Is an analogous pessimistic induction warranted regarding the scientific theories currently receiving wide acceptance? The evidence would need to consist not merely of a few spectacular examples of long-held but false theories. That most of the theories that have ever been accepted were false is inevitably more plausible than the needed premiss: that at most past moments, most of the theories then accepted were false.

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The Fodorian fallacy

François Recanati

1. Fodor on compositionality and epistemic possession conditions

In recent years Fodor has repeatedly argued that *nothing epistemic can be essential to, or constitutive of, any concept*. This holds in virtue of a constraint which Fodor dubs the Compositionality Constraint (CC):

(CC) Nothing can be essential to or constitutive of a concept unless it composes.

A property of a concept is said to compose just in case it satisfies the following condition: a concept has that property iff the concept's hosts (i.e. the complex concepts of which it is a constituent) have it as well.

In so far as the possession conditions for a concept are constitutive of that concept, (CC) entails that '*P* is a possession condition on a constituent concept iff it is a possession condition on that concept's hosts' (Fodor

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2001a: 142). This biconditional is one of the many applications of the Compositionality Constraint. It is supported by the following consideration. If it is false, Fodor says, 'the following situation is possible: The possession conditions for RED are *ABC* and the possession conditions for RED APPLE are *ABEFG*. So denying [the Compositionality Constraint, as applied to possession conditions] leaves it open that one could have the concept RED APPLE and not have the concept RED' (Fodor 1998a: 37). But this is incompatible with the usual compositional account of productivity and systematicity. According to that account, RED APPLE is a complex concept *containing RED as a constituent*, and the semantic value (reference) of the complex concept is a function of the semantic values of its constituents. It follows that it should *not* be possible to have the concept RED APPLE without having the concept RED. Fodor concludes that we need (CC) to explain the productivity and systematicity of concepts.

From (CC) it follows, according to Fodor, that epistemic properties cannot be essential to concepts, because epistemic properties precisely do not compose. Thus consider WATER. Some, including myself, believe that it is a recognitional concept, based upon a capacity to recognize water (in normal conditions). But that epistemic property supposedly characteristic of recognitional concepts does not compose. Complex concepts such as that of WATER TANK are not themselves based upon a capacity to recognize water tanks in normal conditions. Or, if they are associated with such a capacity, that is accidental in the sense that the capacity in question – to recognize water tanks in normal conditions – does not itself depend upon the capacity to recognize water in normal conditions. Since epistemic properties do not compose, they are not essential to concepts and cannot be used to individuate them or to type them. So the argument goes.

2. *An inconsistent triad?*

I grant Fodor that, to account for productivity and systematicity, we need the following assumptions:

- *Constituency:* Concepts are used as constituents of more complex concepts.
- *Compositionality of reference:* The reference of a complex concept is determined by the references of its constituents (and the way the constituents are put together).

I also accept Fodor's claim that the epistemic property characteristic of recognitional concepts – the fact that such a concept is based upon a disposition to recognize its instances in normal conditions – does not compose, and that the same thing holds of epistemic properties in general. In contrast to the concept's reference, which is compositionally determined by the references of its constituents, there is a sense in which the epistemic

properties of a complex concept are not determined by those of their constituents.

What I question is the gist of Fodor's argument: the transition from the non-compositionality of epistemic properties to the impossibility of construing them as essential to concepts. Once we realize that epistemic properties do not compose, Fodor says, we can no longer take them to be essential to concepts without threatening the usual account of productivity and systematicity. That is what I deny. I think there is no inconsistency in holding simultaneously that

(1) Epistemic properties do not compose.
(2) The usual account of productivity/systematicity (i.e. the account based upon the two assumptions listed above) is correct.
(3) Epistemic properties are constitutive of certain classes of concepts (e.g. indexical concepts).

In other words, I hold that epistemic approaches to concept individuation are compatible with the usual account of productivity and systematicity even if we accept that epistemic properties do not compose. Hence what I will do, in the last section of this paper, is scrutinize Fodor's argument to the effect that (1)–(3) form an inconsistent triad.

3. *Simple inheritance v. compositional inheritance*

What is incompatible with the usual account of productivity and systematicity is the claim that one could have the concept RED APPLE without having the concept RED.[1] Fodor thinks this claim follows from (1) and (3) in the above triad, but he is wrong. He would be right only if (1) entailed the *non-inheritance* of epistemic properties from constituent to host. But (1) only says that epistemic properties *do not compose*. This, I claim, is different from saying that they are not inherited, in the simplest possible sense of the term.

To show that the epistemic properties that are constitutive of constituent concepts are inherited by their hosts (even if they do not compose) is a trivial matter. If the complex concept RED APPLE (or WATER TANK) has the concept RED (or WATER) as a constituent, and the concept RED (/WATER) has, among its possession conditions, an epistemic capacity *S* (e.g. the capacity to recognize red things, or water, in normal conditions), it *immediately* follows that one cannot have the concept RED APPLE without having the concept RED and therefore without having the epistemic capacity *S* (simple inheritance). What does *not* immediately follow is this: that one cannot have RED APPLE without having *an epistemic capac-*

[1] More specifically, that claim is incompatible with the assumption I dubbed 'Constituency'.

ity S which is to RED APPLE what S is to RED* viz. the capacity to recognize red apples in normal conditions (*compositional* inheritance). In other words: The constitutive epistemic properties of constituent concepts are perforce inherited by their hosts, yet they do not compose in the sense in which standard semantic properties such as reference compose. The reference of the complex concept RED APPLE (or WATER TANK) is compositionally determined by the references of its constituents. That implies that the complex concept *has* a reference of its own, which is determined by the references of its constituents. But the complex concept RED APPLE can inherit the epistemic possession conditions of its constituents *without having an epistemic possession condition of its own* (let alone one determined by the possession conditions of its constituents): again, one can have the concept WATER TANK without having the capacity to recognize water tanks; or, if one has the capacity to recognize water tanks, it will not be determined by one's capacity to recognize water in the way in which the reference of WATER TANK is determined by (*inter alia*) the reference of WATER.

Compositionality turns out to be a much stronger form of inheritance than what I called 'simple inheritance'. But only the failure of simple inheritance would threaten the usual account of productivity and systematicity, by forcing us to acknowledge the possibility of having RED APPLE without having the concept RED. In the relevant passages where he presents his argument against epistemic approaches to concept individuation, Fodor systematically trades upon the ambiguity of 'inherit' between the two notions I have distinguished – simple inheritance and compositional inheritance. His argument is fallacious because it rests on that ambiguity. The fact that epistemic properties do not compose is the fact that the epistemic properties of the constituents are not *compositionally* inherited by the hosts. Still, the epistemic possession conditions for the constituents *are* inherited by the hosts (though not 'compositionally'), and that is sufficient to guarantee that one cannot have a complex concept without having its constituents.[2]

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[2] Faced with the scepticism of his colleagues and friends, Fodor sometimes appeals to an auxiliary argument. He says, or implies, that if we do not accept (CC), we do not explain *why* the constitutive properties of the constituents are inherited by their hosts; we can only *stipulate* that that is so (Fodor 1998b: 53). But I fail to see the force of this argument. The basic fact to be explained is the productivity/systematicity of con-

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cepts. To explain that fact, we make two assumptions: Constituency, and Compositionality of reference (CR). We can, if we wish, mention only (CR), since it presupposes Constituency. Be that as it may, once we have Constituency, the *simple* inheritance of constitutive properties is *ipso facto* explained; it does not have to be stipulated. Nor do we have to enrich (CR) into (CC) in order to explain it. As for *compositional* inheritance, the only difference between Fodor's account, based on (CC), and the alternative account based on (CR), is that Fodor takes *all* constitutive properties of concepts to compose, while the alternative account restricts compositional inheritance to *semantic* properties. I do not see how, without begging the question, one could maintain that one account is more 'stipulative' than the other.

Convention T and Basic Law V

CHARLES SAYWARD

Convention T and Basic Law V of Frege's *Grundgesetze* share three striking similarities. First, both are universal generalizations which are intuitively plausible because they have so many obvious instances. Second, both are false because they yield contradictions. Third, neither give rise to a paradox.

Suppose a person asserts that 'The set of Fs = the set of Gs' is to hold just in case something is an F if and only if it is a G (this is the content of Basic Law V of Frege's *Grundgesetze*). Russell thought he had derived a contradiction from Frege's system. This contradiction involved the notion of a set. Within that system there is the predicate 'set not a member of itself' and so, by Frege's fifth axiom, a set the members of which are exactly the sets which are not members of themselves. If this set is not a member of itself

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