Do Puzzles about Spatial Experience Undermine Standard Representationalism? Comments on Farid Masrour

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In his paper "Space Perception, Visual Dissonance and the Fate of Standard Representationalism", Farid Masrour develops a sophisticated and ingenious empirical argument against "standard representationalism" about phenomenal consciousness. David Armstrong, Alex Byrne, Fred Dretske, David Hilbert, Christopher Hill, William Lycan, and Michael Tye have defended views in the vicinity of standard representationalism. Many think that it is our best shot at reductively explaining phenomenal consciousness and its world-directed intentionality. So if Farid's argument against it succeeds, this would be a significant result.

Here is my take. I'm with Farid in rejecting standard representationalism (I think it is undermined by other empirical research, on the experience of sensible qualities like color and taste and sound). I also believe that there are serious puzzles for representationalism about spatial perception. But I'm not totally convinced yet by Farid's own argument involving an example in which one tilts ones fingers back (but I may be missing something and I am very willing to change my mind once I hear what Farid has to say!). I am also not totally sure (again maybe my fault) why this example is supposed to be tougher for standard representationalists than other examples in the literature (Peacocke's two trees, the tilted penny). And I am not yet quite sure yet about a much stronger claim Farid makes (p. 14 and p. 27), namely that representationalism in general (not just "standard representationalism") cannot adequately account for spatial perception. Why not keep representationalism, but reject the reductivist or objectivist aspirations that usually go along with it? That is, why not accept representationalism, but reject *standard* representationalism as Farid defines it? This is my own inclination.

My plan is as follows. Farid actually gives two arguments, which I will call **the actual within-subject argument**, and **the hypothetical between-subjects argument**. The first focuses on an actual, within-subject example, while the second focuses on a hypothetical, between-subject case. The arguments seemed to me to be quite different, so I will discuss them separately. In §1, I will raise some clarificatory questions about Farid's actual within-subject argument. In §2, I will ask some questions about Farid's hypothetical between-subjects argument. In §3 I will ask some remaining questions.

1. Questions about Farid's Actual Within-Subject Argument

Before looking at Farid's example, let me start with two somewhat similar examples discussed by Christopher Peacocke and others. The reason I will start with these examples is that one might naturally wonder: how does his example differ from previous examples? How is his argument superior to previous ones?

Suppose you look at two identical trees, one farther away than the other. Because of the different distances, your experience of the one tree and your experience of the other differ in what they are like. Similarly, if you look at a coin straight on and then at a tilt, your experiences differ in phenomenal character. We can ask standard representationalists the following question: in these cases,

what's the difference in the representation of response-independent spatial properties which constitutes the phenomenal difference? (The "naïve realists" like Michael Martin and John Campbell face a problem here too.) If the standard intentionalist cannot provide a satisfactory answer, then these examples provide an argument against her view.

There are two standard responses to these cases available to standard intentionalists (I'll ignore "Fregean" and response-dependent views: like Farid, I think they're implausible (see the concluding section §3) and anyway they are not compatible with standard representationalism as Farid defines it). One is the **misrepresentation response.** On this view, in the two trees case, your experience represents them has having different sizes *simpliciter*. Likewise, your experience represents the tilted coin as elliptical *simpliciter*. So the experiences misrepresent (Lycan 1996, McGinn 2004). (Likewise, Tye and Byrne and Hilbert accept misrepresentation in response to Block's *et al.'s* concerns about variation in unique hue settings.) But we ignore the unreal shapes and sizes and manage to form roughly true beliefs because of constancy mechanisms. In fact, on one version of this view, the content of experience is itself layered, and there is another layer of content that attributes the "true" shapes and sizes to things, which explains our easy grasp of the true shapes and sizes. (On this view, the different layers might be incompatible.)

The second response, **perspectivalism**, avoids systematic error and is more popular among standard representationalists and representationalists in general (Harman 1990, p. 38; Tye 2000, p. 70; Chalmers 2004, p. 160; Dretske 2003, p. 77-9; Bennett and Hill 2008; Hill 2009). On this view, every object has a huge swarm of perspectival sizes and shapes. (Similarly, in response to variation in color vision (Block and others), the standard representationalists might say that every object also has a huge swarm of colors or color-looks.) Thus, the same tree has different perspectival sizes from different distances. What's a "perspectival size?" Perhaps these perspectival sizes can be explained in terms of visual angle: they are properties subtending a visual angle of n degrees with respect to place p. Likewise, the coin has the property of being elliptical with respect to place q. On one view, this property is a rather baroque counterfactual property: the property of having a shape that *would be* occluded by an ellipse, *if it were* placed in a plane perpendicular to the line of sight. Another view is that the property of being elliptical with respect to place q is not a counterfactual property: rather, the property of being elliptical with respect to place q is the property *actually occluding from place q an exactly elliptical region directly behind the object*.

On the perspectival response, our visual experiences actually represent these perspectival properties. The idea is that, as you move around, your location in the world enables you to glimpse these different, pre-existing perspectival shapes and sizes that things really do have. This accounts for perceptual relativity. Thus, your experience represents the two trees as having different perspectival sizes, and your consecutive experiences of the coin represent it as having different perspectival shapes (round-from-here and elliptical-from-here). The perspectival response differs from the misrepresentation response: while the penny is obviously not elliptical *simpliciter*, it *is* elliptical-from-here. So this view doesn't accuse spatial experience of systematic error.

The perspectival response comes in two versions. **Strong perspectivalism** holds that the only spatial properties experience represents are these "perspec-

tival" properties. By contrast, **Weak perspectivalism** claims that in addition our experiences represent the true, non-perspectival sizes of things: being the same size simpliciter, being round simpliciter, etc.[1]

So much for background. Now let us turn to Farid's case. To a first approximation, Farid's case goes like this. Make a V sign with you hand, with your fingers upwards. Focus on the angle. Now tilt the V sign forward. There is a phenomenal difference. So, the standard representationalist about spatial perception must say that there's a change in what response-independent properties your experience represents. But what's that change?



Farid's **actual within-subject argument** (p. 7) is meant to show that, wherever he turns, the standard representationalist cannot adequately respond to this challenge.

But, at first blush, it appears that the same responses are available in the fingers case as are available in the tree case and the coin case: the misrepresentation response and the perspectivalist response. On the misrepresentation response, at one level, your experience misrepresents the angle as larger when you point your fingers forward. On the perspectivalist response, by contrast, there is no misrepresentation: your second experience accurately represents the fingers as having-a-greater-angle-from-here. (Compare the perspectivalist treatment of the coin.)

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[1] There is an empirical wrinkle for perspectivalism of any stripe. Here is how Christopher Hill (2009, 163) puts it:

> When the distance of an object from an observer is doubled, the angular size of the object is decreased by half. But the change in apparent size is much less than that. Especially at close ranges, the rate of change in the [apparent] size of an object as it moves away from you is significantly less than the rate of change in its angular size.

This is obvious and has also been born out by empirical study. As early as 1931, R. H. Thouless performed studies on this matter. So, unless the perspectivalist is happy with systematic illusion, apparent size cannot even be identified with angular size. Hill's response is not to reject perspectivalism but modify it: Hill identifies apparent sizes and shapes with properties of objects he calls *Thouless properties:* 'the values that are obtained when certain computable functions [constancy transformations] are applied to angular properties (together with various other quantities)' (165). This is a bit unclear to me. To say that a property is a value that results from a certain function is not to say *what it is* and under *what conditions it is instantiated*. One idea (suggested to me by Hill in discussion as a possibility) is that a perspectival Thouless shape is identical with a massive disjunction: *being an x such that either x is subtending a visual angle of size V1 and is in "other" circumstances C1 or x is subtending a visual angle of size V2 and is in "other" circumstances C2*, etc., where the relevant circumstances involve parameters that the visual system uses to achieve perceptual constancy.

There are well-known problems with the misrepresentation response and the perspectivalist response in the case of the tilted coin and the trees. Does Farid think that there is something special about his fingers case that makes these responses even worse off in this example than they are in the two trees and tilted coin examples?

Farid (3-4) does say that his example has a unique feature:

> I want to emphasize that the phenomenon of dissonance is different from the effect of perspective on experience. When I say that E-up and Eup are dissonant, I mean that these experiences present *the non-perspectival size of the V angle differently*. . . . . E-up and E-tilt are dissonant with each other in the sense that *they seem to disagree about the size of the angle.*

Let **Incompatibility** be the claim that the two experiences really are incompatible as regards angle. Thus Incompatibility entails the misrepresentation response. Let **Seeming Incompatibility (= Dissonant Experiences)** be the claim that they at least *seem to be* incompatible, that is, appear to represent different, incompatible angles. Notice that this is a claim about how the experiences seem. So it reports an introspective seeming.

Now Farid clearly endorses *Seeming* Incompatibility. Does he think this introspective seeming is veridical? Does he also endorse Incompatibility outright? Or does he reject Incompatibility, claiming that it only *seems* to be the case? I think Farid is somewhat inconsistent on this. On the one hand, in some places[2] he pretty clearly endorses Incompatibility. On the other hand, Incompatibility would entail the misrepresentation response. Yet Farid says (p.26) we have good reason to *reject* the misrepresentation response. I will return to this apparent inconsistency at the end of my comments (in §3). For now, all we can confidently attribute to Farid is Seeming Incompatibility.

So, Farid thinks is unique about his example is that Seeming Incompatibility holds in that example but it *doesn't* hold in the tree example or the coins example. In this way, as he says, "the phenomenon of dissonance is different from the effect of perspective on experience".

But I think that Farid hasn't identified a clear difference between cases like the tree and the coin and his "fingers" case. I agree with Farid that Seeming Incompatibility doesn't hold in the tree case and the coin case, but I disagree with him when he suggests that it holds in his fingers case.

To support this: Suppose you experience a tree close up and then you experience it a bit farther away (so, I'm moving to a single tree case). Do the two experiences seem introspectively to be incompatible? Do they seem to represent different objective sizes? Does Seeming Incompatibility hold? I don't get that impression at all. Likewise, when I experience a coin straight on, and then at an angle, I don't get the impression that the experiences are incompatible, and represent in-

[2] At the start of the paper (pp.1-2) he writes: "the angle now seems to have a size that is bigger than the size that it seemed to have when it was facing upwards". In the caption for the picture of the fingers (p. 2) he asserts outright "E-up and E-tilt disagree about the size of the angle of the V." Elsewhere in the paper he also writes that these experiences "give us the impression that the V-sign has a different non-perspectival size in the two occasions" and "The seeming non-perspectival size of an angle changes as the result of some rotations".

compatible shapes. In both cases it just seems I am getting different takes on the same chunk of reality. (It's hard to characterize the difference in how things look – it's a bit murky.)

So far, so good: Farid would agree that Seeming Incompatibility doesn't hold in the tree case and the coin case. But, he claims, his fingers case is unique in that here Seeming Incompatibility does hold. This is what I think is not clear. I cannot appreciate a big difference between the examples here. Just try the experiment yourself. Make a V with your fingers, and then tilt. Does it seem to that your consecutive experiences are incompatible, representing different, incompatible angles? For myself, the answer is No. It does not seem that my experience represents or presents a new angle. I just have a different take on the same angle. Or, at least, on the face of it, Seeming Incompatibility is *no more* gripping in this case than it is in the case of the tree or the coin.[3]

So, I think there is not very strong first-person evidence for Seeming Incompatibility. Now it is true that Farid has a very interesting section (1.2) on empirical findings. But, as far as I could tell, Farid does not use these empirical findings to *further support* Seeming Incompatibility. Rather, in this section, he is taking it for granted, and he is after an empirical explanation of *why* it is true: he starts the section by asking "What explains Seeming Incompatibility?". So this section didn't move me any further the direction of Seeming Incompatibility. And, whatever the empirical findings, Seeming Incompatibility just doesn't ring true, at least when I introspect.

But for now let me waive this point and assume for the sake of discussion that Seeming Incompatibility holds in Farid's fingers case but doesn't hold in the tree case or the coin case. Let's turn back to the initial interpretive question: What's the special feature of Farid's fingers example that makes the usual standard representationalist responses – the misrepresentation response and the perspectivalist response - even worse off in this example than they are in the two trees and tilted coin examples? Since at the start of his paper Farid says it deserves emphasis that Seeming Incompatibility holds in his fingers case but not in the trees case or the coin case – this is something he really flags as distinctive - I expected that it would play an important and obvious role in his arguments against standard representationalism. But, on the face of it, it doesn't play a big role. I can see where it *might* play *some* role. However, it took some work on my part: Farid does not clearly highlight its role in his subsequent argument.

Let me first note that at many points Seeming Incompatibility doesn't play any role in Farid's reasoning, before coming to the point where it might be playing some role.

Farid argues that the standard intentionalist cannot accept the misrepresentation response. He only says that there is no strong theoretical motivation for mis-

[3] Two points by the way. First, Farid's picture on his paper (which I reproduced above) is a bit misleading: since it is two dimensional, the angle of the fingers in the two pictures really is different. Second, I think that in some such cases Seeming Incompatibility might be right. Thus, suppose you experience two black wires at a right angle against a white background. Now suppose the wire figure is tilted back. But suppose no external depth cues are present, so it's hard to tell that the figure was tilted back. In this case, Seeming Incompatibility might be true: it might seem that the second experience represents a different angle, one greater than 90.

representation based on considerations about "isomorphism", action or belief.[4] (Incidentally, if Farid is right about Seeming Incompatibility, wouldn't that itself be an argument for the misrepresentation response, one he overlooks?) A different (and, I think, more convincing) point Farid makes is that the misrepresentation response goes against naturalistic theories of intentionality of the kind endorsed by standard representationalists – after all optimal conditions appear to obtain even when you tilt your fingers. So, whatever you think of the misrepresentation response, it is not something *standard representationalists* can happily accept. But notice *this point against the misrepresentation response applies equally in the case of the trees and the coin*. So far, it is not clear what is the advantage of Farid's finger example in ruling out standard representationalism.

Now let's turn to Perspectivalism about Farid's fingers case. Let's start with Strong perspectivalism: the view that spatial experience only represents perspectival shapes and sizes. Why does Farid think that the standard representationalist cannot just accept this view in his fingers case?

As against Strong perspectivalism, Farid only says "introspection does not support the idea that we *only* experience perspectival properties". In fact, he says, it is somewhat difficult to take the painterly attitude and find perspectival properties represented in experience.[5]

Two points about this. First, I don't think that these are particularly strong objections against Strong Perspectivalism. A natural response is that we do only represent perspectival properties and can attend to them but we typically only care about objective properties, and this is reflected in our thought and talk (Hill

[4] I didn't quite follow Farid's discussion of isomorphism. At some points he seems to be talking about an isomorphism between our experiences themselves and objects/spatial properties in the world. This is why his objection (p. 17 middle) "they are not in the same space" is relevant. But experiences (on a naturalistic account) are neural things in our head, so if this is what is meant by isomorphism, the idea of an isomorphism here seems like a non-starter or at least hard to interpret (but see "Multivariate Patterns in Object-Selective Cortex Dissociate Perceptual and Physical Shape Similarity", by Johannes Haushofer, Margaret S Livingstone, and Nancy Kanwisher). At other points he explained isomorphism by saying that it obtains between the sizes *represented by* experiences (and not the experiences themselves) and the external size values that objects actually have (see p. 17 top). This is a bit more comprehensible. But I still had a hard time following the overall discussion and why considerations of isomorphism might help the misrepresentation response.

I also didn't understand Farid's distinction between relational and non-relational content (p. 19). I think examples would help. Contents are propositions. Can Farid give examples of propositions that are relational contents, and contents that are non-relational contents?

[5] One might have expected Farid to give the following argument against perspectivalism based on Seeming Incompatibility: "The fingers case is unique because here Seeming Incompatibility (dissonance) holds. This supports Incompatibility. Incompatibility rules out any form of perspectivalism because on perspectivalism there is not an incompatibility between your experience of your fingers straight on and your experience of them tilted [as explained above]. Incompatibility shows that in this one case the misrepresentation response must be right. But the misrepresentation response is incompatible with the naturalistic theories of intentionality endorsed by standard representationalists (after all optimal conditions obtain even when you tilt your fingers, etc.); so standard representationalism runs afoul of the fingers case. In other words, the fingers case is a case of "normal misperception", and one that the standard representationalist cannot handle. This is why it is a unique case, different from the tree case and the tilted coin case." If Farid had said this, then I would have understood why Farid he thinks his fingers case is superior to other cases that have been discussed in the literature, and I would have understood why Farid emphasizes Seeming Incompatibility at the start of his paper. (But I would have repeated the point made above – that I don't have a stronger Incompatibility impression in his fingers case.) However, this is not Farid's line of argument.

2009, 157-9).[6] So, I think that there is a lacuna in Farid's actual within-subject argument against standard representationalism: as far as I can see, the standard representationalist might happily just go with Strong Perspectivalism, as for instance Chris Hill seems to do.[7]

Second, we are still left with an interpretive puzzle. Evidently, Farid thinks his fingers case is somehow unique in a way that makes it a more decisive counterexample to standard representationalism than other cases in the literature, such as the tree case and the coin case. But, while he does say how he thinks the case is unique – here he thinks Seeming Incompatibility ("dissonance") holds – he doesn't make it clear how this is playing a crucial role in his argument. So far, it looks like an idle wheel – a kind of epiphenomenal feature of the case. All of Farid's objections so far considered are ones he could have made to the misrepresentation response and the strong perspectivalist response in the case of the trees or the coin. They do not rely on the feature (Seeming Incompatibility) that he thinks is unique to his fingers case.

Now let me turn from Strong perspectivalism to Weak perspectivalism. On this view (Tye), your experience of your fingers represents their perspectival angle-from-here *and* their rough objective angle. When you tilt your fingers back, your experience represents roughly the same objective angle, but it represents a different (larger) perspectival angle (as well as now representing that the fingers are tilted). That accounts for the phenomenal difference.

Farid doesn't explicitly address Weak perspectivalism; he only addresses Strong perspectivalism. But the weak version avoids the main objection he raises against the strong version. That objection was that "introspection does not support the idea that we only experience perspectival properties". This is not an objection to weak perspectivalism, because weak perspectivalism denies that we on-

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[6] It's also worth noting that one of Farid's objections to Strong perspectivalism misses the mark. He objects that when you look at the tilted penny "it does not seem that we only experience and elliptical shape". But, while this might be a good objection to some versions of the misrepresentation response, it is not a good objection to strong perspectivalism. For on strong perspectivalism we don't (mis) represent the coin as elliptical (an intrinsic property it doesn't have): we represent it as *elliptical from here* (a relational property it does have). So our experience isn't saying there is an elliptical shape out there.

[7] There other reasons for thinking that standard representationalists cannot happily accept perspectivalism that Farid might have mentioned. Many theories of representation, for instance Tye's causal-covariation theory, require a causal-explanatory connection between a representation and what it represents. But intuitively our experiences are not causally explained by perspectival properties like Tye's rather baroque property: the property of having a shape that would be occluded by an ellipse, if it were placed in a plane perpendicular to the line of sight. Does the hypothetical fact that the shape would be occluded in this way really causally explain the tokening of the brain that realizes your experience under optimal conditions? Other theories of representation require that a representation have the biological function of indicating what it represents. But do the states realizing our experiences really have the biological function of tracking these funny perspectival shape and size properties involving visual angle, and what would occlude what? Aren't the objective size and shape properties more biologically important? Indeed, for those who accept a teleological theory of content, the question arises: why don't our experiences just represent (our visual systems' rough estimations of) the objective shapes and sizes, without representing the perspectival properties at all? (This by the way seems impossible, if it would mean you could have experiences of space without a point of view on the world. (For instance, what would it be like to experience cubicity but from now particular point of view?) A deep question for representationalism of any kind is: why is that impossible? This is related to problems concerning "laws of appearance" for representationalists.)

ly experience/represent perspectival properties – we represent objective sizes and shapes and angles as well, on this version.

So what is Farid's objection to Weak perspectivalism? He doesn't say. But I think his objection is implicit in how he sets out his actual within subject argument. And I think that here we might finally find a role for Seeming Incompatibility, the feature Farid thinks is unique to his fingers case.

Farid thinks that there are these entities, token experiences. And they have a kind of mereology. In particular, he thinks that when you look at your fingers straight on, you have a big token experience that has a lot of little token experiences as parts. One of these little token experiences represents the *objective, non-perspectival* size of the angle, in accordance with Weak perspectivalism. Call that UPnp. (Perhaps the experience has a distinct component that represents the *perspectival* size of the angle; we can ignore that for now.) Likewise, when you look at your fingers tilted back, your experience has a component, the TILTnp, which represents the *objective, non-perspectival* size of the angle. (Further, he thinks that these component tokens represent nothing but non-perspectival size of the angle.)

Now Farid had argued that reductive response independent representationalists are committed to veridicality – for them the misrepresentation response is not available. Indeed, he says that they're committed to saying that UPnp and TILTnp represent the *very same* non-perspectival angle size, A. And they *don't represent anything else* (e. g. they don't also represent different perspectival angle-sizes). So they exactly agree in content.[8]

But, he argues, UPnp and TILTnp differ in phenomenal character (he calls this **Phenomenal Difference**). This is not just the claim that you have a different total experience, when you look at your fingers straight up and then at an angle – which everyone will accept. This is a much more fine-grained claim: the thought is that there are these particular token-component experiences that can be abstracted away from the total experience and that just represent non-perspectival angle size, and that these differ in phenomenal character.

From this it would follow that standard representation – indeed representationalism in general - is false, as Farid formulates that view. For here we have two token experiences with the same content (they represent the same objective angle size but nothing else) but different phenomenal character. (And this argument applies even if Weak Perspectivalism is true.)

But how does Farid show UPnp and TILTnp differ in phenomenal character? This is not easy. To repeat: This is not just the claim that you have a different total experience, when you look at your fingers straight up and then at an angle – which everyone will accept. This is the much more fine-grained claim that UPnp and TILTnp – "components" of your total experiences that represent nothing but the non-perspectival angle – differ in phenomenal character.

At this point we finally see *where Farid seems to be appealing to Seeming Incompatibility*, the feature of his fingers case that he noted at the start of his paper

[8] One response here that Farid considers (in his section 2.4) is that they do not exactly agree in content. They have overlapping but distinct "indeterminacy windows." I didn't understand Farid's response to this. He points out that in some *other* examples "differences in phenomenology are incompatible with overlap in representational contents" – as when you experience two manifestly distinct angles. Yes, but I don't see why we should think that Farid's fingers case is such a case – one where "differences in phenomenology are incompatible with overlap in representational contents".

as unique and important. Somewhat surprisingly, though, he doesn't highlight the crucial place – this is why it took some work on my part to find. He writes (p. 8):

> according to Phenomenal Difference, E-upnp and E-tiltnp do not have the same phenomenal character. This follows the idea that E-upnp and Etiltnp are the parts of E-up and E-tilt that are responsible for presenting the nonperspectival size of the V-angle. If E-upnp and E-tiltnp had the same phenomenal character then **E-up and E-tilt would not give us the impression that the V-sign has a different non-perspectival size in the two occasions**. Therefore, E-upnp and E-tiltnp differ in phenomenal character.

So, Farid is giving an inferential argument for a conclusion about the phenomenal character of his own experiences. He's basically saying Seeming Incompatibility is true in the fingers case. And he's inferring from Seeming Incompatibility that not just his total experiences, but these components of his total experiences, differ in phenomenal character. This is a bit unusual: usually we get *immediate* justification for beliefs about the phenomenal character of our own experiences, and don't need to rely on arguments. But I guess this is a somewhat opaque case, which is why Farid needs to rely on inference.[9]

So, now we also finally see (I think! – he can correct me if I am wrong) why Farid thinks his fingers case is better than the tree case and the coin case for undermining standard representationalism. In the tree case and the coin case, Farid thinks Seeming Incompatibility does *not* hold. So, here there is no argument for thinking that the (alleged) components of the experiences that represent (the same) non-perspectival size/shape differ in phenomenal character. The standard representationalist can say that they have the same phenomenal character, and he can locate the (obvious) difference in overall phenomenal character in these cases in the different component experiences that represent different perspectival properties. So, no problem. By contrast, Farid thinks (although I disputed this above) that Seeming Incompatibility does hold in his fingers case. So (according to Farid) here there *is* an argument for thinking that the components of the experiences that represent (the same) non-perspectival angle differ in phenomenal character (not just the whole experiences) – thus refuting standard representationalism (indeed representationalism of *any* kind! – see step 8 on page 7).

I have four points about this. Because of these points, I have doubts about Farid's actual within-subject argument, even setting aside Strong perspectivalism.

(i) First, as I said above, I didn't think Seeming Incompatibility is correct. Since Farid's argument for the claim that UPnp and TILTnp differ in phenomenal character depends on Seeming Incompatibility, I am not sure we should accept that argument.

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[9] Farid's initial argument for Phenomenal Difference is the one he gives in the passage cited in the text. But on p. 12 he also asserts "Phenomenal Difference is an implication of empirical findings". I am doubtful about that. Phenomenal Difference embodies heavy-duty metaphysical claims about experience – e. g. that your experience has a part that represents only the non-perspectival size of the angle. I doubt that any such heavy duty metaphysical claims follow straightforwardly from any empirical findings.

(ii) Second, even if Strong Incompatibility is true, there is an alternative explanation for why it is true, one that is compatible with both versions of perspectivalism. The perspectivalist doesn't just think the consecutive total experiences represent an objective angle. He also thinks that they represent distinct perspectival angles. Maybe this gives us, or can give us (if we take the painterly attitude), the (mis)impression that they represent different *non-perspectival* angles *simpliciter*, thus explaining Seeming Incompatibility. (A kind of introspective mistake.) This explanation does not require that UPnp and TILTnp differ in phenomenal character. It just requires that the total experiences differ overall in phenomenal character – which, given perspectivalism, is totally compatible with standard representationalism. (The perspectivalist might likewise explain why Russell and traditional sense datum theorists once upon a time thought that in viewing the titled coin they're presented with an elliptical shape.)

(iii) Third, I wonder what Farid's own view is. Farid holds that UPnp and TILTnp differ in phenomenal character. At the end of his paper he says he rejects representationalism. So, I suppose he himself is free to think that they have the same non-perspectival content and yet differ in phenomenal character. But if that is his view, then in what does this difference in phenomenal character consist? What is his "Kantian" view? Is it some kind of non-representational difference in qualia? This is important for the following reason. Farid says that the phenomenal difference between them explains why we have the (on this view, false) introspective impression that they differ in what non-perspectival angles they represent – it is what explains Seeming Incompatibility. But if they do in fact represent the *same* non-perspectival angle size, and if they only differ in some purely *non-representational*, raw-feel way, then how come they give rise to the (on this view, mistaken) introspective impression that they represent different, incompatible angle sizes?

(iv) Fourth, I just have a hard time understanding these claims about the components of my experiences. Suppose you view your V straight on, and then tilted. Now, most philosophers hold that when you view V titled, you undergo a token experience E. But Farid's argument requires more. It requires that E has a part, namely, TILTnp, which just represents the *non-perspectival angle and nothing else*. Is he right?

Before trying to answer that question, we need to hear more about what Farid means by "an experience". Like Michael Hinton and Alex Byrne, I worry that the philosophical notion of an experience is a technical notion that is never adequately explained (also relevant are Farrell, Vendler, Thau). Granted in ordinary English we talk of "experiences". But ordinary talk of one's "experiences" is talk of what happened to one, what one did, what one encountered or witnessed (Vendler, Tye, Byrne). In ordinary English, 'experiences' is not used as philosophers use it - to pick out some alleged internal mental events. If this is right, then when philosophers use 'experiences' they are using it in a quasi-technical sense. So they need to explain what they mean by that term.[10]

[10] Michael Tye says you only have one experience all day. Some "retentionalists" about our experience of time say instead: infinitely many - as it might be, one for every instant and point in your visual field! My worry is that these issues are not merely hard, or indeterminate (like the issue of how many clouds are in the sky), but that they have no clear content – until these philosophers say more about what they mean by their quasi-technical term 'experiences'.

For this reason, in my own work (e. g. Pautz 2010), I try to avoid talk of experiences altogether in formulating views. Instead I talk about subjects and their experience properties. So, for instance, suppose you view a tomato. There's an experience property you have in this situation and every phenomenally identical situation. But I suppose that experiences could be taken to be instantiations of experience properties by subjects.

Given this conception of an experience, how might one show that when one views the V at a tilt, then one undergoes a component experience that represents the non-perspectival shape and nothing else?

It's true that when one experiences the V angle at a certain degree of tilt one instantiates more than one phenomenal property pertaining to shape. For instance, one instantiates a rather determinate phenomenal property P that's common between cases in which one experiences the angle V at the relevant precise degree of tilt. One also instantiates a more determinable experience property D that is common between cases in which one experiences the angle V at various degrees of tilt. (There's a rough phenomenal similarity between these cases and this determines a determinable experience property, D.)

But I don't see how this entails that when one experiences the V at a certain degree of tilt *one undergoes two experience events, one representing the non-perspectival angle and nothing else*. In fact, it doesn't even obviously entail the weaker that one undergoes two experiences! To see this, consider a rough analogy. If a color chip becomes red17 (say by being spray painted), where that's a determinate shade of red, it comes to have two (indeed multiple) color properties: the determinate property of being red17, and the more determinable property of being red. Does that mean that there were two color-change events here? Such issues of event/state individuation are notoriously murky.

My skepticism here doesn't derive from my acceptance of "holism", or any other a heady metaphysical thesis.[11] I just find these issues murky.

(Another point is worth making: in my own work I suggest we formulate representationalism at the level of experience properties of subjects, not at the level of experience-events. So my own understanding of representationalism differs from Farid's. His formulation is: two perceptual experiences have the same phenomenal character if they have the same representational content. Farid is trying to cook up a counterexample to this. By contrast, my formulation is something like: every maximally determinate experience property is as a matter of real definition identical with a propositional attitude property. Not sure how Farid's argument against standard representationalism would work, if representationalism is understood in this way.)

To sum up. I guess my main concern about Farid's actual within-subject argument is this. The whole argument depends crucially on the claim that your consecutive experiences of the V have "parts" that only represent the non-perspectival size of the angle and that these "parts" (and not just the total experi-

[11] I note in passing that Farid's formulation of holism seems inadequate. His formulation is this: "the experience of the V sigh cannot be broken down into components, *one of which represents the non-perspectival size of the angle*." This means that anyone – for instance, a fan of strong perspectivalism – who denies that experiences represent non-perspectival spatial properties (thinking that only belief does that) immediately accepts holism in Farid's sense. But I thought Holism was supposed to be a heady metaphysical doctrine. It shouldn't be a something one accepts simply by denying that experiences represent non-perspectival spatial properties.

ences) differ in phenomenal character. I see two ways in which the standard representationalist might resist these claims. He might just accept strong perspectivalism – our experiences don't represent non-perspectival spatial properties at all. I thought Farid's own objections to strong perspectivalism were not convincing (although maybe there are other, more convincing objections – see foot-note 6 above). Second, even if the standard representationalist agrees that our experiences represent non-perspectival properties, he might resist the crucial claim for the four reasons outlined above.

Another point is that it was very hard to work out what role Seeming Incompatibility was playing in Farid's argument. Also his stance on Incompatibility was unclear. I will return to this at the end of my comments in §3.

2.Questions about Farid's Hypothetical Between-Subjects Argument

For all these reasons, I'm not sure about Farid's first **actual within-subject argument**, which focuses on an actual case in which tilt you fingers back. However, along the way Farid gives a second, quite different argument against standard representationalism, one that I think is also very interesting. I call it the **hypothetical between-subjects argument,** because this second argument concerns a hypothetical, between-subjects case.

This second argument is very ambitious. Unlike his first argument, his second argument isn't just meant to undermine standard representationalism. It is meant to undermine all versions of representationalism. My textual evidence for this is simple: whereas the conclusion of his first argument was that "*Standard* Representationalism is false" (see step 9 on page 7), the conclusion of this second argument is simply "Representationalism is false" (see step 8 on page 14). He consistently leaves out the qualifier "standard" in describing his target here. And describes a case where there is sameness in content but difference in phenomenal character. As Farid says, this would be "a counterexample to Representationalism" (p. 14) – of *any* variety.

Another difference is this. As Farid notes, unlike Farid's actual within-subject argument, his hypothetical between-subjects argument doesn't require the idea that experiences have separable components that just represent non-perspectival spatial properties – an idea I just expressed skepticism about (under (iv) in the previous section). So, that's a plus.

Now, I am very sympathetic to the style of argument Farid develops here. In fact, elsewhere (Pautz 2011) I have briefly developed a very similar argument specifically directed against *standard* representationalism that also involves spatial representation.[12] However, I have some questions about Farid's own argument. In

[12] In Pautz 2011 I target Hill's view in particular, but the argument is one against what Farid calls "standard representationalism" in general. The argument goes like this. Especially at close ranges, rate of change in apparent size is less than rage of change of angular size (see note 1). Just as Farid suggests that visual dissonance is just a contingent fact, I suggest that this is just a contingent fact. So cases like this are possible and a problem for standard representationalists:

> "Twin Percy's visual system [due to internal differences] achieves better size constancy than Percy's under the same objective conditions [i. e. in response to the same non-perspectival and perspectival spatial properties from the same point of view]. On viewing a distant object, they exhibit behavioural differences that only make sense on the assumption that they enjoy different size phenom-

particular, I wonder how any such argument could bring down *all* versions of representationalism. While I don't like *standard* representationalism, I'd like to defend the basic representationalist idea.

Here is how Farid develops the argument. First, he writes (13-14):

> Visual Dissonance is a contingent empirical fact and one can conceive of its absence. Therefore, subjects who do not suffer from Visual Dissonance are easily conceivable. Let us thus imagine Sam and Pam. Sam suffers from visual dissonance, but Pam does not Let us assume that Sam and Pam are looking at the same V sign tilted to the same degree Let E-tiltSam and E-tiltPam stand for the experiences that Sam and Pam have when they look at the tilted V sign.

Then he lays out the argument as follows:

1. E-tiltSam and E-tiltPam are experiences of the same cluster of properties.
2. E-tiltSam and E-tiltPam are both veridical.
3. Veridical experiences of the same property attribute the same property to their object if they have the same indeterminacy windows.
4. E-tiltSam and E-tiltPam are equivalent with respect to their indeterminacy window.
5. If E-tiltSam and E-tiltPam attribute the same properties to the same object then they have the same representational content.
6. Thus E-tiltSam and E-tiltPam have the same representational content.
7. E-tiltSam and E-tiltPam have different phenomenal characters.
8. Therefore, Representationalism is false.

Let's take premise 7 first. I have a clarificatory question about 7. Farid says that Sam and Pam have different experiences of the tilted V, but he doesn't *directly describe the difference between those experiences*. I take it that Sam's experience of the tilted V is just like the one you or I would get in the actual world. But what about Pam's experience? Can Farid explain, in ordinary language, what her experience is like? Until Farid does that, his argument is very hard to evaluate.

Farid does say that Sam suffers from visual dissonance (in this regard he is just like an ordinary person, according to Farid) while Pam doesn't. So, Pam is not like an actual human – she's belongs to a hypothetical community with different internal wiring than actual humans, according to Farid.

Can this help us figure out what Pam's experience is like? Well, to imagine what it would be like for visual dissonance to be absent, we have to remind ourselves of what it is supposed to be. According to Farid, like an actual human, Sam suffers from visual dissonance in the sense that Seeming Incompatibility is true of his consecutive experiences, when he views the V sign straight and when he views them tilted. That is to say, according to Farid, when Sam tilts the V, it seems to

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> enology. Given Hill's transparency thesis and his equation of phenomenology with the 'set' of represented properties, their experiences must represent externally instantiated ..properties, **T**1 and **T**2, . . . But, given the sameness in covariance facts, what explains the representational difference?"

him that his experience represents a new, incompatible angle.

Now I disputed this above. I myself don't have a strong impression of Seeming Incompatibility. Since I think that Seeming Incompatibility is a feature that's actually absent from our consecutive experiences of the V, I think a counterfactual situation in which it's absent would be phenomenally just like the actual situation.

But let me set that aside. Farid's own view is that, when Sam tilts his V sign, it seems to Sam that his experience represents a larger angle size. This is what he means by visual dissonance. Farid stipulates that for Pam that's not the case. So I gather Farid's idea is this: for Pam, when she tilts her V sign to the same degree, it does not seem to her that her experience represents a larger angle size.

But I'm still not sure what it's supposed to be like for Pam. *Is she having an alien experience of the tilted V of a kind that no actual human even could undergo? Or is she having an experience of a kind that an actual human could conceivably have, in some possible objective circumstances?* For instance, one possibility is that, as she tilts the V, she doesn't experience any change at all! She doesn't even experience the V as tilting back (even though it does). (Of course, that's an experience an actual human could conceivably have – you have it when you look at the V and don't tilt.) This would fit Farid's stipulation that in this case "visual dissonance" is absent, for in that case it obviously would not seem to her that her experience is representing the V to have a new, incompatible angle size. But I take it that Farid doesn't think this is what it is like for her. Another possibility is this. Suppose that in the actual world you make the V sign, tilt it back, and at the same time slowly decrease the actual physical angle of the V. At the end of this process you will have a certain experience of the V sign, one that's different from the experience you'd get if you didn't decrease the size of the angle, that is, if you kept the V the same (the kind of experience that Sam actually has). Maybe, according to Farid, that's what it's like for Pam in the counterfactual situation to experience the tilted V. Maybe that's what it's like for someone who doesn't suffer from visual dissonance.

So, my first question is about Farid's premise 7. Can Farid directly characterize exactly Pam's experience like, and how it differs from Sam's experience?

Now I'd like to turn to premise 6, the premise that states that their experiences have exactly the same representational content. However Farid answers my first question about premise 7 (how to characterize the experiential difference?), I think that I would reject premise 6.

For instance, given Farid's stipulations, here's one natural way of characterizing the experiential difference. When Sam tilts the V, *"the angle now seems to have a size that is bigger than the size that it seemed to have when it was facing upwards"* (indeed, these are Farid's own words at the start of his paper, pp. 1-2). By contrast, when Pam tilts the V, because (by Farid's stipulation) she doesn't suffer from visual dissonance, this is not how it seems to her. Rather, *it seems to her that the V has a same-sized angle.*

But notice that if this is how Farid characterizes the difference in experience, the difference itself is characterized as a difference in *how things seem*, and the representationalist can say that this describes a *difference in how things are represented*. That is, he can say that premise 6 is false.

This is my main point. But it goes naturally with a distinct, stronger and more general point (Pautz 2010, section 7, pp. 301ff). By hypothesis, premise 7 is

true: Sam and Pam have phenomenally difference experiences of the same tilted V. Suppose you could have the one experience and then the other – you could switch between then. Then, in principle, you could notice a difference in the visual experiences. (Otherwise no reason to think they're different.) But this means you'd notice an ostensible difference at some point in your visual field. And the difference would involve a different ostensible property. So the representationalist will always have the option of saying that this different property is represented – he will always have the option of "putting this different property in the content" of the visual experience. In that case, the example is not a clear counterexample to representationalism. (Of course, it might be very hard to characterize the difference, but this doesn't matter to the point I'm making.) In general, it is very hard to raise clear counterexamples to representationalism. (This is not to say it is obviously true or anything or to provide an argument for it – I take it to be a substantive thesis about the ontological structure of experience, which cannot be proven simply by looking at cases. This is just to say it is hard to counterexample it.) I'd say the same about Block's cases involving standard variation in color vision and attention shifts (which Farid refers to in note 42 of his paper). Here there are clear differences in how things seem, so these cases are obviously not counterexamples to representationalism (*pace* Block). At best they are counterexamples to representationalism together with other doctrines (e. g. color objectivism, a color exclusion principle, and a naturalistic theory of color representation).

A final point. I think the kind of example Farid has in mind - and the similar Percy-Twin Percy example involving spatial perception in Pautz 2011 -are indeed a problem for *standard* representationalists. In fact, my own case is *only* meant to be a problem for that brand of representationalism. Since in these cases the two individuals' internal states track the same objective (perspectival and non-perspectival) features under optimal conditions, and the difference in experience is due to an internal difference in wiring, it is hard to see how the *standard* representationalist might say that there is a representational difference. But I don't see how such cases are problems for representationalism in general, as I just explained.[13]

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[13] This is not to say that I think that there are no serous puzzles for (non-fregean) representationalism in general involving spatial perception. Thompson's (2010) double earth case poses difficult questions. (By contrast, I think his El Greco world is easier to handle – there's misrepresentation there, in my view.) But there are representationalist replies. One reply is to say that we only represent shapes and relative distance/length: like being round (equidistant from a common point), and being two lines, such that the first is twice longer than the second (Chalmers 2006, 443). But, as Thompson notes, this faces a serious "anchor point problem". It's also just implausible that the visual system is so sophisticated as to represent all these ratio relations, etc. For a response to the anchor problem, and a generally illuminating discussion of double earth, see Bennett (2011). Another reply is open to *externalist* representationalists only. They might say that on double earth our experiences represent different (doubled) absolute sizes and lengths because our brain states track different absolute sizes and lengths. Nevertheless, they might say, there is no phenomenal difference that goes with this representational difference. The same phenomenal character is multiply realizable with respect to absolute spatial contents. That is because (they might say) having an experience with a certain phenomenal character (say experiencing two lines one of which is twice longer than the first) is not to be identified with visually entertaining any particular spatial content, but is to be identified with visually entertaining some or other spatial content that *meets the right higher-order characterization* or that is *of a certain type*, namely, one that attributes absolute lengths and sizes that stand in the right relations of proportion and difference (where these relations – this higher-order specification - need not be represented by experience). On Earth and double earth, the con-

3. Residual Questions

I conclude with three residual questions that occurred to me (some of these are not so important, and of course, Farid under no obligation to respond). My first two questions are basically: why not stick with some form of representationalism – just not a "standard" variety? My third question is: how does the Kantian alternative go? – I'm very curious there!

My first question is: why doesn't Farid accept the misrepresentation account of dissonance? That would be a straightforward representationalist account. I'm not recommending that account myself (thought I'm open to it). My point is rather that it would be very natural for *Farid* to accept it, given what he says.

True, Farid argues that the *standard* representationalist cannot accept the misrepresentation account, since he argues that the misrepresentation account is incompatible with the kind of naturalistic psychosemantics endorsed by standard representationalists. But Farid himself has no commitment to such naturalistic psychosemantics.

True, Farid argues that the misrepresentation account is not well motivated by considerations involving action, belief, or "isomorphism". Nevertheless, from Farid's point of view, there is a clear, *distinct* motivation for the misrepresentation response, one that he neglects to discuss. Farid endorses Seeming Incompatibility. Now earlier I questioned Seeming Incompatibility. But given that Farid himself accepts it, he has a strong *introspective* argument for accepting Incompatibility. In fact, in line with this, often Farid seems to assert Incompatibility outright:

> "the angle now [perceptually] seems to have a size that is bigger than the size that it seemed to have when it was facing upwards".
>
> "[Experiences] E-up and E-tilt disagree about the size of the angle of the V."

Of course, the real angle stays the same. So Farid's own claims seem to straightforwardly commit him to the misrepresentation account, or at least strongly push him in that direction.

On the other hand, Farid says (p. 26) that "we have good reason to reject [the misrepresentation response]." So, I a bit confused. Perhaps Farid only accepts Seeming Incompatibility, and *rejects* Incompatibility, despite the quotes above? So it's a case of false introspective seeming? This would be somewhat strange. As

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tents might be different, but belong to the same relevant spatial type. So the phenomenology is the same. This version of externalist representationalism (which holds there's no phenomenal difference on double earth) would avoid an objection that Chalmers (2013) raises against Peacocke's (2013) version (which holds there is some mysterious phenomenal difference). Moreover, a teleological version of externalist representationalist can avoid Chalmers' objection that "if a subject is unknowingly doubled in size and moved from Earth to Doubled Earth, it is plausible that the externally grounded content of their absolute size representations will gradually shift" (but even that view might have indeterminacy problems in some scenarios). Nevertheless, I think that externalist representationalism is wrong too, because of cases like my Percy and Twin Percy and Farid's Sam and Pam (discussed in §3).

I said above (point (iii) at the end of §1), the question would then arise, what explains this false introspective seeming?

My second question is this. Why does Farid think Chalmers' Edenic intentionalism, as well as pure Fregean views and response-dependent views, does not work for spatial experience? I can see why Farid might think that pure Fregean views and also response-dependent views (of the kind defended by Kriegel and Prinz and perhaps Cohen) are particularly implausible in the case of spatial experience. He doesn't say why he thinks this but a natural reason to reject those views is that they are phenomenologically inadequate. Let R be the experience property you get on viewing a tomato. Intuitively, there is an internal connection between R and roundness: necessarily, if you have R, you have an experience of roundness, and (if you have the capacity for thought), you'll be in a position to think about roundness. But if R is simply a matter of representing the content *something whatever property it is which is the normal cause of this experience* (pure Fregean view), or a matter of representing some weird response-dependent property which has nothing to do with roundness such as *normally causing neural state S in me* (a response-dependent view), then you deny this intuition.[14] But this kind of concern doesn't carry over to Chalmers' Edenic view. On that view, R consists in phenomenally representing perfect *roundness* (and perfect redness, etc). And perfect roundness is (I take it) just roundness: the property of having edges equidistant (or perfect-equidistant) from a common point.[15] In general, on Chalmers' view, it's built into experience that it phenomenally presents certain specific "absolute shapes and relative distances" (Chalmers 2006, 443). So far, the view is just like standard representationalism about spatial perception of the kind defended by Tye and Harman and so on. What's unique about Chalmers' view is that he thinks physics shows that "these properties are not instantiated in our world" (443) (e. g. physics somehow shows that when you view a tomato there's not something out there with edges roughly equidistant from a common point), while standard representationalists think they are (and think we can explain how we represent those properties in terms of causal covariation, or whatever, etc.). Whatever objections one might to have against the Chalmers view, it does not seem phenomenologically inadequate. But maybe Farid would locate his discomfort with the view elsewhere.[16]

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[14] Another problem with response-dependent representationalism about spatial experience concerns explaining how we represent the relevant response-dependent properties. For instance, Kriegel and Prinz appear inclined towards a Dretskean theory of representation. But our brain states don't the biological function of indicating response-dependent properties like normally causing brain state B. This problem and related problems are discussed in Pautz 2010b and elsewhere.

[15] There is a question about just what Chalmers 2006 means by calling a property "perfect". He cannot mean 'not instantiated in or world', and he cannot mean 'primitive'. For he (2006, 415) considers the view that perfect colors are complex reflectance properties actually instantiated at our world – and this view would make no sense if by 'perfect' he meant one of those things. He cannot even mean 'appears primitive/simple'. For he calls the shapes given in experience 'perfect' but they don't appear to be primitive/simple properties – they seem to be complex, definable geometrical properties.

[16] Farid cites Peacocke (2013) and Siegel (2013) as sources for objections Chalmers theory of spatial experience. But Chalmers (2013) give some convincing replies. Another point is worth making – that much of what Chalmers says is dissociable from his basic metaphysics of spatial experience. For instance, Chalmers accepts a kind of functionalism about spatial concepts. He thinks 'round' in English doesn't refer to perfect roundness but refers to whatever it is that normally causes our round-experiences, etc. And he thinks even if we actually turn out to be brains in vats in the matrix,

Finally, I wonder, what is Farid's Kantian alternative to representationalism? That's an unfair question since Farid mentions it at the end as something to explore in the future. But I'm very intrigued!

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our spatial beliefs are true – 'round' then refers to some computer program property, etc. Maybe Farid would object to that. But this kind of functionalism about spatial concepts is dissociable from Chalmers' metaphysics of spatial experience. One could accept his metaphysics of spatial experience, and reject his functionalism, maintaining instead that 'round' is a super-rigid, non twin-earthable designator for "perfect roundness" and that our belief that things are round has no other truth-condition than that thing have this property (what Chalmers calls perfect veridicality condition or Edenic content), etc. That would be my own inclination.