Because Pautz mentions that his criticisms of tracking intentionalism may apply given my sort of teleosemantic view of representation as well as given a tracking view, Richard Brown has asked me to break my silence on consciousness to give a reply. I do have some rough things to suggest here about the relation between representations and phenomenology. I don't think, however, that understanding what phenomenal properties are casts light on the nature of consciousness, so this short piece does not contradict my settled position that I don't do consciousness.

Assuming a representational theory of thought, whatever one's "phenomenal experience" is, it is something many philosophers have beliefs about. They represent it in thought. The epistemological question is then immediate and urgent. Whatever phenomenal experience is, we need to understand, in a way that is consistent with our more general views on epistemology, how a person can develop the necessary concepts to know of this experience and to describe it. Various versions of our knowledge of "the given" have been offered historically, but I do not think we are convinced by them any more. The theory of intentional icons and representations, coupled with the (quite separate, though fully integrated) theory of empirical concepts that I offered in *Language, Thought and Other Biological Categories* and again in *On Clear and Confused Ideas*, offers a theory or representation and an epistemology which, if correct, might cast some light both on the nature of phenomenology itself, and also on the apparent discrepancy, which concerns Pautz, between what the neurons are doing in supporting phenomenal experience and what they are doing in supporting knowledge of the world.

Two features of the LTOBC view will be important here. First is the claim that the content of a mental representation is not a function merely of its causal history (say, of what it detects) nor a function merely of the structure of the representation vehicle or the vehicle's relations (say, of similarity or difference) to other such vehicles but, much more centrally, is a function of the uses that would normally be made of the representation by the cognitive systems. Second (spelled out most clearly in OCCI) is the way the description of empirical concepts opens a space for atomic concepts, even of things that seem to be directly perceived, that miss their mark, being perhaps equivocal, or being of nothing real at all.

I. Odor, color, taste and sound detectors as tools for identifying objects and natural kinds.

Here then is a picture that might help. Suppose that there is a certain level of representation, which we might call "basic perception," that is prior to rational belief, to classically understood inference processes. The function of this level is to guide immediate practical activity, the manipulation of objects, navigation among objects, and the initiation of action towards or away from close objects, in short, the perception of affordances of various kinds (compare, roughly, the dorsal visual system). Such a level is easily imagined in the case of animals, and our own minds have surely been built on top of animal minds. (The perception of
an affordance, as explained in my (1996; 2004 Chs, 6 and 13ff) is to be taken as mediated by an inner representation that faces two ways at once, being both descriptive and directive, telling at once both what is the case and how to react to it. Pain, for example, seems to be such a pushmi-pullyu. What is happening in the tissues is only half of its message, the other half concerns degree of urgency for action.)

Now neither the physical properties that produce colors, sounds, tastes and smells nor the relations among these properties, are, as such, of much interest to an animal. There is nothing that being red is good for as such, nor having emitted a certain sound or odor, nor do physical relations among properties — say, the relations among wave lengths for colors — carry any practical significance for animals. Contrast shapes, sizes and weights, the values of which and relations among which do matter to an animal who would manipulate objects or navigate among them. A reasonable speculation then is that capacities to discriminate among colors, sounds, odors and so forth were developed for one use only, namely, to help in the identification and reidentification of objects and of object kinds, the capacity to recognize the affordances of many different objects and kinds themselves being, of course, of great practical value. Just as the edge detectors, vertical line detectors, motion detectors and so forth in early visual cortex are not used in the direct guidance of action but only in helping to guide construction of more meaningful representations of objects and their properties, the original use of color discrimination, taste discrimination and so forth must have been merely their preliminary role in the reidentification of objects. The reflectance properties of an object and the odor it emits may have no significance whatever in themselves, but put together with other bits of information they may be crucial in reidentifying the object or the kind of object being encountered.

The suggestion is, then, that basic perception does not involve perception of colors and odors and sounds as such at all, but only perception of the objects and kinds they help to signify. Notice that the existence of color metamers would not interfere with these purposes in any different way than does the fact that different objects and kinds can sometimes have exactly the same reflectances, nor would what might be termed odor metamers, sound metamers, taste metamers much interfere. (Natural selection, as we know, yields only mechanisms that suffice for their purposes.) Add that relations, including identity, difference, or kind and degree of similarity, between neural vehicles of representation would represent these same relations as holding between their representeds only if the neural representations were used in a manner that required this. Use as mere tags for reidentification of objects and kinds does not require this. The relations, say, among the neural representations of colors, among the neural representations of odors, and so forth — the dimensions and distances in this or that neural similarity space — though they might in some cases carry a certain amount of natural information about relations among the properties discriminated, would carry no intentional information. They would not represent any relations, any more than the relations among "cat" and "bat" and "rat" and "sat" represent relations.
How our concepts of colors, tastes and odors came to be equivocal

Add now the LTOBC/OCCI view of empirical concepts. (Only a couple of key features can be mentioned here.) Adequate empirical concepts are, in part, abilities to reidentify objects, properties, relations, kinds, as each shows up manifested, typically, by any of a wide variety of different sorts of impacts on the sensory systems. To acquire and to apply either practical or theoretical knowledge of distal objects and properties, one must be able to reidentify them, usually, through a wide variety of proximal stimulations, sometimes directly through perception, sometimes mediated by inference involving the application of prior concepts. (Model reidentifying as reacting to different token proximal stimulations with mental representation tokens that will be used by the cognitive systems in ways that require them to represent the same thing, this not to be confused, merely, with mental representation tokens that are "alike." See, especially, OCCI Chs. 8ff.). Think of all the different glimpses, sounds, smells, feels any of which might let you know that a dog was present. Think of all the ways a certain friend might recognizably manifest themselves to your senses, glimpsed in different postures, at different angles and distances, under different lighting conditions, by their voice when near, from the other room, over the phone, or how you might know of their situations and doings by recognizing manifestations of them through the speech of others, by their handwriting, by traces of their characteristic activities (I hear Bob in the spare room playing his saxophone — don't be prissy, yes, I hear Bob), and so forth. An obvious difficulty to be overcome in concept formation, then, concerns the enormous variety among proximal stimulations that may carry natural information about the same distal object or property to the senses. A second, perhaps less obvious difficulty, concerns similarities among proximal stimuli that may carry natural information about different things.

Immediately, the epistemological problem has surfaced. By what means, on what evidence, can the cognitive systems have "learned," either through natural selection or through the past experience of the individual organism, which proximal stimulations go together with which? What evidence is there that any of one's empirical concepts rests on a real ability to reidentify an objectively selfsame thing? Roughly, there are two kinds of evidence (see, especially, my 2004, Chs.18-19). First there is "practical evidence": treating, or reacting to, or being guided in the same way by what one takes to be the same thing again mostly leads to the same kind of effect upon the organism. Concepts tested in this way are "practical concepts." This method of achieving univocal representation of distal things is a method that either natural selection or infant practical learning have used to achieve certain perceptual constancies, such as shape constancy, color constancy in natural light, and sound constancy given natural media, the latter two being honed during employment, still, only in the identification of objects and kinds for practical purposes. (Thus we might say that primitive "concepts," in the sense defined above, are employed for practical purposes well below the level of theoretical judgment.) Second there is "theoretical evidence": finding that given that x is $\Phi$ from here, or as judged using these means, then x is also $\Phi$ from there, or as judged using those means, helps
to confirm that the methods one has used for reidentifying $x$ and for reidentifying $\Phi$ are both valid methods of reidentifying something objective. (Compare Davidson's method of "triangulation."). The assumption here is that theoretical concepts are developed by cognitive systems that employ propositional representations, representations employed in subject-predicate judgment, the predicates admitting of a negation transformation.

Given these epistemological assumptions, it is clear that there can be equivocal atomic concepts, ones that are "concepts" because turned out by cognitive systems designed, of course, to turn out univocal concepts, but that have failed to do so due to misleading evidence. Compare having Joe thoroughly confused with Jim, so that you think of them as one and the same man. And there can also be redundant concepts, where certain kinds of manifestations of a thing are correctly used for reidentification of it under one concept, other manifestations under another concept, these two sets of manifestations not being recognized as manifestations of the same. Compare not grasping that "Mark Twain" and "Samuel Clemens" generally make manifest information about the same man. And there can be empty concepts, ones that do not succeed in reidentifying anything steady at all. An important principle is that the greater variety of different ways that one knows to identify one and the same thing, and the more occasions one has to reidentify it, hence to test whether it really is one and the same thing, the more likely it is that one's concept of it is nonempty and univocal.

Now assume that the development of theoretical concepts rides piggyback on the earlier development of what I have called "basic perception" including certain wholly practical concepts — concepts of the kind, say, that dogs employ when they recognize their masters or recognize a rabbit — and that it sometimes rests, also, on redeployment of representations that were used in earlier stages of neural processing leading up the application of practical concepts, say on redeployment of color detectors or sound detectors or odor detectors. These detectors are redeployed in the directed but still trial and error process of attempting to discover subjects and predicates for theoretical judgment that can be identified and successfully reidentified, as evidenced by continued stability of judgment. The development of perceptual constancies for earlier practical purposes is an obvious aid to reaching one sort of stability in judgment, allowing color to be conceptualized as a property, most stably, of individual objects. Important here too is that the identities of colors are apparently confirmed through another powerful perspective: manifestation through language; agreement in judgment with other people (true Davidsonian "triangulation"). Indeed, the primary purpose that theoretical concepts of colors serve in common life is in communication, helping others to identify objects by our descriptions. Nothing surfaces in ordinary life to evidence that these concepts are equivocal prior to attempts to reidentify colors through apparatuses designed for the scientific study of light. The case of odors and tastes is even more difficult, since they are themselves detected first only as proximal stimuli, only one perspective on them being possible. The only natural evidence — evidence through triangulation — for their reality is their pretty consistent associations with certain
natural kinds (for which they are typically named: vanilla, lemon, putrid) and, once more, triangulation through language. Similar points apply to concepts developed of the relations between colors. These relations are, seemingly, systematically reidentified, and confirmed by other people, but they are not relations among any univocal properties of external objects. Thought of that way they are chimerical.

III What phenomenological description is of

This would explain how our concepts of colors and tastes and odors might come to be equivocal, a single concept confusing together a diversity of distinct actual properties. (You can't really tell a color just by its color or an odor just by its smell.) Turn now to the original problem: we wanted to understand how there can be concepts of the phenomenal. I will tell a story that I believe was roughly J.J. Gibson's story on the status of "sensations," things in which he did not believe. The story does not make "phenomenal facts [be] facts about the properties represented by experience," as Pautz says the "intentionalists" have it. It takes "phenomenal facts" to be erroneously represented, to be about purely intentional objects, which would seem to be a still stronger kind of "intentionalism."

Suppose that you are looking through a window at the scene outside, but a friend (perhaps a British empiricist) has convinced you that the scene you see is really inside, projected onto the flat surface you had erroneously thought was a transparent window pane. You and your friend each proceed, with great care, to try to describe the shapes and colors of the patterns on the window pane, applying everyday concepts, of course, not special concepts developed just for the purpose (which one might perhaps have supposed would be necessary for describing some totally new kind of thing). Both of you find this exercise quite difficult, but there emerges considerable agreement between you on bold features. (I imagine that people who are good painters do better at this than I.) That's the exercise that's called phenomenological description for vision. It's the redeployment of earlier sensory detectors in the attempt to identify objects and properties in a hypothesized inner realm posited by philosophers convinced of a certain theory of knowledge. But this realm is no more real than the realms containing the four humors or caloric. (Remember that caloric was thought to be directly perceived. See the wonderful discussion in Churchland 1986, Ch. 2.)

When phenomenological description is turned upon heard scenes or felt scenes or tasted or smelled scenes, of course, just what the project of phenomenology is and how to accomplish it is less easily analogized. What is a description of the phenomenology, the sensations, of smell, for example? Perhaps it involves an application of one's ordinary concepts of odors while pretending to oneself not to know anything about present conditions such as what's in front of one's nose or whether one has a cold. One uses terms that would describe what one supposes one would suppose one was smelling given no outside information, pretending to withhold, as well one's, practical and theoretical commitment to the reality of what is perceived (Husserl's epoche). In the case of touch, perhaps one concentrates on what one would take the
apparently touched item to be doing to oneself, pressing on one, pricking one, rather than what properties one would take the touched items to have themselves (how do you feel when you touch it, not what properties can you feel it to have). However one does it, the descriptions express representations, concepts, of the same sort associated with any other deeply mistaken scientific or lay theory. Notice especially that in this supposed case of description, in very principle, no triangulation of any kind that would help to certify one's concepts is available.

The alternative? Exactly one hundred years back to Russell's epistemology in *The Problems of Philosophy*.

References
Churchland, P.M. 1986 *Scientific Realism and the Plasticity of Mind*, Cambridge UK: Cambridge University Press