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Semiotics and Phenomenality

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Consciousness and the Philosophy of Signs: How Peircean Semiotics Combines Phenomenal Qualia and Practical Effects. Marc Champagne. Cham, Switzerland: Springer, 2018, 127 pages, \$89.99 hardcover.

Beginning in the mid-1990s, debates over whether or how the phenomenality of mental states could be reconciled with computationalist or functionalist theories of mind became a flashpoint. On the one hand, it seemed as though there could be functional states without phenomenality. This is perhaps most readily and obviously captured by the idea of zombies, creatures that act and interact with their environment just as any ordinary human does though they lack phenomenal consciousness. Less fancifully, it seemed as though patients who suffer from blindsight — individuals who have scotomata as a consequence of damage to the primary visual cortex and not because of damage to their eyes and who can still make reliable reports about lights or shapes projected onto a scotoma were in functional cognitive states without phenomenality. On the other hand, it also seemed as though there could be phenomenal states without functionality or "access." Experiments by George Sperling — in which subjects were shown an array of letters for 50 msec and claimed they saw all the letters but could only report on a subset — suggested that persons could have phenomenal consciousness of the full array even though they could reliably cognitively access only a small subset of the array.

These two sorts of considerations led Ned Block to distinguish between phenomenal consciousness and access consciousness. One could be in a phenomenally conscious state without being able to access it. Also, one could be in a functional state without phenomenal consciousness. And so it seemed these two

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sorts of consciousness — phenomenal and access — were independent of each other. Of course, much depends on how they are independent of each other.

Marc Champagne's *Consciousness and the Philosophy of Signs* is a valiant effort to bring the American philosopher Chares S. Peirce's (1839–1914) ideas to bear on this contemporary debate. Champagne endeavors to show how, as the subtitle of the book states it, Peircean semiotics combines phenomenal qualia and practical effects. His view is that phenomenality and functionality are only formally distinct, by which he means that they are "existentially inseparable" but have different definitions and that this is not merely a matter of reason but a feature of reality (see pp. 20, 38).

Valiant though Champagne's effort is, I worry that the reader not already steeped in Peirce's thought will find the arguments Champagne marshals in favor of his view obscure. Also, I am concerned that the reader who is already steeped in Peirce's thought will find the exposition and explanation of Peirce's views less than perspicacious. I don't doubt that Peirce's philosophy (not just his semiotics) can helpfully inform contemporary debates in philosophy of mind, but Champagne's own arguments need unpacking to see how they might be relevant. I shall endeavor to do some of that here, in the context of a critical engagement with those arguments.

Before proceeding to that engagement, one more item is in order. In the introduction, Champagne states that he will rise to Nagel's challenge, expressed in "What Is It Like to Be a Bat?," to devise an objective phenomenology: "I want to argue that we should look to the past, not the future, to find the 'objective phenomenology' that Nagel calls for. Specifically, I believe that the materials needed to assemble a robust account of consciousness already exist in Peircean semiotics" (p. 3). Nagel's challenge is to devise a way to describe to a man born blind what it is like to see color or a way to describe to us, [most of] whom are unable to echolocate, what it is like to echolocate a fly [for instance]. Champagne does not try to rise to that challenge. The one place it looks like he will come to the issue is when he comments, "What is it like to sip a cappuccino? Using prescission, tone, and iconicity, Peircean philosophy of signs can demystify the fact that, 'if you got to ask, you ain't ever gonna get to know" (p. 106). But, as I shall show, what Champagne has done in the preceding chapters is attempt to explain how a theory of mind modeled on Peircean semiotics can account for the phenomenality and functionality of mind. He does not give an account of how it can describe the very taste of a cappuccino.

On this score, I should note that for the last decade or so, Champagne and I have been working on issues in the philosophy of mind from a generally Peircean framework. We have done this work entirely independently of each other. I am nowhere cited in Champagne's book, and I only became aware of his work within the last year. This was too late for me to incorporate anything he says into my recent book *Charles S. Peirce's Phenomenology: Analysis and Consciousness*

(Oxford, 2018). And Champagne does not cite my article "Toward an Objective Phenomenology" explicitly on Nagel's challenge and published in *Phenomenology and the Cognitive Sciences* in 2013. I presume this is because he is unaware of it. Evidently, we have been two ships passing in the night.

That said, Champagne and I have two very different projects. He wishes to draw on Peircean semiotics to address contemporary problems in the philosophy of mind, in particular to show that it can be used to make room for qualia in a generally computationalist or functionalist theory of mind. This is what is expressed in the third paragraph of the present notice. In my work, I wish to draw on Peirce's phenomenology to rise to Nagel's challenge. This is what is expressed in the fifth paragraph of the present notice. Champagne acknowledges, "Peirce developed a phenomenology independently of Husserl.... Yet since quite a bit of doctoring needs to be done in order to yield the insights that are of interest to a philosophic study of signs, semiotic inquiry is very different from phenomenological description" (p. 7). Let us, then, set aside Nagel's challenge and delve into the heart of Champagne's book.

The Argument

Focusing now on the project of combining phenomenality with a computationalist or functionalist theory of mind, let me cut to the chase and explain the heart of Champagne's argument. The first premise is that, as Champagne positively quotes from João Quieroz and Pedro Atã:

(1) "mind is a kind of semiosis" (p. 4).

The second premise of the argument is:

(2) "every triadic sign has an element of Firstness" (p. 112).

These two premises entail:

(3) Mind always has an element of Firstness.

But the reader not steeped in Peirce will wonder: what is Firstness? And the reader steeped in Peirce will realize that Peirce's account of Firstness and of mind are fraught with difficulties. Let's try to make things a little clearer.

In the previous paragraphs, several grandiloquent words have been used: prescission, tone, iconicity, Firstness, semiosis, among others. They're liable to leave scholars unfamiliar with Peirce's ideas perplexed. Champagne doesn't mention it, but Peirce had stated the essence of the argument in 1868's "Some Consequences of Four Incapacities," before he had developed his mature theory of signs, before

he had started using the word "Firstness," before he had distinguished among tone, token, and type, and so on. That argument (1)–(3), with the arguments used to support the premises themselves (A)–(D), is this:

- (A) Conscious mental action is of the nature of an inference.
- (B) Inferences are sign-relations.
- (1) So, conscious mental action is of the nature of sign-relations.
 - (C) Signs differ from their objects.
 - (D) Signs can differ from their objects only if they have some quality intrinsic to themselves, their material qualities.
- (2) So, every sign has a material quality.
- (3) So, all mental action involves some material quality.

Here are the premises (A)–(D) stated using Peirce's words from "Some Consequences":

- (A) "we must, as far as we can, without any other supposition than that the mind reasons, reduce all mental action to the formula of valid reasoning" (Peirce, 1868/1984, p. 214) and "every sort of modification of consciousness ... is an inference" (Peirce, 1868/1984, p. 233).
- (B) "no conclusion can be legitimately derived which could not have been reached by successions of arguments having two premises each Either of these premises is a proposition Every term of such a proposition stands either for certain objects or for certain characters" (Peirce, 1868/1984, p. 220).
- (C) and (D) "Since a sign is not identical with the thing signified, but differs from the latter in some respects, it must plainly have some characters which belong to it in itself, and have nothing to do with its representative function. These I call the material qualities of the sign" (Peirce, 1868/1984, p. 225).

The argument as stated only shows that all signs have some material quality, but Peirce holds that the material quality of a sign is what constitutes the phenomenality of conscious states: "A feeling, therefore, as a feeling, is merely the *material quality* of a mental sign" (Peirce, 1868/1984, p. 228). Peirce meant to include among feelings not only sensations, such as the sensation of the color red, but also emotions, such as of anger. If the argument just stated is sound, clearly Peirce's theory of signs can do exactly what Champagne claims it can do. The inferential process is what accounts for the functional features of conscious mental action, its "practical effects." The material quality — what Champagne conflates with Peirce's conceptions of tonality, iconicity, and Firstness, as I shall explain later — of those signs are what account for the phenomenality of mental states. The reader will no doubt want to know why one should accept the premises. I have quoted from Peirce to indicate why he accepts them. Let's look at Champagne's defenses of them.

The Premises

Premise One

Champagne does not provide an argument for premise (1). He seems to take it for granted, and perhaps rightfully so. His audience is those who already accept some version of a computationalist or functionalist theory of mind. But should a computationalist or functionalist theory of mind be identified with a semiotic theory of mind? That is much less clear, but grant the point for the sake of argument. Even so, we do see that Peirce provides an argument for premise (1), and some background here may be helpful. "Some Consequences" is the second in a set of three papers published 1868–1869. The first paper — "Questions Concerning Certain Faculties Claimed for Man" — was a critique of various Cartesian and naive direct realist theories. Peirce argues against a philosophical tradition according to which there is bifurcation between the mental faculties such that one faculty (intuition) immediately and non-discursively grasps certain truths or the way the world is and another faculty (reasoning) makes inferences based on the deliverances of intuition. Peirce argues that we can reduce all mental action to inferential processes [premise (A) above], and if he is correct then there is no need to postulate a faculty of intuition. The third essay in the series — "Grounds of the Validity of the Laws of Logic" — argues that reducing mental action to inference does not compromise our cognitive grip on the world.

The obvious question is: Can we "reduce" (setting aside what that may mean) all mental action — and mental states — to features of inferential processes? That's the question at the center of contemporary debates over phenomenal consciousness. Peirce's argument for the affirmative is surprisingly brief, as evidenced by the culmination of his line of thought: "We have thus seen that every sort of modification of consciousness — Attention, Sensation, and Understanding — is an inference" (Peirce, 1868/1984, p. 233). And, in fact, Peirce only discusses attention, sensation, and understanding in his defense of the claim that all modifications of consciousness are inferential. The defense of the affirmative hardly meets the standards to which we would hold it today. Also, as Peirce's own thought matured, he seemed to think differently, as I shall explain later.

Premise Two

Champagne defends premise (2) by an appeal to prescission. "Prescission" is a fancy word for a straightforward idea. Consider a three-place relation (R3), for instance the relation of representation among a sign (s), object (o), and interpretant (i) (the order of what's in the parenthesis doesn't matter much, but one may treat it as "s represents o to i"):

$$R_3(s,o,i)$$

According to Peirce, this three-place relation is in no way reducible to sets of two-place relations (though whether Peirce's claim about irreducibility is justified is a matter of debate). Even though this relation is not reducible to two-place relations, Peirce thinks we can ignore one of the relata and consider the relations among two of the relata (R_2) just on their own. There are three possible combinations:

 $R_2(s,o)$ $R_2(s,i)$ $R_2(o,i)$

Now we can go further and consider each of the relata on its own (R_1) :

 $R_1(s)$ $R_1(o)$ $R_1(i)$

This process of attending to only some features of the triadic relation while ignoring others is prescission. Most philosophers today would just call it abstraction. If we consider the sign on its own, independent of its relation to object and interpretant, we are considering the sign just as it is. For instance, the word "horse" represents the kind horse to someone. But consider that series of letters uninterpreted and unrelated to its object. It is just a series of black marks against white paper. Those are the material qualities of the sign, its Firstness. Now if one thinks of mental states as signs, one might think of the phenomenal content of the mental state in just this way, viz., as the qualities (or qualia) of the mental state considered apart from inputs and outputs. That is, qualia are nothing more than abstractions from the flow of thought, when we regard the thought independently of its functional role.

Peirce unquestionably thought we can logically analyze relations in this way, though whether we should identify phenomenal consciousness with the sign considered in itself is a separate question. Setting that question aside for now (I'll return to it toward the end of this notice), let me say a bit more about prescission. Peirce first introduced the idea of prescission in 1867's "On a New List of Categories" along with two other kinds of mental separation, discrimination (separation having to do with the essences of terms) and dissociation (separation permitted by the law of association of images). When Peirce introduces these kinds of mental separation, he has not yet arrived at his mature theory of the categories on which Champagne's account is based. Moreover, Peirce ultimately claims that this tri-fold distinction "sadly needs overhauling" (Peirce, 1910/2016, p. 139). One feature that needs overhauling is that Peirce's early conception of prescission conflates abstraction (the formation of predicate terms, such as "being yellow"), hypostatic abstraction (the turning of predicate terms into substances by adding -ness or -ity to them, e.g., "yellowness"), attention (focusing on some feature of phenomenal experience, such as the yellow patch in one's field of vision rather than the bird chirping outside), and, for lack of a better phrase, percept generalization (the process of forming a schematic mental image of the color yellow, e.g., by fusing together the instances of yellow one has seen).

Earlier, I mentioned Firstness. It is worth explaining the source of this term. Peirce is heavily influenced by Kant. He thinks that a series of categories should be based on the logical forms of propositions (or, as Kant says, functions of judgment). In particular, he holds that the basic forms of propositions are monads, dyads, and triads — all others can be reduced to these. Accordingly, he claims that the categories are Firstness, Secondness, and Thirdness. Peirce then uses these formally isolated *logical* categories as heuristic tools for analyzing mind: Are there elements of what comes before the mind that are what they are independently of aught else (that is, instances of Firstness)? Peirce holds that qualities, such as the odor of attar or the quality blue, are just such elements. Other elements are what they are by virtue of relating two things regardless of a third, such as volition or brute reaction, and these are instances of Secondness. Other elements are what they are by virtue of mediation, such as representation, and these are instances of Thirdness. Accordingly, quality, reaction, and mediation become Peirce's three formal and *phenomenological* categories. I'll return to some of these points later.

Peirce's association of Firstness with qualities is fraught with problems that Champagne glosses over, though Peirce took them quite seriously. One of the most significant problems is that qualities like blue are not what they are independently of aught else. The quality blue is analyzable into its hue, chroma, and luminosity. This is contrary to Champagne's assertion that "the simple quality reached by prescissive abstraction is clearly unstructured. Language requires structure.... Hence, there is not much one can say about a quale" (p. 109). First, this argument is unsound (a heap of sticks is unstructured but I can say some things about it. Champagne appears to be assuming the structure of language must be isomorphic with the structure of a thing, which is clearly false). Second, Peirce himself thought there is quite a bit that can be said about a quale, as when he draws his audience's attention to a sampling of ribbons and remarks,

a red and green can be compared in intensity with a considerable degree of accuracy... you can all see that that red is darker than that blue & that that blue is darker than that red.... Consider with equal attention the sound of a cannon or the appearance of a sixth magnitude star. Which is most intense? Can there be any doubt. Consider the light of the sun, & the sound of a falling pin.... Here then is a whole world of observation, to which we have been systematically blind, simply because of a wrong metaphysical prejudice (Peirce, 1877/1986, p. 236–237)

Third, Peirce had not just one but a series of objections to the claim that Firstness should be associated with qualities, and he twisted himself in knots trying to address them. Curiously, Champagne partially quotes a lengthy passage in which Peirce raises a series of such objections without addressing the problems raised therein (see the block quotation on p. 38; the final series of ellipses suppresses a series of objections to the association of Firstness with qualities).

In any case, as seen in the quotation for premises (C) and (D) provided earlier, Peirce's argument in 1868 for the claim that every sign has some material quality is different from the one Champagne gives based on prescission. Peirce's argument is that the sign is different from its object and must be different from it to be a sign at all. Therefore, the sign must have some characteristics of its own, and these Peirce regards as the material qualities of the sign: "As examples of such qualities, take in the word 'man' its consisting of three letters — in a picture, its being flat and without relief" (Peirce, 1867/1984, p. 225). I'll return to this point later. For now, I think I have said enough regarding the defense provided for the premises of Champagne's argument. Now let's consider whether the argument is sound. Premise (B) is undeniable. Both premises (A) and (D) are doubtful, however, and with them both premises (1) and (2), respectively. In discussing premise (D), I'll also address premise (C). In addition, the premises do not support the claim that the material qualities of the inferential processes are what constitute phenomenal consciousness. Let me explain these doubts.

Doubts about Premises (A) and (1)

Taking on premises (A) and (1), there is an obvious restriction on Peirce's argument: it is restricted to conscious mental action and is not a claim about conscious mental states. Semiosis is a process. The natural move is to identify mental states with the signs employed in the inferential or semiotic process. One point bears mentioning: there seem to be phenomenally conscious mental states that are not part of mental action. This is what Sperling's experiments are presumed to show. Accordingly, Peirce's argument only gives us a way to combine phenomenality with practical consequences for those mental states that are part of inferential processes. Champagne, though, thinks that Sperling's experiments only show that the mental states are not accessed, not that they could not play (or could not have played) a role in mental action: "As I see it, a mental state must eventually leave some observable trace if we are ever to infer its presence" (p. 45) and "Qualitative experience is always tied to action" (p. 46). I won't press this point, since I too have doubts about the philosophical lessons taken from Sperling's experiment.

The more pressing problem with this move is that there seem to be some mental states that cannot be justly described as signs since they do not represent — or even purport to represent — anything. This is precisely Ned Block's point when he talks about orgasms. Orgasms surely have a phenomenology in the sense of a "what it is like," but what do they represent? Nothing much. Champagne appears to admit this when he writes, "To borrow an example favoured by Ned Block, 'there are features of the experience of orgasm that don't represent anything.... So, when you enjoy one of those, your aim cannot possibly be the end of inquiry. I therefore believe pragmatism becomes more plausible when it makes room for inefficiency" (p. 109).

I interpret Champagne here as conceding that there are mental states that are non-representational, and therefore they are neither inferential nor semiotic. I might pause here to note that Peirce defines a sign as "anything which is so determined by something else, called its Object, and so determines an effect upon a person, which effect I call its Interpretant, that the latter is thereby mediately determined by the former" (Peirce, 1910/1998a, p. 478) and even uses 'representamen' as a synonym for 'sign' (see, e.g., Peirce, 1903/1998b, p. 272). Apparently, Champagne fails to realize that his concession endangers his project, since it implies that mental states cannot be identified with signs. There can be phenomenal consciousness even when there is no representation. Even if a Peircean semiotics can give us an account of how conscious mental action makes room for phenomenality, it stops short of giving us an account of how all phenomenal mental states are semiotic in nature. The more straightforward response to this worry that can help salvage the project is to hold that orgasms are representational. I won't pursue this issue about orgasms here because the same problem can be raised from another direction.

The other way to approach that there seem to be phenomenal mental states that are non-representational is that it is a consequence of Peirce's own views and of a thesis Champagne himself defends. To start with what Peirce admits, suppose I stare out a window at a tree while thinking about, say, the orders of infinity. Arguably, there are two aspects of consciousness here that involve phenomenality. One is the perceptual phenomenality of seeing the tree. We will suppose I make no judgments about the tree; I just see it while thinking about orders of infinity. The other is the material quality of the "inner voice" I "hear" when thinking about the orders of infinity. Now clearly the "inner voice" I "hear" represents (or purports to represent) the orders of infinity. The problem is that the percept of the tree doesn't seem to represent anything. What I see is not a representation of the tree but the tree itself.

One might be inclined to claim that, on the contrary, the percept represents the tree. But this is not Peirce's view, at least as he presents his position in his essay "Telepathy and Perception":

Let us say that, as I sit here writing, I see on the other side of my table, a yellow chair with a green cushion. That will be what psychologists term a "percept" (res percepta). They also frequently call it an "image." With this term I shall pick no quarrel. Only one must be on one's guard against a false impression that it might insinuate. Namely, an "image" usually means something intended to represent, — virtually professing to represent, — something else, real or ideal. So understood, the word "image" would be a misnomer for a percept. The chair I appear to see makes no professions of any kind, essentially embodies no intentions of any kind, does not stand for anything. It obtrudes itself upon my gaze; but not as a deputy for anything else, not "as" anything. It simply knocks at the portal of my soul and stands there in the doorway. (Peirce, 1903/1958, para. 619)

The percept doesn't represent the object. Rather, perceptual judgments represent the percept as representing the object, as when we say such things as "it appears as though there is a tree there."

One might push the point, though: Peirce claims that the percept does not purport or profess to represent the tree. It does not follow from this that the percept does not represent the tree. True, but he also states that it "does not stand for anything," and signs essentially do stand for something. Moreover, there is another line of thought that suggests Peirce does not regard percepts as signs. In the Harvard *Lectures on Pragmatism* of 1903, he embraces the doctrine of immediate perception, which he regards as "the fact that in perception two objects really do so react upon one another" (Peirce, 1903/1998c, p. 155). That is, when we perceive an object, we do not perceive it by way of a representation that stands in for the object. Rather, in perception, we perceive the object immediately and not through intermediary representations.

Again, though, perhaps the later Peirce is just wrong on this point or his claims can be massaged in ways that are consistent with the claim that the percept represents the tree. And in fact, Peirce appears to be of two minds over the matter, since in another writing he does claim that "percepts are themselves signs" (Peirce, 1904/1998d, p. 328). The problem is that Champagne endorses a view exactly contrary to this. In chapter five, he argues that the quality of a sign is identical to the object of which it is a sign. For instance, when I (veridically) see a brown tree, the quality brown I see is identical to the brown that is a part of the tree and so, claims Champagne, "Peirce's account [of qualia] can demystify Aristotle's claim that, when things go well, 'knowledge is identical with its object'" (p. 83). This is supposed to differ from the position of the medieval philosopher Poinsot, who holds that if they were identical it would "cancel the rationale of a sign" (p. 83). First, note that Aristotle's claim is a claim about knowledge and not qualia. Second, note that the argument Poinsot gives is identical to the argument Peirce provides in the quotation in support of (C) and (D). Third, given that Champagne quotes another passage from Peirce making the same argument, it seems doubtful that Peirce in fact disagreed with Poinsot, and Champagne provides no textual evidence that he did.

Nevertheless, suppose that phenomenal qualia are identical to the color properties of their objects, as Champagne does. Now suppose that I am in Big Sky Country staring up at a clear, blue sky. The qualia of my perception are identical to the color of the sky, on Champagne's view. But if these are identical, how is it possible that the mental state represents the sky? It seems that what I see just is the sky, not a representation of it. That is, I immediately perceive the sky and do so not by virtue of a mediating representation, just as Peirce's doctrine of immediate perception suggests. Likewise, it follows that when I see the qualities of a tree while thinking about the orders of infinity, I do not see a representation of the tree but the tree itself.

Perhaps orgasms and perception, though, are not the best way to make the point that there are non-representational mental states involving phenomenal consciousness. Here are some other candidates: a ringing in one's ear does not seem to be representational (what does it represent?) even though it involves phenomenality. At least some dreams do not seem to be representational (though Peirce admitted some dreams are representational — see Peirce, 1904/1998d, p. 326). By the same token, drug-induced hallucinations do not seem to be representational. The vividness of an experience does not seem to be representational but, Peirce holds, is the force the object experienced exerts upon us such that we cannot change it by sheer mental effort.

There are two options here. One is to argue that, in fact, the just-listed mental states are all signs. There is no argument in Champagne's book to this effect. The second option is to argue that mental states should not be identified with the signs in an inferential process. But this is detrimental to Champagne's project.

Furthermore, I think there is little doubt that Peirce himself took the second option, and that this marks a significant difference between Peirce's early theory presented in "Some Consequences" and his more mature phenomenology. The more plausible position to attribute to the mature Peirce is that he held there are triadic, dyadic, and monadic mental states (see, e.g., Peirce, 1903/1998c, pp. 149-155 — Peirce does not write of mental states per se but of elements of the Phenomenon, that is, whatsoever may come before the mind howsoever, in part because he was leery of those who treat ideas as events in individual consciousness or, worse, brains, thereby making logic psychologistic). Triadic mental states are representational. To this class of mental states belong belief, inference, conception, and the like. These do have a material quality, just as Champagne argues, but they are not the only sorts of mental states. Dyadic mental states are those of brute reaction. To this class of mental states belong immediate, uninterpreted percepts and sensations and volitions. Monadic mental states are a little harder to grasp and Peirce even seems to doubt they exist since all feeling in fact involves what is felt and one who feels: "all consciousness is ipso facto Secondness. I have sometimes called Qualities of Feelings immediate consciousness; but this immediate consciousness is a fiction of the psychologists" (Peirce, 1859-1914, folder 465, p. 10). The closest he comes to identifying a monadic mental state is a slumberous feeling. Perhaps the closest we could come to such a mental state is what one "sees" when one closes one's eyes in a dark room — a pure expanse of blackness.

Champagne, I suspect, would argue that these monadic and dyadic states of consciousness that involve qualities are in fact icons and so signs. He might be able do so because he has an extremely latitudinous conception of an icon, such that all qualities that come before consciousness are icons. Roughly, an icon is a sign that represents its object by virtue of some resemblance or similarity to it, such as a map. An index represents its object by standing in a causal relation to it, such

as a weathervane. A symbol represents its object conventionally, such as the word "horse." A number of Peirce scholars have recently argued that the resemblance relation that matters for iconicity is resemblance in form. That is to say, diagrams and maps are paradigmatic examples of icons because by their manipulation or study one can learn something about the object represented. Champagne objects, "taking the construction/discovery view at face-value, it may be asked: what 'more' can one possibly learn from the observation of a simple blue tone" (p. 60)?

The questionable assumption is that a simple blue tone is an icon, which those scholars deny. To be certain, a portrait painting of someone may use the color blue and that portrait will be an icon of the person painted. But the blue alone is not an icon of the person; the painting is. A person takes a blue color swatch and says, "this is the color of John's eyes." Now the swatch is an icon of John's eyes. Arguably, though, it's the mixture of hue and chroma that makes it resemble John's eyes and one can discover, for instance, that John's eyes are not very gray. Also, such a blue patch along with the statement about John's eyes is not a "simple" blue tone because it is accompanied with a comment on what the swatch represents. The statement and the swatch are what make for the representational relation to John's eyes; a swatch with no comment would not represent John's eyes even if they have the same color.

Champagne, however, pushes matters further and partially quotes Peirce claiming, "an icon presupposes nothing but its own quality, its referential power, 'is not necessarily dependent upon its ever actually determining an Interpretant, nor even upon actually having an object" (p. 61). The implication is that a simple blue tone all on its own, independent of any object and interpretant, has referential power. This is what Champagne needs in order to claim that a simple blue tone is an icon, and if he were right then colors all on their own would be icons. But Champagne has misrepresented Peirce. First, the quotation is not about icons but about any kind of sign. Second, what Peirce states is that the sign's representative quality, not its referential power as Champagne states, is independent of object and interpretant. I take Peirce to mean "representative quality" in the sense of "material quality" as discussed earlier. Champagne has confused an icon, which is a sign, with the material quality of a sign.

This raises another point: it seems odd to call simple blue qualia "tones." As Champagne correctly notes, Peirce's familiar type/token distinction was actually a trio of type/token/tone distinctions. The third in that series has been neglected by mainstream philosophers. As is evident from Champagne's association of tone with the color blue and with iconicity, he regards a tone as a quality. Peirce associates the three-fold division with necessitant signs (types), actual signs (tokens), and possible signs (tones) and states he is considering replacing "tone" with "mark" and earlier used "tinge" (Peirce, 1910/1998a, pp. 480, 488). First, just because something is a possible sign doesn't imply that it is a sign. Second, Peirce is getting at the idea that a mark on paper (say some curlicues) or a mere

vocalization such as "gerak" (a tone) could be a sign even though it isn't and doesn't function as one. Third, the color blue could, I suppose, function as a sign if, say, one designed a language based on colors — perhaps a blue square stands for "the" and a red square for "horse" so in a series they mean "the horse" — but that is not what contemporary philosophers are talking about when they talk about phenomenal consciousness and blue qualia. What the association of tones with qualia turns on is the identification of mental states with signs and of the qualia of the mental state with the material quality of the sign. Obviously, if one objects to either identification, one must also object to the association of tones with qualia. I have already given some reasons to doubt the former identification of mental states with signs, and later I shall say something about the identification of the qualia of mental states with the material qualities of signs.

Doubts about Premises (D) and (2)

The other point of attack concerns premises (D) and (2) because there seem to be some signs that do not have a material quality, where the material quality of a mental state qua sign is identified with the phenomenality of consciousness. This is supposedly evident in cases of blindsight; such individuals, it seems, are in functional mental states without phenomenality.

Champagne does not concede ground here. First, he argues that the self-reports of blindsight patients that they have no phenomenal consciousness of what is projected onto the scotoma should not be given a free pass: "Unlike everywhere else is psychology, the introspective reports of blindsight patients get a free pass" (p. 33). Of course, psychologists do rely on introspective reports, even if such reports should not be given a free pass. The fact that damage to a region of the brain is correlated with such reports suggests they are not. Second, Champagne notes that one blindsight patient reported his experiences as being like black on black, and Champagne proceeds to note "black on black is not nothing — it even suggests a dim outline" (p. 33). It might suggest one, but it doesn't imply one and might simply be a poetic turn of phrase. The claim is inconclusive. That another patient reported he couldn't "see a darn thing," suggests the other hypothesis, viz., a lack of phenomenality. Third, he claims that "if simply taking a person's claims at face value is all there is to establishing the absence or presence of qualia, then I too can insist with great vigour that all is dark inside" (p. 33). Sincerity apparently counts for nothing.

Champagne's objections fall flat, but I am sympathetic to doubts about the supposed lack of phenomenality among blindsight patients. Here is another way to motivate the problem. Blindsight patients aren't fully blind; they only have blind spots. Also, it is very difficult to project an image directly in the blind spot without affecting the surrounding areas at all. It is possible that blindsight patients are picking up on subtle visual cues from projections on the surrounding area,

even though they aren't sure how they are doing it and report not seeing anything like what they are supposed to see (based on the questions asked). This is another possible explanation of what is happening with respect to blindsight, and it does not deny to blindsight patients some meager phenomenality on the basis of which they make their judgments. (This worry is not my own. I recall reading an article over a decade ago which to the best of my recollection presented this very argument. I regret that I have been unable to find it for the purposes of this review.). I don't know that this explanation has been ruled out, but I am confident that philosophers (as is our wont) have taken an experimental inch and made it into a metaphysical mile (and, in the hypothetical cases of superblindsight, an astronomical unit). I suspect the same has been done with Sperling's experiments.

Nonetheless, there are other signs that may not have a material quality in the sense of phenomenal consciousness. The obvious examples are sub-personal informational processes. For instance, pheromone perception may lead one to the belief that so-and-so is a good mate. However, the perception of pheromones may not be accompanied with any phenomenally conscious material qualities. There may be other examples along these lines, but the fact is more experimental data on these matters are needed to make conclusive claims as to whether there are signs qua mental states without material qualities qua phenomenality. Yet these considerations lead me to a third and final criticism of the argument at the heart of Champagne's book.

Doubts about the Validity of the Argument

I have been raising some questions about premises (A) and (D) and, by way of them, about premises (1) and (2). Suppose, though, that the premises presented in (1) and (2) are true. Even so, we come to another problem: the mere fact that the signs employed in mental processes have some material quality does not imply that one's phenomenal consciousness just is the material quality of those signs. Computers are a perfect example. Computer code has a material quality, just as these letters do (here, they are black letters against a white background). Computers obviously execute the steps stated in the code. However, they lack phenomenal consciousness (or so I assume). The mere fact that something is programmed to operate computationally or functionally does not imply that it is conscious. So likewise, even if we accept a computationalist or functionalist theory of mind, it does not follow that phenomenal consciousness consists in the material qualities of the signs employed in the computational or functional process. Qualia might be mere epiphenomena.

In fact, Champagne's argument may prove too much. Suppose that every sign has a material quality. Identify the material quality of the sign with phenomenal consciousness. Now consider that box jellyfish have ocelli that function autonomously (they have no central nervous system). Is the manner in which they

respond to light a semiotic process? Some bacteria move in response to gradient changes in the substance in which they float. Is the process by which they respond to such changes a semiotic process? Planarians have very simple central nervous systems that they use to navigate their environments. Is this a semiotic process? Plants respond differentially to their environments, growing toward the light, for instance. Is this semiotic? If the answer to these questions is "yes" (as some biosemioticians claim) and if the material quality of a sign is identified with phenomenal consciousness, then plants and primitive animals would seem to have phenomenally consciousness experiences; they are minded. Peirce seems to have gladly embraced such a consequence when he declared it is puerile to deny protoplasm feels (Peirce, 1892/2009, p. 180) and Champagne seems willing to accept such a consequence (see p. 108ff.), but many theorists today would demur.

At last, we touch on a final difficult point with respect to Peirce's early argument from "Some Consequences." It is that Peirce moves quite swiftly and carelessly between the claims that mental action can be modeled inferentially and that mental action is of the nature of an inference. This is evidenced in the two quotations provided in premise (A). In the first, Peirce claims he will do his best to reduce mental action to the formula of a valid inference. In the second, he claims mental action just is inferential. It is possible that one could design a computer program that models mental action inferentially. Not only is it possible, but in fact such inferential modeling of aspects or parts of mental action has been done. But it is a much stronger claim that all mental action can not only be modeled inferentially but is inferential. It is the stronger claim Peirce needs to get his argument off of the ground. Unfortunately, the stronger claim is nowhere directly supported by Peirce. Moreover, later in his life, he is quite clear that inference is only a model of mental action, as when he writes that if one were to subject the process of percept formation to logical analysis, "we should find that it terminated in what that analysis would represent as an abductive inference resting on the result of a similar process" (Peirce, 1903/1998e, p. 227). Peirce's claim is that such an analysis would represent the process as an abduction, not that the process is an abduction. The consequence is that even if mental action is computational or functional and even if such computational or functional processes involve signs which have material qualities, one must also argue that the material qualities of those signs are to be identified with the phenomenality of consciousness. Neither Champagne nor Peirce, however, argues for that additional claim.

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