

Accounting for the Specious Present: A Defense of Enactivism

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I argue that conscious visual experience is essentially a non-representational demonstration of a skill. The explication and defense of this position depends on both phenomenological and empirical considerations. The central phenomenological claim is this: as a matter of human psychology, it is impossible to produce a conscious visual experience of a mind-independent object that is sufficiently like typical cases, without including concomitant proprioceptive sensations of the sort of extra-neural behavior that allows us to there and then competently detect such objects. I then argue that this view, which is a version of enactivism, best explains the temporality of conscious experience — what is often called *the specious present*.

Keywords: visual experience, enactivism, specious present, consciousness

We are living organisms that continuously engage in a dynamic, embodied coupling with our environment. Does this truism tell us anything essential about human perceptual experience?

There is a very well-entrenched position regarding the relationship between perception, cognition, and action that says: “No.” Following Susan Hurley (1998), I will call it the *classical sandwich*. This is the input–processing–output way of understanding the relationship between perceptual experience, cognition, and action, respectively. It construes conscious visual experiences, for example, as the upstream causal inputs that are only later cognitively processed in a way that facilitates appropriate action as an output. To simplify the discussion that follows, and also because it represents the dominant version of the view, I will henceforth use a certain admittedly roughly hewn version of naturalized functionalism as my working example of the classical sandwich.¹ On such a view, we can understand

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¹Other, currently less popular versions of the classical sandwich include a sense-data theory, adverbialism, and certain characterizations of direct realism. I will not discuss the merits or faults of these positions here.

conscious visual experiences, for example, as representations that are the emergent computational result of the activation of a dedicated set of neural pathways; namely, those that reliably respond to the observable shape, color, and motion properties of nearby objects. This version of the classical sandwich acknowledges the obvious point that conscious visual experiences typically cause, result from, and coincide with extra-neural bodily acts. But this, along with the above truism, only points us towards how visual experience is contingently developed and causally influenced by one's body and surroundings. According to the classical sandwich, this must be distinguished from its essential computational properties as an input for downstream cognition and action.²

In this paper, I will explicate and defend a view that denies the more traditional view. The position I defend is a form of *enactivism*.³ In my view, everyday visual experience is something we act out; it is a demonstration of a kind of know-how. This resembles the views of so-called *sensorimotor enactivists*. Alva Noë, for example, maintains that to consciously visually experience an object just is to demonstrate one's mastery of its relevant sensorimotor profile; that is, of how one's bodily movements (would) correspond with certain characteristic changes in relevant sensory stimulations.⁴ According to Noë, as I understand him, our habituated interactions with our surroundings not only shape how such mastery develops, but also how mastery manifests itself on a particular occasion. To visually experience something on a particular occasion just is to act out or demonstrate this so-developed mastery of the relevant sensorimotor contingencies. Thus, in Noë's view: "perception is not something that happens to us or in us, but instead is something we do" (2004, p. 1).

In the next section, with a focus on conscious visual experience, I will both introduce and provisionally defend my own version of enactivism. I will then go on to argue for its explanatory superiority in accounting for the *specious present*, which is a relatively standard term for the structural way we consciously experience time. Thus, a methodological point is in order. In what follows, one assumption is that if the classical sandwich were true, a certain version of it would provide the most plausible explanation of certain structural (that is, ubiquitous and suitably

²This is sometimes expressed as the claim that extra-neural bodily actions and skills cause but do not constitute actual visual experience. For defenses of this idea, framed as criticisms of the sort of sensorimotor enactivism I discuss below, see Block (2005); Adams and Aizawa (2001, 2008); and Aizawa (2010).

³Enactivist views vary significantly. The modern forms of the view stem from Varela, Thompson, and Rosch (1991). However, the basic idea can be traced back to a certain interpretation of Heidegger (1929/1962); as well as to Husserl (1954/1970, 1968/1997); Merleau-Ponty (1945/1962); and Dewey (1896), among others. Prominent defenses of sensorimotor enactivism, which I briefly discuss, include: Noë (2004, 2009); O'Regan and Noë (2001); O'Regan (2011); and Hurley (1998). Other versions of enactivism are also defended, for example, in Thompson (2007) and Hutto and Myin (2012). For a nice overview of the popular varieties of enactivism, see Ward, Silverman, and Villalobos (2017).

⁴For example, we implicitly know that a coin sitting on a table will gradually appear larger and more circular in shape as we approach it from the side.

generic) features of ordinary first-person conscious visual experiences of the mind-independent world. On the other hand, I shall assume that if these same features can be more plausibly explained by the sort of enactivism I articulate below, this thereby provides defeasible reasons for adopting it over other views. So, the more general question that is only partially addressed in this paper is whether phenomenology can aide in telling us whether my version of enactivism or else some variant of the more traditional alternative holds for everyday cases of consciously experiencing the mind-independent world.⁵ (I will not here address the admittedly important matter of how enactivism might account for hallucinations and/or illusions.)

Some will question this methodology. For example, many theorists have denied that we should reference the first-person perspective for data if we are genuinely trying to understand human cognition. But, although here I cannot adequately address why this worry is mistaken, thankfully I am not alone in seeing phenomenology as a rigorous and potentially fruitful methodology for studying the mind.⁶ In tandem with some relevant empirical considerations, I hope to put it to good use in the discussion that follows.

The Enactivist Approach

In this section, I will both explain and provisionally argue for a certain version of enactivism. My aim here is primarily expository, with the hope of preliminarily sharpening the debate. The idea is to set the stage for the main arguments offered in the next section.

Let's call the *Good Case* a relatively globally understood situation involving a typical adult's bodily interactions with her surrounding environment, including but not limited to conscious visual experiences of aspects of that environment. According to enactivism, in Good Cases, consciously visually experiencing our surroundings is just one of many skills that we are then deploying. In particular, it is a demonstration of a practical mastery of a certain dynamic and continuous process of interacting with one's surroundings. As I shall understand it, a dynamic process is one that systematically evolves in real time, in a way that reflects the interdependent relationship between its components (Port and van Gelder, 1995, Ch. 1).⁷ Consider

⁵ Here and throughout I will be using the term "phenomenological" in the general Husserlian sense that relates to a careful, first-person examination of what it is like to experience the world, and any related conclusions. For discussion of the relationship between phenomenology, so understood, and cognitive science, see Petitot, Varela, Pachoud, and Roy (1999); Gallagher (2005); Gallagher and Zahavi (2012); and Thompson (2007).

⁶ See previous footnote. In short, the mistake involves conflating a careful phenomenological investigation with a kind of free-wheeling introspectionism. For a brief but helpful discussion of the difference, see Gallagher and Zahavi (2012, pp. 16–49).

⁷ The properties of such systems are the focus of dynamic systems theory. For a general discussion of *dynamic systems theory* and how it can inform cognitive science in a way that potentially challenges a more traditional, computationalist approach, see Port and van Gelder (1995).

weightlifting. Suppose we wish to capture what is going on when one does a set of bicep curls to exhaustion. Typically, one would start off doing the repetitions in a rhythmically patterned, relatively uniform manner. But as one's muscles become exhausted, the rhythm slows, and the successive repetitions become more and more dissimilar to one another. In other words, one's performance degrades over time, and the relevant point at the moment is that referencing how this action is manifested in real time puts one in a much better position to understand why and how it degrades. To instead describe a dynamic process like this in a way that is abstracted from its real time performance — as, say, just a set of twenty bicep curls — would, if nothing else, present an incomplete picture of matters. For example, it would necessarily gloss over certain important differences between two distinct performances, such as those related to timing. (Suppose the first set took longer than the second.)

Next, by *continuous*, I mean a dynamic process of a sort where the behavior of the components evolves in both a simultaneous and analog fashion. For this reason, it is at best unnecessary to here pick out temporally asymmetric inputs versus outputs, causes versus effects, etc. Consider, once again, an individual repetition of a bicep curl. When everything is going as expected, such a performance involves an interdependent relationship between the smoothly flowing (rather than discrete-step-involving) movements of one's muscles and limbs, and the similarly analog movement of the dumbbell. When engaged in this skillful activity, it is the analog limb movements that cause the analog dumbbell movements, which simultaneously cause the analog limb movements, etc. Mid-repetition, it would simply be wrong to assign an asymmetric temporal order to the process of limb versus dumbbell movement: it is not as if, say, first one's arm moves and then the dumbbell moves, or vice versa. Rather, by that time, both are already behaving in an analog, simultaneously interdependent way.

Finally, if we want to capture the skillful nature of a dumbbell repetition, we can't simply talk about the continuous relationships it involves. (Consider that the celestial bodies found in our solar system exhibit the same kind of relationship.) Briefly, to exhibit a skill is to demonstrate one's practical mastery of a relevant abstract space: namely, the space of possible continuous relationships between one's bodily movements and the surrounding world. One demonstrates such mastery by navigating through the world in a way that amounts, more precisely, to navigating through that abstract space. The point is Gibsonian: it can be well-enough described using his famous concept of an affordance (Gibson, 1986; see also Chemero, 2003). So, in the relevant Good Case, when I lift a dumbbell I demonstrate my practical mastery of the more general fact that it affords lifting. In order for this to occur, the dumbbell and my body must have a certain kind of physical structure and overall functionality that makes this along with many other interactions possible. Moreover, as an active bodily movement, any such demonstration is affect and/or impulse-driven — what I will henceforth call *desiderative*. In Good Cases, I skillfully navigate through the relevant

space of possibilities because, trivially, I desire that particular interaction at that time. I then lift the dumbbell because I then desire to finish that set. The desire (affect, impulse, etc.) is thus both what initiates and also what helps to sustain the relevant behavior. If it weren't in place, I would either not lift at all, or else give up halfway through.

It is important to emphasize how in such cases one demonstrates a mastery of possible continuous relationships. Mid-skillful-repetition, it is not as if I then merely demonstrate a practical mastery of how moving in a certain way accomplishes (full stop) a certain desirable interaction with the dumbbell. Nor is it a case where I demonstrate how having accomplished (full stop) a certain desirable interaction now makes a certain finite set of possible subsequent bodily movements optimal, given what I desire. This is not the right way to look at things because, mid-repetition, there is no full stop accomplishment. Instead, the action is a constantly ongoing, fundamentally analog demonstration of my mastery of how certain bodily movements and dumbbell affordances are, more generally speaking, simultaneously interdependent.

I am now in a position to make a crucial phenomenological point — one that will eventually help to distinguish my version of enactivism from other positions, including more traditional views. Namely, as desiderative bodily interactions of living organisms, such skillful demonstrations are essentially proprioceptive. As a different example, consider the act of keeping your arm extended out in front of you while your eyes are closed. This ongoing process is both a case where a certain desirable behavior is what you proprioceptively sense; as well as, simultaneously and interdependently, one where what you thus sense determines optimal behavior. One here engages in self-aware (i.e., proprioceptive) sense-acting — the hallmark of skillful behavior. For dumbbell repetitions, a form of proprioceptive awareness is of course equally essential. I demonstrate a mastery of a skill in this case, only because I have at that time a kinesthetic sense of how my body is then desirably moving; a sense that itself helps to determine optimal movement. Of course, in this case, along with proprioceptive awareness, the interaction with the dumbbell also helps to produce the relevant movement. It follows that certain properties of the dumbbell (rather than just of my hand and arm position) help to cause the movement. However, in order for this to be a typical skillful act, the conscious detection of such properties must be coincident with the relevant conscious proprioceptive awareness.⁸ This is for a very straightforward reason: living organisms will typ-

⁸I am, frankly, unsure of the force of this “must.” I am certainly prepared to present it as a strong claim about human psychology. However, at least in this paper, I will leave open whether it should be taken in a more robust sense. Thus, at least for the purposes of the present discussion, I would be happy to admit that my position is compatible with, say, the metaphysical possibility that things are otherwise.

ically consciously sense the dumbbell's properties with their feeling bodies. (Of course, that a living, feeling body is typically involved also explains why skillful behaviors are fundamentally desiderative.)⁹

A similar story can be told for skillful actions involving surrounding objects that, unlike dumbbells, are not themselves moved by one's body. Generally speaking, perhaps the most ubiquitous "object" of this sort will be the room in which one finds oneself, or else the surrounding outdoor space. For example, if nothing else, to walk into a room is to interact with the floor in a skillful way. So, in the relevant Good Case, while walking I competently navigate through an abstract space of possible interactions peculiar to my body and the floor. This is clearly the result of the fact that both the floor and my body have a certain kind of structure and functionality that facilitates this happy coupling. Furthermore, this skillful action can only be accomplished because I have a feeling body that desires that interaction and also consciously detects both the relevant properties of the floor, as well as the changing position of my body.¹⁰

The point arguably generalizes to all Good Cases. Notice that, typically, although we are not always walking and/or working out, we are seemingly always in the middle of demonstrating some sort of skillful bodily interaction with respect to our surroundings. Whenever we are conscious, we do not simply detect certain aspects of our surroundings, but also necessarily simultaneously proprioceptively sense our feeling body as it interacts with those same surroundings. Therefore, teleologically, consciousness exists for the following reason: for living organisms like us it is instrumental for achieving the desirable, sometimes even rather pressing aims of the moment. Consciousness is, then, indispensably purpose-driven; and, in that sense, action-oriented. In short, being conscious keeps us alive. According to enactivism, and in stark contrast with the classical sandwich, this telos is essential to consciousness.

I am now poised to articulate the central claim of this section, which is that in a Good Case visual experience is just another example of an indispensably desiderative and proprioceptive interaction with the surrounding world. In various relevant respects, visual experience is no different from walking or working out.¹¹ To

⁹For useful recent discussions of the intimate connection between living, desiring, and conscious experience, see Maiese (2011, 2016).

¹⁰The same basic idea could be applied to any present, relevantly significant physical force. For example, when holding one's hand out in front of oneself, although one is not touching any object, one there and then interacts with the force of gravity.

¹¹This is essentially Merleau-Ponty's view. He claimed that motor intentionality is the primary mode of conscious visual experience. The way we engage the world consciously is not via a process describable as "I think;" (or, in more modern terms, "I represent that...") but rather, "I can" (Merleau-Ponty, 1945/1962, p. 137). Following ideas that stem from a certain reading of Heidegger, the basic idea is that visual experience is first and foremost a pre-reflective *practical* rather than cognitive (representational) engagement.

visually experience an object in a Good Case is to competently navigate through an abstract space of possible relationships between behaviors of my eyes, head, neck, etc. — what I will henceforth call *visual behavior* — and certain affordances of nearby objects. Whenever you visually experience something in a Good Case, your body is constantly accomplishing something. When an attractive person walks into the room, visual behavior helps you glance at them — they catch your eye. When a ball flies in one's direction, visual behavior helps you keep it centered in your visual field as you track its movement. When I'm trying to find my keys, visual behavior helps me home in on their position on the table in front of me. Generally speaking, then, visual behavior helps me accomplish the task of remotely detecting various (properties of) objects. Visual behavior does this only because such objects have properties that afford remote detection. In Good Cases, visual experience thus bears all the hallmarks of a skill. Arguably, it is essentially nothing more or less than desiderative, self-aware sense-acting. I only engage in visual behavior in Good Cases because it is in some sense desirable to do so. Moreover, the conscious detection of, say, an object's color will always there and then include proprioceptive awareness of visual behavior. As you read this you will notice that you simultaneously feel how your eyes are open and scanning the page, how your head and neck are oriented in a certain way, etc. So, as I want to understand the position, the distinctively enactivist phenomenological claim with respect to visual experience is this: living organisms like us could not consciously visually experience actual nearby objects in a normal-seeming way, unless we also had at that very instant an equally conscious proprioceptive awareness of the skillful visual behavior required to detect those same objects. This view would be falsified if it were shown to be psychologically possible to produce a visual experience of an actual object that was sufficiently intrinsically similar in its visual phenomenal quality to the one you are now enjoying, without producing both forms of consciously accessible sensations. According to enactivism, you simply cannot, even in some idealized yet still informative sense, “factor out” the relevant kind of proprioception and still visually experience the world in the way that you now do (see footnote 8 above).

Arguably, if one is tempted to call the possession of this competency a kind *knowledge*, then that is only because it evinces a living animal's disposition to reliably accomplish a certain desirable project. But notice that even a bacterium demonstrates the possession of such “knowledge” when it competently swims towards sucrose.¹² (Needless to say, a proponent of the classical sandwich would wish to here highlight certain important differences between our behavior and that of a bacterium. I address this below, when I discuss the role that representations can play in our actions.)

Of course, in many respects, vision is quite different from the cases discussed above. For one thing, your eyes do not actually physically touch the objects seen,

¹²The example of a bacterium swimming towards sucrose is taken from Thompson (2007, p. 154). However, he there uses it to make a somewhat different point.

whereas your feet touch the floor, your hands touch the dumbbell, etc. In that sense, although it is true that the object indirectly does something physically to your eyes and visual system, visual behavior does not involve direct physical contact with the surface of a seen object. Nevertheless, although my eyes don't physically do anything to the objects I see, proprioceptive awareness of the relevant skillful behavior allows for something much more fundamentally important: it allows my eyes to physically do something *to the project* of remotely detecting an object's properties. Proprioceptive awareness perpetually helps me continue to competently accomplish that desirable project. Also, simultaneously, accomplishing that project by way of the physical movements involved does something to my feeling body. Namely, it shapes optimal skillful visual behavior.

However, one thing to notice is that, because only remote detection is involved, optimal skillful visual behavior is usually going to be much more open-ended than optimal manual or pedal behavior. If I'm trying to lift a dumbbell, for example, there is a relatively narrow set of optimal behaviors that will help me do so — I can't, say, lift it with just my little finger. That's not the way that a competent weight-lifter navigates through the relevant space of possibilities. By contrast, if all I am trying to do is remotely detect an object and/or its properties, I can do so with a relatively open-ended range of visual behaviors.

In response, a certain proponent of the more traditional view can admit that, in Good Cases, consciousness is purposeful in the ways I've been highlighting. But it simply does not follow that consciousness is essentially purposeful. To lend plausibility to the classical sandwich — a view that divorces what is essential to visual experience from purposeful action in the ways mentioned earlier — this imagined objector might argue that the experimentally confirmed modularity of the neurological processing responsible for remotely detecting form, color, motion, etc., shows clearly enough how visual experience is functionally independent from both proprioception and affect/impulse. A large amount of evidence suggests that we detect such properties via neural pathways that run from the retina to relatively specific areas of the visual cortex and beyond, in a way that can be meaningfully neurophysiologically distinguished from the pathways that subserve either proprioception or affect/impulse. So, although in Good Cases a conscious visual experience of an object is indeed simultaneous with and causally (including evolutionarily and developmentally) related to skillful visual behavior, the former is still functionally autonomous with respect to the latter.¹³ If so, then

¹³ Some have argued on behalf of more traditional views that neuroscientific data cause serious trouble for sensorimotor enactivism, in particular. Namely, experimental results suggest that the processing responsible for conscious visual experience is functionally distinct from the processing responsible for the sort of vision that subserves manual motor tasks like reaching and grasping. For an overview of this so-called dual-visual systems hypothesis, and a discussion of the extent to which it causes a problem for sensorimotor enactivism, see Gangopadhyay, Madary, and Spicer (2010). One of the virtues of my position is that it straightforwardly avoids this problem. (This is not to say, however, that there aren't other empirical results that might present a different challenge.)

even in a Good Case it would be quite proper to construe visual experiences as essentially quite distinct from both simultaneous skillful extra-neural bodily acts, as well as any desires that initiate and help to sustain those acts. Notice that if this position is defensible, it would allow one to go on to defend the more traditional view that visual consciousness's essential role is that of an input for downstream cognition and action.

Needless to say, I will not here attempt to decide this debate once and for all. Instead, I will spend the rest of the paper offering a particular phenomenologically and empirically informed argument for enactivism.

The Specious Present

Ordinary experiences of mind-independent reality have a phenomenologically irreducible temporal width. When we visually experience our surroundings, for example, we typically not only consciously and pre-reflectively retain what we have just experienced at least a second or two earlier; we also consciously and pre-reflectively anticipate, or — to use the Husserlian term of art — *protend* what is about to happen. The *specious present* is the term often used for the entire span of time that includes what we retain, instantaneously enjoy, as well as protend.¹⁴ As I now gaze at my computer, for example, I both have a conscious pre-reflective sense of the way it looked to me at least a few seconds earlier, as well as a conscious pre-reflective anticipation regarding how it is going to look to me in the upcoming moments.

Henceforth, for simplicity, I would like to focus on the following extremely common class of Good Cases: those where one pays unreflective visual attention to a nearby object or set of objects. For the remainder of the paper, I will argue that enactivism best explains the specious present in these cases, in particular.¹⁵

There is a paradoxical flavor to the specious present. On the one hand, it is not odd to suggest that we have a conscious sense of the way something looks at a certain instant. But how can an object's immediate past and anticipated states also be something of which we are then pre-reflectively conscious? For example, how can I be conscious of a past state that isn't there anymore? Notice that it would be wrong to think of this sort of retention as a form of recollection (Husserl, 1964/1928, p. 41; Varela, 1999, pp. 279–280). My computer's just past color is not something that I retain in the same way that I recall what I ate for breakfast yesterday. There is a perception-like immediacy of the just past color of my computer that isn't true of yesterday's breakfast, nor my recollection of it. An air of paradox

¹⁴For useful discussion of how the specious present relates to an embodied understanding of the mind, see Zahavi (2005). See also Gallagher (2005).

¹⁵For arguments for the claim that certain versions of enactivism best explain the specious present, see van Gelder (1999); Varela (1999); and Thompson (2007, pp. 312–359).

thus surrounds how an object's just past states are something of which I can still be conscious at a present instant. How and why is it that the conscious sense I have of something at a certain moment leaves a noticeable phenomenological residue in subsequent experiences; a residue that is only gradually washed away?¹⁶ A parallel puzzle applies to an object's protended future states. As with retention, this anticipating is not the result of a noticeably separate conscious act — it would be wrong to construe protending along the lines of something like hoping, fearing, or predicting what's going to happen later on in the evening. How, then, can I already be in some sense immediately conscious of an object's potential future states, before any of them happen? This might seem even more paradoxical.

Notice, also, that in the cases under examination, the same paradoxical flavor can be found in how you experience your body while you visually experience the world. When gazing at an object in the relevant cases, you also simultaneously and pre-reflectively have a background proprioceptive sense of both the just past and current relative comportment of the various body parts involved in visual behavior. Moreover, you pre-reflectively anticipate your subsequent bodily position to be a certain way, depending upon your familiarity with both what you are then doing, and more generally capable of doing.¹⁷

In sum, as I shall put it, as visually experiencing subjects, we continuously live through the specious present in a manner that is phenomenologically irreducible. By *phenomenologically irreducible*, I simply mean that there is nothing more basic than the felt body-and-world-involving specious present, as far as what characterizes the structural way we experience the surrounding world in Good Cases.

Despite the initial air of paradox, living through the felt specious present is precisely what one would expect if visual experience is nothing more or less than a demonstration of a skill. Notice, after all, that anything that one successfully and skillfully does at a certain time has a similarly irreducible temporal width. "S is walking at time *t*" is a temporally-wide phenomenon: as a competent navigation through a space of possibilities, it implies that S was doing something just prior to *t* (getting up from a chair), is doing something now (moving her feet), and will be doing something in the immediate future (continuing to walk). I submit that this isomorphism is not accidental. It exists because both walking and visually experiencing the world are examples of skillful action. Arguably, we live through the consciously felt specious present in Good Cases, simply because we are then enacting a skill via visual behavior. Just as we might pre-reflectively engage in the project of walking across the room, in Good Cases, we pre-reflectively engage in the

¹⁶The perception-like immediacy of retention drove Husserl to describe it, famously, as just as paradoxical as a "wooden iron" (1928/1964, p. 415).

¹⁷Useful discussion of this primitive kind of bodily awareness can be found in the following places: Gallagher (2005); Johnson (1990); Sheets-Johnstone (1999); Wider (1997); Legrand (2007); and Maiese (2016).

project of remotely detecting objects (though, as I explain below, we normally do so for larger practical purposes). So, on this view, it is no accident that the specious present simultaneously applies to both viewed objects and to our felt bodily behavior. In fact, according to enactivism, this duality is required. We need both forms of temporally-wide awareness in order to skillfully visually experience the world.

To develop the position a bit further, consider the related phenomenon of familiarity. In the Good Cases in question, we will often experience the world familiarly. This is yet another feature that visual experience shares with skills. After all, generally speaking, a felt sense of familiarity is something that one normally develops along with some relevant skill. For example, an experienced artisan will normally be someone that is familiar with her craft, where this not only means that she effortlessly enacts a skill while she works, but also that the actions feel familiar. If nothing else, it seems fair to say that felt familiarity is a phenomenological indication that one is then engaged in a skillful act. If so, then, just as the artisan's feeling of familiarity is a sign that she is good at her craft, our felt familiarity with our viewed surroundings is a sign that we are good at a project that requires skillful visual behavior. This, I submit, is another piece of phenomenological evidence in favor of enactivism.

That said, there clearly must be more to such visual familiarity than simply being good at remotely detecting objects. For one thing, we can pay attention to and detect (the properties of) unfamiliar objects. But notice that we do not usually look at objects in order to simply detect them, full stop. Instead, skillful visual behavior is normally couched within larger practical aims. For example, we might look at food in order to eat it. So, although felt familiarity is arguably a sign that we've become good at detecting certain objects, this is only because that skill in turn helps us achieve some larger practical aim. Enactivism thus predicts that, developmentally-speaking, my surroundings will not begin to look familiar until I engage in behaviors that holistically situate the skillful viewing of those surroundings, in means–ends fashion, within a larger network involving my overall norm-guided practice.¹⁸ Before the world starts to look familiar, detection must first find a home within a larger abstract space of possible desirable interactions. A banana will begin to look familiar only after the larger project of, say, finding breakfast food has itself become familiar, etc.

Before developing the way that enactivism explains the specious present further, let's discuss where the classical sandwich's way of doing so leaves us. Admittedly, one thing that might seem to help the naturalized functionalist proponent of the classical sandwich is this: at any given time in a Good Case, there is a sense in which the already-experienced and anticipated states of both an object and my body are present, or at least implicated, in the current experience. A functionally autonomous representational process seems well-suited to fulfill the role of

¹⁸Rowlands (2009) argues that this sort of means–end, goal-oriented normativity of action requires a constitutive role for representations in such behavior. I address this below.

providing us with this tripartite past, present, and future-oriented sense. On this view, a currently activated complex set of neurological processes would stand for (reliably indicate) something distinct from themselves (i.e., would be a vehicle for a representation). Namely, they would stand for our body's and some nearby object's past, present, and anticipated behavior. If so, visual representations functionally autonomous with respect to proprioception, by themselves, could be plausibly said to account for the visual experience of the specious present. In like fashion, representational processes could also be posited as what help us go on to develop a sense of familiarity with our visible surroundings. This seems to allow us to divorce what is essential to conscious visual experience from proprioception, while also accounting for the specious present.

At first glance, this position looks plausible enough. But, to begin to see the superiority of enactivism, we can press the following matter: Why would such a tripartite representation ever be a part of our cognitive life? For proponents of the classical sandwich, the primary purpose of visual experience is to serve as an input for downstream cognition and action. One of vision's main jobs would thus be to help to cause (if not also justify) various accurate and/or useful beliefs about our surroundings. In order for it to do its job, vision must of course thereby help us gain a sense of the way in which the objects that surround us persist through time. But why, then, is the experience of the specious present the particular way that vision accomplishes this cognitively significant task? Notice that if vision were essentially a representational input for later cognition and action, it could cause us to believe in the relative temporal stability of nearby objects even if it only gave us a razor thin conscious sense of the present, requiring us to instead gain our sense of an object's persistence, as needed, via reflective acts of recollection and prediction. In this imagined alternative phenomenological structure to visual consciousness, if we did not consciously reflect on the past and/or likely future states of an object, we would continuously experience our surroundings in a way that was too temporally compressed for us to retain or anticipate something even, say, a half-second removed. But, even in this case, as needed, we still could reflectively gain an accurate and/or otherwise useful picture of reality. Why, then, is visual experience not like this? If nothing else, the simple fact that we can ask this question shows that in order to adequately explain the specious present, we must do more than simply demystify how it is delivered in consciousness. We must also plausibly explain why it is so delivered in the first place.

I think that enactivism is better up to the task. Showing this will take several steps. First, without trying to directly discredit the classical sandwich's way of explaining things, I will simply try to show that enactivism is a live option. We shall see that what makes my enactivist account of the specious present different from its more traditional alternative is how it fails to posit representations. So, in other words, my initial aim will simply be to show that nothing about the specious present rationally compels us to accept the classical sandwich, or even something

sufficiently close to it. After devoting quite a bit of time to this somewhat modest aim, I will then argue that enactivism, so understood, better explains the specious present. In a word, it does so because it makes the classical sandwich appear, at best, ad hoc by comparison. We shall see that not only does enactivism arguably adequately explain how the specious present is delivered to consciousness, it also better explains why it is so delivered in the first place.

So, let's commence with the initial task of showing how enactivism is a live option. Baldly put, according to enactivism, the specious present arises because the skillful act of seeing something at a certain instant plays the role of priming the act of consciously skillfully viewing it at a later time. There are two relevant aspects of such priming to consider: first, the sense in which the past skillful act primes the present skillful act; and, next, the sense in which the so-primed present act itself primes the anticipated future skillful act. On this view, retention occurs when the present skillful act of viewing an object has already been primed by one's having just skillfully viewed it. I don't generally just see a ball as red; instead, I see it as, say, remaining red. Arguably, this is only because the skillful experiencing of it as red in the immediately preceding moments, involving as it does the relevant background proprioceptive awareness, thereby primes and, in that sense, automatically so contextualizes my present act of viewing it. If instead I had just watched as a white ball was dipped in red dye, I would now experience it as becoming red, rather than as remaining red. (Of course, I might act the very same way at a certain time, regardless of whether I see the ball as becoming or remaining red. But this only points to the already-noted open-ended nature of optimal visual behavior.) The same sort of dependency operates, in turn, with respect to the relationship between seeing something at a certain moment and protending what is about to happen. The pre-primed act of now looking at an object primes, in identical fashion, how I anticipate the skillful act of looking at it will go. *Ceteris paribus*, I will see a ball that's been sitting on a table in front of me for a while as remaining red. This implies both that it just looked red, and also that I anticipate a general sort of color that it will look to have in the immediate future. For the enactivist, since looking at something red in a Good Case is a skillful act, part of what I anticipate must also include the proprioceptive sensations involved in the relevant upcoming self-aware sense-act.

In sum, on this view, to say I am still conscious of my computer's just past state is simply to say that the act of having just viewed it currently primes the act of now looking at it. In like fashion, to say that I am already conscious of my computer's anticipated states is just to say that the pre-primed act of now viewing it also primes the way I will soon act in order to continue to look at it. To say that we experience things in the specious present, then, is just to say that we experience the world in this irreducibly skillfully-mediated, desiderative, double-primed fashion.

To establish enactivism as a live option that contrasts with the classical sandwich, I must show how this account can work without positing a role for

visual representations. To broach the matter, one might ask: The causal properties of skillful detecting in Good Cases being acknowledged by all parties, what relevance does this have for the question of what is essential to conscious visual experience? Might one be able to admit all of the above, and still go on to support the claim that the conscious visual detection of a nearby object's properties is essentially a kind of information processing? If so, enactivism would in fact not seem to be a very viable option. Instead, we would now seem compelled to accept the classic sandwich's picture of matters. To support this idea, notice that along with the fact that it normally involves skillful behavior, vision typically results from the operation of several distinct neural pathways, each made up of ensembles of neurons and sensory receptors that only selectively respond to a relatively narrow range of stimuli. For example, consciously detecting an object's color is subserved by neural pathways quite distinct from those that subserve consciously detecting motion (Kandel and Wurtz, 2000). Therefore, it might seem plausible to say that when I have a typical, unified experience of a single colored, moving object, this can only be due to how my brain has already synthesized the aforementioned pieces of information.

However, let's grant the obvious point that hierarchically organized, complex neural activity is essential to conscious visual experience.¹⁹ Nothing immediately follows that threatens enactivism. All that this establishes is that such neurological activity is part of what is responsible for the conscious visual detection of various properties of objects. Enactivism remains a live option just as long as i) it is still quite possible that more neural activity must be involved, as a matter of human psychology; and also ii) we can construe the total sum of neural activity in non-representational terms. As for i): if enactivism is right, the above-described neural activity is insufficient for producing a conscious visual experience sufficiently intrinsically phenomenally similar to typical Good Cases. You would also need neural activity that subserves the relevant concurrent proprioceptive awareness of one's skillful visual behavior, as well as that which is responsible for producing the relevant desires that initiate and sustain such behavior. Notice that it would be quite a tall order for the proponent of the classical sandwich to show well enough that, as a matter of human psychology, this is not a live option: it would have to be experimentally and/or anecdotally confirmed that it is possible to produce a typical-seeming visual experience of an actual nearby object, even in the absence of proprioceptive awareness of the

¹⁹By "hierarchically organized," I simply mean that what the brain does in certain areas stereotypically systematically builds on what has already been done in other areas.

desirable visual behavior needed to view that same object at that time.²⁰ To the best of my knowledge, no such confirmation can be found.²¹

But now for the tougher task: we must show how it is a live option to construe all such neural activity in non-representational terms. Doing so will require quite a bit of care. After all, at least in my view, the enactivist would be foolish to deny that representations ever play a role in demonstrating skillful visual behavior. The sophisticated goals within which skillful visual behavior is typically couched will traffic in at least putative examples of representations. Intentionally looking at something will often be instrumental for accomplishing a more complex behavior, including an action that requires us to already somehow occurrently or else dispositionally believe (and, in that sense, represent) that things in the world are one way rather than another. Sometimes I consciously remember that there's a sandwich in the fridge, and this thought both initially motivates and subsequently guides my goal-directed remote visual detection of the fridge handle, as I walk towards it. Other times I find myself unconsciously reaching for the so-detected fridge handle while I'm hungry or bored, without even consciously considering that I am then acting on my memory of the fact that there's a tasty sandwich in there.

However, the enactivist can accommodate the role of such representations. The above sorts of beliefs clearly pre-determine a certain skillfully-mediated trajectory through the relevant space of possibilities. But, as long as the acts of visual detection so-involved proceed in a way that is not similarly pre-determined or otherwise representationally constrained, there is no sufficiently compelling reason to see the conscious visual experiences themselves as representational in nature. Obviously, I only successfully track a fridge handle as I walk toward it at a certain time because I believe, say, that there's food in there. To track the fridge handle at that time is thus centrally involved in carrying out a plan. But this can be true even though that act of tracking is not itself something that requires first explicitly or implicitly representing that this behavior is or would be optimal, and/or accomplishes a certain goal, and/or makes for a nice plan, etc.

Generally speaking, whenever a relatively complex action goes well, much of what happens is the result of reliably executed bodily movements that we nevertheless do not consciously plan, but which instead proceed automatically. Arguably, this is because these actions (can) proceed without the mediation of any representations, properly so-called. Perhaps, then, optimal tracking behavior is something I am instinctually (or else, through conditioning, habitually) disposed

²⁰ Notice, then, that it would not be enough to merely establish that it is metaphysically possible to divorce visual experience from proprioception. Even if one finds this divorce conceivable, that is irrelevant. See footnote 8.

²¹ The case that perhaps comes closest to falsifying my position is the now famous account of Ian Waterman (Cole, 2016). Ian lacks proprioceptive awareness from the neck down, but still has typical visual experiences. However, briefly, this case does not straightforwardly threaten my position for the simple reason that Ian still has proprioceptive awareness above the neck.

to engage in as a living, feeling organism. If so, then it is a live option to suppose that the execution of this act (can) proceed(s) without a pre-given conscious or subconscious motor plan with a certain representational content.

Notice that, generally speaking, the relevant kind of behaviors are quite common. Setting aside visual experience for the moment, putatively non-representationally mediated skillful behaviors of a living organism are quite often couched, in means–ends fashion, within larger practical aims. Consider any behavior governed solely by the intrinsic dynamics of antagonistic muscle pairs. As Loeb and Ghez (2000) write:

When standing still, little or no ankle muscle activation is required to stabilize your body over your ankle joints. But consider the problem of trying to stand on the deck of a small boat pitching back and forth in the water. Now you must apply large forces rapidly in order to pull the center of mass back from any direction. By contracting the ankle muscles before these perturbations occur, you increase the stiffness at the joint [As a result, when] the body is rapidly thrown in one direction, the muscles that normally pull in that direction suddenly shorten and their tension drops abruptly, while those that pull one back suddenly lengthen and their force increases The resulting changes in force are quite large in precisely the direction required to keep your balance. *Furthermore, these intrinsic changes in active force are instantaneous.* (p. 689, my emphasis)

As long as we are first poised with a stiffness that braces us for what is about to come, any behavioral response to the rocking of a boat will be instantaneous, largely determined solely by the intrinsic dynamics of the antagonistic muscle pairs found in our ankles. In this case, our instantaneous behavioral responses to boat movements are not mediated by any cortical activity. This is clearly a case where a complex voluntary behavior — keeping myself steady on a topsy-turvy boat — is modulated by acts that are themselves governed solely by the laws of physics for a dynamical system. Certainly no consciously accessible pre-given motor plan with representational content is constitutively involved in the way that we, once stiffened, instantaneously respond to various erratic boat movements. Moreover, governed as it is solely by the intrinsic dynamics of the system, it would be at best ad hoc, and at worst plainly false to suppose it is mediated by a subconscious motor plan. Rather than any pre-given plan, the laws of physics intrinsic to the system take care of things all by themselves. It's something that we do, but without a CPU.

Clearly, then, some skillful behaviors of an organism — that is, some cases of self-aware sense-acting that involve competently navigating through an abstract space of possible interactions with one's surroundings — can be non-representationally governed solely by the intrinsic dynamics of the relevant system. For any skillful behavior so-governed, it would be at best ad hoc to therein posit a role for either conscious or subconscious representations; and so, there would also be no reason to posit a role for a CPU-like brain/CNS. Albeit provisionally, let's now try to push this as far as it will go.

In fact, reflexes are another example of a non-representational and yet physical-law-abiding process that operates solely according to the intrinsic dynamics of the system. Consider the spinal stretch reflex. Extend one of your index fingers. Now use your other hand to very lightly pull the index finger back in the wrong direction, so that it is slightly hyperextended. When you let go of it, it is very likely that your index finger will involuntarily bend towards your palm in an overcompensating fashion. Even though such a behavior involves a process much more complex than the one described above, including as it does an interaction between sensory and motor nerves in the spine, it is still putatively non-representational. After all, it is realized entirely by the spine and surrounding nerves. Nothing supraspinal needs to be activated when such a reflex plays out. Without any physiologically necessary role for stereotypical cortical activity, there is just no place for anything we might even want to call “information” to need to go for subsequent processing before the relevant action occurs. For that reason, there’s no compelling reason to label anything “information” in the first place. Once again, then, plausibly, what is happening here is that the behavior proceeds independently of any implementation of a pre-given motor plan with representational content. But, free though it is from representations, the connection between stretching a muscle and the subsequent contraction is still law-like, *ceteris paribus*. This is indeed because it unfolds solely according to the intrinsic dynamics of the relevant system.

Now for the crucial point. Reflexes are not neurologically realized solely by pathways south of the brain stem. So-called *long-loop* reflexes include cortical activity. As Krakauer and Ghez (2000) write:

When a standing human subject pulls on a handle, the sudden postural perturbation elicits a rapid counter-response in the stretched muscle *at a latency shorter than a simple reaction time but longer than for a spinal reflex*. . . . Such rapid motor adjustments are mediated mainly by relatively simple transcortical pathways through which somatosensory inputs reach the primary motor cortex directly via projections from the thalamus or primary sensory cortex. (p. 767, my emphasis)

It would be transparently ad hoc to admit that spinal reflexes do not involve processing information, but then cling to the idea that long-loop reflexes do, simply because they include cortical activity. And with this empirically informed result in place, enactivists have their opening. For, we know that object detection in typical cases is continuously governed by (at least) two complementary reflexive behaviors. Normal control of gaze continuously requires enacting the vestibulo-ocular and/or optokinetic reflex. Discussing the vestibulo-ocular reflex, Goldberg (2000) writes:

Stabilizing the fovea when the head moves requires information about head motion. This information can be supplied by the visual system — because the image moves on the retina when the eyes move with the head — but this visual processing is relatively slow. *Instead, the nervous system relies on sensors in the inner ear that detect head motion directly*. Information on movements of the head and the position of the head relative to

gravity is processed by the vestibular system. *This information is used by the vestibulo-ocular reflex to move the eyes directly without relying on visual information to control the movement.* (p. 783, my emphasis)

This passage is instructive for many reasons. First, and perhaps most importantly, it shows straightforwardly how object detection in Good Cases is a reflexive behavior.²² Move your head from side to side as you read this, and you will notice the reflexive way that your eyes remained trained on these words. This all happens instantaneously — very much like the steadying behavior of one's stiffened ankle muscles on a rocky boat. You are able to read in this case, then, only because the visual behavior involved is reflexive. But, quite clearly, the reflexive stabilizing of an image while your head is moving is just a special case of a more general capacity to keep one's head and body properly oriented while looking at something. This is always automatically and instantaneously going on in Good Cases, whether one's head is moving or not. The act of seeing is thus no less reflexive than any of the other cases discussed so far. Thus, we have no more reason to suppose this behavior requires representing something than we did for those previous cases. Next, the passage also points towards how, not surprisingly, proprioception is inextricably involved in ongoing reflexive skillful visual behavior. Sensors that detect head motion are required. It would be obvious why, at the conscious level, this would normally culminate in ongoing proprioceptive awareness of your head's position while you enacted desirable skillful visual behavior. Lastly, although quite unintentional, the above passage nicely illustrates the ad hoc character of the classical sandwich. How is it that a *reflex* can “use information?” To me, this makes about as much sense as saying that my spine “processes information” when I enact a spinal stretch reflex. Talk of “information” here is strained, at best. Certainly, if nothing else, it is a live option to drop such talk altogether.

Substantively, then, the enactivist position regarding the role of representations in skillful visual behavior comes down to this. The only meaningful way in which representations play a role in such behavior is through the influence of occurrent and/or dispositional beliefs. But, although visual behavior is normally motivated by dispositional and occurrent beliefs, the enactivist argues that neither one is required for skillful visual behavior. Ontogenetically, this would mean that adult-like visual phenomenology develops only after we learn how to properly use our eyes, head, neck, etc., but perhaps well before we learn how (or else well after we have lost the ability) to think/speak linguistically.²³ This predicts that

²² The optokinetic reflex operates in a roughly similar fashion, but in a way that involves slower head movements. The two reflexes thus continuously govern control of gaze in a tandem, complementary fashion. For discussion see Goldberg and Hudspeth (2000, pp. 809–810).

²³ This, of course, points to an enactivist view of development. On this view, how we come to gain basic conscious visual experiences like those involved in objection detection only after we go through a drawn out process of shaping various conditioned reflexes with respect to certain objects, but not others. If this can be shown to be governed solely by the intrinsic dynamics of the relevant

the crucial role for the brain would be to initiate an infant's relevant instinctually determined interest-driven behavior, within which skillful detection would come to be instrumentally couched. It would follow that felt emotions and/or other impulses would be instrumental for producing the skills, and hence the experiences. If this were to hold up, then arguably the only way to stick to the idea that skillful visual behavior requires a representation to pre-determine it, would be to say that very basic dispositional beliefs are somehow what do so. On this view, the full story of what is involved in control of gaze would reveal that there is a relevant motor plan pre-determined by dispositional beliefs; it would be these beliefs that are somehow processed by the brain when we enact the relevant reflexes. However, this is clearly somewhat desperate. Employing dispositional beliefs in this way seems, predictably by now, rather ad hoc. In my view, it distorts the notion of "representation" beyond recognition.²⁴ For notice that if we thought that dispositional beliefs with representational contents constrained even the reflex-driven skillful visual behavior undergone at a very young age, then we would seem forced to say that the same is true of a bacterium that skillfully swims towards sucrose. But, plausibly, a bacterium could behave in the relevant way (governed by the intrinsic dynamics of the relevant system) without there and then making use of a dispositional belief that, say, food is up that way.

Rather than starting with any such beliefs, enactivism claims that a living organism begins with the ability to enact certain reflex-oriented, instinct and/or habit-driven skills, as a result of its genetic endowment. The organism, then, through the course of development, goes on to behave in a way that maps onto an increasingly more complex web of affordances that eventually corresponds with and culminates in sophisticated means-end voluntary behavior constrained by occurrent and/or dispositional beliefs (see Thelen and Smith, 1994). If this turned out to be correct, then the only thing acting as an organizer and/or synthesizer of information would be the conscious living, feeling organism itself. The brain would still be properly seen as playing a central role in development; but, not as something that receives and processes representational inputs. Instead, it would simply be that which helps a living, feeling, organism behave in a way that maps onto the relevant affordances. The brain could do so by initiating the relevant instinctual and/or habit-driven behaviors, without doing anything akin to running software. Instead, according to the enactivist, a conscious living organism's ability to organize information would be a kind of meta-skill that it (can) develop(s).

Finally, it is important to see that although developing this meta-skill would indeed include learning how to organize information pre-reflectively — through

system, then enactivism would be experimentally vindicated. For what I see as important steps in this direction, see Thelen and Smith (1994).

²⁴For a useful discussion of the problematic way that the notion of a representation is often used in cognitive science and naturalized philosophy of mind, see Ramsey (2007).

allowing oneself to be influenced by dispositional rather than just occurrent beliefs — this kind of information organizing would be nothing like the sort of subpersonal processing that seems friendlier to the classical sandwich. The difference would be that, in the case of pre-reflectively conscious information access, the living organism would normally be quite capable of accurately reflecting on the fact that they are so-constrained. Although it influences us pre-reflectively, the information would be accessible because and only because it is expressible, *ceteris paribus* — it would not be subpersonal. Suppose I am unconsciously constrained by my dispositional belief that there's a sandwich in the fridge. *Ceteris paribus*, this would mean that I could, say, if prompted, there and then reflect on the fact that I am now reaching towards the fridge handle because I believe there's food in the fridge. Of course, this opens a can of worms. What is it to have such beliefs? How should we individuate them? But, details aside, the point at the moment is just that there is no danger here of collapsing into a view that is friendly only to the classical sandwich: whatever is involved here, it would be nothing like reflecting on, say, the (functional properties of) the activity of a set of neural pathways! There would still be no compelling reason for supposing that subpersonal processing by my brain was here or at any other time involved.

To sum up the important preliminary point I have been trying to make: to say that visual experience is inextricably goal-directed and desiderative does seem to require positing a role for representations as constraints on the complex behavior within which skillful visual behavior is normally instrumentally couched. But, for all of the reasons given, the enactivist can admit this while also plausibly arguing that the so-couched skillful visual behavior involved is not “representational” in any theoretically useful sense of that word.

Of course, one might ask: Even if it turns out that the actions required for skillful visual behavior do not require a role for representations, what about the conscious visual experiences themselves? There is a vast literature that surrounds the intuitive idea that simply having an experience with a sufficiently structured visual phenomenal qualitative character either just amounts to a representation, or else, say, provides the supervenience base for it.²⁵ The question of what is involved in the bodily acts required for skillful detection now being set aside, how is it a live option that no representations are involved in the more narrowly circumscribed visual experience? What is an enactivist account of phenomenal character?

To answer these questions, one needs to distinguish possessing intentionality from representing. Intentionality refers to an experience's aboutness, where the object that the experience is about is known as its intentional object. A well-known move of phenomenologists, however, is to claim that the intentional object

²⁵For well-known defenses of the view that phenomenal properties reduce to representational properties, see Harman (1990); Dretske (1995); Tye (1995, 2000) and Lycan (1996). For defenses of a contrary view that says that phenomenal properties are not so reducible, see Peacocke (1983); Block (1980) and Shoemaker (2007).

of an ordinary veridical visual experience is nothing other than the spatiotemporal object(s) in question (Husserl, 1979, p. 305; 1913/1982, pp. 207–208). And, in like fashion, if the enactivist is correct in thinking that conscious proprioceptive awareness is inextricably involved, then the intentional object of that sort of awareness will be one's physical body. So, what is true is that in Good Cases the conscious visual experience obviously has intentional objects; but the enactivist will argue that since those objects are just the spatiotemporal items in question, intentionality is not at all a case where the conscious experiential process stands for something, as it were, by proxy. (Notice that this is quite compatible with the idea that complex, hierarchically organized neural activity is essential to visual experience.) The (intentional) objects in question are just there as the skillful interaction plays out. There is a reason that you consciously visually experience tables and chairs in the specious present, but not individual air molecules. Namely, unlike tables and chairs, individual air molecules lack the causal properties that help give rise to the inextricably proprioceptive bodily interactions that allow the project of continuously consciously visually detecting them in desiderative, double-primed fashion to become sufficiently competently accomplished, let alone familiar. So, what we ought to say is that in Good Cases, conscious visual experience is the continuously unfolding process of a living organism's *making* both its body and the surrounding world intentionally present; including the relevant past, current, and anticipated states.²⁶

Arguably, then, it is quite possible to deny that consciously visually experiencing an object's color, shape, and motion in a unified fashion amounts to subconscious information processing. Instead, according to the enactivist alternative, to so consciously experience a nearby object it is to have found with one's body a thing outside of oneself that affords the detection of these and other properties that allow for skillful viewing to unfold. Although the matter no doubt requires careful subsequent investigation, it may turn out that in Good Cases it is the object rather than one's brain that, if you like, "does the work" of unifying color, shape, and motion properties.²⁷ Intentionality, on this view, is something I live through because I have already, in a sense, achieved it with respect to my *Umwelt*.

No doubt there are a lot of further questions we could ask about an enactivist understanding of visual phenomenal character. But recall that my aim so far has been somewhat modest: I merely want to show that enactivism is a live option for accounting for the specious present. So, with the outline of this account more or less securely in place, the main explanatory advantage that enactivism has over its rival can now be straightforwardly uncovered. For, recall that the task was not only to explain what delivers the specious present to consciousness,

²⁶ For a similar view regarding how enactivism explains the so-called *transparency* of normal conscious experience as a skillful achievement, see Ward (2015).

²⁷ As Brooks (1991) famously puts it: "the world serves as its own best model" (p. 145).

but also to explain why it is so delivered in the first place. To that end, the reason why the double-primed acts governed by the intrinsic dynamics of the relevant system (rather than anything properly called information processing) would ever occur in the first place is quite straightforward: with them happening automatically and relatively instantaneously, the practical function of helping us detect objects for various larger purposes becomes much easier to accomplish. An artisan probably couldn't perform his craft as easily if he had to constantly stop and reflect on everything he is doing. Similarly, I couldn't as easily detect objects for various larger purposes if my conscious sense of a moment was too temporally compressed. In short, the specious present exists, on this view, because so experiencing the world makes life much easier. This is of a piece with the enactivist view that visual experience is fundamentally action-oriented, rather than merely an input for later cognition and action.

Of course, what this means should not be overstated. For one thing, nothing in principle bars the proponent of the classical sandwich from the following reaction: visual experience does indeed play a practical function, but this is only because it is essentially an input for later action. The practical function of an input wouldn't change the fact that it is, essentially, an input. But, although far from amounting to a knock-down refutation of the classical sandwich, my hope is that by now this sounds rather ad hoc.²⁸ To drive home the point, we can examine the basic idea discussed in the previous paragraph from a different angle. Arguably, the practical utility of vision illustrates why subpersonal processing, properly so-called, couldn't be involved. In brief, it would take too long! Consider what would happen if keeping ourselves steady on a boat required conscious or even unconscious planning on our part, rather than unfolding according to the intrinsic dynamics of one's antagonistic muscle pairs. We'd probably be thrown overboard. I take it that it is reaching, at best, to say that what must be really going on here is that the behavior is instead governed by a different, faster kind of processing local to the muscles themselves. Similarly, suppose we were born without the reflexes that so efficiently allow for object detection, and instead had to (subconsciously) process everything. In a word, life would be rough. And, as my discussion of the above quote from Goldberg illustrates, I would again point out that it is rather ad hoc to say that what really goes on here is just a faster kind of processing. To repeat, I don't quite know what it means for a reflex to "use information." My hope is that this, combined with the above outline of an enactivist account of intentionality, shows clearly enough why it would be reaching, at best, to continue to maintain a functionalist classical

²⁸ However, recall that my arguments are only designed to apply to a naturalized functionalist version of the classical sandwich. Whether it applies to other versions of the more traditional view, such as sense-data, adverbialist, or even certain forms of naïve realism, is not something I'll address here. Moreover, even if what I have said in this paper is correct, whether we should go on to reject the classical sandwich altogether is also a quite separate matter. This would require weighing all of its theoretical advantages against all of its drawbacks, and comparing these results to enactivism.

sandwich's account of such matters. Of course, avoiding sounding ad hoc or otherwise problematic on this particular score is perhaps a relatively modest advantage that enactivism may have over its rival. The fight is far from over.²⁹ But, arguably, it is a noteworthy advantage for all that.

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²⁹ Admittedly, the strong phenomenological claim that my favored version of enactivism makes requires a careful treatment of various experimental results and case studies. I would be glad to take this discussion up on another occasion.

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