



Block's Paradox?

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Accepted: 24 June 2022 / Published online: 10 August 2022
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Abstract

Philosophical accounts of visual perception have long had to contend with questions of perceptual relativity: visual phenomenology seems to be influenced by factors independent of the objective properties of the external objects we perceive. More recently, a host of such examples has emerged from psychological studies on visual attention. In two prominent accounts of the consequences of this research, Block (2010, 2015) argues that these effects occur without changes in the way one visually represents the world to be. If true, this would undermine representationalist accounts of the phenomenology of perception, which share a commitment to the claim that phenomenal character supervenes on representational content. Block's thesis is based on experiments involving non-selective attention, and he draws the metaphysical conclusion that the resources representationalists need to distinguish veridical from illusory perception are nonexistent. The empirical evidence he considers is highly compelling, as is the 'landscape' model of attention that appears to underwrite it. However, in discussing these issues, Block also considers a representative example of selective attention, wherein he concedes a point that provides grounds for a plausible representationalist response. I assemble and assess this response, revealing the contradiction at the heart of Block's thesis, and conclude, that the representationalist should remain unmoved.

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1 Introduction

As it relates to perception, representationalism¹ is a family whose members share a commitment to the claim that the phenomenal character of one's visual perception supervenes on (or is reducible to)² the representational contents of one's visual perception. Historically, such views have been challenged by, amongst other things, the notion of perceptual relativity. That is, one's visual phenomenology is influenced, by a number of factors, without thereby changing one's visual, representational content. Amongst others concerns, then, any worthwhile theory of the former, must successfully contend with the claims of the latter. Some recent relativity claims have focused on experimental data arising from contemporary research on visual attention. Ned Block's work (2010, 2015) is arguably the most prominent of these, and his reading of the research suggests that no determinate distribution of attentional resources could *possibly* be decisive in fixing accuracy conditions for perception. If correct, this claim presents a significant challenge to representationalism, whose advocates are "[...] committed to the claim that there can be no change in phenomenal content without a change in representational content." (Prettyman 2017a).³

The *prima facie* significance of this charge is clearly reflected in the volume of responses to it,⁴ and one might well wonder what another will achieve. But my contention is that neither Block nor his commentators appear to have noticed that the cases of selective and non-selective attention he canvasses contradict one another.

The central plank of Block's position is his 'no-illusion' argument, which is composed of two related elements: (i) visual examples of non-selective attention and (ii) contemporary research maintaining that the 'spotlight' model of attention must be rejected for a 'landscape' model, instead. The upshot of this combination is a purported, metaphysical rebuttal of representationalism.

However, Block (2010) also utilizes a widely-accepted example of selective attention, which, he argues, the representationalist *does* have the resources to accommodate. I argue that once one recognizes the inherent contradiction in Block's position, elements of his own evidence can be utilized for a highly persuasive representationalist response.⁵

¹ I shall continue to use this term, although Block (2010) uses the term 'representationism,' instead.

² Block rejects the notion that the relation is one of supervenience, and favors, instead, the notion of 'grounding' (see his 2015, for details). Nonetheless, representationalists often formulate their position on the basis of supervenience, and nothing hangs on it for my argumentative position.

³ Block explicitly aims his arguments at representationalist *and* direct realists, alike. In what follows, I focus solely on the implications of his thesis for representationalism.

⁴ For a representative sample see, e.g., Boone (2013), Fink (2015), Goodman (2013), Watzl (2019).

⁵ In fact, I will also argue that his treatment of non-selective attention is inconsistent, and thus, that problems arising for his thesis, in relation to selective attention, first appear – in a slightly different form – in one of his examples of non-selective attention, too.

2 Attention Affects Phenomenology

Given my proposal that Block's purported evidence ultimately undermines his own conclusion, a significant proportion of what follows is necessarily exegetical. This could be exacerbated by the fact that he commands a large, and variegated body of attention research, in his argument against representationalism, to demonstrate that, amongst other changes, attended items look "bigger, faster, earlier, more saturated, stripier."⁶ (2010, P. 41) However, whilst the experimental focus and details change from case to case, they're all pressed into service for the same *philosophical* argument about the effects of attention on perceptual accuracy.⁷ Thus, little is lost if we limit the number of cases we look at.⁸

Our first example,⁹ then, focuses on transient attention, and involves a series of studies (Carrasco 2009; Carasco et al. 2004) in which subjects are instructed to focus on the brief appearance of an on-screen fixation point, and ignore¹⁰ another dot (a cue) that appears (randomly) either centrally or peripherally. Another fixation point appears, followed, on either side, by "Gabor patches." Subjects are required, by pressing a key, to report the orientation of the patch that appears to be higher in contrast. Although subjects are instructed to ignore the cues, their attention is still drawn by them. The result of this is that subjects reliably report the Gabor patch that they involuntarily attend to. Attention, then, appears to boost apparent contrast.¹¹ Indeed, when the patches are identical in *actual* contrast, subjects still report that the (involuntarily) attended patch appears higher in contrast. If the attended¹² patch is actually lower in contrast than the other, subjects report no contrast difference between the two.¹³

In a voluntary version of this test, Block provides a figure (Fig. 1, below) with a Gabor patch either side of a fixation point, and invites readers to test this themselves. The patch on the left has 22% contrast, the one on the right 28%. When one focuses on, and attends to the fixation point, the patches appear to be of different contrast,

⁶ Block is hardly alone in employing the attention literature for these ends. See, for instance, Chalmers (2004), Nickel (2007), Speaks (2010), Wu (2011), and Ganson and Bronner (2013).

⁷ In his 2015, Block claims that both peripheral and unattended perception produce the same results. But I ignore them in what follows. Block provides no evidence that peripheral vision occurs without attention. And the notion that *any* conscious perception occurs without attention is, itself, a vexed philosophical issue (e.g., Hine 2010; and Prinz 2011). Indeed, Block's own 'no illusion' argument relies on the notion that at least *some* attention is required for conscious perception.

⁸ Block is careful to acknowledge the scale and complexity of these issues.

⁹ This is actually the *second* example of *non-selective* attention that Block uses to make his case. I'm inverting their order in an effort to establish, and clarify, my own account.

¹⁰ Eye tracking techniques are employed to ensure that subjects do not move their eyes. Nevertheless, the cue presentations are quicker than subjects can move their eyes.

¹¹ In fact, as Block acknowledges, attention may well involve an apparent contrast increase in one patch, and an apparent decrease in the other. See Carasco et al. (2004) for details of this effect.

¹² Importantly, for the thesis of this paper, the difference here is actually between more vs. less attended, rather than *unattended* patches. See Block (2010, p. 44)

¹³ This is not the case for *any* actual contrast difference. See Carasco et al. (2004) for details.

indeed as Block says, “The patch on the left looks lower in contrast than the one on the right, a veridical perception.” (2010, p. 35) Yet when one covertly¹⁴ attends to the patch on the left, it seems to have the same contrast as the 28% patch.

The evidence is clear: attention affects the phenomenology of perception. But this, by itself, presents no obvious issue for representationalism. So, what *exactly* is the worry?

3 Illusory vs. Veridical Perception

Block argues that attentional effects on the phenomenology of perception cannot be accounted for in terms of *representational* content, and the central support for this claim comes from his ‘no illusion’ argument.

He asks us to reconsider the scenario involving the 22% and 28% contrast patches (see Fig. 1, below). Focusing solely on the former, Block asks “whether there is an illusory percept of the 22% patch when the subject attends to the fixation point-or, alternatively to the 22% patch itself.” (2010, p.44) Denying that attention affects perceptual phenomenology looks like a non-starter. Thus, given that attention changes representational content without changing any properties of the *actual* scene (obviously), it *must* follow that one, of the two representational contents, is illusory. Block’s contention, though, is that the latter option is, *in-principle*, unavailable.

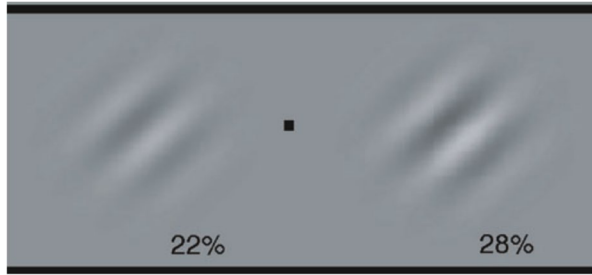
Block supports this position by noting that the ‘steady spotlight’ model of attention has fallen from favor based on both spatial and temporal considerations: attention is now widely assumed to be more like a ‘landscape,’ in that it has both excitatory and inhibitory fields, each of which is large and irregularly shaped. Furthermore, it seems likely that attentional resources are shared across sensory modalities, executive control, and cognition.¹⁵ If this is the case, then we can’t claim that veridical perception requires *all* attentional reserves. To do so, would involve accepting, say, that cell phone conversations would render one’s contemporaneous visual perception totally illusory (*Ibid.* p. 45). On the other hand, there are good empirical grounds for thinking that at least *some* attention is required for conscious perception (see, for instance, Mack and Rock 1998; Hine 2010; Prinz 2011). Between these two options, there appear to be no non-arbitrary grounds for preferring one distribution of attentional resources over another in distinguishing veridical versus illusory perception. Block concludes that:

[Representationalists] are not free to postulate representational contents that will so as to reflect appearances – rather these contents have to be grounded in veridical perception. If the [representationalist] says that changing the distribution of attention changes the representational contents...without changing or selecting any different property of the actual layout, the upshot is that at least one of these representational contents is illusory, and if my arguments against illusion is right, that claim is wrong.” P.50

¹⁴ Covert attention, an empirically well-supported phenomenon, involves changing where one visually attends without thereby moving one’s eyes.

¹⁵ See Block (2010) for the relevant citations.

Fig. 1 Reprinted from, "Attention and Mental Paint," by Block (2010). *Philosophical Issues* 20, 36. Copyright (2010) by Wiley Publishers. Reprinted with permission. Originally published by Carasco et al. (2004). Attention alters appearance. *Nature Neuroscience* 7, 308–313. By kind permission of the authors



Block's point, then, is that the representationalist cannot claim that *any* perceptual conditions count as accurate, if *none* can count as illusory. And this is because without principled constraints on what a perceptual state can represent, there's nothing to prevent that state from representing everything! Clearly, a perceptual state that 'represents' everything, isn't *really* representational in any useful sense. Thus, a theory with this result would be representationalism in name, only.

4 From 'no illusion' to...illusion?

Before reviewing responses to Block's conclusion, here, let's look at another example of non-selective attention that he considers; the famous Tse illusion (Tse 2005), below (Fig. 2).

By fixating on any one of the four square dots and then covertly orienting attention, you'll notice that the attended disk appears darker than the non-attended disks.¹⁶ This is a clear case of perceptual illusion. Indeed, as Block says, "[t]he three disks are really equally bright and what the moving of attention does is make one of them, illusorily, darker [...]" (p. 33) Furthermore, it dissolves any lingering doubts that voluntary attention affects phenomenology.¹⁷ In fact, Block's use of this example appears to be entirely elucidatory, playing no direct role in the 'no illusion' argument, which follows, after more than ten pages spent surveying other experiments.

Curiously though, and highly significant for our purposes, is the second reason that Block offers for employing the Tse illusion¹⁸:

[...] this phenomenon does not pose an immediately obvious problem for [...] representationism.¹⁹ The reason is that it is an illusion. The three disks are really equally bright and what the moving of attention does is make one of them, illusorily, darker [...]. The representationist's representational contents are grounded in veridical perception and those contents can misrepresent in illusion so they will have no problem with this case. (p.33)

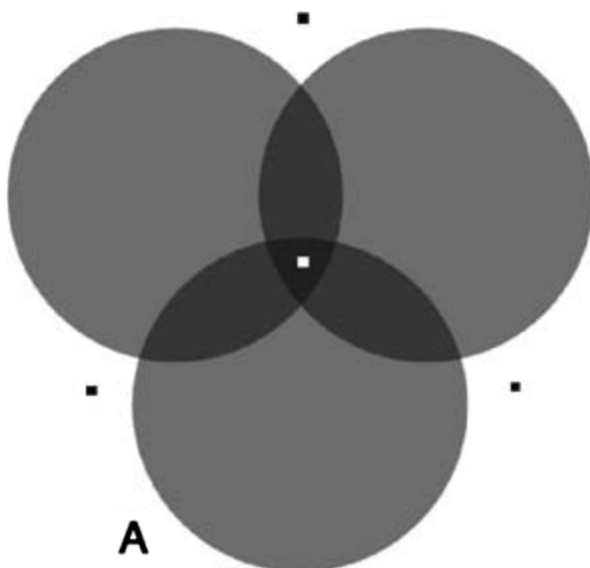
¹⁶ Again, it's likely that this is a case of more vs. less attended, rather than attended vs. unattended. See fn.7, above.

¹⁷ This is the first of three reasons that Block offers for using the example in the first place. The third is that it allows one to practice covert attention, which is, "... moving attention independently of fixation ... [.]" (Block 2010. P. 33).

¹⁸ See fn. 17, above.

¹⁹ This is the term that Block uses for what I'm calling 'representationalism.'

Fig. 2 Reprinted from “Voluntary attention modulates the brightness of overlapping transparent surfaces,” by Tse (2005). *Vision Research* 45, 1096. Copyright (2005) by Elsevier Publishing. Reprinted with permission



This, I contend, is where Block’s analysis *starts* to come undone, but given that he clearly draws attention to the difference in these cases, it’s surprising that commentators have not made more of it. Perhaps this is due to the order in which they’re presented (as I alluded, above).²⁰ Nonetheless, there’s no question that much more *should* be made of it, because by Block’s own lights, the representationalist can claim that there *are* cases of attention – non-selective attention, no less – that are “grounded in veridical perception,” and this is exactly the point that his later, ‘no illusion’ argument is meant to undermine. Indeed, this concession restricts the scope, and thus significance of his main thesis so severely, that it’s not obvious what he could gain by canvassing additional cases.

How *might* Block respond? Two thoughts come immediately to mind, although both appear problematic. First, when briefly explaining the illusory darkening of the disks, Block says, “The effect involves grouping and is selective in that sense [...]” And whilst he follows by insisting that it’s nonetheless, “[...] not selective in the sense described in the last section [...],” perhaps the notion that it involves *some* kind of selection suffices to support his claim, here, too. Unfortunately, Block provides no further details. But it’s not obvious that it would matter, because the case that he alludes to is one wherein he considers a widely acknowledged example of selective attention that he also concedes the representationalist can accommodate.²¹ And as I shall argue later, *this* concession, which Block provides independent support for, ultimately undermines his entire project.²²

²⁰ Block looks at this case of non-selective attention *before* the Gabor patch examples (surveyed in §2 and §3, above).

²¹ This appears in §3 of his 2010, before he focuses on this case of non-selective attention, which appears in the following section.

²² See §6, below.

The other possibility, it seems to me, is to allow that Block need not have made the concession, in the first place. Not, that is, in allowing that this *is* an illusion, but instead by granting that the representationalist can account for it. Although he introduces the ‘no illusion’ argument in a later section, adherence to it demands that the representationalist acknowledges the Tse illusion, *as* an illusion, whilst simultaneously being precluded from doing so. That is, if no determinate distribution of attentional resources is decisive in fixing accuracy conditions for perception, then there’s no possibility of representational *inaccuracy* either, and consequently, no possibility *of* illusion. But there’s no question that this *is* an illusion, thus the representationalist is caught in paradox.

If correct, this is clearly damning for the representationalist, and on its face – at least – it’s consistent with his own, later, central conceit. Nonetheless, the nature of the experiment is such that it does seem as if Block is right in allowing that the change in phenomenal content *can* be accounted for by a change in representational content (due to attention). And this, of course, is consistent with representationalism.

It’s not clear to me how one might adjudicate these arguments, and the fact that Block does not address them attests to the complexity of the issues involved, here. However, in the remaining sections I make the case that we need not do so, anyway, in order to defend representationalism. Instead, I will argue that the *contestable* compromise Block makes here in relation to *non*-selective attention, echoes a similar concession he grants regarding selective attention.²³ But the latter case clearly *is* warranted, and subsequently provides a crucial premise missed by previous representationalist responses to Block. To see how this is so, then, let’s look – first – at two such responses.

5 Illusion All the Way Down?

Leaving aside, for the moment, the concerns just raised in §4, above, Block’s claim that neither percept in Fig. 1 can be counted as illusory by representationalists, is still highly compelling, and – on its face – *ought* to generalize to other cases of *non*-selective attention. Moreover, his ‘no illusion’ argument isn’t epistemic – it is not, he thinks, that one of the percepts of the 22% patch *is* illusory, and we are simply unable to say which one. Indeed, as Watzl observes, “[...] Block’s claim is that objectively there isn’t anything that could explain why an experience of contrast would be accurate at one specific level of attention rather than some other level.” (2019, p. 19)

If this is right, then the research that Block relies on can still be read in two ways. The option that Block picks, as we’ve seen, is that neither percept is illusory. The second possibility is that *they both are!* And for what it’s worth, he does come close to recognizing this when he says that:

²³ Block looks at these examples *before* focusing on *non*-selective attention. Once again, I’m re-arranging their order for argumentative clarity.

The evolutionary point of the increased acuity and contrast at the attended location is to get more information about what is at that location. Because the effect of increasing acuity at one point inevitably reduces acuity at another... there is no way of making all perceptual comparisons accurate at once. (Block 2010, P. 47)

The attention researchers Block cites are more sanguine about the second option:

There is a vast literature demonstrating that the visual system operates on the retinal image so as to maximize its usefulness to the perceiver, often producing nonveridical percepts... Attention augments perception by optimizing our representation of sensory input, and by emphasizing relevant details at the expense of a faithful representation of the sensory input. (Carasco et al. 2008, p. 1162)

5.1 Attention Plus Perception Equals Illusion?

Watzl (2019), exploits this purported distinction between the central functions of perception and perceptual attention.²⁴ The function of the former, he argues, is to produce *accurate* personal-level representations of an organism's environment. The function of the latter is to render these representations *useable*.²⁵ Although these systems are importantly related, they can diverge: The most accurate representation might not be the most useable, and the most useable representation might not be the most accurate. Ultimately, our perceptual experience is the result of a compromise between the two (*Ibid*, p. 20).²⁶

Given that this perceptual model is consistent with the empirical claims under consideration, Watzl contends that both the 22% percepts in Block's central example are illusory. Block's argument agrees with, indeed relies upon, the notion that different levels of attention differ in their effects on apparent contrast. Allowing that perception and perceptual attention are functionally divergent, it seems that any amount of the latter will affect the accuracy of the former. Thus, the representationalist appears to have a robust response to Block's philosophical position and it relies on exactly the same experimental evidence. But if this is the case, why would Block prioritize his own reading of the research?

Well, it's possible that he doesn't explicitly consider this alternative because it amounts to a *reductio* of representationalism.

"[...] our best theories of representation [...] imply that covariation between representations and represented items is a necessary condition of the former representing the latter. Clearly, covariation is precluded if perception suffers from systematic inaccuracies. (Hill 2017)²⁷

²⁴ Hill (2016) exploits a different version of this distinction to propose an *impure* representationalist response to these (and other) issues raised by the effects of attention on visual perception. See §5.2, below.

²⁵ Prettyman (2019), argues that the relevant distinction between perception and misperception, here, is not one of just accuracy but also precision, thus visual illusions are both inaccurate and imprecise.

²⁶ Carrasco (2014) provides some interesting examples of such cases.

²⁷ Hill is responding, here, to *superficially* similar points made by Prettyman (2017b).

The point, here, is that we cannot distinguish perceptual representations from perceptual *mis*-representations without an account of the relevant accuracy conditions necessary for representation. And the latter clearly can't be provided if we allow that visual perception is systematically inaccurate. Indeed, they stand, or fall, together.²⁸ This, I think, throws into relief a striking symmetry between Block's and Watzl's respective claims. Consequently, whatever remains of Watzl's proposal, it can't support perceptual *representationalism*.^{29,30,31}

5.2 Representationalism Redux

Although it only plays a small part in a much more comprehensive analysis of visual perceptual relativity, Hill (2016) also examines the Carrasco experiments that Block utilizes against representationalism. He contends that "all visual experience is governed by perceptual relativity," and thus given its multidimensionality, a univocal response is unlikely to succeed. Accordingly, he gestures at just one specific way in which representationalism might be defended against Block's charges.³²

It is instructive to look at the successes and failures of this attempt. Hill has us imagine a scenario similar to that in Fig. 1, above (§3). His position is that a subject S's experiences of the 22% contrast Gabor patch (P1), both with and without attention "[...] attribute objective levels of contrast – but that these properties are distinct." Indeed, in the *attended* case S misrepresents P1 as having an objective contrast of 28% rather than the 22% it appears to have in unattended perception. But why, he wonders, would evolution provide us with a faculty, like attention, that leaves us at an epistemic disadvantage? His response, here, is superficially similar to Watzl's: there's a trade-off between accuracy and useability. Thus, depending on the task, the loss of the former, for the gain of the latter, potentially provides us with an epistemic *advantage*.

Watzl, as we've seen, though, declares that *all* our percepts are illusory. And thus, it's hard to imagine how his account could ever amount to a representational theory. Hill's, on the other hand, looks like it can't get off the ground for two reasons we've already looked at.

First, he asserts that the unattended percept of P1 is *accurate*, whereas the attended experience is illusory. But this only seems possible if Block's 'no illusion' argument is mistaken. That is, one must provide an account of *the* determinate distribution of attentional resources necessary for fixing accuracy conditions for perception. In the absence of an alternative to the landscape model of attention,

²⁸ This is exactly the issue raised by Block's 'no illusion' argument, canvassed at the end of §3, above.

²⁹ Citing Burge (2010), Block makes a similar point. See, also, Hill (2016).

³⁰ This is only problematic for Watzl, here, given that this is precisely what Block claims to establish.

³¹ As already noted (see fn. 24 and 25, above), though the details and outcomes differ, Prettyman (2019), and Hill (2016) pursue superficially similar routes to Watzl's. The results are versions of *impure* representationalism, wherein, "...phenomenal facts supervene on more than just facts about content." (Prettyman 2017a).

³² Ultimately, however, Hill argues that his 'Thouless hypothesis' not only can but should encompass the specifics of this response.

it seems unlikely that such an account will be forthcoming. And Hill doesn't address this issue at all, thus there's no reason to accept *either* experience of P1 as accurate in the first instance.³³

But let's leave this to one side, for the moment, because Hill recognizes an issue with his own account, anyway, and it's the one we've already levelled at Watzl. It's worth quoting this concern, at length, then:

[...] It implies that attention generally causes agents to misrepresent contrast, it also implies that attention plays no role in assigning content to the representations of contrast. Thus, if the content of [P1, when attended to] is *having an objective contrast of 28%*, then [it] must acquire that content in contexts in which the contrast level is actually 28%. It must acquire the content in such contexts because, as a general rule, a representation must covary with an objective property P in contexts in which its content is determined to be P [...] It follows that representations of contrast must acquire their contents in which attention isn't operative, because [...] the contexts in which attention is operative are contexts in which representations do not covary with the properties that are their contents. This consequence is a cause for concern because attention plays such a large role in perception. (p.197)³⁴

Hill's proposed solution requires bifurcating representations into those from unattended versus attended contexts, and claiming that representational contents, in the former, are purely informational, whereas representational contents in the latter context can include "noninformational functions." "Accordingly," he says, "we should not think of the contents of representations as determined in contexts in which attention is operative, even if those contexts outnumber the ones in which attention plays no role." Hill's characteristically humble conclusion is that, although this account is plausible, it's also "quite sketchy." Thus, "As a result, we aren't in a position at present to draw any firm conclusions about its merits."³⁵

However, Hill's account is premised on a distinction between attended versus *unattended* perception, whereas Block's 'no illusion' argument relies on more versus less attended perception. On the face of it, this might seem as if it could provide us with a way to decide between the cases: correct for this feature, and compare the subsequent results of each approach. Unfortunately, whilst the difference here is clear, it's not clear which account should be adopted as a consequence. And this is so because the notion that visual perception is always attended (see, Mack and Rock 1998; Hine 2010, Prinz 2011), is itself a contested issue (Jennings 2015).

³³ Hill does criticize Block's account on other grounds, but examining them, here, will take us too far afield. And, as I argue below, it's not necessary for our aims.

³⁴ It's just this concern, of course, that counts against *any* of Watzl's purported perceptual states – all of which are supposed to be illusory – from being representational

³⁵ A little later, Hill does tentatively suggest some reasons for thinking that his account should be preferred over Block's, but again, we need not pursue them in order to make our point.

However, in the following, and final argumentative section, I shall show that we need not adjudicate between these positions. Instead, I claim that the insights shared by Watzl and Hill,³⁶ can be accounted for even if *all* perception *is* attended, and that the argumentative support for this position is provided by Block, himself. However, if this is right, then the issues raised by attention *can* be satisfactorily accounted for by representationalists.

6 Selective Attention and the Road to Representationalism

So far, then, the empirical evidence that Block relies on appears to underwrite a formidable metaphysical claim: there are *no* principled grounds for preferring one distribution of attentional resources over another in distinguishing veridical versus illusory perception.³⁷ And if there are no conditions under which purported representations would be veridical, then representationalism lacks the necessary resources to proffer a viable account of perceptual experience. Prominent representationalist responses to Block (or at least the issues he investigates) seem to stumble on (variants of) the same central concern: establishing the possibility of representationalism, in the first instance, in light of compelling evidence to the contrary.³⁸

Let's look, though, at another example considered by Block, which³⁹ ultimately undermines his own position, thus leaving room for a compelling representationalist response to the issues raised by attention. "I say that facts about attention point away from [representationalism]. *But there are some attentional phenomena that [representationalism is] well equipped to accommodate.*" (Block 2010. p.28. Emphasis is mine). The example he uses for support, here (taken from, Tong et al. 1998,—not reproduced, here),⁴⁰ is actually the first one he presents to the reader, and it's offered to illustrate the effects of *selective* attention. It contains overlapping pictures of a man's face and a two-story building. The former is predominantly printed in different shades of green, the latter printed in reds and oranges. What's interesting, here, is that the phenomenal character of one's experience changes depending on whether one attends to the face or the building, such that one seems to be aware of whichever one that one is attending to, at the expense of awareness of the other. Indeed, this phenomenon is well-known within attention studies, as Block explicitly acknowledges. In fact, before he proceeds to look at cases of *non-selective* attention, he says:

³⁶ These insights, of course, were also noted by Carrasco et al., and Block, in their own ways, of course. See §5, above

³⁷ Although, see §4 for an argument that Block has already potentially undermined the scope of his own argument.

³⁸ My claim, here, is specifically related to Block's 'no illusion' argument.

³⁹ Arguably, along with the non-selective example of attention – the Tse illusion – §4, above.

⁴⁰ Block acknowledges that the image was originally used for another purpose, but nothing hangs on this for either of our ends.

[selective attention] does *not* require mental paint.⁴¹ I regard selection as what happens when because of the joint effect of amplifying some representations and suppressing others, some things that could be seen are not seen. (2010, p.31)

It's worth pausing on this point for a moment. Block allows that the representationalist has the relevant resources to accommodate this kind of attentional effect on perception. Thus, in this example of *selective* attention, the representationalist doesn't inherit the issues that follow from *non-selective* cases, whereof, "[...] attentional resources [...] are to some extent shared among [...] other modalities, and with executive control mechanisms [...] and cognition." (*Ibid.* p.45). Remember, that it was on account of this, and the related landscape model of attention, that Block insisted there's no way to fix a determinate distribution of attentional resources for accuracy conditions,⁴² and thus no possibility of illusion. And it was the combination of these claims, Block insisted, that provided plausible grounds for rejecting representationalism.

But questions of resource sharing are beside the point in this example. By Block's own account, what one *selectively* attends to, changes one's representational contents,⁴³ thereby changing one's phenomenal content. And this, of course, is consistent with representationalism.

Indeed, this commitment to phenomenal character supervening on representational content, requires that, "[...] a representation must covary with an objective property P in contexts in which its content is determined to be P [...]" (Hill 2016, p.197) And Block is presenting us with an example where he admits that this is, in fact, the case, thereby pointing to a promising prognosis for the representationalist.

Not *all* attentional effects on visual phenomenology are *non-selective* in nature. Thus, rather than accepting that no visual perception is ever illusory (or alternatively, as per Watzl, that it all is), we can conclude that under certain attentional conditions (selective attention, and arguably some non-selective attention⁴⁴), visual perception *can* be accurate – phenomenal character does covary with representational content – which therefore licenses the possibility of illusion. And this is all of a piece with representationalism.

To put these points another way, even if there are circumstances under which *non-selective* attention affects phenomenology without also affecting representational content, this is far from the full story for *all* attended visual perception.⁴⁵ Block concedes, as he has to, that there can be attentional changes to one's phenomenology that covary – indeed are caused by – changes in the way one represents the world

⁴¹ Block claims that if his arguments against direct realism and representationalism are correct, then we have to accept the existence of mental paint. I have ignored the latter point, throughout, preferring instead to focus on the antecedent of this claim.

⁴² As discussed in §2, 3, and 4, above.

⁴³ Due to the, "...the joint effect of amplifying some representations and suppressing others, some things that could be seen, are not seen." Block (2010, p.31).

⁴⁴ Again, see §4, for details.

⁴⁵ And, as I suggested in §4, arguably not even in all cases of *non-selective* attention, either.

to be. Block's 'no illusion' argument, then, provides no principled barrier to representationalist theories 'getting off the ground.' That is, the example from *selective attention* allows that there's room for our species having had a history of veridical perception that grounds⁴⁶ perceptual phenomenology, in terms of representational contents.

Moreover, with this in hand, the representationalist can gratefully accept the insights of Watzl or Hill without the related penalties.⁴⁷ In the former case, one can accept some divergence between accuracy and useability without agreeing that *all* perception is illusory. In the latter case, this account is not only consistent with the distinction between informational and non-informational representational contexts, but it provides additional plausibility for the position. Recall Hill's concern that,

"[...] attention plays such a large role in perception. It seems that contexts in which contents are assigned to representations should be contexts that frequently occur, but contexts in which attention plays no role at all may be mildly exceptional." (p.197)

However, even if Hill is right that perception *can* be both attended and unattended (rather than the cases of more versus less attended, with which Block's 'no illusion' argument contends), then this concern is potentially much less pressing than he maintains: content can be assigned to representations in contexts where attention plays no role, *and* (according to Block's own arguments) in *selective attention* contexts where it does, too. That is, this allows for a much greater range of contexts in which representational contents *are* properly assigned.

As per Block's concession, then, Representationalists can point to attentional conditions under which perceptual content *does* covary with objective properties. And with this properly grounded account in hand, there's no longer an obvious problem in granting that there are other (*non-selective*) attentional conditions of visual phenomenality that rely on more than just facts about content.

7 Concluding Remarks

Block offers us an impressive array of examples wherein (*arguably*, some) *non-selective attention* affects perceptual phenomenology without, he claims, affecting perceptual representation. On the basis of these results, he challenges the representationalist to "find a principled reason for regarding [perception] with a certain degree of attention to be more veridical than [perception] with a different degree of attention." (2015, p. 26) His 'no illusion' argument purportedly amounts to the

⁴⁶ I use this term, here, in a non-technical sense. Moreover, I'm remaining neutral about the precise metaphysical *nature* of this relationship.

⁴⁷ Allowing that this argument is *consistent* with Watzl's and Hill's insights is not, of course, the same as saying that one must accept them. I remain neutral between these, and other such representationalist accounts, and provide them as illustrative of potential ways forward, once my additions are taken into account.

metaphysical claim that this challenge cannot be met. That is, no determinate distribution of attentional resources could *possibly* be decisive in fixing accuracy conditions for perception. Thus representationalism, the orthodoxy in philosophy of perception, is false.

However, as grave as this position initially appears for the representationalist, I have attempted to show that it's ultimately undermined by concessions that Block grants to representationalism, based on evidence from (arguably, some non-selective and) selective attention experiments.

This allows that representationalists do have the philosophical resources for ascribing accuracy conditions to perception. The notion that, "it is only in virtue of a history of veridical representation both in our lives and in the past of our species that our perceptual representations even have representational contents [...]," (2015, p.3) is easily accommodated by the representationalist.

Ultimately, regardless of whether or not *all* visual perception is attended,⁴⁸ the representationalist can actually allow that the 'no illusion' argument is correct, for some cases of attentionally affected visual perception,⁴⁹ without undermining the notion that our species still has a history of veridical representation on which to ground the notion of accuracy conditions for perception.

Given the abundance of data for perceptual relativity, more generally, this line of argument hardly shows that *all* roads lead to a representationalist Rome. Nonetheless, we can draw the more modest – but still important – conclusion that the results from visual attention experiments, in particular, don't block the route.

Declarations

Conflict of Interest None.

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⁴⁸ That is, as argued above, this position is consonant with the possibility that some perception is unattended.

⁴⁹ Some cases of non-selective attention, that is. See §4 for details.

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