

AN ENACTIVE ACCOUNT OF THE PERCEPTION OF FACTS

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ABSTRACT: Building off of the enactive account of perception recently developed by Alva Noë and others, this paper is an attempt to provide an initial sketch of an enactive account of the perception of facts. After endorsing the view that there are many potential starting points in the study of perception, I present some motivations for seeking such an account as well rehearse the details of the enactive accounts of the perception of physical objects (such as coffee cups) and colors. From here, I extend the enactive account of color provided by Noë to *properties as such*, which is especially pressing insofar as properties differ in important ways from one another, nor are colors the only properties perceived. Using this extension of the enactive approach to the perception of properties as a template, I then provide the beginnings of an enactive account of the perception of facts. According to it, subjects perceive facts to the extent that they perceive the appearances presented by facts and track changes in the conditions which imply or are implied by them.

Key words: perception, the enactive account, object perception, property perception, fact perception, Alva Noë, Wilfrid Sellars, John McDowell

I. Starting Points in the Study of Perception

1. Central to Alva Noë's presentation of the *sensorimotor account* of perception in his *Action in Perception* (Noë, 2004) and elsewhere¹ is the thought that much of the confusion about perception comes from having the wrong idea about what it is that is perceived. For instance, what Noë calls "orthodox visual theory" (p. 38) has it that we perceive not objects in the world (or their properties, etc.) but retinal images, that is, patterns of light that have been passed through the cornea, focused by the lens, and that stimulate the approximately 6 million rods and cones on the back of the eye. Such an assumption, he argues, presents orthodox thinkers with a difficult problem. For what we see (retinal images) seems

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¹ Noë (2002), Noë & O'Regan (2001a, 2001b, 2001c).

to bear little resemblance to what we experience ourselves as seeing.² The orthodox view, thus, presents us with a gap—one between retinal images and lived human experiences—that theorists must fill.

2. But the orthodox view, and the gap implied by it, is far from imposed upon us, he says. First of all, there is nothing obvious in thinking that retinal images are what we *really and truly* see as opposed to something else (bounced light, for instance, or sense data, and so on). Further, it really only makes sense to assert that we perceive retinal images if we have first accepted a set of assumptions that are themselves questionable. Such assumptions concern what a “scientific” account of perception would entail, for instance, or a theory wherein the mind must re-present every property, object, and fact that is in any way experienced (i.e., an *indirect* theory). Most importantly, however, there is no plausible phenomenology of experience that makes reference to retinal images. No one doubts that retinal images play a role in perception—but so do many other things that no one wants to count as perceived. In short, contrary to the view of the orthodox approach, the identity of *the proper objects of perception* is an open question. So, then, is our starting point in constructing a theory of perception.

3. What starting point would Noë have us adopt? There is some question about this. As I would like to read him, Noë is committed to the idea that we perceive *properties, objects, and facts*. But this may not be exactly right. Noë has much to say about properties and objects (Noë, 2004). He talks about color perception (an oft-discussed property) and the perception of three-dimensional objects like coffee cups and cats behind fences, but he appears to have little to say about perceiving *that such and such is the case*, or what I’ll call, in shorthand, *facts*.³ This may very well be intentional. He may reject the very idea of *fact perception*. I do not see where he has addressed the question. Either way, in what follows I attempt to extend what I consider to be Noë’s very promising account of perception as outlined in Noë (2004) to include facts *as perceived*.⁴

4. The paper will proceed thusly. In the next section, §II, I try to motivate the need for an account of fact perception in the first place. In §III I offer an initial sketch of Noë’s enactive account of perception which I then fill out in §§IV and V by looking more closely at the enactive accounts of object perception (in §IV) and color perception (in §V). In §VI, on the grounds that colors are not the only properties that matter to the theorist of perception, I offer what I take to be an extension of the enactive account to property perception more generally. Working through this extension of the enactive account provides us with a guide for extending the enactive account to fact perception, a task which I then undertake in §VII. In §VIII I reply to some objections. Finally, I offer a few concluding thoughts in §IX.

² Noë’s example of an orthodox visual theorist is Richard Gregory; see Gregory (1966).

³ Examples include seeing that your bus is approaching, hearing that your son has finally gotten home from the party, and tasting that the milk has gone sour.

⁴ I say “as perceived” to make clear that I am not after a view wherein facts are constructed or otherwise reasoned to, but perceived (seen, hear, felt, etc).

II. Motivations for Seeking an Account of Fact Perception

5. Before we get to that, though, let me say something about my motivations for undertaking this project. Why should we want to say that facts are perceived (or, as I will sometimes put it, that facts, along with *properties* and *objects*, are *proper objects of perception*)? As I see it, there are four main motivations for seeking an account of fact perception: 1) natural language, 2) epistemological, 3) phenomenological, and 4) experimental. Let me say a bit about each.

6. *Natural Language*. When we talk about what we perceive, we do not limit ourselves to talking about properties or objects. We say that we *see that the bus is coming*, or *taste that the milk has gone bad*. I want to take this way of talking seriously. If facts really are perceived, then the theorist of perception ought to have something to say about how.

7. Now, many philosophers and psychologists of perception act as if facts will take care of themselves, and so would reject this motivation for seeking an account of fact perception. Their thinking concerns how we perceive properties and objects *only*; facts are not mentioned. Why? I presume that they maintain the focus that they do in an attempt to account for perception *naturalistically*, as they understand that term.⁵ Properties and objects, they maintain, can be defined in purely physical terms. Redness, for example, can be understood to be electromagnetic (EM) radiation between 620–780nm. If we can give a story about how the eye is sensitive to EM radiation in this spectrum, we will (it seems) have explained how we perceive redness. A similar story could presumably be told about physical objects such as cups of coffee. Inasmuch as they have reflective surfaces arranged in such-and-such a way in a space shared with the perceiver, talk of EM waves may be just as accommodating here as it is in the case of properties. But what about facts? It is arguably less clear how to deal with them as a naturalist of this sort. Though, again, because facts are not discussed by such thinkers, it is hard to know for sure what they would maintain.

8. It seems that the most common approach is to hold that facts are simply not perceived at all. One could, rather, think that facts are *inferred*, for instance, or *constructed* by the mind. If so, the theorist of perception is off the hook; facts would not even be theoretical objects in their domain. But to my way of thinking, this is simply to deny what Ordinary Language is telling us. We *say* that we perceive facts. So I say: let us see what happens when we try to take this way of talking seriously.⁶

⁵ I do not mean to reject naturalism, only certain forms of it that are perhaps best characterized by their wholesale rejection of the notion of norm-governed phenomena as such (in my terminology, a “right-wing Sellarsian” embraces the sort of naturalism that I want to reject; see footnote 8).

⁶ I realize that this is controversial. As part of broader discussion about important connections between the philosophy of perception and Ordinary Language philosophy, I discuss in much more detail the place of natural language as a motivating factor for my project in Schiller (2012).

9. *Epistemological*. Epistemologists view perception as one the sources of empirical knowledge, and, indeed, as perhaps the most *important* source of such knowledge. The question is: how is this the case? How is it that we come to know that such and such is the case inasmuch as we perceive as much? According to some, this could only happen to the extent that perceptual experience contains claims, for only claims have the inferential structure that could engage a subject's system of knowledge. I have in mind here Wilfrid Sellars, who is explicit in the centrality of this picture to his thinking,⁷ as well as his (mostly left-wing⁸) followers, most influentially: John McDowell (McDowell, 1994), Bill Brewer (Brewer, 1999), and Robert Brandom (Brandom, 1994). If this line of thinking is right (as I think it is), we *have* to be able to make sense of the idea that we experience facts if we are to ground knowledge in the world. It will not do to say that we construct, or otherwise create, out of collections of perceived properties and objects, claims after the fact in higher-order thought. Such constructed claims cannot properly be said to come from the world, and thus to be empirical in the right way. As I understand it, then, having an account of fact perception is a precondition on understanding how experience provides us with empirical knowledge.

10. I should say that, in my experience, contemporary philosophers of mind tend not to like this particular motivation. Their attitude is that they do not need epistemologists telling them what experience *must* be like. Metaphysics precedes epistemology. When they are finished figuring out what the mind is, they will

⁷ This idea is key to Sellars' project in "Empiricism and the Philosophy of Mind" (Sellars, 1956), as is made explicit in (the first) §16: "I realize that by speaking of experiences as containing propositional claims. I may seem to be knocking at closed doors. I ask the reader to bear with me, however, as the justification of this way of talking is one of my major aims. If I am permitted to issue this verbal currency now, I hope to put it on the gold standard before concluding the argument."

⁸ In his essay from 1962, "Philosophy and the Scientific Image of Man" (Sellars, 1962), Sellars lays out what many commentators now identify as the central feature of his philosophy: what he terms the "clash" (§5) between two views of "man-in-the-world." The "manifest image" is (roughly) what Paul Churchland (Churchland, 1979) is referring to when he talks about folk psychology. More precisely, folk psychology is a manifest image understanding or theory of the behavior of persons (such as ourselves) that stands alongside other "folk" theories of, e.g., what makes actions moral, why and how things happen in the world, and so on. The "scientific image" is that picture of ourselves and the world that is, we might say, currently being pieced together by the empirical sciences. It was Sellars' view that though the two images "clash" on the most fundamental ontological level, they can be brought together into a "synoptic vision." Given this background, one way to read Churchland (*qua* right-wing Sellarsian) is as rejecting the possibility (and even the desirability) of such a synthesis in favor of the scientific image (thus his eliminativism of folk psychology, one of the last great vestiges of the manifest image). Robert Brandom and John McDowell are self-conscious left-wing Sellarsians insofar as they, like Churchland, reject the possibility that the manifest and scientific images can be brought together (at least in regards to conceptual and other norm-governed behavior and phenomena, including personhood itself) and yet hold fast to the manifest image.

inform the epistemologists of the results. With any luck, empirical knowledge will be possible—but the preconditions on knowledge are not their problem.⁹

11. But this, I think, ignores the extent to which that knowledge is a *normative*, not a *descriptive*, concept. Sellars is again instructive on this point.¹⁰ He says that to call someone a knower is not just to describe them, but to *recognize* them as fit to participate in the practices that make empirical knowledge possible in the first place.¹¹ No scientific account of us will (or even can) take that away; that we are knowers is part of our very concept of what it means to be a person. Thus any metaphysical account of the mind of the person that fails to recognize that we are knowers will have lost its claim to be about us at all. On this way of thinking, then, the task of the philosopher of mind *vis-à-vis* the epistemological question is to make sense of the workings of the mind that underwrite our ability to participate in the normative practices that make up the knowledge game.

12. *Phenomenological & Experimental*. I discuss both the phenomenological and the experimental motivations for the present essay in detail in another paper,¹² so I will be brief. The phenomenological motivation for the present work is that the right theory of fact perception can act as bridge between the notion that our experiences are “structured” by our interests, on the one side, and an enactive account of our perception of properties and objects, on the other. As I argue in Schiller (2012), fact perception is “primary” relative to object and property perception in the sense that which facts we perceive i) determines which objects and properties we perceive, and ii) is determined by our interests which foregrounds certain facts for us while causing others to recede into the background. The idea that experience is structured by our interests is a central strand in Heidegger (1927) and is shown empirically in cases of inattentional blindness (e.g.,

⁹ This is just to say that such metaphysicians of the mind reject the transcendental argument that the epistemologists claim give them (the epistemologists) the right to impose explanatory demands on them.

¹⁰ (Sellars, 1956), esp. §36: “The essential point is that in characterizing an episode or a state as that of *knowing*, we are not giving an empirical description of that episode or state; we are placing it in the logical space of reasons, of justifying and being able to justify what one says.” Note that this point generalizes to all propositional states, as Brandom points out in his study guide to EPM: “He could as well have said that in characterizing an episode or state as one of *believing*, or *applying concepts*, or *grasping propositional contents* we are not giving an empirical description of that episode or state but placing it in the logical space of reasons, or justifying and being able to justify what one says” (Brandom, 1997).

¹¹ Brandom, a contemporary left-wing Sellarsian, ties these thoughts back to Kant and Hegel in his inferentialist re-working of the history of philosophy, *Tales of the Mighty Dead* (Brandom, 2002): “Kant is the first thinker explicitly to take as his task the explanation of our character as *discursive* creatures in terms of our liability to various kinds of *normative* assessment” (p. 22). Hegel builds on this thought by holding that “to be a self—a locus of conceptual commitment and responsibility—is to be taken or treated as one by those one takes or treats as one: to be recognized by those one recognizes” (pp. 53-54).

¹² Schiller, “The Primacy of Fact Perception” (2012).

in Simons and Chabris' gorilla experiment).¹³ The present work, then, fulfills the promise made in Schiller (2012) to the phenomenologists and experimental psychologists by presenting the details of the enactive account of fact perception there assumed.

13. To conclude this section, I have identified four motivations for seeking an account of fact perception. First, we *say* that we perceive facts in ordinary language. Instead of papering over this linguistic datum, I aim to take this way of talking seriously. Second, on the line of epistemological thinking that I and many others subscribe to, we have to be able to make sense of the idea that perceptual experience contains claims if we are count perception as a source of empirical knowledge. Third, an influential line of phenomenological thinking has it that our interests structure our experiences. I think an enactive account of fact perception such as the one developed below can say just how. Finally, experimental psychologists have pointed to some puzzling perceptual phenomena, including inattentional blindness, that I believe an enactive account of fact perception can account for. On at least these four dimensions, then, an enactive account of fact perception seems worth pursuing.

III. Broad Outlines of the Enactive Approach

14. If we are to extend the enactive account of perception outlined in Noë (2004) to facts, we need to put the enactive account as it stands on the table. Let us do that now.

15. A nice way to approach the enactive account is to talk about the *problem of perceptual presence in absence*.¹⁴ The problem is this: it seems to be phenomenologically unassailable that our experiences include awareness of features of the environment that we are not currently attending to. But how can we experience something that we are not attending to? What must perception be like if one can perceive the unattended in this way?

16. If the idea that subjects perceive the unattended sounds strange, this can only be insofar as one has failed to pay sufficient to one's own experience. There are myriad examples of the perceptual presence of the unattended.¹⁵ For instance,

¹³ More evidence of this kind of top-down structuring (from interests to facts, to objects, to properties) that I discuss in Schiller (2012) is Edward Adelson's checkershadow illusion (Adelson, 1995). As I interpret it, the checkershadow illusion provides empirical support for the notion that object perception structures property perception. The fact that the shadowed check (labeled B by Adelson) is perceived as brighter than the non-shadowed check (A) despite their identical luminance shows, strikingly, that the visual system is not a light meter but is, rather, concerned with objects and their placement relative to one another in space. This makes sense. After all, what is more important to the organism: the exact luminance of the surface of some object or the placement of that object in space?

¹⁴ As Noë puts it, "Perceptual presence is *the* problem for the theory of perception" (Noë, 2006, p. 26).

¹⁵ There are, incidentally, myriad examples of the perceptual absence of the unattended as well, though evidence of such is, to some extent, transparent to reflection from a

from my office window I can see a few campus buildings. These buildings are experienced by me as massive three-dimensional objects, voluminous objects with interiors and backsides that I cannot currently see. They are not experienced as building façades, as free-standing building fronts with no interiors or backsides as on some Hollywood movie set. But why not? If all I can see—strictly speaking, as we might say—is the front, then why doesn't my experience reflect this?

17. This is a problem about the visual experience of objects, *qua* three-dimensional, *qua* spatial. But the point extends beyond the perception of objects (what I call here “object perception”), voluminousness, and the modality of sight.

18. Here is another example: Noë has his readers consider what it is like to see a cat behind a picket fence. Is our experience one of detached cat parts separated by planks of wood? Of course not. Our experience is of *a whole cat* behind the fence. Even if we can only perceive particular parts of the cat at any given time, we do not experience it as a collection of parts.¹⁶ Why not?

19. Or consider the phenomena of *color constancy*. Imagine a wall that appears brighter nearer a window on the right side of the room, and darker the further one moves from the window to the left of the room. Here we want to say that there is *some sense* in which this property of the wall, its color, gradually changes the further it gets from the window.¹⁷ But this is not how we would experience it (or, indeed, how we experience shades and shadows in general). We would experience the wall as being a single color. Is this a case of perceptual presence? It is, for if we are attending to the darker, left side of the wall, the “real” color (which, presumably, one finds nearer the right side of the wall, if at all¹⁸) is unattended to. In fact, the real color of the wall would be *experienced no matter where along the wall lies the point at which we are attending to it*.

20. One might be tempted to explain these and other cases of perceptual presence in absence in terms of inferences that the subject makes. According to this way of thinking, subjects *infer* the existence of interiors and backsides in object perception, *infer* the existence of a whole cat behind the fence, and so on. But this will not do. The point is phenomenological. There is a world of difference in *inferring* the backside of a building and *experiencing* it as perceptually present, a difference no less great than that between any instance of thinking *x* and

phenomenological perspective and is rather to be found through experimental means. The 1999 Simons and Chabris gorilla experiment on inattention blindness (Simons & Chabris, 1999) is perhaps the most widely-discussed example currently. I discuss their work in Schiller (2012).

¹⁶ This example concerns object perception (since cats are objects) and the modality of sight, but not voluminousness. Imagine replacing the cat with a cardboard cutout. The problem remains. See §2.5 of Noë (2004) for this example.

¹⁷ I say “in some sense” because a certain brand of objectivism about colors would resist saying that the wall changes color. Even color objectivists, however, in order for their accounts to be complete, have to recognize and account for the phenomenological fact here mentioned. Thanks to Willem deVries for this point of clarification.

¹⁸ In fact, Noë's view is that the color of the wall is *un-attendable* in a single glance—but we will get to that in §V.

experiencing x . Inferences lack the immediacy necessary to explain the phenomenology of perceptual presence in absence.

21. Put generally, and formulated abstractly, the enactive account explains perceptual presence in absence as a function of some basic facts about perception: that it is (1) essentially active, and that it (2) relies on a subject's knowledge of (2a) how the appearances of what is perceived change in response to changes in the perceived object as well as (2b) how the appearances of what is perceived change in response to changes in the perceiver herself. So, for example, when the cat is behind the fence the reason that we perceive it as a whole cat (instead of as a couple of detached cat parts floating between planks of woods) is that we know how the appearance of an object changes when it is behind something like a fence and the cat meets our expectations. If we tilt our head slightly to the left, say, or if the cat moves to some new place behind the fence, new parts of the cat appear while others disappear. Insofar as these changes fit the expectations that we have of the cat's appearance in different situations, it appears as a whole cat. According to the enactive account, a similar story can be told for all of the cases of presence in absence mentioned above and, more importantly, for any case of perception at all. In the next few sections, §§IV–VI, I will fill in the details of this account as it applies respectively to object perception, color perception, and property perception. As we will see, the story is the same in either case; according to the enactive account, perception is always active and grounded in a special sort of knowledge.

IV. The Enactive Account of Object Perception

22. At the heart of Noë's enactive account of object perception are two essential claims: first, that perceived objects have sensorimotor profiles, and, second, that perception requires knowledge of such profiles.

23. To say that perceived objects have sensorimotor profiles is to say that their appearances depend critically on their location and orientation *vis-à-vis* the perceiver and her location and orientation. The sensorimotor profile of an object (in the sense defined just now) defines its shape and size. For instance, what makes a sphere measuring one meter in diameter what it is (i.e., a sphere measuring one meter in diameter) is at least the following: that its *apparent shape* is circular from every viewing angle¹⁹ and that its *apparent size* increases or decreases as subjects move closer and further from the object. The laws of perspective—the explicit formulation of which was not even attempted until the 11th century, by the Iraqi polymath Alhazen, and only then mastered by the Italian Renaissance painters starting with Filippo Brunelleschi in the early 15th century—capture sensorimotor profiles in quantifiable, workable terms.

24. Here is a question: Does the enactive approach imply that the fact that the laws of perspective were not explicitly formulated until well past their time mean

¹⁹ Which, importantly, is not the same as saying that it is experienced as circular from every viewing angle.

that the Ancient Greeks did not perceive in three-dimensions? Is it possible that Socrates did not (could not!) perceive spheres? No. The enactive approach asserts only that sensorimotor knowledge (a form of non-propositional know-how) must be exercised in perception, not that subjects have to have the ability to formalize such knowledge in quantifiable terms. Put another way, a subject's grasp of the laws of perspective is displayed in his or her ability to perceive in three dimensions, which is itself displayed in his or her ability to masterfully navigate a world of three-dimensional objects.

25. Noë makes these points by appealing to cases found principally in the psychological literature and by arguing that the lack and application of knowledge of sensorimotor profiles leads to a form of blindness not explained by the orthodox approach. Cases of so-called "experiential blindness" can be induced in otherwise normal subjects through the use of up/down or left/right inversion goggles (see, in particular, §§1.3 and 3.6 of Noë, 2004 for good descriptions of such cases). Noë's argument for the enactive approach and its insistence on the necessity of sensorimotor knowledge for object perception, then, has the form of an argument to the best explanation of what is going on in such cases.

26. Let me conclude this part of the paper by noting that the enactive view places heavy emphasis on the extent to which perception is *extended through time*. The unattended-to appearances of objects (their interiors and backsides, for instance) are present in experience to the extent that we perceive them *as available*. We may not be able to perceive them *right now*, but if we just crane our necks this way, move the object that way, etc., those features come into view. It is *because* the objects populating the world conform, in the course of our temporally extended interactions with them, to the sensorimotor profiles that we have of them that their currently unattended-to features are nevertheless present in our perceptual experiences at any given moment. The result is that when we perceive an object our experience of its unattended (at the moment) features is as of things which are perceived from perspectives that we are not currently occupying but could given such-and-such changes in our (and/or *its*) position or situation.²⁰

V. The Enactive Account of Color Perception

27. With a sense of the centrality of perceptual presence in absence to the development of Noë's enactive account, as well its broad details on the topic of object perception, let us now turn to the topic of property perception.

28. It is no secret that philosophers of perception are obsessed with vision to the virtual exclusion of all other sense modalities, and that, when it comes to property perception, color gets the most play. Despite saying some things which would suggest Noë intends to do things differently—including arguing that all

²⁰ Note that I am not claiming that in order to perceive a specific object the subject must have a sensorimotor profile of that object specific enough to individuate it from all other objects under any circumstance or for any purpose. To say otherwise would be to make novel perception (perceiving things we have never perceived before) impossible. The point I am making here is limited to our perception of objects *qua* three-dimensional.

perception should be understood to be touch-like (Noë, 2004, p. 1)—Noë’s presentation of the enactive approach proves to be quite traditional. The only property that gets any in-depth treatment in Noë (2004) is color.²¹

29. There are, perhaps, good reasons for this. Since discussions of color perception dominate the literature, Noë wisely puts his views into contact with the literature by focusing on color. And though it is unclear to me what an argument to this conclusion would look like, it is possible that color represents the hardest of the hard problems for property perception and thus deserves the most attention. So let us simply follow his lead for the moment and discuss the enactive account of the perception of colors.

30. Recall the example from earlier of the wall that appears brighter nearer a window on the right side of the room and darker the further one moves from the window to the left of the room. The odd thing about our experience of the color of the wall is that it does not seem to include these variations. It appears to be a single color despite these variations.

31. But there is something of a puzzle here. There seems to be another sense in which the variations of the wall’s color which are not supposed to be experienced are, at the same time, part and parcel of our experience of the wall’s color *as constant*. To see what I mean, imagine a wall that was painted, *trompe-l’œil* style, to completely cancel out the differences in shading that resulted from the light coming through the open window. If this were done *just right*, one can only imagine that the painted wall would look oddly *out of place*. We expect both that the color of the wall is uniform *and* that it appear varied due to uneven lighting. How can we make sense of this?

32. Turning to what I have called the two main elements of the enactive approach, let us ask: (1) do colors have sensorimotor profiles? And (2) does color perception require knowledge of such profiles? Noë argues yes on both counts:

Perceivers are in general implicitly familiar with the way apparent color varies as we move with respect to what we look at, or as other *color-critical* conditions change, (e.g., changes in the character of ambient light, or in the colors of contrasting objects, etc). (Noë, 2004, p. 127)

The key terms here are “apparent color” and “color-critical conditions,” for we should read the first of these as corresponding to the notions of *apparent shape* and *apparent size* in the discussion of object perception above and the second as similar to points made earlier concerning sensorimotor profiles. And recall that in the context of object perception, sensorimotor profiles are akin to laws of perspective in that they relate objects to perceivers (and vice versa) and capture the ways appearances depend critically on the location and orientation of these relata. Color-critical conditions do the same thing; they relate *apparent* and *real* colors to viewing conditions, conceived generally so as to include the states of the environment, the perceived, and the perceiver.

²¹ See chapter 4, “Colors Enacted.”

33. If this is right, the account of color perception comes into view: In order to see colors, subjects need to have and apply knowledge of color-critical conditions to their viewing situations. It is important that color-critical conditions include those we would class as spatial. Everyone knows that in a red-colored room viewing conditions are not going to be standard. But not all such conditions are spatial in this sense. The notion of sensorimotor knowledge has been extended by Noë: Subjects see redness as a property that objects have to the extent that those objects present a certain color profile given a set of understood color-critical conditions.

VI. From Colors to Properties: Extending the Enactive Account

34. The problem with all of this, of course, is that it is not at all clear that what goes for the perception of color goes for the perception of all other properties (especially those properties perceived under other, non-visual sensory modes). In practical terms, this means that Noë's account (as presented in Noë, 2004) is *incomplete*, and not just in respect to its lack of an account of fact perception (which is my main concern). Insofar as the enactive account is supposed to explain/predict a wide range of perceptual phenomena and not just the perceptual presence in absence of the unattended to features of physical objects, what is needed is an extension of the enactive account to properties as such.

35. In an effort to perform the extension in a systematic manner that can itself be critically examined, let us apply the same approach as that used in the last section. Assuming the problem that drives the view to be that of perceptual presence, and that there are two defining elements of the enactive approach, we should expect that we could reach the enactive view of property perception by extrapolating from how Noë deals with these elements in his account of color experience.

36. One admittedly programmatic way we might try to do this is just to replace the word "color" with the word "property" and words like "see" with the word "perceive" in the description of color perception provided at the end of the last section (§33) and call it a day. Would this work? Let's see:

In order to perceive properties, subjects need to have and apply knowledge of property-critical conditions to their perceptual situations. . . .Subjects perceive a given property as a property that objects have to the extent that those objects present a certain profile of property appearances given a set of understood property-critical conditions.

This is a bit clumsy, but not bad. Piggy-backing on the central idea of the enactive approach, it suggests that there are what we could call *property-appearances* and *property-critical conditions*. The first of these notions, property-appearances, is probably unnecessary, provided that we have a sufficiently broad notion of an appearance. Though all the appearances that we have discussed so far have been visual, including apparent shape, apparent size, and color appearances, there does not seem to be any real controversy in talking about auditory, somatosensory,

gustatory, olfactory, and potentially other appearances as well. A human voice can appear to me to be a trombone; a stinky piece of cheese can appear to me to be someone's feet; and so on. If this is kept in mind, we can drop the notion of property-appearances as unnecessary.²²

37. The (as it were) *found* notion of property-critical conditions comes in more handy. Since philosophers of perception and others have spent a great deal of time talking about color perception they have worked out detailed theories of the color-critical conditions involved in seeing colors. They have even defined a set of "standard conditions" which include things like viewing in full spectrum light of suitable brightness, having one's eyes open, having one's gaze and attention trained on the color stimulus, etc (anticipating Noë's approach, some have even argued that knowledge of these conditions, including even knowledge that they do or do not obtain, is essential to color perception as well).²³ To the extent that a generalized notion of standard viewing conditions for color makes sense, however, it suddenly seems odd that there are (as far as I know) no studies attempting to provide the property-critical conditions for the myriad properties recognized by philosophers of perception and others. The notion of a property-critical condition not only looks helpful, but downright necessary.

38. Here is a related notion that in fact seems to be widely in use, if only in another guise: *property profiles*, a riff on color profiles. For instance, vintners talk about the taste profiles of wines. The sound profile of a trombone playing middle C (or perhaps even just Glen Miller playing middle C?) can be represented as a unique sine wave. Someone trained in perfume creation deals with the most minute details of the profile of a scent she is creating. These uses are well understood, and to the extent that they relate to the phenomena captured by the notion of property-critical conditions, they suggest that such a notion is implicit in our thinking at any rate.

39. What about perceptual presence for properties in the general sense? Is there any confusion that arises when we try to incorporate such a notion? I do not see that there is. To the extent that we can find analogies to color constancy in the other sensory modes, I see no reason to doubt that an enactive approach to property perception could not make sense of them. For instance, consider the property of flatness. I take it that part of attributing the property of flatness to a tabletop is understanding it as being able to safely support objects placed upon it. But turning the table on its end does not rob the tabletop of its flatness. The sort of flatness that supports objects operates as such only when properly oriented. I take it that these

²² Let me make clear that I am not suggesting we drop the notion of appearances in a general account of property perception. The point here is terminological. It seems to me that it would be redundant to speak of "property appearances" since most talk of appearances concerns the appearances of properties anyway. This is not the case when we are talking about color appearances, since we are at that point referring to a specific subset of appearances (those of colors), nor will it be the case when we talk of *fact appearances* below.

²³ See, e.g., Sellars (1956), esp. §§10-20.

thoughts are included in the sensorimotor profile of flatness on an account such as Noë's.

40. Combined, these considerations suggest that the easy extension of the enactive account of color perception to property perception more generally has promise. All properties have property profiles. Property perception is enacted by subjects who apply knowledge of property-critical conditions to their interactions with properties, and cannot be experienced by those lacking such knowledge.

VII. An Enactive Account of the Perception of Facts

41. After the important spade work of the last couple of sections, we are finally in a position to make headway on the main task of the present paper: providing an enactive account of our perception of facts.

42. What is a fact? Like all very basic notions, that of a *fact* is difficult to define. The notion that I am after is broadly Wittgensteinian in intent and has more recently been featured in the work of John McDowell. Following the Wittgensteinian assertion that “The world is the totality of facts, not of things” (Wittgenstein, 1921, ¶1.1), McDowell (1994) endorses a version of fact realism whereby facts are the sorts of things that can be *said* rather than merely *talked about*, and can be *thought* rather than merely *thought about*. As McDowell puts it,

. . .there is no ontological gap between the sort of thing one can mean, or generally the sort of thing that one can think, and the sort of thing that can be the case. When one thinks truly, what one thinks *is* what is the case. (1994, p. 27)

This statement indirectly defines a fact as “that which is the case” and identifies facts as proper objects of speech and thought. The question that interests me is: can facts also be proper objects of perception? Can we make sense of the idea that facts are perceived?²⁴

43. I said earlier (¶3) that Noë seems to overlook facts as something that can be perceived in his presentation of the enactive view of perception. The closest he comes to it is in a discussion of the so-called “transparency of experience” and of the act of making visual art as phenomenological reflection.²⁵ The idea, roughly, is that painters and other visual artists capture experience in the particular stance or style that they take up in their art. For example, an impressionist may use the technique of *impasto* in an effort to give her work a shimmering quality that captures the quality of the light on her subject. Noë calls what the artist would be doing in such cases “attending to” or “discovering” the appearances, and notes that doing so amounts to seeing the world in a different way:

²⁴ This is a point about content; to say that facts are “proper objects” of speech, thought, or experience is to say that they are spoken of, thought about, or perceived. I here leave open the question of the vehicles of speech, thought, and perception.

²⁵ Noë, 2004, p. 179.

To discover appearances is not to turn one's gaze inward, as it were, to sensation and subjectivity. Rather, it is to turn one's gaze outward, to the world, but the world thought of in a rather special way. The painter attends to the world *not as a domain of facts and properties, states of affairs, and so forth*, but rather, to the world as a domain of skillful perceptual activity. (Noë, 2004, p. 179, emphasis in the original)

What I find interesting here is the way that facts are equated with properties as objects of perception. They are here treated as special objects, certainly, in that one attends to them in perception when experience is transparent. But the point is that facts are treated on par with properties as proper objects of perception.²⁶ This gives me hope that an account of fact perception is not anathema to the enactive approach, even if Noë himself overlooks it.

44. What about McDowell? Does he have an account of fact perception? McDowell seems to more or less endorse the idea of fact perception, at least to the extent that he holds that perception is a form of thought and that facts are *experienced* by subjects. To make the position I see here explicit, we can reformulate the McDowellian assertion to read: "There is no ontological gap between the sort of thing that one can perceive and the sort of thing that can be the case. When one perceives, what one perceives *is* what is the case." So for instance, when I see that the cat is on the mat, I am seeing precisely what is the case: that the cat is on the mat.

45. What does it take to perceive facts in this way according to the enactive approach? I suppose the first place to start is with an easy extension of the enactive accounts of property and object perception that have already been discussed. Here is the generalized account of property perception developed in the last section with the word "fact" replacing the word "property":

All facts have fact profiles. Fact perception is enacted by subjects who apply knowledge of fact-critical conditions to their interactions with facts, and cannot be experienced by those lacking such knowledge.

Here again new notions are suggested to us: the related notions of *fact profiles* and *fact-critical conditions*. If we can make sense of these notions, the outlines of the enactive approach to fact perception should come into view.

²⁶ Noë does the same thing when, concluding his discussion of art-making as phenomenological reflection, he says: "For the world as a domain of facts is given to us thanks to the fact that we inhabit the world as a domain of activity" (Noë, 2004, p. 179). A strong reading of this sentence would suggest that, like McDowell, Noë subscribes to an early Wittgensteinian world of facts view, or, even more strongly, that objects and properties are perceived only relative to the phenomena of fact perception. The stronger reading is suggested because it is, according to the enactive view, "the fact that we inhabit the world as a domain of activity" that, by definition, we perceive anything at all. If what we perceive is the world as a domain of facts, then it would seem to be within that context that we perceive objects and properties. I argue for this stronger view in my (Schiller, 2012), but I do not want to defend this as a reading of Noë.

46. Let us start with the notion of a fact-profile. To see what this might amount to, recall the corresponding notion of a sensorimotor profile for object perception. The example we used was perceiving a sphere. Constitutive of an experience of seeing a sphere is that it will present a circular appearance from any orientation of it or the viewer. I experience the sphericity of the sphere to the extent that however I or it moves, so long as it stays wholly in sight, it will present the appearance of circularity. The notion of a color profile plays a similar role in color perception. I experience an object as being red whenever it appears red in standard lighting conditions, appears purple under a blue light, and so on.

47. Using these accounts as templates, I propose that we can understand the notion of a fact-profile in the following way. To say that facts have profiles is to say that when things are the case, certain other things are (1) implied, (2) excluded, or (3) unaffected. For instance, if the cat is on the mat: (1) moving the mat will move the cat; (2) the cat is not on the chair (unless the mat is on the chair); and (3) that the refrigerator is running is beside the point. Perceiving facts is at least in part keeping track of implied and excluded facts. So imagine an infant gazing at a cat on a mat. If (*per impossible*) the mat under the cat were to start rotating while the cat stood still, there is a point, early in its development, when the child will not find anything odd about the scene (as determined by a lack of preferential looking when compared to a scene where the cat moves with the rotating mat). An adult human perceiver would say, “something is not right here. The cat *appeared* to be on the mat, but it clearly was not.” Here I think we should say that the adult human perceiver perceives the fact that the cat is on the mat where the infant does not *because* he (the adult) applies his knowledge of the facts *vis-à-vis* cats on mats.

48. The notion of a fact-critical condition is related to that of a fact-profile, but explaining it will require bringing in the idea that facts have appearances. Consider the fact *that there is a fog hanging over the city*. When there is a fog hanging over the city it can appear to one as if one’s windows are steamed up and vice versa—i.e., a certain appearance is shared by the fact-profiles of i) its being the case that there is a fog hanging over the city, and ii) the windows being steamed up. In order to determine which fact obtains based on the appearance (if the window is indeed steamed up or if there is a fog hanging over the city) subjects can investigate the situation by seeing if other appearances belonging to the two fact-profiles in question obtain. For instance, if one opens the window and the appearance is still as of something steamed up, there is a fog hanging over the city. Here we at least want to say that knowledge of the fact-critical conditions is importantly exploited in determining which fact it is that one is experiencing. But the stronger claim made by the enactive approach, and presented in the last paragraph, is that subjects cannot even be said to experience a certain fact *unless* they have knowledge of the fact-critical conditions.

49. A question that arises at this point, particularly insofar as I want to maintain that the knowledge attributed to perceivers of facts is implicit, is: what is the origin of a subject’s knowledge of any particular fact profile or fact-critical condition? To answer this question it is helpful to note a couple of points about the relation between fact profiles and fact-critical conditions. First, recall that both of

these notions are on my picture mere extensions of more familiar notions appearing in the enactive accounts of color perception, namely those of color profiles and color-critical conditions. This is important to keep in mind, for it provides us a place to start in answering questions about the origins of this type of knowledge in the case of fact perception. At least *prima facie*, fact profiles and fact-critical conditions would seem to be related to one another in just the same way that color profiles and color-critical conditions relate to one another.

50. If that is right—and second—then it is important that we remind ourselves of what we said about colors on this question. As I summed up Noë’s position in ¶33, subjects see redness as a property that objects have to the extent that those objects present a certain color profile given a set of understood color-critical conditions. We can make this point more perspicuous by saying that, according to this way of thinking, subjects perceive redness insofar as they implicitly know what the appearance of a red object would be in various situations where the redness of an object is enhanced, changed, un-perceivable, etc. For instance, I do not take it that a red book loses its redness when the lights have been turned off or when the full-spectrum light bulbs have been replaced with blue light bulbs. At the same time, I know that a red object will not appear different to me if I stuff my ears with cotton or have a bad cold that blocks up my nose. The idea here is that I am aware of what conditions (of myself, of the environment, of the object to which the property belongs) will or will not make a difference to how a colored object appears to me and how, when there is a difference, that difference will manifest itself to me.

51. How do subjects acquire this knowledge? I take it that they do so through experience, through trial and error, and even on the basis of sets of assumptions about how the world works that they may not be able to articulate. Suppose we draw a toddler’s attention to a red ball and ask him its color both before and after we shine a blue light on it. Suppose, further, he first answers red and then, after the blue light is shined on it, answers purple. If we correct him by saying, “No the ball is still red. It just looks purple under this blue light,” we would be explicitly teaching him about the color profile of redness and about how redness relates to the color-critical condition of lighting. But note that whether or not a child is ever explicitly taught such things (and I take it most are not), very few (if any) adults would suppose, when shown the same thing, that the ball had changed its color to purple. Apparently color profiles and color-critical conditions can be acquired without explicit instruction.

52. This gives us a sense of what we ought to say about the origins of a subject’s knowledge of fact profiles and fact-critical conditions. I do not know when I learned that a steamed up window can make it appear as if it were foggy outside and vice versa. Perhaps someone explicitly pointed that out to me; perhaps as a toddler I pointed to a steamed up window and said, “It’s foggy outside” and was promptly corrected and instructed as to the way in which these very different facts (its being the case that the windows are foggy and its being the case that the windows are steamed up) have similar appearances in this regard. But one can just as easily imagine that I, being a curious little guy, went over to the window to get a

better look at the fog, touched my nose to the glass, then noticed, upon stepping back, that there was a little bit of newly transparent glass where I had touched my nose. In short order, I decided that it only *looked* like it was foggy outside because there was something on the glass that I could clean off to make that appearance go away. The upshot of all of this is that though any story about how subjects acquire the kind of knowledge necessary for fact perception on the enactive account is bound to be complex, it is not particularly mysterious or any harder than the story we would have to tell about how subjects acquire knowledge of the profiles and critical conditions of objects and properties.

53. This, then, provides us with the initial formulation of the enactive account of fact perception: subjects are implicitly familiar with the way fact appearances vary as fact-critical conditions change, and it is the enacting of this knowledge that is *constitutive* of fact perception. This extension, I take it, is well in line with the contemporary enactive approaches, including Noë's (Noë, 2004). And, though there is much more to be said on this front, it provides the beginnings of way to take seriously the motivations from natural language and epistemology discussed in §2 above. We can make sense of the notion that subjects perceive facts on an enactive account.

VIII. Objections and Replies

54. A number of objections have been raised to the ideas presented above. Discussing them will shed light on the aims and scope of this project.

55. *Underdeveloped*: One might object that the account of fact perception presented here is underdeveloped. Even if one were moved by the motivations presented in §II and saw value in the account of fact perception sketched in §VII, what work I have done raises more questions than it answers.

56. In a sense, I can only concede the point. The account presented here is indeed only a first step; there is much more to say about what it would mean to take facts as proper objects of perception. Here is a list of some further questions that I think deserve answering: What is the relation between fact perception and the perception of objects and properties? Since subjects are at all times literally surrounded by an infinity of facts, why do they only perceive some facts and not others? How does this account line up with contemporary treatments of perceiving-as? Assuming that an enactive account of fact perception provides epistemologists of a certain stripe a way to ground their position that a subject's experiences contain claims which ground inferences, does said account imply anything about non-propositional know how? I have tried to answer some of these questions in Schiller (2012) by appealing to evidence that ranges over various disciplines, including experimental psychology, existential phenomenology, and the analytic philosophy of language—but of course much remains to be said. As I hope is clear, though, the incompleteness of the work done so far is not a reflection on the nature of the fact perception view as such. It is, rather, a testament to the unexplored richness of the very notion of fact perception.

57. All the same, I do want to make clear that the work done above has been substantial. I have extended a popular version of the enactive account of perception by showing how it generalizes to both properties as such and facts as proper objects of perception. This is important, for surely Noë intends his account to generalize to all that which we can properly be said to perceive. Even if Noë were to reject these extensions of his account, I take it that he would owe us a few stories about why, as well as an answer to the question of how far his account is, then, supposed to generalize beyond two-dimensional objects and colors. To my mind, and I hope now to yours, the current limits of Noë's account appear unexplained and unmotivated.

58. *A Vicious Regress?*: One might worry that there is a vicious regress in the very notion of a fact appearance.²⁷ If there are facts about which appearances facts have, then it seems that I must be committed to saying that there must be ways that *those* facts about fact appearances must appear. If so, now we seem to need to talk about *second-order appearances of fact appearances*. But, of course, if there are facts about second-order appearances of fact appearances, then it seems that *those* facts, too, must have appearances. So now we seem to need to talk about *third-order appearances of second-order appearances of fact appearances*. And so on. This seems absurd.

59. I have two things to say. First, in no way do I want to suggest that all facts have appearances. Facts, like objects and properties, divide (though not neatly) between those that have appearances for us and those that do not. The thought is familiar in the case of properties. That the table has the property of being composed of atoms is not something I can perceive. The reason is that atoms, themselves tiny objects, are not perceptible at the level of their individuation. Yet no one says (for this reason) that therefore properties must not have appearances, or that there are no property profiles for the subject to master. There is no reason that a similar distinction between perceptible and imperceptible could not be countenanced in the case of facts.

60. Of course, saying this does not stop the regress by itself. At this point, the ball has merely been shot back into the objector's court, where it will, I believe, die unreturned. But (and this is my second response) it does raise the question of where—approximately, if not exactly—the line is between perceptible and imperceptible facts. The objector has every right to want to know more about this.

61. As it happens, I think this is a complex issue. Indeed, it can only really be treated after the relationships between property, object, and fact perception have been discussed in more detail.²⁸ So what we say here must only be provisional. Briefly, however, the answer rests on the way that facts involve properties and objects. Seeing *that there is a cup of coffee on the counter* requires seeing (among other things) the cup, which, in turn, requires seeing light waves bounced off the surface of the cup. To the extent that facts involve properties—for which the

²⁷ I would like to thank an anonymous reviewer of an earlier draft of the present essay for bringing this issue to my attention.

²⁸ See Schiller (2012).

distinction between perceptible and imperceptible is relatively straightforward and comes down to the distinction between sensory and non-sensory—the distinction between perceptible and imperceptible facts comes down to the distinction between perceptible and imperceptible properties. This is to say that, for any given fact, that fact is perceptible only to the extent it involves a perceptible property, and thus imperceptible otherwise.²⁹ The way to stop the regress, then, is to show that second-order facts about fact appearances do not involve sensory properties. Though I cannot argue the point here, I believe that this is so insofar as second-order facts about fact appearances are purely logical, concerning as they do not the proper objects of perception themselves, but how those objects are perceived. Another way to put the point that might be of help to some is to say that higher-order facts about the appearances of that which is perceived are exhibited, not grasped.

62. *Self-Undermining*: Doesn't my appeal to sensory properties prove that we do not perceive facts? If the only way to make facts perceptible is to appeal to sensory properties, then we have all but admitted that facts lack perceptible appearances. Again, a satisfactory answer to this objection would require more space than I have here. But, at bottom, insofar as this is an objection and not just a challenge, this objection begs the question against the account developed above. My aim in this paper has been to take the first steps in providing an account of the perception of a largely unrecognized proper object of perception. Recognizing facts as proper objects of perception will require us to expand our notions of perceptibility. If an objector wants to insist on holding to an account whereby only properties can properly be said to be perceived, thus denying the very possibility of the position that I am trying to make intelligible, there is little I can do about that, at least directly. As stated above, I am motivated by considerations arising from issues in various domains, each of which, largely on their own, point toward a hole in our theories of perception. As a result, then, any debate between an objector such as the one under discussion here and myself would, it seems, have to take place at the level of motivations.

63. *The Abandonment of the Sensorimotor?*: One last objection before I conclude. In “extending” Noë's sensorimotor account as I have done here, one might ask, haven't we left behind precisely that which made Noë's account compelling in the first place, namely: an active engagement with the world? If, as I have argued, the way to extend the enactive account to facts is to recognize the perceiver as knowledgeable of, and sensitive to, fact profiles, which look to concern the *logical* relations between facts and those facts which are implied,

²⁹ This is grossly oversimplified. A slightly more accurate thing to say would be that perceptibility (on my view) is a function of the two Kantian elements of experience: the sensibility and the understanding. That which is perceived (i.e., experienced, in part, *via* one or more sensory modes) necessarily has elements of both. The sensible element is grounded in the perception of properties that our sensory systems are attuned to. The element of understanding is grounded in fact perception. It is because the perceptibility of facts is so much a function of our understanding that I can here only suggest the full account which makes clear which facts could be perceived and which facts could not.

excluded, or unaffected (see ¶47 above), then the fact-perceiving subject seems only to need the ability to keep track of logical relations between facts. Acting, moving, changing perspectives in physical space—those things which are the hallmarks of Noë’s sensorimotor account (in Noë, 2004 and elsewhere)—seem to be irrelevant to fact perception.

64. But this is not so. To see why not, let us consider how we ought to respond to a similar challenge directed at the (admittedly extended) enactive account of the perception of objects. In particular, consider what we would say about seeing a table to have the property of flatness (i.e., to see the table as being flat). As I suggested in ¶39, it seems correct to say that part of attributing the property of flatness to a tabletop is understanding it and treating it as being able to safely support objects placed upon it. Even so, turning a table on its end does not rob the tabletop of its flatness, even if it does rob it of its usefulness as a table. Flatness does not cease to exist when it merely fails to be oriented so as to be useful. To use the jargon developed in §VI above, the profile of the property of flatness as such does not include orientation as a property-critical condition, even if the property profile does include orientation. I take all of this to be uncontroversial.

65. But then here comes the problem. Note that, on such account, that I could safely set my drink upon a flat table does not involve me moving; an upturned table will not appear to have a flat top if only I turn my head in *just the right way*, when the horizon of my visual field is parallel to the tabletop, say. It is the *table* that needs orienting, not me; it is the table that must (in some sense) “act” by being turned the right way. If the subject can perceive the flatness of a table *despite the incorrect orientation of its top*, an orientation which stops him or her from treating the tabletop as flat in the conventional ways (e.g., by setting a coffee cup on it), then, one might worry, haven’t we lost track of the centrality of the subject as active in this “extension”?

66. To answer this question, let us back up a minute and consider Noë’s discussion of color. In ¶33 above I said that, according to Noë, color perception involves implicit knowledge of color-critical conditions which relate apparent and real colors to viewing conditions. But I also said that color-critical conditions must be conceived generally so as to include the states of the environment, the perceived, and the perceiver. Focusing on the perceiver, this is just to say that standard viewing conditions include distinctions between standard and nonstandard perceivers. Take, for example, someone who is under the influence of a powerful hallucinatory drug or experiencing a yellowing of their visual field. The subject cannot crane her neck, peer, or squint³⁰ in an effort to change their status as non-standard perceivers. This does not mean that the notion of standard conditions is anathema to Noë’s enactive account. The subject who knows that she is under the influence of a powerful hallucinogen or that her vision has been yellowed as symptom of some disease can—like John the necktie salesman (in Sellars,

³⁰ These are Noë’s examples of actions that subjects perform to enact their experiences (see Noë, 2004, p. 1).

1956)³¹—learn to recognize when they are in nonstandard conditions and speak and judge accordingly. But it does mean that—by Noë’s own lights—the enactive, sensorimotor account must be extended so as to include a broader notion of action on the part of the subject than may be initially implied by his frequent talk of craning, peering, squinting, and so on.

67. My claim, then, is that Noë himself has *already* extended the notions of action, and the attendant understanding of sensorimotor dependencies between subjects and the objects of perception that he is willing to countenance (i.e., physical objects and colors) in ways that my objector finds questionable. If so, the account developed here stresses action in ways already recognized by Noë and so has not abandoned anything.

68. What we ought to say in the case of the upturned table is that the reason its top lacks the relevant property of flatness even when I have turned my head such that the horizon of my visual field is parallel to its top is because neither orientation (neither that of my head nor the tabletop) is such as to allow the action that defines the flatness in the sense of safely placing objects upon it. In this case, my experience is characterized by what I *cannot* do (just as it was in the case of the nonstandard perceiver for whom the world has a yellow hue). If this is right, then the way to properly recognize the perceiver as active *vis-à-vis* facts, which stand in logical relations with one another, is to get a grip on the way in which holding a certain fact (or set of facts) to obtain both *encourages and constrains* the active subject. This is a complicated topic for another time, to be sure. But, as I hope is now clear, the enactive account of fact perception does not undermine Noë’s sensorimotor account by abandoning the privileged place of the active subject.

IX. Conclusion

69. In this paper I have attempted to provide an initial sketch of an enactive account of the perception of facts. My account was built following the lead provided by Noë’s accounts of object and property perception, accounts which are keenly sensitive to the phenomenological facts of perception in general, and in particular to the sense of completeness that we have in our experiences: the phenomena of perceptual presence in absence. In the process I have defined notions new to the philosophy of perception, including the metaphysical notion of a *fact profile* and that of a *fact-critical condition*, the latter of which relates facts to subjects. According to my account, subjects enact their perceptual experiences of facts by acting on the knowledge they have of how things are as they perceive them and how those facts relate to the facts which imply and are implied by them.

70. Again, I do not claim completeness for my account. For one thing, object, property, and fact perception are clearly related. Just as one cannot specify a fact without mention of objects and properties, so one cannot explain fact perception without making sense of the role that object and property perception play in it. This leaves room for many possibilities that are in need of exploration. It may be

³¹ §§14ff.

that fact perception as here defined could collapse back into the accounts of object and property perception. This would be to suggest that there is nothing special about fact perception over and above the perception of properties and objects (and, perhaps, nothing special about facts over and above the objects and properties that appear in them). My view, however, is that fact perception cannot be reduced to object and property perception in this way insofar as objects and properties are perceived only in the context of our perception of facts. After all, I do not see bare colors or lone coffee cups; I see such things as that my coffee cup is in need of refilling, that yours is already in the dishwasher, and so on. Insofar as perception is structured so as to provide subjects with experiences of this sort, it seems to me more likely that object and property perception are, in a sense, abstractions of fact perception, not the other way around.³² If so, showing as much would be a significant result, both as concerns our understanding of perception, but also in regards to those disciplines where the notion of perception appears, e.g., in epistemology, in the philosophy of science, in aesthetics, just to name a few.

71. Further, since fact perception depends on subjects being able to keep track of (and, in a sense, *maneuver within*) fact-critical conditions, it would appear that fact perception is somewhat cognitively demanding. This raises many questions: What creatures can perceive facts? What capacities explain their being able to do so? I have not attempted to answer these important questions. It is possible (I suppose) to hold that the account of fact perception I provide is correct, but then also hold that certain subjects (perhaps even including ourselves!) could fail to meet its demands. If so, it could be used in the construction of an argument that this or that subject cannot perceive facts. At the very least, it seems likely that certain subjects must fail to perceive certain sets of facts.

72. Finally, I do not want to claim that my extension of the enactive account to fact perception is the only one possible. My approach is, admittedly, somewhat programmatic, and perhaps worthy of suspicion for that reason alone. That's okay with me. Whether or not my attempt is ultimately successful, it is, for me, a means to an end. The motivations discussed in §II are what drive me. If there are other, better ways to respond to these motivations, I am open to them.

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³² See Schiller (2012).

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