**Against Block on Attention and Mental Paint**

**Abstract:** In two papers (2010; 2015a), Ned Block has argued that representationalists have trouble with the empirical discovery (Carrasco et. al. 2004) that differences in the degree of visual attention to an object can lead to a difference in how the object looks. I here respond on behalf of the representationalist. Against the argument of (2010), I give a ‘companions in guilt’ argument that the dilemma Block claims to find for the representationalist will in fact arise for anyone who accepts that attention can alter appearance in the described manner. I conclude that the facts about attention’s effects on appearance therefore give no specific reason to reject representationalism alone. Against the argument of (2015a) meanwhile, I argue that Block fails to adequately motivate a key claim that he relies on, entitled the ‘Phenomenal Precision Principle’. I conclude that the representationalist therefore has nothing to fear from the argument of (2015a).

Ned Block (2010; 2015a) has argued that certain empirical discoveries about attention show that there can be phenomenal differences between perceptual experiences which don’t consist in differences in how those perceptual experiences represent the world to be. He takes this to refute ‘representationalism’, understood by him, and in this paper, as the thesis that the phenomenal properties of perceptual experiences, and their phenomenology, are grounded in and fixed by their representational content. That is, his target is any view on which in any metaphysically possible case where a perceptual experience *E* instantiates a phenomenal property *Q*, it instantiates *Q* in virtue of how it represents the world to be, and the phenomenal properties of perceptual experiences metaphysically supervene on their representational content. I here first criticize the argument for this conclusion in (2010), and then the argument offered for it in (2015a). Here is a sketch of the rest of this paper:

Block’s first argument against representationalism proceeds as follows. Block points to some empirical data from cognitive psychology, which he feels is best explained by saying that a difference in the levels of attention subjects gave to a visually perceived object, led to a difference in phenomenology between the attentive and inattentive perceptual experiences of the object[[1]](#footnote-1). Block then argues that this difference cannot have consisted in a difference in how the object was represented to be when attended and when not attended. He argues that if the phenomenal difference *was* grounded in a representational difference, then either (at least) one of the groups of percepts of the objects would have to be illusory, or the properties the object was represented to have would have to be imprecise intervallic properties. And he argues that neither of these options is acceptable. In response, I first show that given a very reasonable assumption about the empirical results Block cites-namely that they show that there’s a difference in which properties the perceived object is represented to have depending on whether it’s seen attentively or inattentively-a version of the illusory-or-imprecise dilemma which Block raises for the representationalist, will automatically arise, regardless of whether representationalism is true. I then show that this dilemma will be just as troubling regardless of whether we accept or reject representationalism. In particular, I will argue that *if* the reasons Block gives for thinking representationalists cannot accept either horn of the dilemma are correct, they equally show that even those who *reject* representationalism can’t accept either horn of the dilemma. Hence, given the reasonable assumption, the problem Block raises is everybody’s problem, and if Block is right (for the reasons he gives) that representationalists cannot solve the problem, then nobody can.. Block’s argument therefore provides no reason to reject representationalism, given that doing so does not help avoid the dilemma it raises or make either horn of the dilemma more acceptable.   
I then consider the possibility that Block might himself disavow the assumption that the object is represented to have different properties in the attentive and inattentive conditions, hence avoiding my companions-in-guilt argument, whilst claiming that representationalists themselves are committed to this assumption and hence still face the illusory-or-imprecise dilemma. I show that taking this line doesn’t help Block defeat the representationalist either. Any rejection of the assumption strong enough to enable Block to avoid my companions-in-guilt argument turns out to leave Block in no position to claim that the empirical results he cites actually show a phenomenal difference between attentive and inattentive percepts which representationalist must account for. Dropping this claim would leave him without even a purported counter-example to representationalism. Finally, I draw some cautionary lessons with regard to the type of argument against representationalism which Block’s (2010) exemplifies.

The dialectic with regard to Block’s second argument is much simpler. In (2015a), Block’s argument relies on what he calls the Phenomenal Precision Principle. This says that if two objects look the same when seen peripherally with respect to a particular type of property (color say), but different when seen foveally, then the phenomenology associated with perceiving a property of that type foveally must be more precise than the phenomenology associated with perceiving it peripherally. Block argues that representationalists cannot reject this principle, and then uses the principle to mount an argument against representationalism. I argue that Block provides insufficient motivation for his claim that representationalists are committed to the Phenomenal Precision Principle, and hence that his second argument contains a crucial gap.

**Section One-The Argument of (2010)**

Here is Block’s first argument:

The key data Block cites, taken from Carrasco, Ling and Read (2004), is as follows. Experimental subjects were shown two so-called ‘gabor patches’, a type of grating, one on the left and one on the right-hand side of the visual field, whilst staring at a fixed point in the center. The gabor patch on the left-hand side had a lower contrast than that on the right, but when attention was drawn to the left-hand side of the visual field by a brief cue, subjects judged the contrast of the two patches to be the same. When the cue was omitted, however, participants correctly judged the patch on the right to display greater contrast. Block argues that this experimental data gives us a counter-example to representationalism, for the following reasons. According to representationalists, all phenomenal differences are grounded in representational differences. But, Block argues, there must be a phenomenal difference between the attentive and inattentive percepts of the left patch, and this phenomenal difference cannot be grounded in a representational difference. For, the only plausible candidates for being the representational difference which grounds the phenomenal difference in this case, according to Block, is that there is a difference in the contrast properties the left patch is represented to have when attended to, and when unattended. After all, if asked to describe the relevant phenomenal difference, we would likely say that the left patch must have *looked to have a higher contrast* to those who attended to it than to those who didn’t. But Block argues that this cannot be what grounds the phenomenal difference for the following reason. If the patch is represented to have different contrast properties by the attentive and the inattentive subjects, then those contrast properties must either be precise degrees of contrast, or the must be mushy intervallic contrast properties such as, for example, *having 20-30%* and *having 26-36% contrast* (since all contrast properties are either intervallic or precise.)

Block argues, however, that neither of these options is acceptable.

Suppose firstly that the left patch is represented in each case to have two precise contrast properties. The patch cannot actually have two distinct *precise* levels of contrast. So either the inattentive percepts, the attentive percepts, or both, must be illusory. Block argues however, that it’s implausible that either percept could be illusory: if attention shifts can engender illusion, then there would have to be some exact level of attention at which, in normal perceptual conditions, perceived objects are represented accurately. But this, he says, would be implausibly arbitrary, to the point of absurdity[[2]](#footnote-2).

On the other hand, suppose that the left patch is represented to have one of two different mushy contrast properties, depending on whether it is attended to. Illusion can now be avoided, because the same item can have multiple distinct mushy contrast properties, even though it only has one precise level of contrast. (For example, if the actual contrast level of the left patch is 25%, then it instantiates both *contrast of 23-26%* and *contrast of 25-28%*). However, Block raises the following problem for combining this view with the representationalist claim that the phenomenal difference between the attentive and inattentive percepts of the left patch is grounded in a difference in the contrast properties they represent the patch as possessing. For the phenomenal difference to be grounded in this, presumably, the following must be the case: there is one phenomenal property *F* that inattentive percepts of the patch possess in virtue of representing it to have one imprecise contrast property *C*, and a distinct phenomenal property *G* which attentive percepts of the patch have in virtue of representing it to have a distinct imprecise contrast property *C*’. However, Block argues that the percepts of the patch cannot gain their contrast-related phenomenal properties in virtue of attributing *imprecise* contrast properties to the left patch, because the contrast phenomenology possessed by the percepts is precise, not mushy:

…if the phenomenology of perception flows from representational content, then indeterminacy in content would have to be reflected in an indeterminacy of look. But there need be no such indeterminacy. The Gabor patches used in the contrast experiments are designed to transition between light and dark in a smooth way, but this is not necessary for attentional effects and is not true of many other stimuli. For example, some size stimuli are shaped like the letter ‘C’, where the relevant parameter is the distance from tip to tip. These are not in any reasonable sense fuzzy stimuli, but the subject sees the gap size as bigger if attended. (Block 2010, p.52)

Why couldn’t representing something to have a mushy contrast property ground having a precise phenomenology? I take it that Block’s thought is the following. Plausibly, representationalists should think that representational content grounds phenomenology in the following way: those properties which turn up in a perceptual experience’s representational content are just those properties that turn up in the perceptual phenomenology itself. (In turn, the type of phenomenally conscious experience the percept is, and therefore it’s phenomenal properties, will supervene on the associated phenomenology.) So if percepts of the left patch represented mushy contrast properties, and representationalism about phenomenology holds, there would be mushy contrast *properties in the phenomenology itself,* contradicting the view that the relevant phenomenology is precise.

There are several doubts one might have about Block’s argument that representationalists cannot posit that the patch is represented to possess mushy contrast properties. One might doubt that anyone who believes that the phenomenology of perceptual experience is grounded in it’s representational content has to think that the very same properties which enter into the experience’s representational content show up in the phenomenology itself.[[3]](#footnote-3) If so, some views which fall under Block’s very broad characterization of representationalism as any view on which phenomenology is *somehow* grounded in content, will not in fact be vulnerable to Block’s argument. Or one might doubt that we can tell whether properties that show up in perceptual phenomenology are precise or mushy. But I will set such doubts aside in order to criticise Block’s argument on other grounds.

In particular, it turns out that on a very plausible background assumption a version of the illusion-or-imprecision dilemma arises for anyone interpreting the Carrasco results, whether or not they are a representationalist. And it also turns out that *if* Block is right that any representationalist cannot take either horn for the reasons he gives[[4]](#footnote-4), then neither horn of this version of dilemma is acceptable either. In other words *if* Block’s argument against the representationalist works, then (granted the very reasonable background assumption) an *equally severe* version of the dilemma arises, *regardless of whether we adopt representationalism*. So (granted the background assumption) even if we concede, contra the lines of thought mentioned in the previous paragraph, that Block is right that both horns of the dilemma are bad for all versions of representationalism, the Carrasco results cannot be a reason to reject representationalism specifically, as opposed to a problem for everyone.

Here is the plausible background assumption, on which a version of the imprecision-or-illusion dilemma arises for everyone: the Carrasco results show that the contrast property attentive experiences represented the patch to have differed from the contrast property inattentive experiences represented it to have. It’s hard for anyone, whether or not they accept the representationalist thesis that the representational content of experiences grounds their phenomenology, to deny this. After all, what else could explain why attentive subjects judge the left patch to be as contrast-y as the right, whilst inattentive subjects judge the right patch to be higher in contrast? On this assumption, however, a version of the illusion or imprecision dilemma will arise for everyone. That is: either the properties attributed in each case will be precise, in which case one set of percepts must be illusory. Or there will be imprecise properties attributed. If we can also show that these options are equally unattractive, whether or not one accepts the representationalist thesis that phenomenology is grounded in representational content, then we’ll have shown that (given the background assumption) Block’s argument gives us no reason to favour other accounts of phenomenal consciousness over the representationalist account.

Now, it’s clear that the illusion horn of the dilemma is equally problematic, either way. The problem there was simply that if differences in attention lead to illusion, then there would have to be a particular level of attention at which things are represented as they are, and this is implausibly arbitrary. If we concede that different precise properties are attributed to the left patch, depending on whether it’s attended, then we have already conceded that attention shifts can cause the patch to have properties attributed to it that it doesn’t have. (Since the patch can only have one precise contrast property.) If Block is right that it follows from the patch having different precise properties attributed to it at different levels of attention, that there’s a single level of attention at which things go right, and that this is implausibly arbitrary, then the result in the previous sentence gives us sufficient reason to reject the view that precise properties are attributed. But note that we have arrived at this rejection without saying anything about the relationship between the properties the percepts attribute to their objects, and the phenomenology of those percepts. In particular, nothing was said about the phenomenology of the percepts being grounded in their representational content. So, using the assumptions on which Block’s argument that the representationalist cannot take the illusion horn of the dilemma depends, we are able to show that *nobody*, representationalist or otherwise, can hold that the percepts attribute precise contrast properties to the left patch.

What about if we hold that the properties attributed are imprecise? This is also equally problematic whether or not we are representationalists who think the attributed properties will show up in the perceptual phenomenology itself. This might seem implausible for the following reason. Block’s original complaint is that if we accept representationalism, the imprecise properties which the percepts attribute to the left patch will have to show up in the perceptual phenomenology itself, and that this is inconsistent with the fact that only precise properties show up in the phenomenology. Suppose we replace representationalism with Block’s view on which it’s ‘mental paint’ (i.e. properties of the experience itself) that show up in the phenomenology. Then we can avoid the idea that imprecision in the contrast properties the percepts *attribute to the patch* will lead to a corresponding imprecision in *the properties which show up in the perceptual phenomenology*. Since Block’s argues that the representationalist cannot take the imprecise horn of the dilemma because *this would commit them to saying that imprecise properties show up in the phenomenology itself*, you might therefore think that the proponent of Block’s own position couldn’t possibly be just as barred as the representationalist from taking the imprecise horn of the dilemma. However, it turns out that the main argument Block gives to motivate holding that only precise properties enter into the phenomenology, if successful, tells equally against the view that percepts of the left patch attribute imprecise contrast properties to it. In particular, Block motivates the claim that only precise properties show up in the phenomenology itself, *by attempting to elicit the intuition that the properties attributed to the left patch are precise*. Look again at the relevant passage:

…if the phenomenology of perception flows from representational content, then indeterminacy in content would have to be reflected in an indeterminacy of look. But there need be no such indeterminacy. The Gabor patches used in the contrast experiments are designed to transition between light and dark in a smooth way, but this is not necessary for attentional effects and is not true of many other stimuli. *For example, some size stimuli are shaped like the letter ‘C’, where the relevant parameter is the distance from tip to tip. These are not in any reasonable sense fuzzy stimuli, but the subject sees the gap size as bigger if attended*. [my italics]

In this passage, Block motivates the idea that imprecise properties do not show up in perceptual phenomenology, by appealing to how the objects of perceptual experience appear to us, arguing that they do not appear to us to have imprecise properties (or at least, not in all cases where Carrasco-style effects of attention have been found.) Clearly, therefore, Block is relying on the claim that our experiences don’t attribute imprecise properties to the objects of perception, in order to show that such properties don’t show up in the phenomenology itself. If Block’s right that representationalists should hold that the properties our experiences attribute to the objects of perception themselves show up in the phenomenology, then the move from imprecision in the former to imprecision in the latter is dialetically legitimate. But the problem for Block is that the first assumption, that the properties attributed to the left patch are precise, prevents us from taking the imprecision horn of his original dilemma, *regardless if we accept the representationalist claim that phenomenology is grounded in representational content*. In particular, presumably, if there is no sense in which the patch looks fuzzy to us, and this is enough to show that our experience doesn’t in any sense attribute an imprecise property to it, then our experience must, in particular not represent it to have any imprecise property. Hence, no one can take the imprecise horn of Block’s dilemma, since that involves claiming that the attentive and inattentive percepts of the left patch did represent it as having distinct imprecise properties. So Block’s argument against the representationalist only has bite given an assumption which, if accepted, shows that nobody, representationalist or otherwise, can hold that imprecise properties are attributed to the left patch.

To sum up: Block’s argument, if successful, shows that the left patch can neither be represented to have distinct precise levels of contrast, nor be represented to have distinct mushy levels of contrast, *regardless of whether we accept representationalism*. So it poses a problem for everyone who accept the claim that the attentive and inattentive percepts represent the patch as having distinct levels of contrast, *representationalist or otherwise*. Hence, it cannot support rival views to representationalism, such as Block’s ‘mental paint’ view[[5]](#footnote-5), unless those views can reasonably be combined with the rejection of the claim that the left patch is represented to have one level of contrast by attentive percepts, and another by inattentive percepts.

However, the companions-in-guilt argument just given does depend on the assumption that the left gabor patch is represented to have a higher contrast when attended than when unattended. It’s this assumption which forces one to say that either the property attributed to the left patch is precise, and hence face the illusion horn of the dilemma, or to say that it is imprecise, and hence face the imprecise horn. If Block could argue that, whilst representationalists are committed to this assumption, he is not, then he would be able to avoid the companions-in-guilt argument whilst still pressing the illusory-or-imprecise dilemma against representationalists themselves. How might Block argue that representationalists are committed to their being a difference in the contrast the gabor patch is represented to have, depending on whether it’s attended, without making this assumption himself? The only obvious way that I can see for him to do so would be to argue that a) the Carrasco data clearly shows that there must be *some* phenomenal difference between the attentive and inattentive percepts of the left patch, and b) that representationalists, with their commitment to all phenomenal difference being grounded in representational differences must posit a representational difference to explain this, and the patch being represented to have a higher degree of contrast by the attentive percepts looks like the only reasonable candidate for being this phenomenal difference. Accepting b) doesn’t commit Block himself to the claim that the patch is represented to have a different, higher degree of contrast by the attentive percepts. So running the argument this way looks like it might allow Block to escape my companions-in-guilt argument, by taking neither horn of the imprecise-or-illusory dilemma, and instead just rejecting the view that there is any representational, as opposed to purely phenomenal, difference between the attentive and inattentive percepts.

However, this strategy for repairing Block’s argument looks unpromising, even if we set aside, for the sake of the argument, the worry that it’s just implausible that there’s no representational difference between the attentive and inattentive percepts.

In order for the strategy to work, the Carrasco experiments must be taken to provide evidence that there is a phenomenal difference between attentive and inattentive percepts of the left gabor patch. Otherwise, there is no phenomenal difference which representationalists must posit a representational difference to ground. However, it turns out that the Carrasco data only supports the claim that the percepts of the gabor patch differ, *if* we assume that the posited phenomenal difference between the attentive and inattentive percepts is correlated with a difference in the contrast levels the percepts in some sense attribute to the patch. And once Block admits that there is a difference in the level of contrast attributed by the attentive and inattentive percepts, he immediately opens himself to the illusory-or-imprecise dilemma about the properties attributed. He therefore once again becomes vulnerable to the companions-in-guilt argument, given that we’ve seen that if Block is right that either horn is problematic for the representationalist, each is also problematic for everyone else. So Block cannot consistently maintain that the Carrasco experiments show that there’s a phenomenal difference between the attentive and inattentive percepts which needs explained, whilst also avoiding making himself vulnerable to the same dilemma he claims refutes representationalism.

Why is the Carrasco experiment only evidence for a phenomenal difference between the attentive and inattentive percepts if we concede that the percepts in some sense attribute different contrast properties to the left patch? Well Carrasco et. al did not directly measure a phenomenal difference between the two experiences. (There is no such thing as a consciousness-metre!) Rather, a phenomenal difference is being conjectured to explain the directly measured difference in the contrast judgments of attentive and inattentive subjects. But why would we think that a difference in contrast judgments between attentive and inattentive subjects indicates a phenomenal difference in their percepts? Presumably, the thought is that such a phenomenal difference would explain why the subjects differed in their (comparative) judgments about the contrast level of the patch. But only if we assume that the posited differences in phenomenology prompt different contrast judgments, or at least are correlated with differences in the contrast judgments that experiences prompt, would positing a phenomenal difference explain the different judgments about the patch’s contrast in the attentive and inattentive conditions. Once we admit however, that the attentive and the inattentive experiences ‘prompt’ different contrast judgments, it’s hard to see how they could do this without there being a particular level of contrast that they make it natural to judge that the gabor patch has, with this level differing between the attentive and the inattentive percepts.

Once we admit that there is one degree of contrast *c* that the attentive percept makes it natural to judge that the left patch has, and another degree of contrast, *c’*, which the inattentive percept makes it natural to attribute to the patch, we can run a version of the illusory-or-imprecise dilemma, involving these attributions of contrast. Since the patch has different levels of contrast attributed to it in each case, if there are precise levels of contrast attributed, only one can be accurate. So the problem about it being implausible that there’s a single level of attention at which things go right re-emerges if we take the illusion horn at this point. Meanwhile, if Block takes the imprecision horn at this point then he will be admitting that the percepts of the left patch somehow prompt judging that it has some particular imprecise contrast property. And further, if he wants to avoid the illusion horn, and take *only* the imprecision horn, he must deny that the percepts prompt the assignment of any *precise* contrast property to the left patch. So if Block takes the imprecise horn of the dilemma, he must admit that the percepts of the left patch prompt assigning to it or some sort of imprecise contrast, but no precise contrast properties. This sits very uneasily with the claim that Block urges against *representationalists* taking the imprecise horn of the dilemma, namely that there is no sense in which the patch ‘looks’ to have an imprecise contrast property. Surely, if we are disposed to judge, on the basis of our perceptual experience of the patch, that it has a particular contrast, and that contrast is imprecise, then there is a reasonable sense in which it looks to us to have an imprecise level of contrast.

To sum up, it’s not possible to use the Carrasco results to motivate the rejection of representationalism, by putting them forward as an example of a phenomenal difference not grounded in the representational, or at least, not if we motivate the claim that the phenomenal difference is not grounded in the representational via Block’s dilemma. To justify an interpretation of the Carrasco results on which they provide support for there being a phenomenal difference between attentive and inattentive percepts of the left patch for which the representationalist must account, one must assume that the percepts somehow encode distinct contrast levels for the left patch. And if Block’s dilemma shows the representationalist view is in trouble, given this assumption about the percepts, it also shows thatother views on which the percepts in any sense encode distinct contrast levels for the left patch faces an equal amount of trouble for the same reasons the representationalist does. Hence, either Block is wrong in his interpretation of the Carrasco results, and he has not shown that they involve a phenomenal difference that representationalist cannot account for in terms of a representational difference, or, if we take the view that Block is correct in his interpretation of the results, they pose the same problem for everyone, regardless of whether or not they accept representationalism, and so cannot be a reason to reject representationalism specifically.

I think a general lesson can be drawn here about a particular strategy for arguing against representationalism which (2010) exemplifies. This strategy involves finding a phenomenal difference which does not consist in a representational difference in the following way. A phenomenal differences between two percepts of some perceptible feature of an object *o*, such as its shape, or hue is found. And it’s argued that this phenomenal difference cannot be a matter of *o* being represented to have different, incompatible properties of the relevant type, since it’s not plausible that either percept is illusory, and nor can it be a matter of o being represented to have distinct but compatible properties of the relevant type, since (for one reason or another) there are no plausible candidates for being such properties.

The lesson about such argument is to be very cautious when the phenomenal difference between the two percepts of *o* is glossed as being a difference in how *o* appears with respect to the relevant feature (shape, hue etc.). For given that o appears some way with respect to the feature, under each condition, there must be some property of the relevant kind (some shape, some hue, etc.) which it appears to have in each condition. Therefore, even if we deny that o’s perceptually appearing F is equivalent to it’s being represented to be F, we will have attribution of properties to the object. And if the twin options of either mismatch in at least one of the properties attributed, or attribution of distinct-but-compatible properties are bad when attribution is understood representationally, they may well also be bad when attribution isn’t so understood. This makes such arguments vulnerable to the objection that they’re self-undermining. They raise an alleged problem for representationalism in explaining the data about appearances, but if they’re correct that the options available to the representationalist are problematic, then a parallel, equally severe problem is likely to exist involving the appearance claims themselves which are being taken as the data to be explained. Since everyone’s stuck with the problem if they’re right about the data, the fact that representationalists face a version of the problem can’t be a reason to favour some anti-representationalist view over representationalism.

**Section Two-The Argument of (2015a)**

In (2015a), Block makes use of the ability of changes in attention and of position in the visual field to change contrast appearance, to run another argument against representationalism. I will concentrate here on the case where it’s primarily position in the visual field that is varying, rather than the purely attentional case, because Block’s description of it is clearer. The argument is structurally analogous in both cases, and the criticism I make applies to both versions of the argument. The basic idea is that the phenomenal cannot just *be* the representational, because contrast *phenomenology* is less precise in the periphery of the visual field than in the foveal region, but contrast *representation* is equally precise in the periphery and the fovea. From this it follows that there’s a difference in the precision in contrast phenomenology between the periphery and the fovea, that is not grounded in a difference in precision of the representation of contrast between periphery and fovea. Block assumes that this is enough to show that representationalism, understood as the thesis that the phenomenal properties of perceptual experiences are grounded in their representational properties, is false. Here I won’t question that representationalism fails if Block’s difference of precision claim is correct. Instead, I will remain neutral on this, but attack the argument Block gives for the difference in precision claim itself. If Block has failed to motivate the claim that that the precision of contrast phenomenology in the periphery of the visual field differs from (and is less than), the precision of contrast phenomenology within the fovea, then the representationalist doesn’t have to worry about whether or not this claim is consistent with representationalism. I’ll argue that Block indeed fails to give establish this claim.

Block (2015a, sc.3) describes the following experiment[[6]](#footnote-6). The subjects fixate a cross, placed between four gabor patches arranged above, below, and to the right and left of that cross. The gabor patch directly above the cross, call it **North**, has a contrast level of 30%. Meanwhile, the gabor patch to the right of the cross, call it **East**, has a contrast level of 10%. Despite this (according to Block’s interpretation of the experimental data), when the subjects fixate the cross there’s no difference in the phenomenology associated with North and that associated with East. If we use looks-talk to pick out phenomenal differences, we can say that there’s no difference in the contrast North and East look to have. However, when North and East are each successively perceived foveally (that is, in the centre of the visual field), there’s a difference in the associated phenomenology, and hence a difference in the contrast that phenomenology attributes to the respective patch. Block then appeals to what he calls the ‘Phenomenal Precision Principle’ (2015a, p.9). This says that if two objects look the same (that is, the properties they look to have in each case are the same) when perceived peripherally, but different when perceived foveally, in respect to some type of property, such as contrast[[7]](#footnote-7), then that type of property must be attributed by the phenomenology in narrower, more precise ranges in foveal vision than in peripheral vision. This principle yields the result that the contrast properties North and East look to have when foveated have narrower ranges, than the contrast properties they look to have when seen peripherally.

Block argues that this result is inconsistent with representationalism. He cites Hess and Field (1993) as having established that we’re just as skilled at making contrast discriminations in the periphery as in the fovea. Since there is not space here to discuss the empirical results from Hess and Field, I shall simply grant for the sake of the argument that Block is right that they demonstrate this. If this isn’t granted, Block’s argument fails since it’s a necessary part of that argument that contrast representation is equally precise peripherally and foveally, as will be clear from what follows. (It’s hard to see quite how Block reconciles the claim that we are just as skilled at making distinctions in the periphery as in the fovea with the data he cites about the fact that we can tell a 10% patch from a 30% patch when they are successively foveated, but not when they are simultaneously peripherally perceived. But I’ll set this worry aside to criticize Block’s argument on other grounds[[8]](#footnote-8).) This, according to Block, demonstrates that the *representation* of contrast in the periphery is just as precise as in the fovea. However, recall that Block has argued, relying on the phenomenal precision principle and the empirical results about North and East being distinguishable when separately foveated but not when simultaneously peripherally perceived, that the *phenomenal attribution* of contrast properties is less precise in the periphery and in the fovea. If the precision of contrast representation is the same in the fovea and the periphery, but the precision of phenomenal attribution of contrast differs between them, then in either the fovea or the periphery, the precision at which contrast is represented must not be the same as the precision at which it’s phenomenally attributed. Block takes any such difference in precision between representation and phenomenal attribution to be a case where phenomenology is not grounded in representational content, and hence a counter-example to representationalism.

A first objection that will occur to many here is that the distinction Block’s argument relies on, between representing an object to instantiate a property, and phenomenally attributing a property to the object is bogus, because phenomenal attribution would just *be* a form of representation, namely representing the world as being a certain way in virtue of having a certain phenomenology[[9]](#footnote-9). After all, you might think that if an experience somehow associates properties with an object which the object can have or fail to have, and this is enough to count as it appearing to us that the object has the properties in question[[10]](#footnote-10) , then it’s something like a conceptual truth that this counts as the experience *representing* the objects to have the property in question. I have some sympathy with this line of thought. However, it has its critics[[11]](#footnote-11) in the literature and I don’t have space to engage with them here. I’ll therefore set aside this sort of worry, and show that even if we grant the distinction between representation and phenomenal attribution, Block’s argument is unpersuasive.

Block’s argument clearly depends on his claim that it follows from the empirical result that North and East are distinguishable when successively foveated, but not when perceived simultaneously and peripherally, that the phenomenal attribution of contrast is less precise in the periphery and in the fovea[[12]](#footnote-12). And he in turn motivates the claim that this difference in phenomenological precision follows from this empirical result by appealing to the Phenomenal Precision Principle. So ultimately Block’s argument depends on the Phenomenal Precision Principle, and if he has failed to motivate it, his argument against representationalism fails.   
However, Block leaves the motivation for the Phenomenal Precision Principle extremely obscure, giving only two brief considerations in its favour:  
Firstly (2015a, p.7), he says that in any particular case, such as that of North and East, where two objects look the same with respect to a type of property when seen peripherally, but different when seen foveally, one obvious explanation is that the phenomenal precision with respect to that property is greater in the fovea than in the periphery. Why might this explain the difference in whether the objects look the same? Block does not explicitly say why, but my best guess is that he is reasoning as follows. Suppose that objects are judged to be the same with respect to *F*ness iff the (imprecise) *F*ness properties attributed to them overlap. And suppose that the range of those properties is greater when they are seen peripherally, due to lower peripheral precision, than when they are seen foveally, but they are always centred on the actual precise level *F*ness property the objects have. Given this, there will be cases where pairs of objects get attributed overlapping properties when seen peripherally but not when seen foveally, because each member of the pair gets a wider property with same centre attributed in the periphery than in the fovea, and the ranges of their attributed properties overlap when they are wide but not when they are narrow. Given the assumption that two objects look the same iff the ranges of their attributed properties overlap, this will generate cases where two objects look the same when seen peripherally, but not when seen foveally. For example, imagine that when see peripherally and when seen foveally, both North and East are phenomenally attributed imprecise contrast properties whose range is centred on their actual contrast levels of 30% and 10%, but that the contrast properties attributed when they are seen foveally have larger width. Then North might get assigned a contrast of 27-33% when seen foveally and 20-40% when seen peripherally. And East might get assigned 7%-13% when seen foveally and 1-21% when seen peripherally. And now assume that there’s a sense in which North and East don’t look different in respect of contrast when they are phenomenally attributed contrasts who’s ranges overlap, but that they do look different with respect to contrast in this sense, when they are phenomenally attributed contrasts that don’t overlap. Then it will follow that North and East look the same (in the relevant sense) with respect to contrast when perceived peripherally, but not when perceived foveally, and so we will have explained the empirical result that they are judged to look the same when seen simultaneously and peripherally, but not when seen successively and foveally. Therefore, Block declares, the burden of proof is on anyone who denies this to come up with an equally good or better explanation.   
Secondly, Block claims (2015a, p.12), that it’s just introspectively obvious that contrast phenomenology is less precise in the periphery. Clearly if contrast phenomenology is *always* less precise in the periphery than the fovea, then it will follow in particular that in cases where two objects look the same with respect to contrast when perceived peripherally but different when perceived foveally that the foveal phenomenology is more precise, since this is a specific case of the more general claim. Hence the Phenomenal Precision Principle will hold at least for perceptions of contrast, which is all Block’s argument needs.[[13]](#footnote-13)  
(Block also argues (2015a, p.9) that no representationalist can reject the view that each perceptual experience *has* a degree of phenomenal precision. The reason he gives for this is that there is always a degree of precision with which a particular representational content-bearing experience represents some property of it’s intentional object, and since representationalists (according to Block) think that an experience’s phenomenology is grounded in it’s content, it makes sense to attribute to the experience’s phenomenology the degree of precision associated with its content. But even if we buy this argument, it falls well short of motivating the phenomenal precision principle. For the claim that each individual experience *has* a degree of phenomenal precision (relative to each property it represents) doesn’t obviously entail anything about the relationshipbetween the phenomenal precision of distinct experiences. Therefore, in particular, it doesn’t entail the Phenomenal Precision Principle that if a pair objects look the same with respect to *F*ness when seen peripherally, but distinct when seen foveally, then phenomenal precision with respect to *F*ness must be higher for the foveal perceptions than the peripheral ones.)

On the first argument for the Phenomenal Precision Principle: *given Block’s commitment to there being the same precision of representation of contrast in the periphery and the fovea*, it’s hard, for reasons I will shortly explain, for him to avoid granting that the representationalist can well explain all the facts about the phenomenology, without positing greater phenomenal precision in the fovea than in the periphery. This undermines Block’s inference to the best explanation argument that the Phenomenal Precision Principle holds.

Given Block’s commitment to contrast representation being as precise in the periphery as in the fovea[[14]](#footnote-14), he must hold that the width of the range of the contrast properties North and East are *represented* to have, when seen jointly and peripherally, must be the same as the range of the contrast properties they’re each represented to have when each is successively seen foveally. Secondly, since North and East are indistinguishable with respect to contrast when seen jointly and peripherally he is under pressure to hold that the contrast properties North and East are represented to have when seen peripherally, are either the same, or at least, do not allow us to judge that North and East are distinct in respect of contrast, because they overlap. (I mention the second possibility because one might think that when our experiences represent things as having distinct but overlapping imprecise properties, our discrimination mechanism works such that we judge the objects in question to not be distinct in respect of the feature in question.) Otherwise, even if the contrast properties phenomenally attributed to North and East were the same, when they are perceived peripherally, we would surely display at least some hesitance in classifying them as the same in contrast if our experiences represented them to have different (and non-overlapping) contrast properties. Or at least, Block owes an argument as to why we would easily class items as the same in contrast if they were *represented* to have distinct contrast levels, even if we grant him the assumption that the contrast properties *phenomenally attributed* to North and East when they are seen peripherally are the same. After all, his argument for the claim-necessary to his argument-that contrast representation is as precise in the fovea as in the periphery is that Hess and Field found that contrast discrimination is just as precise in the fovea as in the periphery. So he must admit that we *sometimes* make same/different judgments on the basis of the representational content as well as on the basis of the properties phenomenally attributed, despite his belief that representation and phenomenal attribution can come apart. Given this, it looks odd that items would be classed by us as clearly appearing the same in respect of contrast, despite being represented to have different contrast properties. At the very least, if Block wants to take this line he would have to give a non-*ad hoc* explanation of why our same/different judgment here would be based solely off of what properties are phenomenally attributed to the objects, and not which properties they are represented to have. Thirdly, Block is under pressure to hold that when North and East are seen separately and foveally, the contrast properties they are represented to have are distinct. Recall that North and East are easily distinguished when seen separately and foveally. We would surely be unsure if two items we perceived really were distinct in respect of contrast, however, if our contrast experiences represented them as the same in contrast. Putting this all together, Block is plausibly committed to the following conjunction:   
1) North and East are represented to have either the same or overlapping-and-hence not distinguished properties when seen peripherally.  
AND  
2) North and East are represented to differ in contrast when seen foveally.  
AND  
3) *The precision of the properties North and East are represented to have is the same when they are perceived foveally and when they are perceived peripherally*.

But given these three claims, it’s surely open to the representationalist to explain why North and East look the same in contrast when seen peripherally, but different in contrast when seen foveally, *without accepting that the Phenomenal Precision Principle holds in this case (i.e. without accepting that contrast phenomenology is more precise in the fovea than in the periphery*). To explain why they are judged to be the same in contrast when seen peripherally, the representationalist can appeal to the fact, *which Block is committed to accepting*, that North and East are represented to have the same (or overlapping) contrast properties when seen peripherally. Likewise, the representationalist can appeal to the fact, which, once again, *Block is committed to accepting*, that North and East are represented to have distinct contrast properties, to explain why they are judged to be different (in respect of contrast) when seen foveally: because the level of contrast the foveal perception of North represent it to have, is different from the level of contrast the foveal perception of East represents it to have. This explanation, by itself, is entirely neutral on whether the Phenomenal Precision Principle is true, since it says nothing about what contrast is *phenomenally attributed* to North and East by any percept, foveal or peripheral, but merely makes a claim about the properties they are *represented* to instantiate in different perceptual situations. When combined with the representationalist assumption that the properties a phenomenally conscious percept phenomenally attributed to an object are just those it represents it to have, plus 3), the explanation actually entails the *falsity* of the phenomenal precision principle. This is because the third conjunct says that the contrast properties North and East are represented to have, have the same level of precision, both when North and East are perceived foveally, and when they’re perceived peripherally. So if those are also the properties phenomenally attributed to North and East, there is no difference in the precision of the properties phenomenally attributed when they are seen foveally and when they are seen peripherally, despite the fact that North and East are distinguishable when seen foveally, but not peripherally. But even were this not the case, and the explanation were compatible with the Phenomenal Precision Principle holding even when combined with representationalism, the mere fact that the explanation is clearly compatible with the Phenomenal Precision Principle *failing to hold* (and remains so when combined with representationalism) is enough to undermine Block’s inference to the best explanation argument for that principle. For this is already enough to show Block must concede that the representationalist can perfectly well explain the experimental data Block cites without committing to the Phenomenal Precision Principle being true. And this is enough to show that Block cannot successfully argue that representationalists must accept the Phenomenal Precision Principle, because only if they do so will they be able to explain the experimental data involving the percepts of North and East.

As for Block’s attempt to motivate the Phenomenal Precision Principle by appeal to introspection, I have the following doubts. Firstly, Block provides no evidence that the introspective judgment is widely shared. Secondly, there’s an obvious way in which any introspective judgment that contrast phenomenology drops off in the periphery might be confounded. Even if contrast is, as Block claims, represented just as precisely in the periphery as in the fovea, this certainly isn’t true of all aspects of colour. So it’s open to the representationalist to claim that we’re confusing a drop off in precision of representation and phenomenology of *some* aspects of colour, with a drop off in precision of *all*. Thirdly and finally, it’s not clear how reliable we are at judging the precision of representation in peripheral vision in general. One explanation[[15]](#footnote-15) of the fact that we find the phenomena of change and blindness[[16]](#footnote-16) surprising is that we tend to conflate the level of precision of attentive foveal perception, with the level of precision of visual perception, full-stop. If this is right, then our introspective judgments about the relative levels of precision in the fovea and the periphery are unreliable, and arguments which rely on them are correspondingly dubious.

I conclude then that Block has not sufficiently motivated the Phenomenal Precision Principle, and hence that representationalists have little to fear from the argument of (2015a).

**Bibliography**

Block, Ned 1996: ‘Mental Paint and Mental Latex’, Philosophical Issues, Vol.7, pp.19-49.

2010: ‘Attention and Mental Paint’, Philosophical Issues, Vol.20, pp.23-63.

2015a: ‘The Puzzle of Perceptual Precision’, in T. Metzinger and J. M. Windt (ed.s) *Open Mind 5*, MIND Group, Frankfurt am Main.

2015b: ‘Solely Generic Phenomenology: A Reply to Sascha Benjamin Fink’, in T. Metzinger and J. M. Windt (ed.s) *Open Mind 5*, MIND Group, Frankfurt am Main.

Breckenridge, Wylie 2007: ‘Against One Reason for Thinking That Visual Experiences Have Representational Content’, *Philosophical Perspectives* Vol.21 pp.117-23.  
  
Burge, Tyler 2010: *Origins of Objectivity*, Clarendon Press, Oxford.

Cameron, E., Tai, J. and Carrasco, M. 2002: ‘Covert attention affects the psychometric function of contrast sensitivity’ *Vision Research*, Vol.42 No.8, pp.949-967.

Carrasco, M., Talgar, C., and Cameron, E. 2001: ‘Characterizing visual performance fields: Effects of transient covert attention, spatial frequency, eccentricity, task and set size’ *Spatial Vision*, Vol.15 No.1, pp.61-75

Carrasco, M., Ling, S., and Read, S. 2004: ‘Attention alters appearance’, *Nature Neuroscience*, Vol.7,

pp.308–313.

Fink, Sascha Benjamin 2015: ‘Phenomenal Precision and Some Possible Pitfalls’, in T. Metzinger and J. M. Windt (ed.s) *Open Mind 5*, MIND Group, Frankfurt am Main.

Goodman, Jeremy 2013: ‘Inexact knowledge without improbable knowing’ *Inquiry*, Vol.56, No.1, pp.30-53.

Hess, R. & Field, D. 1993: ‘Is the increased spatial uncertainty in the normal periphery due to spatial undersampling or uncalibrated disarray?’ *Vision Research*, Vol.33 No.18, pp.2663-2670.

Johnston, Mark 2004: ‘The Obscure Object of Hallucination’, *Philosophical Studies*, Vol.120, No.1/3, pp.113-183.

O’Regan, J. and Noe, A. 2001: ‘A Sensorimotor Approach to Vision and Visual Consciousness’, *Behavioral and Brain Sciences*, Vol.24, pp.883-975.

Simons, D.J. 2000: ‘Current Approaches to Change Blindness’, *Visual Cognition*, Vol.7, No.s1-3, pp.1-16.

Travis, Charles 2004: ‘The Silence of the Senses’, *Mind*, Vol.113, pp.57-94

Watzl, Sebastian forthcoming: ‘Can Intentionalism Explain How Attention Affects Appearance’ in Pautz and Stoljar (ed.) *Themes from Block*, MIT Press, Cambridge MA, USA.

1. Strictly, attended and *less* attended, rather than attended and *un*attended. For if the object was perceived at all it was presumably attended to some degree. [↑](#footnote-ref-1)
2. Block characterizes the view which he thinks involves unacceptable arbitrariness as the view that ‘there is any distribution or level of attention that entails either veridicality in normal circumstances or illusion’ (2010, p.45). And he expresses the arbitrariness worry by saying that ‘there is no way to pick which distribution of attentional resources engenders veridical perception and which…illusion’ (p.45).

   I’m not convinced that Block successfully rules out the following alternative: there’s no single level of attention such that in normal conditions objects, or even just contrast specifically, is accurately represented. Rather the level of attention needed to represent accurately varies widely with the specifics of the viewing conditions, even within the normal range. (See Watzl (forthcoming, sc.3.1) for a discussion of this proposal.) However, for the purposes of criticizing Block’s argument on other grounds, I’ll ignore this.

   [↑](#footnote-ref-2)
3. Though my own view is that representationalist should say this. [↑](#footnote-ref-3)
4. I take no stance on whether Block is right about this. [↑](#footnote-ref-4)
5. ‘Mental paint’ views, in Block’s sense of the term are any views on which non-representational properties instantiated by the perceptual experience itself, show up in the perceptual experience’s phenomenology. [↑](#footnote-ref-5)
6. Taken from Cameron et. al (2002) and Carrasco et. al (2001). [↑](#footnote-ref-6)
7. Block doesn’t include explicit relativization to a type of property in his formulation, but I think doing so makes the principle look more plausible. Removing the relativization would not help him escape my objections to his case for the principle. [↑](#footnote-ref-7)
8. Thanks to an anonymous reviewer at *Philosophical Psychology* for raising this worry. [↑](#footnote-ref-8)
9. Thanks to an anonymous reviewer at *Philosophical Psychology* for pushing this point. [↑](#footnote-ref-9)
10. It seems plausible that Block will say that if an experience phenomenally attributes a particular property *F* to an object *o* then there’s a reasonable sense in which *o* appears *F* to us. [↑](#footnote-ref-10)
11. Travis (2004) Breckenridge (2007). [↑](#footnote-ref-11)
12. It’s this claim that is combined with the Hess and Field results showing that contrast representation does not drop in precision in the periphery to show that there must be a difference in precision between contrast representation and contrast phenomenology in either periphery or fovea. [↑](#footnote-ref-12)
13. (Fink 2015) suggests a different way of interpreting Block’s case for the phenomenal precision principle. But Block disavows this interpretation in (2015b), and his reasons for doing so seem sound to me, though for space reasons I omit them here. [↑](#footnote-ref-13)
14. Block can’t drop the assumption that contrast representation is as precise in the fovea as it is in the periphery without his entire argument collapsing. Recall that his case against representationalism is that there must be a difference between the precision of contrast representation and the precision of contrast phenomenology, in either the fovea or the periphery, given that the precision of contrast representation is unvarying between fovea and periphery, whilst the precision of contrast phenomenology varies. If contrast representation instead also varies between fovea and periphery, then there’s no longer any reason why it’s precision must differ in one or the other from the precision of contrast phenomenology. [↑](#footnote-ref-14)
15. O’Regan and Noe (2001). [↑](#footnote-ref-15)
16. See Simons (2000) on change blindness. [↑](#footnote-ref-16)