Epistemology is one thing, semantics is quite another. (And psychology is yet a third). This presumed epistemological priority of sentences to words (/of thoughts to concepts) in interpretation and translation would *not* tend to show what conceptual role semantics claims: namely, that concepts (/words)

have their content in virtue of how they behave in thoughts (/sentences). Persisting in confusing epistemology with semantics (to say nothing of psychology) was one of the ways that Pragmatists made a mess of 20th century philosophy of language and philosophy of mind. Nor is the end of this in sight.

Where we've got to globally speaking is: BCP is committed to conceptual role semantics. Conceptual role semantics is afflicted with holism and with failures of compositionality. And there are no convincing instances, including 'and', where a conceptual role analysis of a word's (/concept's) content provides a plausible and uncircular formulation of its possession conditions. Aside from all that, everything is just ducky in this part of the woods.

What, then, is to be done? Search me. I'm much inclined to think Cartesians are right about what concept possession is; and that it more or less follows that conceptual content is atomistic and that meaning is reference. But of course I don't suppose that I've shown any of that. Suffice it to make clear the current lack of viable alternatives.

References

Bloom, P. 2000: *How Children Learn the Meanings of Words*. MIT Press: Cambridge, MA.

Boghossian, P. forthcoming: Analyticity.

Carey, S. 1985: *Conceptual Change in Childhood*. MIT Press: Cambridge, MA.

Davidson, D. 2001: *Subjective, Intersubjective, Objective*. Oxford University Press.

Fodor, J. 1998: *In Critical Condition*. MIT Press, Cambridge, MA.

Fodor, J. and Lepore, E. 2002: *The Compositionality Papers*. Oxford University Press: Oxford.

Harman, G. 1999: The death of meaning. In *Reasoning, Meaning, and Mind*. Oxford: Clarendon Press.

Peacocke, C. 1992: *A Study of Concepts*. MIT Press: Cambridge, MA.