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Husserl and the Representational Theory of Mind *

Husserl has finally begun to be recognized as the precursor of current interest in intentionality – the first to have a general theory of the role of mental representation in the philosophy of language and mind. As the first thinker to put directedness of mental representations at the center of his philosophy, he is also beginning to emerge as the father of current research in cognitive psychology and artificial intelligence.

So writes Dreyfus in his introduction to *Husserl, Intentionality and Cognitive Science*.¹ These provocative comments launch a most interesting discussion of Husserl's relationship to important recent work in philosophy of mind, especially that of Fodor and Searle. If Dreyfus is right, Husserl himself is the author of a proto-Fodorian theory of mental representations, and the tasks he conceived for transcendental phenomenology anticipate modern-day research projects in artificial intelligence and cognitive science. But Dreyfus is a critic of such efforts: indeed, he believes that Heidegger's reasons for rejecting the very possibility of transcendental phenomenology are basically right. Thus, his ultimate goal in comparing Husserl with "modern mentalists" such as Fodor is to show that both can be tarred with the same brush.

In this paper I shall be reexamining these comparisons from a standpoint that is more sympathetic toward Husserl and that attempts to be more neutral toward contemporary "representational" theories of mind. I have discussed Searle's views in relation to Husserl's elsewhere,² and so my focus here will be on Fodor and Husserl. As a contributor to the Dreyfus anthology and an advocate of the general line of Husserl interpretation represented in it, I am interested in dissociating that interpretation from Dreyfus' strong *computationalist* reading of Husserl.³ However, I agree with Dreyfus that there are some remarkable points of agreement between Husserl and contemporary representationalists; my strategy will be first to push these as far as I plausibly can (or perhaps even a bit further in some instances) and only then to draw out the points of disagreement. By doing so, I hope not only to sharpen these points of agreement and disagreement but also to show where and how Husserl's views on meaning and intentionality would suggest modifications in the representational approach to an understanding of mind.

Although I shall disagree with Dreyfus' characterization of Husserl as an advocate of a formalist or computationalist type of cognitivism, then, I am also concerned to show that Husserl and contemporary cognitivists share much common ground. In particular, I shall argue, Fodor and Husserl share a methodological principle that marks them both as opponents of "naturalistic" psychology, and Fodor seeks an understanding of the nature of mind that shares some of the goals of Husserl's "transcendental" phenomenology. Furthermore (on the interpretation I favor, at any rate), Husserl's noematic *Sinne* can be seen – up to a point – as a version of what Fodor calls "mental representations", having both formal (or "syntactic") and representational (or "semantic") properties and so forming a kind of "language of thought." Nonetheless, I shall argue, Husserl differs in important ways from Fodor and other contemporary representationalists on each of these points. These differences culminate in an importantly different conception of the intentional, or representational, character of mind and the role of meaning in our mental life.

I. Methodological solipsism and phenomenological epoché

In his much discussed article (Fodor, 1980), Fodor endorses a thesis Putnam first called "methodological solipsism". As described by Putnam, methodological solipsism is "the assumption that no psychological state, properly so-called, presupposes the existence of any individual other than the subject to whom that state is ascribed."⁴ Fodor characterizes it, somewhat more broadly, as the "Cartesian" view that "there is an important sense in which how the world is makes no difference to one's mental states."⁵ Although many of our mental states are intentional and so stand for or represent things as being external to the mind, these mental states themselves – on this assumption – have a kind of intrinsic character of their own, which is just as it is even if there actually exists no mind-independent world at all. And if that is so, then a theory of mind *per se* – one designed to effect an understanding of this intrinsic character of mental states – ought to be one that even a consistent solipsist could accept. The point is not to affirm solipsism, of course, but only to proceed as though it were true, so that the resulting account of mind will presuppose nothing about the natural (especially causal) relations between the mind and its actual environment, or anything else about the "natural" setting in which minds are embedded.

Now, Husserl's methodology, which he calls "phenomenological reduction", takes its departure from this very thesis about the independence of mind from "natural" reality. "... *No real being*," he says, "*is essential for the being of consciousness itself*".⁶ Hence, Husserl's version of methodological solipsism: "Let us imagine ... the whole of nature, physical nature above all, 'annihilated'. ... My consciousness, however much its constituent experiences would be changed, would remain an absolute stream of experience with its own essence".⁷ Indeed, Husserl thinks, we each have a kind of first-person knowledge of the intrinsic features essential to mind (or "consciousness", as he prefers to

say) that is independent of the truth or falsity of our beliefs about the world of nature. And so he thinks that a properly philosophical (or phenomenological) account of mind should be consistent with what he calls “epoché” or “bracketing” – i.e., that it should appeal only to the internal features of mind that we know after an epoché, a suspension, of all our beliefs about extra-mental reality.

The fact that methodological solipsism, or epoché, is so controversial, with decriers ranging all the way from Heidegger to Wittgenstein to Skinner to Putnam to Dreyfus, makes its endorsement by both Fodor and Husserl a significant point of agreement. However, it should be noted that even its contemporary proponents disagree about just where it leads, and Fodor and Husserl endorse it for rather different reasons.

Fodor is interested in “mental causation”, the causal role that mental states play in behavior. And as he observes, this role often seems more dependent on how the world is represented to us in our mental states than on how the world actually *is*. For example, Oedipus’ desire for Jocasta produced radically different kinds of behavior, first courtship and later self-directed violence. Why? Not because of any significant change in Jocasta – she was his mother all along – but because of a change in how Jocasta was represented to Oedipus in his mental states. This reason for endorsing methodological solipsism is further reinforced by Fodor’s commitment to a computational account of mental processes and mental causation. “Computations” are operations on formal, or syntactic, elements *internal* to a system, and so these operations and the behaviors they produce are independent of any relationship those elements bear to the rest of the world. Accordingly, he notes, computationalism has no chance of being a true theory of mind unless the assumption embodied in methodological solipsism is true.

Husserl emphasizes two different considerations. First, the representational character, or intentionality, of mental states itself displays a certain independence from the reality of what is represented. Thus, a mental state may represent or be “directed toward” an object or state of affairs that does not actually exist at all; and, where what is represented *does* exist, the properties it is represented as having need not coincide with those it actually has. There is a crucial difference between Husserl and the computationalists here, as we shall see. Husserl’s other main consideration is epistemological: what we know about the representation of reality in our mental states is epistemologically prior to what we know about the nature of reality itself, since we have no access to reality except via our mental representations of it. Thus, Husserl thinks, a philosophical understanding of the foundations of our beliefs about natural reality must ultimately derive from a study of mental representation, and so that study itself cannot, on pain of circularity, be made dependent on the truth of those beliefs. This view leads Husserl to a more radical version of methodological solipsism than that described by contemporary representationalists and results in his “transcendental” version of phenomenology.

II. Functionalism, computationalism, and transcendental phenomenology

I intend to pass over some large differences between Fodor and Husserl, but I do not mean to suggest that those differences are trivial. For example, Husserl believes that epoché, the suspension of our naturalistic beliefs, can almost immediately deliver up the data for proper philosophizing if it is properly carried through and followed by a special kind of introspection, or “reflection”, on the contents of one’s own consciousness. He takes this phenomenological reflection to be indubitably reliable, and the pronouncements issuing from it are not supposed to be mere speculative or inductive generalizations but necessary or “eidetic” truths about consciousness. Claims such as these mark radical differences between the methods Husserl characterizes as uniquely phenomenological and those employed by contemporary cognitivists.

A second difference is perhaps less radical than it first appears, though. Methodological solipsism, as Putnam described it, assumes the existence of no individual except “the subject” of the mental states in question. But what is this “subject”? Husserl characterizes transcendental phenomenology as the study of “transcendentally purified” or “absolute” experiences of the “transcendental ego”, as opposed to the “real” or “empirical” experiences of the “psychological” or “empirical ego”. Such distinctions suggest a heavy dose of metaphysics that Fodor and many other contemporary philosophers would be most loathe to swallow. Appearances notwithstanding, however, I want to argue that there is a major point of agreement between Fodor (and contemporary representationalists generally) and Husserl here.

The point of agreement is this: neither Fodor nor Husserl – neither cognitive science nor transcendental phenomenology – claims to offer a *naturalistic* theory about how mental processing actually takes place in human minds or brains. Rather, the goal of each is to find abstract general analyses of what is involved in various kinds of mental activities, analyses that apply with equal validity to any sort of entity capable of that kind of mental activity, no matter what its actual physical make-up and no matter what physical processes actually enable it so to perform.

For Fodor and proponents of artificial intelligence this point should be readily apparent. Their claim is not that human minds or brains are *physically* like inorganic computers or that the processes in which human thought is carried out are physically similar to those involved in computer processing; rather, they claim that the same “play-by-play accounts” (as Cummins calls them⁸) are descriptive of both certain mental capacities of humans and certain information processing capacities of computers. Research in artificial intelligence is concerned with finding these “play-by-play accounts”, articulated in flow charts or computer programs, and it deals with these abstract objects rather than with the specific physical make-up of the hardware that may “instantiate” them. As such, these research efforts exploit the ontological neutrality characteristic of functionalist theories of mind. What is essential to mentality, functionalism says, is not the kind of substance that is capable

of having mental states, but certain sorts of logical or structural (standard functionalism says causal) relationships of a mental state to others and to sensory “inputs” and behavioral “outputs”. As Fodor says:

Functionalism, which seeks to provide a philosophical account of this level of abstraction, recognizes the possibility that systems as diverse as human beings, calculating machines and disembodied spirits could all have mental states. In the functionalist view the psychology of a system depends not on the stuff it is made of (living cells, metal or spiritual energy) but on how the stuff is put together.⁹

For this reason, functionalists are widely given credit for having made a major advance over both behaviorism and physicalism as well as dualism. But Husserl explicitly articulates such an “ontologically neutral” approach to the understanding of mind that predates functionalism by a half-century. He sees that a consistent anti-naturalism in fact requires it, for naturalism includes not only beliefs about individuals “other than the subject” but also beliefs about the subject herself, insofar as subjects are psycho-physical natural organisms in causal contact with other things and occupying the very same world of nature as they. He accordingly urges that the method of epoché, if rigorously applied, must yield an account of mind that is independent of the truth or falsity of *all* our naturalistic beliefs, including these beliefs about the actual psychological or physical nature of human subjects themselves. Thus, with the phenomenologist’s imagined “annihilation” of nature, Husserl says in a passage I earlier quoted elliptically, “there would be no more animate organisms and therefore no more human beings. I as a human being would be no more. ...But my consciousness ... would remain an absolute stream of experience with its own essence.”¹⁰ Husserl’s phenomenological descriptions of this remaining “consciousness” and its “absolute” experiences are therefore not intended as naturalistic accounts of the “empirical ego”, the ego as naturally embodied in us human beings, or of its experiences as “real” psychological or physical processes. Rather, they are intended as distinctively philosophical accounts of “transcendental” features of mind: transcendental inasmuch as those features constitute mentality itself (at least of the sort we humans have), no matter how they are in fact actually realized in us or in whatever other beings they are. It is the subject of experience so transcendently described that Husserl calls the “transcendental ego”, and its mental states or experiences understood at this level of abstraction constitute what he terms “pure” or “absolute” experience.

Thus, as Smith and I have argued,¹¹ Husserl’s doctrine of the transcendental ego and its pure experiences is primarily a methodological or an epistemological, rather than a metaphysical, doctrine. It is not the view that there is a *second* ego standing behind and manipulating the activities of the empirical ego; rather, it is the doctrine that there is an *ontologically neutral* level of description of the ego and its activities that is *methodologically* independent of any natural description of what the ego and its experiences are in fact like.¹² Like the functionalists and the computationalists, then, Husserl seeks abstract accounts that would capture what is common to various mental capacities, no matter

how different in their natural make-up the entities having these capacities may be. In a passage written in 1925 (an especially telling passage, because Husserl is here explaining with approval the aims of his *Logical Investigations*, written 25 years earlier), he explicitly says just this:

... Whenever something like numbers, mathematical manifolds, propositions, theories, etc. ... come ... to be objects of consciousness in subjective experiences, the requisite experiences must have their essentially necessary, everywhere identical, structure. In other words, whether we take us men as thinking subjects, or whether we imagine angels or devils or gods, etc., any sort of beings that count, compute, do mathematics – the counting, mathematizing internal doing ... is, if the logical-mathematical is to result from it, in a priori necessity everywhere essentially the same. ... A realm of unconditionally necessary and universal truths [describes] the ... psychic life of any subject at all insofar as it is to be thought, purely ideally, as a subject that knows in itself the mathematical... .

The same holds [not only for mathematics but] for all investigations of psychic correlations relating to objects of every region and category. ... Precisely thereby a novel idea of psychology is presented. ... Instead of the fact of human subjects of this earth and world, this psychology deals ... with ideal essences of any mathematizing and, more generally, of any knowing subjectivity at all.¹³

Terminology and unconditional necessity aside, one can see that Husserl's emphasis here is not on ontological embodiment, but on an “everywhere identical structure” that he takes to be exemplified in experiences of the same kind. And it is just this emphasis that I claim he shares with the functionalists.

Of course, Husserl cannot himself *be* a functionalist of the standard “causal-role” sort, i.e., he cannot explicate mental states in terms of their *causal* relations to one another and to the world, for causality (in any naturalistic sense) is “bracketed” by phenomenological epoché. But the computationalist version of functionalism also abstracts away from causal relations among mental states, turning instead to certain inferential relations among mental representations as a way of accounting for these causal relationships. However, we should not be too quick to assume that Husserl must, therefore, be a computationalist: that depends on whether these “everywhere identical structures” are to be articulated in computational terms. And on that issue, Husserl's remarks just a few pages later ought at least to give us pause:

Since we have all formed the concept of a priori science in mathematics, ... we tend understandably to regard any a priori science at all as something like a mathematics; *a priori* psychology, therefore, as a mathematics of the mind. But here we must be on our guard. ... By no means does this type pertain to every kind of a priori.

The psychic province ... is a completely different essential type. ... By no means is the entire science of the type of a mathematics.¹⁴

III. Mental representations and noematic meanings

So far I have argued that Husserl and Fodor are in basic agreement on two key points: that mental states have an intrinsic character of their own that can be explicated without reference to extra-mental things, and that what is essentially mental in this intrinsic character is properly explicated at an ontologically neutral level of abstraction. Fodor advocates computationalism as a theory compatible

with these two claims, and he characterizes it as but one special version of a more general theory he calls the “Representational Theory of Mind”. By the “Representational Theory of Mind” (abbreviated ‘RTM’), Fodor means a theory that attempts to explain the important features of mind by appeal to a system of internal “mental representations”. Whether Husserl is sympathetic to computationalism or not, he shares a great deal with Fodor if he, too, is an advocate of RTM.

According to RTM (see Fodor, 1980), each mental state is essentially a relation to a mental representation, which (purportedly) stands for or represents some, usually extra-mental, thing or state-of-affairs. Representational relations between the mind and the extra-mental world are therefore “mediated” relations: each is a composition of the relation between the mental state and its associated mental representation and the relation (if any) between that mental representation and an appropriate extra-mental item. But RTM also holds that there are relations among mental representations themselves. Mental processes, naturalistically speaking, are causal relations among mental states; however, according to RTM, these causal relations are mirrored in the relations that obtain among the mental representations corresponding to these causally related mental states. Thus, at the “transcendental” level of abstraction, mental processes can be explicated in terms of the relations that obtain among their associated mental representations. (And if these relations are computational, they can be captured in appropriately devised computer programs; hence, artificial intelligence.) For adherents of RTM, methodological solipsism is an invitation to ignore mind-to-world relations and to focus instead on this system of mental representations and the relations among them.

Now, there is certainly at least a structural similarity between this description of RTM and Husserl’s approach to the intentionality of mind. According to Husserl, each mental state is essentially a relation to an entity he calls a “noema”, one component of which – called the “noematic *Sinn* – (purportedly) stands for or represents a thing or state of affairs, usually something extra-mental.¹⁵ Intentionality, or representation, is again a “mediated” affair: a mental state represents an object only “via” its noema. (N.B.: This is not to say that noemata are the immediate *objects* toward which mental states are directed. Husserl insists that the represented or “intended” objects of mental states are ordinary sorts of entities; the noema is introduced to explain *how* mental states come to represent these ordinary things.) Husserl also holds that mental processes can be explicated as relations among noemata themselves: indeed, that explication is precisely the task of transcendental phenomenology. Phenomenological epoché, for Husserl, is then an invitation to ignore the *de facto* relations of mind to the world and to focus instead on these noemata and the relations among them.

In fact, Husserl’s views can be pushed even closer to Fodor’s than this. Fodor characterizes the system of mental representations for an individual person as a “language of thought”, and – with some important differences – this is also an apt description of Husserl’s conception of noemata. Fodor believes that mental representations have both “syntactic” and “semantic” properties, in the

same sense that the elements of a natural language do. Sentences, for example, differ from one another in “shape” as the words they comprise are different and/or differently arranged: thus, ‘Marvin is melancholy’ is syntactically different from ‘Marvin is happy’. Similarly, Fodor holds, the belief that Marvin is melancholy and the belief that Marvin is happy are relations to mental representations that differ in syntactic structure. But the expressions in a natural language also have semantic properties, paradigmatically meaning, reference, and truth-value. Fodor conceives mental representations as having these same kinds of properties. Thus, to believe that Marvin is melancholy is to be related to a mental representation that “stands for” Marvin, that “represents” him “as” melancholy, and that is “true” or “veridical” if and only if Marvin is melancholy. The relations among mental representations that explicate mental processes, Fodor therefore holds, are the same sort of syntactic and semantic relations that obtain among sentences. Finally, Fodor believes, the syntactic and semantic properties of natural languages are inherited from their more fundamental counterparts in systems of mental representations.¹⁶ Natural language is in this sense the “expression of thought”: the translation of the medium of thought, mental representations, into a public medium of linguistic communication.

Fodor’s mental representations, then, are mental symbols, complex sentence-like combinations of simpler word-like elements, having meaning and truth-value (and presumably tokened in the brain, in a way that some as yet untold naturalistic story will eventually explain). Now, Husserl’s noematic *Sinne* are not mental *symbols* in this sense. That is, they are not word-like or sentence-like entities that *have* meanings; rather, noematic *Sinne* are meanings (hence, “*Sinne*”). But despite this important point, to which I shall return, noematic *Sinne* are like Fodorian mental representations in several significant respects. These similarities derive from the fact that noemata, too, are conceived in analogy with language.

Just as speech, for example, consists in temporal sequences of meaningful sounds, so thinking (or any mental process), on Husserl’s view, consists in temporal sequences of meaningful mental states or events. Indeed, Husserl thinks, the meanings we express in speech or writing are essentially the same entities – noematic *Sinne* – that make meaningful mental episodes possible: the purpose of language is to express what is “in our minds”, so that others may represent to themselves the same object we have in mind and in the same way; and in order for that to take place, he thinks, the meanings we express must be the very same noematic meanings that determine the representational character of these “thoughts”.¹⁷ Hence, while Husserl also holds that “language is the expression of thought”, his version of this thesis differs from Fodor’s. On Fodor’s version, one might say, we think in mental “words” that get *translated* into a public language when we speak or write, while on Husserl’s version we think in “meanings” that get *expressed* in a public language.

According to Husserl, then, the meanings of expressions in a natural language are derivative from their more fundamental counterparts in systems of noemata. Given this view of the relation

between noemata and linguistic meanings, it is not surprising that Husserl thinks of noemata as having syntactic and semantic properties. Frege, for example, considers *linguistic* meanings to be syntactically structured abstract entities: just as a sentence consists of syntactically distinct parts put together in syntactically permissible ways, he thinks, so the proposition expressed by that sentence consists of correspondingly distinct meanings put together in correspondingly permissible ways. Husserl similarly thinks of noematic *Sinne* as structured abstract entities, mirroring the syntactic structures of the linguistic expressions that would express them. To think “this is white”, for example, is to be related to a noematic *Sinn* structured into two distinct meaning-components: an “X”-component (as he calls it) expressed by ‘this’, which represents the object being thought about, and a “predicate-sense” expressed by ‘is white’, which represents the property predicated of the object as represented.¹⁸ The semantic, especially referential, properties of noematic *Sinne* are similarly reminiscent of Frege: like Frege, Husserl holds that *meaning determines reference*. Thus, he thinks, the representational or intentional properties of a mental state are determined by its noematic *Sinn*. I will be discussing this point in the next section.

There are good grounds, then, for construing Husserl’s noematic *Sinne* as a version of what Fodor calls “mental representations” and so construing Husserl as an early advocate of the Representational Theory of Mind. Noematic *Sinne* constitute for Husserl a “medium” in which mental processes take place; this medium is syntactically and semantically characterizable and so fundamentally language-like; mental states represent extra-mental things by virtue of how these noematic *Sinne* relate to the extra-mental world; and mental processes can be understood, at an ontologically neutral level of abstraction, in terms of relations among these noematic *Sinne* independent of the actual relations that obtain between mental states and the extra-mental world. Mental representations, at least *prima facie*, play these same roles for Fodor.

On the other hand, Husserl’s view of noemata as *meanings* rather than as symbols *having* meaning may be enough to show that they cannot be characterized as mental representations in any legitimate Fodorian sense. If so, Husserl is not an advocate of RTM at all. However, I think such an easy dismissal would only hide deeper differences between Husserl and Fodor. After all, it seems trivially easy to modify Husserl’s theory into a genuine version of RTM: simply postulate a system of truly Fodorian mental representations and let noematic *Sinne* be the meanings of these mental *representations* rather than of mental *states* themselves. (The result would conform to what Bach characterizes as “conceptual” rather than exclusively “formal” methodological solipsism and would be a version of what Stich calls “strong RTM”.)¹⁹ What I hope to show is that the resulting version of RTM would still – so long as the meanings of mental representations are noematic *Sinne* as Husserl conceived them – be radically different from contemporary, especially computationalist, versions. Part of the reason why this is so comes out in an argument Husserl himself gives against the Fodorian view that *symbols* or “signs” mediate the relations between mental states and their objects. A symbol

functions as a symbol, Husserl notes, only by virtue of being itself the *object* of a mental state, in which it is apprehended (interpreted, represented) *as representing* something other than itself. Thus, that apprehension would have to be via a second symbol that represents the first, and so on *ad infinitum*. The “sign-theory”, Husserl says, fails to explain mental representation, and for the very same reason that the traditional “image-theory” of ideas cannot.²⁰ The comparison is interesting because Fodor also, for a different reason, rejects the “image-theory” in favor of a computationalist version of the “sign-theory”. What saves this latter theory from Husserl’s objection is that computationalism is precisely designed to show how mental symbols can do their work without functioning *as symbols*, i.e. independently of their semantic or representational properties. Husserl’s rejection of mental symbols in favor of noematic *Sinne* is based on the very opposite view: the view that the *meanings* of these symbols, not just the symbols themselves or their “syntactic” features, would have to do the work of explaining mental representation. What is seriously at issue between Husserl and computationalists is the notion of meaning itself and its role in mental representation.

IV. Meaning, intentionality, and mental representation

The Representational Theory of Mind, as Fodor characterizes it, is but a framework – albeit a rather specific and controversial one – for discussing traditional problems about mind. In this section I want to discuss the problem of mental representation, or intentionality, itself within this framework. Dreyfus assumes that the contemporary notion of mental representation is just an updated version of the Husserlian notion of intentionality, but we shall see that this identification is by no means self-evident: the problem of intentionality as Husserl conceived it and the problem of mental representation currently so-called seem to be radically different problems.

For this discussion, let us assume that noematic *Sinne* can, despite the qualifications we have already noted, be characterized as mental representations and that, for both Fodor and Husserl, the problem of mental representation is a matter of the “semantics” of mental representations. The problem is then subject to various possible solutions: there are numerous approaches to the semantics of *linguistic* representation and the number of approaches to the semantics of *mental* representation is surely no smaller.

In Fodor (1980) Fodor proposes an account of mental representation modeled on the so-called “causal theory” of linguistic reference. According to that theory, the fundamental relation between language and the world is causal: for each (actually referring) name, there are complicated causal chains connecting its various occasions of use to some unique item in the world, that item being thereby the “referent” of the name; other forms of reference (e.g., the reference of definite descriptions) are derivative from such causal forms. Similarly, Fodor sees the representational or “referential” properties of mental representations as *causal* relations: “what makes my thought about

Robin Roberts [for example] a thought *about Robin Roberts*,” he says, “is some causal connection between the two of us”.²¹ That is, a mental state is “about” Robin Roberts just in case it is related to a mental representation that itself stands in an appropriate causal relation to Robin Roberts himself; this causal relation *is* the “semantic” relation – the relation of representation or intentionality – that relates the mental representation to that which it represents. Fodor gives few details about how this theory is supposed to work, and (his more esoteric reasons aside) it is easy to see why. Since world-to-mind causality cannot be explicated independently of *how the world is*, the account itself is incompatible with a thorough-going endorsement of methodological solipsism.

One would suppose this result to show either that methodological solipsism cannot provide an adequate theory of mind (since it cannot account for intentionality) or that the causal account of intentionality is incorrect (since it is incompatible with methodological solipsism), but Fodor draws a different conclusion: because mental representation, so understood, falls outside the realm of what can be explicated by the methodological solipsist, mental representation itself is not a strictly “mental” feature of mental states. If Fodor is right, mental *representation* is no proper concern of the *Representational* Theory of Mind! This rather odd result for Fodor the representationalist and methodological solipsist pays off for Fodor the computationalist, though. Computing machines can make no use of the representational properties of the symbols they employ, but – on this view – they are not thereby deficient in anything essentially “mental”.

This result, if unmodified, contrasts sharply with Husserl’s views on intentionality. The methodological solipsist, like the practitioner of phenomenological “epoché”, “brackets” – makes no use of – anything extra-mental: the world of nature, our minds conceived as natural entities, and the causal relations between them are “bracketed” by this methodology. For Fodor, this means that mental representation itself, being a causal relation, is included in these “bracketed” items. But Husserl, throughout his entire career, consistently maintained that intentionality is the *primary* feature his methodology of epoché is designed to explicate. To take but one, quite pointed, example:

If I perceive a house, ... a relationship of consciousness is contained in the perceptual experience itself, and indeed a relation to the house perceived in it itself. ... Of course there can be no talk of external-internal psychophysical causality if the house is a mere hallucination. But it is clear that the momentary experiencing is in itself not only a subjective experiencing but precisely a perceiving of this house. Therefore, descriptively, the object-relation belongs to the experiencing, whether the object actually exists or not.²²

For Husserl, then, the intentionality of a mental state is a feature inherent in the mental state itself, independent of its *de facto* (especially its causal) relationships to extra-mental things or states-of-affairs. Let us be careful to note, however, that it is the “object-relation”, and not the *object*, that “belongs to the experiencing”.

In fact, though, Fodor’s and Husserl’s positions are not quite contradictory, due to an ambiguity in the notion of mental representation, or intentionality, itself. Smith has employed a useful

distinction between the intentional, or representational, *relation* achieved in a mental state and the intentional, or representational, *character* of the mental state itself.²³ Consider the following case. I peer under my bed, spot a coiled rope, scream “Snake!”, and flee the room. Just what did I see? What was my visual representation a representation “of”? In one sense, of course, what I “saw” was a coiled rope, and in that sense my experience was “of” or “about” the rope: the rope was what my visual experience was actually related to, via a mental representation. In Smith’s terminology, then, my experience was *representationally related* to a rope. And Fodor’s causal story surely captures at least part of what is involved in this relation: the rope was related to my mental representation by virtue of being the distal stimulus that gave rise to it. In another sense, though, I “saw” a snake: I am generally disposed to fear snakes, not ropes, and I feared this object only because I took it to be a snake. Phenomenologically speaking, my visual experience had the intentional, or representational, *character* of being “of” or “about” a snake. And for that sense of representation Husserl’s solipsistic story sounds right: my mental state had that representational character even though what it was actually related to was a rope, and it could have had that same character even if there had been no appropriate distal stimulus at all. Intentional, or representational, *relations* then, concern the way mental states and mental representations actually “hook up” with the world; and of course Fodor is right in thinking that those relations (whether simply causal or not) are not independent of how the world is. But if Husserl is right, mental states and mental representations themselves have an intrinsic representational *character*, which makes them *as though* actually related to extra-mental things whether they are so or not.

The problem of intentionality for Husserl, then, is not to explain how mental states actually relate to the world but to explain how they have the phenomenological or “internal” *character* of relating to anything at all. Husserl “solves” this problem by appealing to a “semantics of reference” quite different from the causal account. A mental state is intentional in character by virtue of its relation to a noematic *Sinn*. How so? Because noematic *Sinne* are *meanings* and, Husserl apparently thinks, it is simply an intrinsic and irreducible (though not completely unanalyzable) property of meanings to represent. Husserl in fact holds a strong version of the familiar Fregean thesis that meaning determines reference. Speaking of linguistic meaning (which he calls ‘*Bedeutung*’), he says:

Reference to the object is constituted in the meaning [*Bedeutung*]. To use an expression meaningfully [*mit Sinn*], and to refer expressively to an object (to form a presentation of an object), are thus one and the same. It makes no difference whether the object exists or is fictitious or even impossible. ...²⁴

Thus, even in the absence of any actual referent, Husserl apparently thinks, the meaning of an expression not only makes it meaningful but gives it a referential character as well; and he takes just the same view of noematic *Sinne* and intentionality: “*The phenomenological problem of the relation of consciousness to an objectivity* has above all its noematic side. The noema in itself has an

objective relation, specifically through its particular ‘*Sinn*’.²⁵ In the final analysis, then, Husserl says of noematic *Sinne* essentially what Searle says of mental states themselves: they have “intrinsic”, as opposed to “derived”, intentionality (but, n.b., Searle’s own account of intentionality explicitly rejects the invocation of meanings, especially as abstract entities). In Searle’s view, mental states have “conditions of satisfaction” and so are intentional, whether any states of affairs actually “satisfy” them or not, simply because that is a fundamental property of the kind of entities that mental states are.²⁶ Meanings or noematic *Sinne*, similarly, are conceived by Husserl as intentional, not because of any relations they bear to anything *else*; (e.g., not because they are “interpreted” by someone or caused in some particular way) but simply because they are a sort of entity whose very nature is to *be* representational. On this view, the noematic *Sinn* itself will not, of course, be the sole determinant of which object a mental state is actually related to (causally or otherwise), but its intentional character will determine which object it must be related to in order to be “satisfied”.

If mental states really do have such an internal or phenomenological intentional character, then modern mentalists cannot simply give the problem of intentionality over to the extra-mental “natural” sciences. But it is also difficult to see how *this* problem of intentionality could be solved using only the functionalist or computationalist resources to which contemporary representationalists usually restrict themselves. Indeed, the problem here is not unlike the widely recognized one of accounting for phenomenal qualities, such as pain, in functional terms. It seems obvious to many that such phenomenal qualities are *primitive* features of mental states and so cannot be reduced to causal roles, computations, or to anything else. And, although Husserl’s view is apparently much less obvious to most, he believes essentially the same is true of intentional character.

What I should *like* to do now is contrast Husserl’s view of intrinsic intentional character with actual representationalist, especially computationalist, accounts of representational character. Unfortunately, however, contemporary representationalists seem not to consider the problem of intentional character, at least not in any direct way. Indeed, I suspect that computationalists are more wont to deny the existence of intentional character than they explicitly admit. For one thing, since it is very counter-intuitive to suppose that machine states or the symbols in computer programs have intrinsic intentional character, a deep commitment to the computer model of mind would surely tempt one to deny that mental states or mental representations have it either. (Thus the Churchlands argue, though not on behalf of computationalism, that “our own mental states are just as innocent of ‘intrinsic intentionality’ as are the states of any machine simulation.”²⁷ But few computationalists have been so candid.) In the second place, most contemporary representationalists have been deeply impressed by Putnam’s famous “Twin-Earth” arguments.²⁸ Those arguments purport to refute the Fregean thesis that meaning determines reference and to show, more generally and contra Husserl, that nothing intrinsic to mental states can suffice to determine which object a mental state represents. Accepting that conclusion tempts one to decide that intentionality or mental representation is *entirely*

an “external” matter and that the problem of “internal” representational or intentional character, which Husserl’s appeal to noematic *Sinne* is supposed to solve, has simply disappeared. Clearly Putnam’s arguments, and others like them, raise important issues, but let me merely suggest that these issues have not been conclusively resolved to Husserl’s detriment. To cite but three examples, Bach, Searle, and Smith have offered independent accounts of how “indexical” mental contents can determine (or in Bach’s case, partially determine) the object of mental states in Putnam-like cases.²⁹ Furthermore, however it is to be explained, there *is* a “mental side” to intentionality that is as much a “phenomenological fact” of our mental life as are consciousness and self-awareness; good philosophy demands that there be limits on the degree to which theory can do violence to these facts. In the next section, accordingly, I want to consider whether a computationalist or formalist theory of mind might yet be rendered compatible with intentionality as Husserl conceives it.

V. Was Husserl a formalist?

Husserl never underestimated the richness and complexity of our mental life; hence, he characterized transcendental phenomenology – his attempt to explicate mental life – as “an infinite task”. But he also never wavered from his conviction that this richness and complexity is, at bottom, “rationally” understandable. Indeed, he thought, the very concept of consciousness as intentional, meaningful experience requires the imposition of some sort of rationale on what would otherwise be but an inchoate welter of meaningless sensations. It is the “noema” of a mental state or experience that places it within the context of such a rationale, by relating it, in rule-governed ways, to what Husserl calls a “horizon” of past experiences and future possible experiences of the same object or state of affairs.

For example (considerably simplified), suppose I see a particular object as a tree. The noematic *Sinn* of this experience then includes the predicate-sense “tree”, and it is by virtue of this sense that I perceive the object as a tree rather than something else. But, Husserl holds, this sense does not do its work of characterizing or prescribing the object in isolation from the rest of my mental repertoire. I believe that trees come in different varieties, that trees are physical objects and so are three-dimensional, and so on. Within the context of such beliefs, the sense “tree” foretokens or “predelineates” a range of further possible experiences in which the object before me would be characterized in further possible ways: as an oak or an elm, for example; as black or brown on the side now hidden from me; and so on. In this way, Husserl says, the *Sinn* relates the present experience and its object to an indeterminate or non-specific, and open-ended, horizon of possible experiences. But despite the indeterminacy of this horizon, Husserl believes, it has a rational, coherent structure: the *Sinn* of the present experience, in conjunction with the *Sinne* of relevant background beliefs, limit in rule-governed ways the kinds of further experiences that can belong to it.

To understand *this* experience and its intentionality is ultimately to understand how its *Sinn* is related to the *Sinne* of these background beliefs and to the *Sinne* of its horizon of possible further experiences.³⁰

To explicate an experience noematically or phenomenologically is, then, to uncover these relations among noematic *Sinne* and the rules that describe them, and so to unfold its inherent rationale. If Husserl's belief – that for every conceivable human experience there is such an internal rationale, independent of that experience's actual relations to the natural world – is a “cognitivist” belief, then without doubt Husserl *is* a cognitivist.

But Dreyfus is not content to characterize Husserl as a cognitivist in the general sense I have just agreed to: he thinks Husserl was a *formalist*, and so at least an incipient *computationalist*:

Whether in fact Husserl held what Fodor calls the computational theory of mind – that is, whether according to Husserl, ... the predicate-senses [in the noematic *Sinn*] do their job of representing objects ... and of unifying diverse experiences ... strictly on the basis of their shapes (i.e. as a syntactic system independent of any interpretation) – cannot be so easily determined. There is, however, considerable evidence ... that Husserl thought of the noemata as complex *formal* structures [and] there is no evidence which suggests that he ever thought of the rules he was concerned with as *semantic*.³¹

Dreyfus raises two issues here: do noematic *Sinne* represent objects and unify experiences strictly “as a syntactic system”, and are the rules that describe mental states or mental processes purely non-“semantic”? Since I think, contra Dreyfus, that the first issue is “easily determined,” let me turn to it first.

The advocate of computationalism who does not deny such notions as meaning and intentional character is free to try to explain them in terms of something more congenial to the formalist program. What Fodor calls “functional-role semantics”,³² for example, attempts to explain at least some of the “semantic” properties of mental states in terms of their causal relations to other mental states (and to causal inputs and outputs). Although a critic of this effort, Fodor suggests that computationalism could make use of it by recognizing an isomorphism between the *causal* network of mental *states* and an appropriate network of purely *formal* or syntactic relations among mental *representations*. Any “functionally” explicable semantic properties of mental states or mental representations would then be, if not reducible to, at least replaceable by formal relations among mental representations. Accordingly, if intentional character were such a semantic property of mental representations, it too would be effectively explained in strictly syntactic or formalist terms: to understand the intentional character of a mental representation (or a noematic *Sinn*, if this were Husserl's view) would just be to understand its formal or syntactic relations to other mental representations (or noematic *Sinne*). Dreyfus seems to think it is at least debatable that Husserl held some view like this.

I have already agreed with Dreyfus that noematic *Sinne* have syntactic properties and so stand in certain formal relations to one another. And, as we just saw, *Sinne* “do their job of representing

objects” only within the context of a network of other *Sinne*, the *Sinne* of mental states comprised by the horizon of the given experience. But that does not mean that their representational properties are *reducible* to the formal relations among the *Sinne* in this network. For one thing, Husserl always characterizes this network in terms of “semantic” relations among *Sinne*, i.e., in terms of their intentional character: he even *defines* the horizon as consisting of experiences *directed toward the same object*.³³ More importantly, since Husserl holds that intentional character is determined by meaning, this reductionist view of intentional character requires a most peculiar account of meaning. It combines the Husserl-Frege thesis that meaning determines reference or intentional character with the radically anti-Fregean view that meaning reduces to syntax. So far as I can tell, not even contemporary representationalists hold this mixture of views.³⁴ And I simply do not know of *any* passages in Husserl’s writings that suggest he ever thought that meaning is in any way reducible to syntax. Not only are there powerful systematic considerations to the contrary; we have already seen what are only just a few of the many passages that argue for a quite different, Frege-like, theory of meaning.³⁵ Furthermore, Husserl himself sometimes explicitly addresses the question of whether meaning and intentional character can be reduced to relations among merely formal elements or meaningless “contents”, always arguing that they *cannot*. For example, he rejects the “sensationalist” view of consciousness, the view that consciousness consists of nothing but sensations and complex relations among them. And on what grounds? On the grounds that sensations are “meaningless [*sinnlos*] in themselves” and so “could give forth no ‘meaning’ [*Sinn*], however they might be aggregated”.³⁶ It is hard to believe that Husserl could offer *this* argument against sensationalism while *also* believing that the meaningfulness, and hence the intentional character, of noematic *Sinne* could be reduced to formal relations among them based solely on their shapes. And he in fact says, just a few pages later:

... Transcendental Phenomenology ... must come to consider experiences, not as so much dead matter, as “complexes of content”, which merely are but signify nothing, mean nothing, as elements and complex-structures, as classes and subclasses ...; [it must] instead master the *in principle unique set of problems* that experiences as *intentional* offer, and offer *purely through their eidetic essence as “consciousness-of”*.³⁷

Now, the fact that meaning and intentional character are not reducible to syntactic relations among formal structures also relates to the second issue Dreyfus raises, the issue of whether the “rules” that concern Husserl are “semantic”. Indeed, insofar as “non-semantic” just means “formal”, I find it hard to understand why Dreyfus thinks there is “no evidence” here. Husserl always *describes* these rules as rules for relating experiences on the basis of their *intentional character*, not on the basis of the “shapes” or the “formal structure” of their associated noemata. (For example, he says, each category of object “prescribes the rule for the way *an object* subordinate to it is to be brought to full determinacy with respect *to meaning and mode of givenness*.”³⁸) And Dreyfus offers

no comment on such remarks of Husserl's as this: "Transcendental theories of constitution arise that, *as non-formal*, relate to any spatial things whatever ...".³⁹ As a mathematician and logician Husserl was quite familiar with the notion of a "formal" or "syntactic" theory; yet, he held that even the laws of logic apply to the phenomenological description of experience in ways that are not purely "syntactic".⁴⁰ And he in fact goes to some lengths to distinguish phenomenology, as an "eidetic" (or *a priori*) discipline, from *formal* eidetic disciplines such as mathematics. Consider:

Since the mathematical disciplines ... represent the idea of a scientific eidetic, it is at first a remote thought that there could be other kinds of eidetic disciplines, non-mathematical, fundamentally different in their whole theoretical type than the familiar ones. Hence, ... the attempt, immediately doomed to failure, to establish something like a mathematics of phenomena can mislead [one] into abandoning the very idea of a phenomenology. But that would be utterly wrong.⁴¹

We start from the division of essences and essential sciences into material and formal. We can exclude the formal, and therewith the whole aggregate of formal mathematical, disciplines, since phenomenology obviously belongs to the material eidetic sciences.⁴²

Transcendental phenomenology ... belongs ... to a *fundamental class of eidetic sciences totally different* from that of the mathematical sciences.⁴³

Just *why* is Husserl unwilling to consider phenomenology a "formal" science? There are probably many reasons, but let me suggest just one. I have been urging that a system of Husserlian mental representations would be one whose operations are carried out, not on their formal properties alone, but by virtue of their meaning and representational character as well. *Syntax*, on the other hand, is described by Husserl as dealing only with pure "forms" obtained by abstracting away from all such meaningful "content".⁴⁴ Accordingly, even those kinds of operations that can be formalized and thus *described* syntactically – e.g., logical and mathematical operations – are not *carried out* syntactically in ordinary thought and experience. In a similar vein, Dretske (1985) has argued that even mathematical thinking, such as adding numbers, is not the same thing as manipulating formal symbols. The symbols being manipulated by a person who is adding must represent numbers, and so have meaning *for that person*, Dretske urges, and she must manipulate them as she does at least partly because they mean what they do for her. If the same manipulations are performed, but as purely formal operations on symbols that mean nothing to the system performing them, the performance is at best a simulation – not a true instance – of adding. I see Husserl's views on the formality issue as very much like these.

Of course, to deny that human thought and experience are purely formal or computational does not entail opposition to research in artificial intelligence. The position I attribute to Husserl, and it is also mine, *does* assert that artificial intelligence is "artificial" precisely because it is only formal and so devoid of what is truly "mental". If that is so, then computationalism is false as a theory of *mind*, and so is what Searle denounces as "strong AI" – the view that computers, and humans as well, are minded simply by virtue of their ability to do certain kinds of syntactic manipulations.⁴⁵ But that still

leaves open the possibility of “weak AI” – artificial intelligence as the project of *simulating* various cognitive mental capacities by constructing formal analogs of them. Husserl himself, in the midst of the discussion from which I have been quoting, seems to leave open this very sort of possibility:

The pressing question is admittedly not answered thereby whether within the eidetic domain of [phenomenologically] reduced phenomena (either in the whole or in some part of it) there could not also be, *alongside* the descriptive, an idealizing procedure that substitutes pure and strict ideals for intuited data and that would even serve – as a counterpart to *descriptive* phenomenology – as the basic medium for a mathesis of experience.⁴⁶

Dreyfus has shown that at least one major advance in artificial intelligence, Minsky’s notion of “frames”, turns on ideas first developed by Husserl – without the heuristic benefit of the computer.⁴⁷ And I suspect there is much more in Husserl’s careful descriptions of experience that would help construct his anticipated “counterpart” to a science of the (real) mind. Nonetheless, phenomenology remained for Husserl a *descriptive* discipline, descriptive of intrinsically *intentional* experiences, as they are experienced.

Notes

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¹ Dreyfus (1982), p. 2.

² See McIntyre (1984).

³ My views in fact are in basic agreement with those of Emmett (1983), although she seems to attribute Dreyfus’ views to the contributors as well.

⁴ Putnam (1975), p. 220.

⁵ Fodor (1980), p. 64.

⁶ Husserl (1913), §49, p. 115; my trans.

⁷ Husserl (1913), §54, pp. 132-133; my trans.

⁸ Cummins (1983), p. 34.

⁹ Fodor (1981), p. 114.

¹⁰ Husserl (1913), §54, pp. 132-133; my trans.

¹¹ See Smith and McIntyre (1982), pp. 96-99.

¹² See Husserl (1954), §72, p. 264.

¹³ Husserl (1925), §3(e), pp. 27-28; with trans. changes.

¹⁴ Husserl (1925), §4, pp. 36-37.

¹⁵ Cf. Husserl (1913), esp. §§87-91, 129-133. The interpretation of Husserl’s notions of noema and noematic *Sinn* I appeal to here is developed in Smith and McIntyre (1982), esp. Chs. 3 and 4.

¹⁶ Fodor (1984), pp. 8-11.

- ¹⁷ See Husserl (1900), I, §7; Husserl (1913), §124; Husserl (1929), §3. For development, and some qualifications, of this view see Smith and McIntyre (1982), pp. 170-187.
- ¹⁸ Cf. Husserl (1913), §§130-131; Smith and McIntyre (1982), pp. 194-219.
- ¹⁹ See Bach (1982), pp. 123-127; Stich (1983), pp. 127-148.
- ²⁰ Husserl (1913), §43 pp. 98-99; §90 pp. 224-225. Cf. Husserl (1900) I, §23.
- ²¹ Fodor (1980), p. 300.
- ²² Husserl (1925) §3d, pp. 22-23; with trans. changes. Cf. Husserl (1900), V, §25, p. 603; Husserl (1913), §36, p. 80; Husserl (1931), §14, pp. 32-33.
- ²³ Cf. Smith (1984).
- ²⁴ Husserl (1900), I, §15, p. 293; with trans. changes.
- ²⁵ Husserl (1913), §128, p. 315; my trans.
- ²⁶ Searle (1984) .
- ²⁷ Churchland and Churchland (1981), p. 140.
- ²⁸ Putnam (1975), esp. pp. 223-227.
- ²⁹ See Bach (1982); Searle (1983), Ch. 8; and Smith (1984).
- ³⁰ See Smith and McIntyre (1982), Ch. 5.
- ³¹ Dreyfus (1982), p. 10.
- ³² Fodor (1985), pp. 85-88, 96-99.
- ³³ See Husserl (1931), §§19, 20. 34. McGinn (1982), for example, advocates an explication of one component of meaning in terms of an “intra-individual causal” or “cognitive” role, but he denies that reference is determined by *this* component of meaning. However, since by reference McGinn means *de facto* reference *relations*, it is not clear what is supposed to happen to referential or intentional *character* on this theory of meaning.
- ³⁵ For example, the whole of Husserl (1900), 1.
- ³⁶ Husserl (1913), §86, p. 213; my trans. Cf. Husserl (1900), V, §14, p. 565.
- ³⁷ Husserl (1913), §86, pp. 214-215; my trans.
- ³⁸ Husserl (1913), §142, p. 350; my trans. and my emphasis.
- ³⁹ Husserl (1931), §21, p. 52; my emphasis.
- ⁴⁰ Cf. Husserl (1913), §§59, 134.
- ⁴¹ Husserl (1913), §71, p. 164; my trans.
- ⁴² Husserl (1913), §72, p. 165; my trans.
- ⁴³ Husserl (1913), §75, pp. 173-174; my trans.
- ⁴⁴ See Husserl (1913), §134; cf. Husserl (1929).
- ⁴⁵ Searle (1984), pp. 28-41.
- ⁴⁶ Husserl (1913), §75, p. 174; my trans.
- ⁴⁷ See Dreyfus (1982), pp. 17-19.

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