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Nativism and the Theory of Content

Recent controversy over psychological externalism has centered on the issues of its compatibility with privileged access and the *a posteriority* of empirical knowledge.[1] In this paper I wish to add to the controversy by raising another issue for externalism, viz., its compatibility with an important and widely held version of the innateness hypothesis. I argue that externalism does not, on generally accepted terms, sit comfortably with a plausible and philosophically interesting nativism. Given the existence of influential arguments for both externalism and nativism,[2] I take it a serious tension between them would be a matter of some concern. If I am right, one or another of several popular philosophical doctrines about language, thought and meaning would have to be significantly revised – or abandoned.

1. Externalism and Nativism.

Externalism is the view that the intentional content of a mental state supervenes on its relations to objects in the extramental world.[3] The version of externalism I consider in this paper is the *informational* theory of content. I focus on this view both because I take it to be, for present purposes, representative of externalism generally, and because I think it is best equipped to cope with the pressures I exert.[4]

The informational theory is reductive. It says that having content is being informationally (i.e., causally or nomologically) related to extramental objects.

1 See, e.g., Boghossian 1989, Brueckner 1990 and 1994, Heil 1988 and 1992, McKinsey 1991, Falvey and Owens 1994, Brown 1995.

2 Viz., Putnam 1975 and Burge 1979 for externalism, and Chomsky 1965 and Fodor 1975 and 1981 for nativism.

3 *In*ternalism is the view that mental content supervenes on an individual's non-relational properties or on intramental relations.

4 I take informational theories to include *teleofunctional* theories, such as those advocated in Millikan 1984 and Papineau 1987. Teleofunctions are supposed to solve the disjunction problem (Millikan 1993, 7; Papineau 1987, 63-64; Fodor 1990, 64ff), which arises specifically for theories on which content-conferring relations are causal-informational. I will not explicitly discuss teleofunctional theories in what follows, since the problems I will raise concern what's in the head, not how it got there, or which *sorts* of causal-nomic connections to external objects determine content, or how it is that only one among a state's many informational relations to external objects is content-constitutive.

On such *non*reductive externalisms as McDowell's or McCulloch's (McDowell 1986, McCulloch 1995), for example, the content-conferring relation between thoughts and their objects is *inclusion* (the mind and its contents are not within the individual). Yet, on both of these non-reductive theories, being in informational relations with non-mental objects is a necessary condition on being in a contentful state. Thus, McDowell makes essential use of the notion of *acquaintance* (typified by *perception*) in his account of object-dependent thoughts (op. cit.: 138-41); and McCulloch adverts to "embodied interactions" between thinkers and non-mental objects (op. cit.: 202). It is hard to see what such relations as acquaintance and embodied interaction could be, if not causal. On either version of externalism, then, informational relations between a thinker and the objects of his thought determine which thought he is thinking, where thoughts are individuated by their contents.[1]

I consider, in particular (again because I take them to be both representative and best equipped), two versions of the informational theory, which I call (following Fodor 1990) the *causal* theory and the *nomic* theory. According to causal theories, the content of a mental state type is determined by what *has* caused its tokenings. On Fodor's version (Fodor 1990: 119-122), for example, a concept-type expresses the property *f* if its tokenings have been reliably causally correlated with instantiations of *f* (if, that is, they have been caused by Fs), and if its non-F-caused tokenings are counterfactually dependent on its F-caused tokenings.

According to *nomic* theories, the content of a mental state type is determined by what has *or would* cause its tokenings. On (again) Fodor's version (ibid.: 100-101), concepts have their contents in virtue of their *counterfactual* relations to property instantiations. This version allows for concepts that express uninstantiated properties as well as instantiated ones. One has the concept MERMAID,[2] for example, in spite of never having been suitably situated with respect to one, if one is so constituted that, were mermaidhood to be instantiated in the right sort of way in one's vicinity, something or other (some *dedicated* something or other) would go off in one's head; and, excepting that mermaids would bring this about, nothing would. (The mental representation type whose tokening is counterfactually, though not actually, connected to the instantiation of mermaidhood is the concept MERMAID.)

Nativism is, broadly speaking, the view that the mind/brain is innately endowed with structures that predetermine in some way or other the cognitive

1 I am grateful to Tim Crane for comments that led to clarification of my position here.

2 In this paper I use capitalized expressions to denote concepts, italicized expressions to denote properties, and single-quoted expressions to denote the expression types so quoted.

capacities humans are capable of exercising. As a purely general point, such structures are either *representational* (i.e., have intentional *content*), or not. In the present context, the relevant version of the nativist thesis is one on which some of the innate states of the mind/brain have intentional content (of the kind appropriate to *concepts*). This sort of view, which I call "Semantic Nativism," has been at the center of traditional and contemporary controversy over innateness in the philosophy of mind and epistemology. Philosophers have been interested in whether or not there are concepts ("ideas") humans are capable of entertaining that are unlearned (especially, concepts which might enable us to think thoughts with non-empirical, or non-experiential,[1] content). In any case, it is clearly Semantic Nativism that poses a prima facie problem for the externalist. I will, however, also consider another sort of thesis, on which any innate states of the mind/brain are not representational, but *merely structural*, as possibly affording a philosophically interesting nativism compatible with externalism. On this view, which I call "Syntactic Nativism," it is only the "syntactic vehicles" (to use Fodor's term) of concept-sized representational states that are innate.[2]

The relevant (again, for present purposes) construals of the *innateness* of a mind/brain state are (1) its possible presence ("tokening") in the mind/brain independently of *actual* interactions with the world (experience) and (2) its possible presence (tokening) in the mind/brain independently of actual *and potential* interactions with the world. On the first (weaker) construal, a state is innate iff it can be tokened in the mind/brain even if it *has not been* caused to be tokened by experience. On the second (stronger) construal, a state is innate iff it can be tokened in the mind/brain even if there are no conditions under which it has been *or would be* caused to be tokened by experience. Since it does not matter to my arguments which way innateness is construed (see section 2.1), I will not try to decide here on one of these characterizations.

I will also not be concerned with the question of whether or not any concepts are innately *entertainable*. Concepts need not be innately available to their possessor to be innately possessed; a nativist can allow that experience may be necessary for a mind to begin to think.

In the following section, I consider the compatibility of externalism and four forms of Semantic Nativism. In section 3, I consider the compatibility of externalism and Syntactic Nativism.

1 I take the difference to be this: *empirical* concepts are of empirical objects, properties, states of affairs, etc.; *experiential* concepts can be acquired on the basis of experience. Note that empirical concepts needn't be experiential (as for us, I suppose, the concept SUPERSTRING is not).

2 What I mean by 'merely structural' and 'syntactic vehicle' will be explained below (see note 27).

2. Semantic Nativism.

2.1. The Conflict

The *causal* theory claims that content is determined by past interactions between the mind/brain and the rest of the world. The incompatibility here is obvious. If the nativist thesis is that some of the innate states of the mind/brain are intentional, then any view on which intentional content is acquired through causal interaction with the world – presumably through the senses (i.e., *by experience*), will be ipso facto committed to anti-nativism. Indeed, it seems the very idea of causal theories that content is *not* intrinsic to the mind.

Though most information theorists are committed to the *nomic* version of their theory,[1] Fodor (1990: 119-122) has identified some reasons for preferring the causal theory. On the nomic theory, you cannot have different concepts for properties it is nomologically impossible for you to distinguish. This, according to Fodor, amounts to a form of verificationism, which one may well wish to avoid. On the causal theory, in contrast, if a mental representation is, as a matter of fact, caused to be tokened by instantiations of *only one* of such properties, then that representation expresses the property instantiations of which have caused its tokenings. (In other words, if Fs and Gs would both cause tokenings of a concept C as a matter of nomological necessity, then on the nomic theory C must express the property *f or g*, whereas on the causal theory it is possible for C to express only *f*, if only Fs have actually triggered its tokenings.[2])

Anyone impressed by this argument and sufficiently wary of verificationism must contend with the obvious inconsistency of nativism and the causal theory.

Whether or not there is a tension between nativism and *nomic* externalism might seem to depend on how innateness is construed. If innateness is independence of actual causal transactions between the mind/brain and the rest of the world, then there is no incompatibility (mental states can possess nomic content independently of actual interactions); whereas if innateness is construed as independence of *nomic* relations (i.e., actual and potential tokening) between the mind/brain and the rest of the world, then there *is* an incompatibility: mental states cannot possess nomic content independently of nomic relations. The issue between nativism and externalism would then devolve

1 See, e.g., Dretske 1981 and 1986, Fodor 1987 and 1994, Stalnaker 1984 and Stampe 1977.

2 Though there is, Fodor notes, some residual verificationism even here: on the causal theory you cannot have distinct concepts for indistinguishable properties *instantiations of all of which you have encountered*.

upon how innateness should be understood – an issue for nativists to debate (unquestion-beggingly) among themselves.

I maintain, however, that nomic externalism is incompatible with a plausible Semantic Nativism *however* innateness is construed. The tension between them depends not on the distinction between actual and counterfactual tokening, but on the distinction between the *representation* (i.e., *expression*) of content and the *implementation* of content.

Mental contents are generally agreed to be abstract (non-spatiotemporal) objects – properties, relations and propositions, most often construed as *functions*. For a mental state to have a function as its content is for that state to represent (express), and not just implement, that function. The distinction between representation and implementation is nicely made by an example from Fodor 1987. The planets in their orbits implement Kepler's laws of planetary motion (roughly, functions from planets to trajectories) – that is, they behave in accordance with them; but (obviously) they do not represent them. The general moral is that for a function to be represented it is not sufficient that it be implemented.[1] The moral in the instant case is that whether or not the nomic theory is compatible with a Semantic Nativism depends on whether or not what it places in the head is sufficient for representation (as opposed to mere implementation). And here the nomic theorist is faced with a dilemma.

Either he allows that what is in the head is sufficient for content representation, or he does not. If he does, then though he need not be in conflict with the nativist, he is no longer an externalist. For, recall, it is a fundamental tenet of externalism that the head's contribution to mental states is *not* sufficient for content representation. (Molecularly identical heads in different environments represent differently; and it does not make sense to say that the state is representational, but represents no particular content.) This is, after all, the point of the Putnam and Burge thought experiments. But if what is in the head is *not* sufficient for representation, then, well, *it is not*; *at best* it is sufficient for implementation, and the resulting nativism is not semantic.

Thus, externalism in both its causal and nomic versions is (so far), incompatible with Semantic Nativism. There are, as I see it, only two moves an externalist might make here, both of which involve opting for a weaker nativist thesis. Adopting a distinction between "narrow" and "wide" content, an externalist can argue for a nativism on which only *narrow* concepts are innate. Alternatively, an externalist could adopt Syntactic Nativism, the view on

1 Nor is it necessary: Kepler's mind, for example, represented the laws of planetary motion without implementing them.

which only the syntactic vehicles (physical bases) of concepts are innate. In the next two sections I argue that neither of these alternatives is likely to yield a plausible and philosophically interesting nativism, on generally accepted terms.

2.2. Narrow Nativism.

There seem to be two ways of thinking about "narrow" content in the literature. Sometimes (e.g., Putnam 1975, Fodor 1994: 39ff, and Block 1986: 627ff) it is spoken of as something like *de dicto* (as opposed to *de re*) content, or *character* (à la Kaplan 1989), which is directly expressible.[1] Sometimes (e.g., Fodor 1987) it is spoken of as radically *inexpressible* – as some kind of *proto*-content, or mere content-*determinant* (e.g., Block 1986). On the former construal, innate possession of states with narrow content would be incompatible with externalism, for the reasons given above. Thus, it is narrow content in the *latter* sense that will be at issue here.

Now I don't think a Narrow Nativism of this sort would be acceptable to most nativists. Here, for example, is Fodor (1983: 4-5) on what the nativist wants:

> It [is] important to the [nativist's] story that what is innately represented should constitute a bona fide object of propositional attitudes; what's innate must be the sort of thing that can be the value of a propositional variable in such schemas as 'x knows (/believes, /cognizes) that P'.

Why should the nativist insist on states with *wide* content? Because, according to Fodor (*id.*):

> Chomsky's account of language learning is the story of how innate endowment and perceptual experience interact *in virtue of their respective contents*. ... This sort of story makes perfectly good sense so long as what is innate is viewed as *having* propositional content .... But it makes no sense at all on the opposite assumption.[2]

and narrow contents (on the relevant construal of 'narrow') are not propositional.[3] So I think this move is actually blocked, and the conclusion of the

1 The narrow (in this sense) content of Oedipus's desire is that he marry Jocasta; its wide content that he marry his mother.

2 I should mention that Fodor no longer accepts this assumption – though *not* because he accepts a nativism of narrow concepts; but, rather, because he no longer accepts Semantic Nativism (see Fodor 1998; also cf. note 29).

3 One might also doubt that Putnam- or –urge-type cases can be constructed for the sort of logico-grammatical concepts (e.g., NOUN, CATEGORY, WELL-FORMED FORMULA) the contemporary nativist typically claims to be innate. If they cannot, then going narrow would not be an option (because the wide-narrow distinction does not apply). I believe that they can, however; see section 3.3, below, for argument.

previous section stands: externalism in both its causal and nomic versions is incompatible with Semantic Nativism.

Still, an externalist might try to argue either that Fodor's claims are false – that in fact wide contents are *not* needed to do the work innate concepts are supposed to do;[1] or that a Narrow Nativism, though perhaps not what the nativist wanted, is still sufficiently interesting to console him in his loss of Wide Nativism. So it will be worthwhile to see what the commitments and consequences of such a nativism would be.

Cross-classifying the causal-nomic and wide-narrow distinctions yields four possible theories of content, the *wide causal theory*, the *wide nomic theory*, the *narrow causal theory* and the *narrow nomic theory*.[2] The wide causal and nomic theories have already been discussed; and the narrow *causal* theory may be dismissed for the same reasons as the wide causal theory. So the version of Narrow Nativism we need to explore is Narrow Nomic Nativism.

2.2.1. Narrow Nomic Nativism.

Though it is defined functionally in terms of externalistically individuated wide content, narrow content is (or is represented by or supervenes on something) "in the head," and so is perhaps just what the committed externalist-nativist needs to fashion a compromise position. The *nomic* narrow content of a mental state is determined by a property of that state in virtue of which it *would* get caused by particular bits of the world (objects, property-instantiations, states of affairs, or whatever), given particular circumstances i.e., some *dispositional* property. To say this much, however, is not yet to say anything a *non*-semantic nativist would be constrained to deny. In particular, in the present context, more needs to be said about what, precisely, is in the head in virtue of which a given mental state has the disposition characteristic of its having a particular narrow nomic content.

1 Specifically, for Fodor (*id.*), they are needed because the interaction of experience and innate endowment is *computational*, and "a computation is a transformation of representations that respects ... semantic relations," such as implication, confirmation and logical consequence. It could be argued that computations need only respect *narrow* semantic relations.

2 On the *wide causal theory*, mental state types have the same wide content in every context, and what that content is is fixed by actual causal interactions; whereas on the *wide nomic theory* mental state types have the same wide content in every possible context independently of any actual causal interactions. On the *narrow causal theory*, the wide content of mental state types may vary depending on context, and the pattern of variance (the narrow content) is set by actual causal interactions; whereas on the *narrow nomic theory*, the wide content of mental state types may vary with context, but the pattern of variance is set independently of any actual causal interactions. I take it the last sort of theory is what "mapping function" theorists such as Fodor 1987 and 1990 and White 1982 have in mind.

From the point of view of such "mapping function"-style theories of narrow content, such questions may seem irrelevant: one has only to say what the constitutive conditions for (narrow) concept possession are, not how the dispositions are realized. As Georges Rey (personal communication) has put it, the mapping theorist "claims that this dispositional level of abstraction is all we ... need: semantics no more needs the details of the manner of computation than it needs the details of the particular chemicals the brain deploys in going through its computations." But since the innateness hypothesis concerns what is actually in the mind/brain (and when), it is *highly* relevant to ask what sort of story one could tell about what the satisfaction of a certain function by a brain state consists in. *Semantics* might not need the details, but *nativism* does; and what's at issue here is the compatibility of the latter with a particular version of the former.

Short of taking such dispositions to be primitive, the most likely story consistent with naturalistic constraints is that they are realized by preset connections to sensory transducers/ processors and to other state types – i.e., by, generally, *functional*, or *computational*, role.[1] Fodor (1991: 263-271; 1994: 27), for example, says that narrow contents *supervene on* computational role (two narrow concepts differ in their content only if they differ in their computational role). Thus, two mentalese "word" tokens have the same narrow content only if they have computational roles that effect reliable, asymmetrical (for Fodor) connections to the same property instantiations in the same contexts. If computational roles are realized by causal relations among neural structures, then they are specifiable individualistically, and there could be mental states that have such roles innately, the roles themselves being "hard-wired."[2]

But is possession of states with individualistically specified functional properties sufficient for narrow content *representation*? The dilemma posed above for the wide nomic theorist does not apply here, since it is *stipulated*

1 Functional-role theories, which come in many varieties (cf., e.g., Block 1986, Field 1977 and 1978, Harman 1987, Lycan 1984, McGinn 1982), are the most popular theories of the internalistic aspects of mental content. I should add that teleofunctional theories, being stories only about *how* states acquire their content-determining functions, do not require separate consideration here.

2 Cf. Lloyd 1987, 59:

> What can be represented by a representational system depends on the functional interanimation of its (preexisting) representational devices. Some stimuli may affect transducers but not produce representations for want of the appropriate connections and mechanisms. In a sense, then, what can be represented by a representational system is innate, the product of the hard-wired connections available to the system as loci for representing devices.

(Note that Lloyd is not claiming that functional role is sufficient for representation, but only that what it is possible to represent is limited by available functional roles.)

that narrow content is not externalist (the narrow theorist is happily impaled on the first horn of that dilemma). Our narrow nomic theorist is faced with a different dilemma, however.

Computational role is either sufficient for narrow representation, or it is not. If it is not,[1] then at best a state's having a computational property is sufficient for it to *implement* a narrow content. But such a nativism would not be semantic. If on the other hand computational role *is* sufficient for narrow content, the resulting nativism, though semantic, is, I maintain, either too implausible to appeal to a nativist, or too costly to appeal to either a nativist or an externalist.

The computational role of a mental state type consists in its causal relations to *other* mental state types. The individuation of such roles is, therefore, at least to some degree *non-atomistic*: they are determined by the computational "position" of the state-type in a network of causal relations. The degree of non-atomism involved depends on whether the state's position is determined by its relations to *all* other positions in the field (resulting in *holism*) or to only *some* of them (resulting in "*regionalism*"[2]). Let's consider these in turn.

If narrow content individuation is holistic, then the introduction of any new state type into the network changes the contents of all of its constituents. Thus, the acquisition of any new narrow concept would change an individual's innate endowment: innate narrow concepts would either be lost, or (if this is indeed something different) change their content. If wide content is determined by narrow content together with context, the loss of a narrow content, with no context change (the situation the vast majority of us find ourselves in!), would amount to the loss of a wide content. Given the uses to which nativists typically put innate concepts, I doubt seriously they would find this result acceptable.[3] A Chomskian, for example, would be faced with the prospect of a child's losing, as it might be, the concept GRAMMATICAL upon acquiring the concept DOG. Inasmuch as innate concepts (including grammatical ones) are supposed to be fundamental in explanations of enduring cognitive (including linguistic) capacities, I take it any nativist would wish to avoid this situation.

One might, on the other hand, try for a general distinction between innate concepts and acquired concepts such that innate concepts are preserved through the acquisition of new ones – because, in particular, their conceptual

1 As is the case for Fodor, as noted above (computational role is only *necessary* for narrow content). Fodor wishes to avoid content holism (see below).

2 Cf. Devitt's "molecular localism" (Devitt 1996).

3 It would be at least controversial (see, e.g., Woodfield 1993, and references therein).

roles are "insulated" from those of subsequently acquired concepts (though not, perhaps, vice versa).[1] But this too has costs, and ones that it seems to me unlikely most philosophers would be willing to pay.

Since in order for innate concepts to figure in enduring cognitive capacities applicable to novel experiences they will have to form liaisons with *acquired* concepts, regionalism would require a general distinction between content-constitutive and noncontent-constitutive computational roles. If, that is, innate concepts are to retain their content while entering into new causal-computational roles, those new roles must not figure in the determination of their content. However, most parties to this discussion would, I believe, agree that the distinction between content-constitutive and noncontent-constitutive computational roles is coextensive with the distinction between analytic and synthetic inferences. If you buy the former, you buy the latter. Thus, on a computational role view of narrow conceptual content, the analytic-synthetic distinction (or its narrow ersatz) would be required to distinguish innate concepts from acquired ones.

The (narrow) analytic-synthetic distinction would also be required to distinguish the content-constitutive conceptual roles of innate concepts *from one another*. For, if the contents of innate concepts are determined by *all* of their interconnections (cf. Sterelny, op. cit.), then no two minds can have *any* innate narrow concepts in common unless they have *all* their innate narrow concepts in common. But then it would be logically impossible for me to have any innate concept that you have unless I have all of them; which seems highly implausible.[2] Moreover, if the innate repertoire is constant (and *accessible*; cf. note 21), and the acquired conceptual repertoire is based on it, then it would follow that no two people differing in as much as *one* innate conceptual role could think *any* of the same thoughts. But surely these are counterintuitive entailments. Couldn't I be missing an innate concept – say, GOVERNING CATEGORY – that you have, but still be capable of thinking many of the thoughts that you can think – couldn't we nonetheless *both* think, for example, that Madonna can't dance?

1 This sort of view is discussed in Sterelny 1989 (135): Sterelny entertains the possibility of a nativism on which an innate endowment of computational roles determines the content of basic concepts, from which the computational roles of nonbasic concepts are derived. The parenthetical (in the text) anticipates two possible objections, viz., (1) if acquired roles are added one at a time, the first could have no content unless the roles of the innate concepts were accessible, and (2) unless the innate/acquired barrier is permeable (from the acquired side), the contents of innate concepts will not be available to be constituents of acquired ones (a desideratum for many nativists).

2 Though a consequence that someone like Field (1978) seems prepared to accept.

These counterintuitive consequences could be blocked if a distinction were made between content-constitutive and noncontent-constitutive conceptual roles within the innate base. The contents of innate contents would then be determined *only* by their relations to other innate concepts, though not by *all* of them.

Thus, I would argue, a plausible Narrow Nomic Nativism requires acceptance of the analytic-synthetic distinction (or something very much like it). But I think this is a price many philosophers of language and mind will find prohibitive. Block (1986), in particular, holds that "C[onceptual] R[ole] S[emantics] cannot make use of the analytic/synthetic distinction" (629); and I think the consensus is still that Quine was right in holding that there is no objective (i.e., naturalistic) sense to be made of it.[1] In the absence of an argument that narrow content can do for the nativist everything wide content can do, the abandonment of wide nativism in combination with the adoption of the (narrow) analytic-synthetic distinction makes Nomic Narrow Nativism a position I think most philosophers will find rather unattractive. Faced with a choice between Nomic Narrow Nativism and No Nativism, many would, I suspect, opt for the latter.

A likely conclusion here would be that externalist arguments show nativism to be false.

2.3. A Hybrid View?

It might be objected that all my arguments show is that one cannot comfortably be a nativist and an externalist about the *same* concepts, but that it is possible to be a (wide) nativist about some concepts (e.g., NOUN, AND, OBJECT), and a non-nativist externalist about the rest. So there's a perfectly plain sense in which externalism and nativism are compatible. Clearly this is not an option for someone like the Fodor of Fodor 1981, for whom *all* (lexical) concepts are innate. But that sort of nativism seemed so implausible anyway (MODEM? GRUNGE?), perhaps this is just another reason to abandon it. The position of choice would be one on which there is an innate base of wide concepts (all those that are needed for, say, Chomskian reasons), while all acquired concepts are individuated externalistically.[2]

1 Though there does seem to be a growing number who are not willing to follow Quine in this. See, e.g., Boghossian 1996, Katz, 1988, 1990, Peacocke 1992, Rey 1993.

2 The proposal in this section is different from the "insulated" view discussed above. Though both postulate a principled distinction between the innate and acquired concepts, the distinctions they postulate are different. The present suggestion is that externalism is false of innate concepts but true of acquired ones. The suggestion of the previous section was that externalism is true of all concepts, but that the narrow content of innate concept is determined only by its relations to

But this seems ad hoc. If (e.g.) a conceptual role theory can (modulo the analytic-synthetic distinction) be made plausible for *some* concepts, then why not adopt it for *all* concepts? It might be replied that the distinction is not ad hoc, but is in the nature of things: it's just a brute fact that some concepts are not individuated externally. But if Putnam- or Burge-type cases are constructable for the concepts the nativist needs – if externalism for concepts like NOUN, SENTENCE, AND and OBJECT is motivated as much as it is for such concepts as WATER, TIGER and ARTHRITIS – then, though a conceptual role semantics might be workable for such concepts, the distinction *is* ad hoc.

Are such cases constructable? I think they are. Since the concepts at issue here are not natural-kind concepts, the relevant sort of scenario would be Burgean. (Burge's examples are of technical (e.g., ARTHRITIS – Burge 1979) and artifactual (e.g., SOFA – Burge 1986) concepts.) Consider someone who, as a result of somewhat limited linguistic experience in our linguistic community, believes that the category NOUN includes only terms referring to concrete objects. Would we say that he does not have the concept NOUN, or that he had a mistaken belief about it? Compare him to his twin in a language community in which the category NOUN *does* include only terms referring to concrete objects. Does his twin have our concept NOUN? It seems to me that if you have the Burgean intuitions about ARTHRITIS and SOFA, you ought to have them about NOUN. It would be easy enough to construct analogous examples using concepts such as SENTENCE (can a sentence have an embedded sentential clause, or not?), CATEGORY (is RIGID DESIGNATOR a grammatical category?), and GRAMMATICAL (does the concept cover sentences with pleonastic pronouns, or not?).

Likewise, I should add, for (wide) logical concepts. It is *possible* to give inferential-role characterizations of them (à la Gentzen – cf. Peacocke 1992), but if they are subject to Burge-style counterexamples, then why not say that they are individuated externally too? Consider a member of our language community who believed that 'and' has an intrinsic temporal meaning, so that for him sentences of the form ⌜p and q⌝ are not equivalent to sentences of the form ⌜q and p⌝ (though, say, he also believes that both ⌜p⌝ and ⌜q⌝ follow from ⌜p and q⌝). Would we say that he did not have the concept AND, or that he had false beliefs about it? Compare him to his twin in a language community in which AND *does have* this meaning.

It seems to me that if you accept the intuitions about the inferences Al is prepared to draw from 'x has arthritis', you ought to accept them about the

other innate concepts, and not to acquired ones.

inferences he is prepared to draw from sentences of the form ⌜p and q⌝ – and, hence, that if you *don't* accept them about NOUN or AND, you shouldn't accept them about ARTHRITIS and SOFA, in which case you've abandoned externalism.

I conclude, therefore, that the hybrid view is unmotivated. But then either all concepts are individuated *externalistically* – in which case the nativist is unhappy, or they are all individuated *internalistically* (via inferential role) – in which the externalist should be unhappy.

3. Syntactic Nativism.

I have argued that going narrow is not going to help the (orthodox) compatibilist. Perhaps, then, the thing to do is to go *syntactic* – to argue that what is innate is not representations, but only their *vehicles*. By thus rejecting the innateness of content of any sort, the compatibilist would abandon (what I take to be) traditional nativism; but it is open to him to argue that his thesis is still philosophically interesting.

In addition to the considerations mentioned above (section 2) concerning the (wide) content requirement, a prima facie objection to Syntactic Nativism is that it is merely a hypothesis about the innate *physical* structure of the brain: and why should a *philosopher* care about that? Why is it any more philosophically interesting than a thesis about the innate physical structure of the stomach?

Recall my characterization of nativism as the view that there are innate mental/brain structures that predetermine in some way or other the cognitive capacities we are capable of entertaining. I take it that it is this predetermination that gives the nativist thesis its philosophical interest. The Syntactic Nativist could argue that the innateness of the *structured objects*[1] that subserve conceptual content (plus whatever transducing mechanisms are needed to establish the relevant head-world hookups) are sufficient unto such predetermination (whereas nothing about the physical structure of the *stomach* has such effects).

In particular, since the representational capacity of the brain underwrites our ability to think (by enabling us to entertain propositions), questions about the availability of mental syntax have a direct bearing on philosophically interesting issues – the question of what it is possible to *think* being clearly

1 Just what these objects would be is perhaps not completely clear. Assuming, however, that a distinction can be made between (say) neural structures that subserve concept possession and those that do not, there is at least some reason to think that the notion of a vehicle is not without objective sense.

more interesting than the question of what it is possible to *digest*. The conceptual vehicles themselves do not have content, but since the grasping of concepts involves (let us suppose) representing them mentally, one is constrained to think only what can be "written" in the brain's "language."[1] The Syntactic Nativist says that at least some (perhaps all) mentalese terms are innately tokened, and, therefore, that what it is possible to think is, in a sense, not (or not entirely) determined by experience.[2] So the nativist thesis as construed by the Syntactic Nativist is philosophically interesting after all.

Well, maybe not. It depends, for one thing, on whether or not you take *lexical concepts* to be semantically structured. If they *are not*, then the sense in which it is true that thought is limited by syntax is irrelevant to the debate over the innateness of (lexical) concepts, which is, I take it, what is at issue here. The availability of conceptual vehicles of some particular "shapes" (for this is what the issue comes to) can have no effect on the availability of mental contents: the sense in which the limitations of brain-writing are the limitations of thought does not concern the mental *vocabulary*. It certainly seems correct to say that, for example, a mind/brain that could not "write" mentalese sentences with subordinate clauses (i.e., could not token structures interpretable as such) or could not form (mental structures interpretable as) disjunctive predicates, would be incapable of thinking many thoughts that *we* can think. But if the Syntactic Nativist takes the innate conceptual endowment to consist of the vehicles of *simple* concepts, there does not seem to be a way in which what can be written in mentalese could limit what can be thought. One would have to say that the limitations of mental *orthography* are the limitations of the content the vehicles can acquire. But this seems just false. If conceptual vehicles are syntactic objects whose expressive power is not determined by their significant internal structure (because they have none), they should no more be constrained to have any particular content than words in public languages; one will be as good as another for the representation of any "lexical" property.

If, on the other hand, the syntactic nativist assumes that some lexical concepts are complex, then, presumably, whatever innate limitations there may be on available constructive principles or structures would likely have consequences for what concepts may be entertained. If, for example, the concept MOTET includes the concept COMPOSITION *as a superordinate* (a motet

1 I am *not* committing myself to a language-of-thought story here, though I will find it convenient to speak of mental representations as if I were.

2 The Syntactic Nativist may be contrasted with the Syntactic *Anti*-nativist, who says that the brain's representational vocabulary – hence, what can be written in mentalese (hence, what can be *thought*) – is entirely determined by experience. An odd view, to be sure; but certainly a possible position in the logical space of the innateness debate.

is a *kind of* (musical) composition), then a mind/brain incapable of tokening structures with formal characteristics appropriate to the representation of superordination could not entertain the concept MOTET. So Syntactic Nativism could be an interesting thesis after all, though in an unexpected way. The philosophical interest of Semantic Nativism lies, in part, in its claim that we might be capable of entertaining thoughts whose content could not be gleaned from causal relations between our minds and the external world (i.e., experience). On the other hand, this version of Syntactic Nativism implies that there might even be *experiential* concepts we are incapable of entertaining. This probably isn't what the Syntactic Nativist had in mind; but, it seems to me, it is all he is likely to get by way of philosophical interest for his theory. For, how, given an externalist picture of content determination, could the internal structure of a conceptual vehicle enable it to have a content that could not be fixed in experience?

In any case, as noted above, it seems likely that most philosophers would be unwilling to pay the price of semantic decomposition and the analytic-synthetic distinction for a philosophically interesting nativism.

For these reasons, I do not think syntactic nativism is a live option, and (for the orthodox, at least) something does have to give. One cannot (without accepting the analytic-synthetic distinction) have both a plausible or philosophically interesting nativism and an externalist theory of content.

4. Conclusion.

I have presented the externalist-cum-nativist with a budget of nested dilemmas. He will be either a Semantic Nativist or a Syntactic Nativist. If he is a Semantic Nativist, then (qua externalist) he is either a causal theorist or a nomic theorist. If he is a causal theorist, then his nativism is blatantly inconsistent with his externalism. If he is a nomic theorist, then he is either a wide nomic theorist or a narrow nomic theorist. If he is a wide nomic theorist, then either he allows that what is in the head is sufficient for content representation – in which case he is not an externalist, or he does not – in which case he is not a Semantic Nativist. Narrow Nativism is not a view that would appeal to most nativists. If, however, the externalist-nativist opts for a Narrow Nomic Nativism, he (most likely) will assume a computational-role view of narrow-content-function satisfaction. But computational role is either sufficient for narrow representation or it is not. If it is not, then he is not a Semantic Nativist. If it is, then he must accept either the analytic-synthetic distinction or a highly implausible version of the (semantic) nativist thesis.

Syntactic Nativism is also not a view that would appeal to most nativists. If, however, the externalist-nativist opts for it, then (whatever his views about content determination) he must be either a primitivist or decompositionalist about lexical concepts. If he is a primitivist, then his thesis is not philosophically interesting. If he is a decompositionalist, then his thesis is philosophically interesting, but at the price of the analytic-synthetic distinction.

Thus, the arguments in this paper show that any plausible or philosophically interesting nativism compatible with psychological externalism presupposes the analytic-synthetic distinction. I argued, further, that this is a cost many (though by no means all) philosophers would be unwilling to pay.

In the end, it probably should not come as a surprise that externalism and nativism are not easily reconciled. Externalism undermines the Cartesian picture of the mind as metaphysically independent of the non-mental world, and seems an inevitable component of any effort to naturalize intentionality by making it causally based. The nativist, in contrast, is typically interested in explaining the possession of intentional states, including knowledge of *non-natural* (or even natural) objects, whose content, he claims, *couldn't be* determined on the basis of causal/nomic relations between the mind and the world. Whether those objects are considered to be constituents of thought or not, such states must be inherent in a world-independent mind.

Perhaps, for some, the choice between nativism and externalism – or between nativism/externalism and the denial of the analytic-synthetic distinction – is an easy one to make. Many mainstream contemporary philosophers and cognitive scientists, however, should have a harder time of it. If the arguments in this paper are sound, they must choose between two of their central commitments.[12]

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1 Jerry Fodor (*in propria persona*) has indicated that he, for one, would be willing to pay the price of a philosophically *un*interesting nativism for an informational (and atomistic) psychosemantics.

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