

**Original citation:**

Eilan, Naomi. (2015) Perceptual objectivity and consciousness : a relational response to Burge's challenge. Topoi.

**Permanent WRAP URL:**

<http://wrap.warwick.ac.uk/87500>

**Copyright and reuse:**

The Warwick Research Archive Portal (WRAP) makes this work by researchers of the University of Warwick available open access under the following conditions. Copyright © and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners. To the extent reasonable and practicable the material made available in WRAP has been checked for eligibility before being made available.

Copies of full items can be used for personal research or study, educational, or not-for profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

**Publisher's statement:**

"The final publication is available at Springer via <http://dx.doi.org/10.1007/s11245-015-9325-4> "

**A note on versions:**

The version presented here may differ from the published version or, version of record, if you wish to cite this item you are advised to consult the publisher's version. Please see the 'permanent WRAP url' above for details on accessing the published version and note that access may require a subscription.

For more information, please contact the WRAP Team at: [wrap@warwick.ac.uk](mailto:wrap@warwick.ac.uk)

# Perceptual Objectivity and Consciousness: A Relational Response to Burge's Challenge

Naomi Eilan<sup>1</sup>

**Abstract** My question is: does phenomenal consciousness have a critical role in explaining the way conscious perceptions achieve objective import? I approach it through developing a dilemma I label 'Burge's Challenge', which is implicit in his approach to perceptual objectivity. It says, crudely: either endorse the general structure of his account of how objective perceptual import is achieved (an account I label 'Caused Representation'), and give up on a role for consciousness. Or, relinquish Caused Representation, and possibly defend a role for consciousness. Someone I call Burge\* holds we should embrace the first horn of the dilemma. A second response, roughly the relationalist approach, opts for the second horn. The third option, implicit in many current approaches to perceptual consciousness, is to reject the dilemma. The paper argues for a version of the second response. The key argument turns on the development of a sceptical challenge to justify the assumption that we perceive particular intrinsic property instantiations, rather than their structural equivalents. The suggestion will be that only the relationalist approach can meet it in the way we think it is met. If this is right, there is a *prima facie* case for taking relationalist responses to the dilemma seriously. I end with two objections to this response, which might be made by the real Burge in defence of opting for the first horn of the dilemma, and by phenomenal intentionalists in defence of rejecting the dilemma. I use discussion of these to highlight one of the main issues that should be pursued in order to make good the claim that we should embrace the horn of the dilemma that Burge\* rejects.

**Keywords** Perceptual objectivity · Perceptual consciousness · Acquaintance · Relationalism · Burge

## 1 Introduction

Tyler Burge's official target in *Origins of Objectivity* is a position he calls 'Individual Representationalism', according to which 'constitutive conditions on objective representation must be represented by the individual if the individual is to engage in objective representation'. Applied to perceptual objectivity, he argues, this over-intellectualizes the requirements.<sup>1</sup> But there is also another, equally important target, or, if this sounds too directed, casualty of his positive account of perceptual objectivity. This is the idea, often only vaguely presupposed, that phenomenal consciousness has a critical role in explaining the way conscious perceptions achieve objective import. It is his powerful critique, sometimes implicit, of this idea that I am calling 'Burge's Challenge'. It can be presented in the form of a dilemma, with Burge's approach to perceptual objectivity in effect amounting to endorsement of one of its horns. In contrast, much current writing on perception can be seen, implicitly at least, as rejecting the exhaustiveness of the dilemma. Crudely, I will argue that Burge is right about the dilemma, but wrong in the horn he opts for.

Although I will be drawing on claims Burge actually makes, and will cite them where appropriate, as he doesn't explicitly formulate the dilemma, I will from now on call it 'Burge\*'s dilemma' and attribute arguments in defence of it and the horn he chooses to Burge\*. In this section I give an informal description of the issues it addresses and use

<sup>1</sup> For an introduction to the idea of Individual Representationalism see Burge (2010: 12–22).

this to introduce the structure of the paper. Throughout, I will be discussing visual perception.

The two basic claims that provide the background to Burge\*'s dilemma are these. First, normally, when you see a physical, mind-independent object you are aware, or conscious, of it. It is phenomenally present to you. Call this the 'ofness of consciousness'. Second, when you see such an object, your perception is 'of' the object in the sense that in virtue of perceiving it you are in a position to make non-inferential judgments that refer to it and ascribe mind-independent properties to it. Call this the 'ofness of objective import'. The general background question is: what, if anything, is the relation between these two senses in which a perception is 'of' the object perceived. The more specific version of the question, which will be our concern throughout, is this: in explaining what gives a conscious perception objective import should we appeal to what makes it yield consciousness, or phenomenal presence, of the object perceived?

Burge\* says 'no'. His rejection is based on two claims. The first says that a perception of an object, whether conscious or not, has objective import in virtue of the perceived object causing the occurrence of a perceptual state with representational contents. The second claim says that we can give an exhaustive account of objective import, thus explained, without essential recourse to whatever it is that delivers phenomenal presence. The Burge\* dilemma, given these two claims, in its first crude formulation, is as follows. Either endorse his account of objective import, and relinquish any idea you might have to the effect that phenomenal presence plays a constitutive role in delivering objective import; or, relinquish his account of objective import (and, possibly, defend the intuition that phenomenal presence delivers a distinctive kind of objective import that only conscious perceptions have).

Burge\* holds we should embrace the first horn of the dilemma. I think it is right to say that many current writers on perceptual consciousness, on the other hand, would, if only implicitly, reject the dilemma. They would say that for conscious perceptions, 'consciousness of' is directly implicated in delivering objective import, and, at the same time, that objective import is to be explained as Burge\* explains it. This is, for example, a natural way of reading representational theories of phenomenal character—such representations, when suitably caused, are said to deliver both consciousness of the object and objective import. It is also, as I understand them, the upshot of at least some claims made by 'phenomenal intentionalists' (discussed in the final section of the paper).<sup>2</sup>

<sup>2</sup> For a representative use of phenomenology to argue for the 'content view' see Siegel (2010); for a summary of the phenomenal intentionality approach see Kriegel and Horgan (2008).

An alternative response is to accept the dilemma but to embrace the horn Burge\* rejects. To do so is to say that the phenomenal presence of perceived objects should be appealed to in explaining the kind of objective import conscious perceptions have, but that this requires dropping Burge\*'s account of objective import. Although not explicitly formulated as a response to the dilemma, this is, in effect, what 'relational' theories of phenomenal character say.

In the next two sections I lay out in more detail the claims that inform the dilemma, and the Burgean\* endorsement of its first horn. In section 4, I set out the main argument I want to have before us in favour of a role for phenomenal presence in explaining objective import. The remainder of the paper examines the responses to the argument available (a) to Burge\*, (b) to those who endorse his account of objective import but reject the dilemma, and (c) to those who accept the dilemma but choose the opposite horn.

I will be arguing for a version of option (c). To anticipate: we normally assume that the concepts we use in perception-based judgments refer to particular mind-independent properties, rather than to structural equivalents, and that it is the instantiation of such intrinsic or categorical properties that render our judgments true or false. I formulate a sceptical challenge to this assumption and argue that neither options (a) nor (b) can meet it in the way we intuitively think it is met, but that a relational version of (c) can. If this is right, there is a *prima facie* case for taking relationalist responses to the dilemma seriously. I end with two objections to this response, which might be made by the real Burge in defence of option (a), and by phenomenal intentionalists in defence of option (b). I use discussion of these to highlight one of the main issues that should be pursued in order to make good the claim that we should embrace the horn of the dilemma that Burge\* rejects.

## 2 Burge\*'s Challenge

It is notoriously difficult to give an uncontroversial account of what 'sees' means in locutions such as 'S sees O', where these refer to cases of 'object seeing', which, following Fred Dretske, I will call 'simple seeing' (the contrast is with 'epistemic seeing', 'seeing that'). One claim, made for example by Dretske, is that it is internal to the meaning of 'sees' in such cases that when S sees O she is aware, or conscious, of Dretske (1997). Whether or not one thinks of it as internal to the meaning or as a background assumption, though, most people would agree that normally, when S sees O, S is conscious of O. As this is normally understood (though not necessarily by Dretske), such consciousness yields phenomenal presence of the object to the subject. I will call this claim *Consciousness*. This claim is not contested by any of the participants in the debate.

Many, if not most, writers about perceptual experience are direct realists. As such they would endorse some version of the following statement. Perceptions have immediate objective import in the sense that they provide us with the basis for immediate non-inferential judgments about mind-independent objects and some of their mind-independent properties. The most common contrast is with the kind of indirect realism that says that perceptions provide us only with sense-data on the basis of which we entertain hypotheses about their causes. I will label this claim *Objective Import*. This claim too is not contested by any of the participants in the debate.

One question is: how do conscious perceptions achieve their objective import? The most common answer, which Burge endorses and elaborates, is this. A perception is a perception of a particular mind-independent physical object, in the objective import sense, in virtue of its representational contents being assessable for accuracy relative to the state of the object that causes the occurrence of the perceptual state.<sup>3</sup> I will call this claim *Caused Representation*. This is the first contested claim.

A second question is: does the possession by a conscious perception of objective import constitutively depend on the fact that the perception delivers phenomenal presence of the object perceived? More specifically, in cases of conscious perception, does phenomenal presence deliver a special kind of objective import, not possessed by non-conscious perceptions? The point of this question can be brought out by having before us the much discussed case of blindsight, in which, due to a particular brain lesion, subjects are not conscious of retinotopically defined regions in their visual field (Weiskrantz 1986/2009; Weiskrantz 2002; Cowey 2010). They say they have no experiences of anything in that region; but, when asked, are well above chance in answering questions about it, questions about the orientation of a line in that region, for example. On most accounts, we should conclude that their perceptions represent some properties of objects in the 'blind' field, despite the absence of conscious experience of them (but see caveat below). Our question is: does the absence of perceptual consciousness in such cases mean that their perceptions lack the kind of objective import possessed by normal perceptions that do yield consciousness of the perceived environment?

Burge\* would answer 'no'. According to him, the way perceptions achieve objective import, and explanations thereof, are both wholly independent of perceptual consciousness and explanations thereof. Burge himself cites the case of blindsight as a demonstration of this independence: everything there is to say about perceptual objective import applies to such cases, but there is no perceptual

consciousness (see, e.g., Burge 2010: 188, 368, 376). This is based on the idea that the possession by a perception of any given representational content is not sufficient for perceptual consciousness. Adding a causal relation between the object and the state does not alter the situation. So we can give an exhaustive account of perceptual objective import without bringing in consciousness at all. I will call this claim *Independence*. It is the second contested claim.

The point being made by the Independence claim is simple. Specifying the representational content of an experience is a matter of specifying (a) how the world must be if the perception is veridical, and (b) how it is represented. The basic intuition is that for any such representational content, it is possible for a non-conscious perception to have it. The addition of the requirement, on the Caused Representation claim, that the occurrence of the state with such contents be caused by the perceived object does not introduce a role for consciousness. Perceptual objectivity is constitutively independent of perceptual consciousness.

That is the challenge. The contrasting view introduces the last claim I want to have in place in this section. I will call it *Phenomenal Objectivity* (PO). It insists, contra Independence, that consciousness does play a role in delivering a distinctive kind of objective import, possessed only by conscious perceptions. Recently the claim has, perhaps, been most explicitly made by philosophers who adopt one of the many versions of the 'phenomenal intentionality' claim, and I return to some of these in the last section. But it is important for my purposes that PO be introduced and recognized as a background assumption in much writing about perception. It underlies, for example, many, often differently motivated, claims that we find in the literature to the effect that consciousness of an object is what puts one in a position to use demonstrative concepts in making perception-based judgments about it; that it plays a role in making knowledge possible; that it has a role in rationalizing judgments, and so forth.<sup>4</sup> The intuition is that presence of the object grounds these capacities, in some way and in some sense, and that the way it does so should enter into an account of the objective import of conscious perceptions. This is the third contested claim.

With Caused Representation, Independence and Phenomenal Objectivity in play, we are now in a position to formulate the Burge\* dilemma: either accept both Caused Representation and Independence (and reject Phenomenal Objectivity); or reject Caused Representation (and, possibly, defend Phenomenal Objectivity). Burge\* chooses the first horn of the dilemma. A defender of PO will reject Independence. There are two ways of doing so. One is to endorse Caused Representation, but to say that there is a

<sup>3</sup> For an elaboration of Burge's own version of Caused Representation see Burge (2010: 30–59).

<sup>4</sup> For a variety of such claims see, e.g., Campbell (2002), Roessler (2009), Smithies (2011).

kind of representational content that suffices for consciousness of the object perceived. To say this is to reject the dilemma and to insist that there is a third option consisting in a version of Caused Representation plus PO. The other is to accept the dilemma but to reject Caused Representation, and to say that conscious perceptions do have a distinctive kind of objective import that is constitutively bound up with phenomenal presence, but which cannot be explained by appeal to the Caused Representation account of objective import. As I noted in the introduction, this is, in effect, what relational theories of phenomenal character do.

In section 4 I will set out the argument for PO that I want to have before us, which comes in response to a sceptical challenge. Subsequent sections will examine the difference between caused-representation and relational theories of objective import relative to the question of how and whether they can avail themselves of the central intuition underpinning this argument for PO. In the next section, by way of completing the introduction to the problem, I say something about how, if you endorse Burge\*'s Caused Representation and Independence, you should account for the kind of 'consciousness of' that we find in normal cases of perception.

Before proceeding any further, though, a substantive caveat about appeals to blindsight is in order. According to (the real) Burge, perceptual objectivity requires perceptual constancy, the capacity to represent properties as the same despite radically different proximal stimulation; and he claims that this is achieved in blindsight (I say more about his appeal to constancy in section 8). In fact, though, as Ian Phillips points out, researchers working on blindsight have found no clear evidence for constancy (Phillips 2014). As Phillips also notes, there are, in addition, considerable difficulties in formulating uncontroversial criteria for the absence of consciousness in such cases. This suggests that, as things currently stand, philosophers are best advised to treat the blindseer as a creature of a thought experiment, akin to zombies and Ned Block's superblindseer. At any rate, for the rest of this paper, I will take it that it is under some such description that Burge\* appeals to blindsight. I shall call the condition he maintains is conceivable 'blindsight\*'. A subject who suffers from this condition can, on the basis of perceptual information, issue accurate guesses about a wide range of properties in particular regions of his visual field, despite the absence of consciousness of these properties.

### 3 Perceptual Consciousness and Independence

If you endorse Burge\*'s Caused Representation and Independence, how should you account for the kind of 'consciousness of' that we find in normal cases of perception?

Suppose you appeal to blindsight\* to argue that the mere possession by a perceiver of information that meets the Caused Representation requirement is not sufficient for consciousness in the following senses. One can be in such a state, but: (a) there is no access consciousness (the perceptual input is not 'poised for the rational control of thought, speech and action'); (b) there is no phenomenal consciousness (there is no experience, nothing it is like to be in such a state);<sup>5</sup> and (c) there is no consciousness of the environment. Let us say, finally, that in the absence of consciousness in these senses, the object is not 'phenomenally present' to the subject.

The task for the defender of Caused Representation and Independence is to give an account of phenomenal presence that is consistent with both. The absence of access consciousness is easily dealt with. For the perception to be access conscious it must serve as input to the subject's reasoning system. When it doesn't, the objective import of the perception is the same as when it does, all that is lacking is the causal link with other systems. As to phenomenal consciousness, the obvious line to take is to say that its absence in blindsight is due the absence of sensational, i.e. non-representational, properties. As to 'consciousness of', for this to be in play the claim will be: the representation must be both access conscious and accompanied by sensational properties. When it is, we have in play what we in fact call 'presence' of the object to the subject. But the objective import of the perception is still exhaustively explained by appeal to the caused representational contents of the experience.

Note, someone who takes this line might even concede that, as a matter of fact, sensational properties play a causal role in making some perceptual contents access conscious. In this sense they have a causal role in making it the case that the contents of the representation are accessible to the subject. But all of this is consistent with claiming that an explanation of objective import will appeal to no more than the material appealed to by Caused Representation.

### 4 The Sceptic's Challenge and a First Defence of Phenomenal Objectivity

One of the virtues of Burge\*'s Challenge is that it forces clarity about often vaguely presupposed roles for phenomenal consciousness in delivering objective import. The account just sketched of perceptual consciousness is quite powerful, and a first question for vague intuitions to the effect that Phenomenal Objectivity is right is to ask whether those intuitions are catered for by the account of perceptual consciousness just sketched. If you think they

<sup>5</sup> For this distinction see Block (1995).

are, you are not denying Independence as I have set it out. So the first challenge here for a defender of PO is to come up with a formulation of PO that the defender of Independence would reject.

The second challenge is to come up with an argument for PO that doesn't consist simply in bald denial of Independence. In particular, what is needed is an account of what it is we think we have, as far as objective import is concerned, in cases of normal conscious perceptions, which the combination of Caused Representation and Independence doesn't give us. I begin with the second task here, and turn to the second in later sections.

Suppose you see an object and on that basis judge: 'There is a rectangular red table in front of me'. Normally we would make the following assumptions about such judgments. (1) They are made true or false by the state of the mind-independent object you see. (2) The concepts you use in such judgments, in this case 'rectangular' and 'red', refer to particular intrinsic properties rather than to structural equivalents, and it is the instantiation of such properties that will render your judgment true or false. (3) Your perception provides you with access to these instantiated properties.

And now suppose that a sceptic asks you: how do you know that the property instance you see is, in fact, one intrinsic or categorical property, rather than one of limitless structurally equivalent properties? By a 'structurally equivalent property' the sceptic means a property that satisfies the same structural description.<sup>6, 7</sup>

The most natural and immediate answer is that you know because you are presented through perception with instances of intrinsic properties, of redness or rectangularity, say, rather than with structural equivalents. They, rather than their structural equivalents, are phenomenally present to you.

The intuition underlying this response also lies behind many claims to the effect that phenomenal consciousness gives us a particular distinctive kind of access to features of the world that we would lack in its absence. One way of bringing out the force of the intuition is this: suppose you asked a blindseer\* how they know that the property you are issuing a guess about is 'red' rather than a structural equivalent? And compare the blindseer\*'s situation with that of a normal perceiver faced with the same question.

The intuition is that the normal perceiver will have an answer available that the blindseer\* won't: namely that he

is presented with the property instance. It's *that* property the normal perceiver will say, a possibility not there for the blindseer to pursue because nothing is presented to him.

This is a powerful intuition, one which provides us with a *prima facie* motivation for Phenomenal Objectivity. It suggests that appeal to phenomenal presence has a role in justifying our claim to know that our perception-based judgments are rendered true or false by the instantiation of particular intrinsic properties. By way of beginning to articulate the intuition, I turn to the following question. Can someone who adopts the basic outlines of Burge\*'s account of objective import, i.e. adopts the Caused Representation claim, avail herself of this kind of response to the sceptic?

## 5 The Causal Clause

On Burge\*'s account of objective perceptual import, recall, perceptions are perceptions of a particular mind-independent physical object, in the objective import sense of 'of', if their representational content is made true or false by the state of that object; and if the object is the cause of the occurrence of the state with that content. My interest here is in the causal clause, which rests on adoption of some version of the Causal Theory of Perception (CTP). For our purposes, the CTP is any theory that says that when S consciously perceives O, S is in an experiential state that is caused by O. To focus on the case of vision, the key claim here is that the visual experience and the object are causally related 'separate existences', where this is understood as entailing that the phenomenal character of any particular experience can be explained without essential appeal to the object that in fact causes the occurrence of the experience.<sup>8</sup>

Consider again the sceptical challenge, which is to justify the claim that you know that the property instance you see is, in fact, one intrinsic or categorical property, rather than one of limitless structural equivalents. Can a defender of CTP appeal to the phenomenal character of experience to deliver such a justification? The immediate answer must be 'no'. It is an article of faith in all versions of the theory that the phenomenal character of an experience cannot extend beyond whatever is delivered by narrow representational content, perhaps plus sensational properties. Given this commitment, how things seem to the subject when she is seeing an instance of red, say, cannot suffice to rule out the claim that the experience is caused by an instance of an external structurally equivalent property. For all her experiences tell her, it could be any one of structurally identical properties that is causing

<sup>6</sup> There has been much debate about, and refinement of, the notion of an 'intrinsic' property. I am using the term very loosely, to mean only a non-structural property, and, in this context, will use 'intrinsic' and 'categorical' interchangeably.

<sup>7</sup> This challenge is a generalised and highly simplified version of a central problem Newman raises for Russell's structuralist account of our knowledge of the external world in *The Analysis of Matter* (see Newman 1928). For a discussion of Newman's argument that relates it to the matters we are considering see Eilan (2013).

<sup>8</sup> Of course there are other ways in which we might appeal to causation and causal explanation when accounting for what perception is, that do not commit to the separate existence claim. From now on, though, when I speak of the CTP, I will have this stipulative definition in mind. The *locus classicus* of the theory is Grice (1989).

the experience—this is not something experience ‘as it presents itself to us’ can rule out.

Adoption of the CTP appears to rule out a priori appealing to how things seem in experience to respond to the sceptic. In this sense, if this account of perceptual experience is right, a normal perceiver would be in no better a position than a blindseer in responding to the sceptic’s challenge. On this theory, whatever it is that goes into explaining phenomenal presence, or ‘consciousness of’, will not support a response of the kind we imagined a defender of Perceptual Objectivity would use to distinguish blindseers from normal perceivers.

Where does this leave us? Burge\*’s challenge, recall, was: either accept his account of objective import, as rendered by the Caused Representation claim, and reject Phenomenal Objectivity; or reject Caused Representation (and, possibly, defend Phenomenal Objectivity). The sceptical challenge we have been considering appears to vindicate the dilemma at least to the following extent. Adopting Caused Representation would appear to rule out appealing to phenomenal presence to justify our belief that our perceptions have the objective import we believe them to have with respect to intrinsic properties of objects we perceive.

In the next section I consider the response a relationalist will make to the sceptic, which involves embracing the horn Burge\* rejects. And in the last section I briefly discuss an attempt that might be made by ‘phenomenal intentionalists’ to save a combination of Caused Representation and Perceptual Objectivity. Before that, a few brief words about the way someone who adopts Burge\*’s horn of the dilemma might respond to the sceptic’s challenge. Burge\* himself would, of course, make no appeal to phenomenal presence to respond to the sceptic and would therefore be unmoved by the particular complaint against Caused Representation that we have been considering. How then would he respond to the request to justify the idea that a perception-based judgment such as ‘This object is rectangular’ is rendered true or false by the instantiation of rectangularity rather than one of limitless structural equivalents? The most plausible type of move to make would be something along the following lines. Nature comes carved at categorical-property joints; we have evolved to respond in perception to these natural properties. The reference of the concepts we use in perception-based judgments is causally constrained by our perceptions, which, in turn, are causally constrained by these natural properties. And that is how we can justify the claim that our perceptions are perceptions of particular categorical properties rather than of structural equivalents.<sup>9</sup>

<sup>9</sup> In proposing this response on Burge\*’s behalf, I combine two claims to be found in Lewis’s ‘Putnam’s Paradox’ (1984), each proposed as a response to a related challenge.

My own view is that this kind of response suffices, formally, as a response to the particular sceptical challenge we have been considering. But, in a way, it just serves to reinforce the intuitions underlying Phenomenal Objectivity. We don’t think we need to rely on such theoretical, roundabout justifications. We think we only need to rely on what our experiences themselves deliver in responding to the sceptic. By way of bringing this home, consider again that on the kind of story just sketched we are in no better a position than are blindseers to meet the sceptic’s challenge. But we think we are in a far better position in this respect. I suggest the strength of this intuition alone suffices for seeing whether there are other ways of explaining Phenomenal Objectivity, ones that would allow us to appeal to phenomenal presence to justify our beliefs that we perceive particular intrinsic properties rather than structural equivalents.

## 6 The Relational Response<sup>10</sup>

Suppose, instead, you adopt a relational approach to explaining Phenomenal Objectivity. Can you do better in responding to the sceptic, thereby coming closer to vindicating a role for consciousness in delivering objective import?

The central feature I am interested in highlighting in relationalism turns on its rejection of the causal clause in Caused Representation. To say that perceptual experiences are essentially relational, as I will be interpreting it, is to say that the object perceived is a constituent of instances of the experiential relation (rather than being a cause of the experience, as on the CTP). The version I want to have before us draws on the concept of ‘acquaintance’ to spell out what perceptual experiential relations are; and the following two passages from Russell capture the features of acquaintance I want to highlight. First, in his popular exposition in *Problems of Philosophy*, after defining acquaintance as ‘knowledge of things’, contrasted with knowledge of truths, he writes:

We shall say we have acquaintance with anything of which we are directly aware without the intermediary of any process of inference or the knowledge of truths. Thus in the presence of my table I am acquainted with the sense-data that make up the appearance of my table—its colour, shape, hardness, smoothness etc. (Russell 1912: 46–47)

<sup>10</sup> As I will develop it, the relational response appeals specifically to a non-causal relation of Russellian acquaintance with objects, in a way that is perhaps closest to Campbell (2002, 2005, 2009). However, most theories which treat objects as constituents, rather than causes, of experience, or endorse naïve realism, in Mike Martin’s sense, will be able to avail themselves of many of the central claims I will make on behalf of the relational theory as I develop it. See, e.g., Martin (2002), and Brewer (2011).

Russell's descriptions of the ontological category to which sense-data belong underwent various, sometimes puzzling permutations, and drawing on his writings in explaining the relational account of experience inevitably involves a certain amount of tidying up and interpretation. That said, the examples he gives of sense-data here suggest a reading on which they should be treated as instantiated properties.<sup>11</sup> Such instantiated properties are an example of what Russell called 'simple objects'. Russell also said we are acquainted with complex objects, where again acquaintance is treated as knowledge of things, independent of knowledge of truths. An example of a complex object is a particular sense-datum with an assortment of instantiated properties—redness and roundness, say—where the idea is that we are acquainted with the object by being acquainted with these instantiated properties (see Russell 1913).

The relationalist response I will be considering extends this idea to external objects and their properties and says that when we see, say, a table, we are acquainted not with a complex sense-datum and its properties, but, rather, with the table itself and some of its instantiated properties. The critical point as far as such an extension is concerned is captured in the highlighted sentence in the following passage in 'The Nature of Sense-Data'.

Presentation (or acquaintance) is a two-term relation of a subject (or better of an act) to a single (simple or complex) object... *From the fact that the presentation is a two-term relation, the question of truth or error cannot arise with regard to it: in any case of presentation there is a certain relation of an act to an object, the question of whether there is such an object cannot arise.* (Russell 1913: 76; my emphasis)

The import of the highlighted passage, when we extend acquaintance to external objects, is this. The possibility of error does not arise *not* because acquaintance is conceived of as knowledge of infallible truths (as on some current readings), but rather because it does not involve judgment in the first place, and therefore the question of truth and error does not arise. It is a two-term relation between subject and object that precedes and is independent of knowledge of truths. So, while the claim that we have infallible propositional knowledge about the objects we experience does mean that the objects judged about are not physical objects with mind-independent properties—and Russell did in fact think we could go on to make infallible judgments about sense-data we are acquainted with—the impossibility of error of the kind he talks of when explaining acquaintance is wholly compatible with the claim that the object and properties

phenomenally present to us are mind-independent, and, in this sense, objective properties.

With this in place, let us now return to the sceptic. His challenge is to justify the claim that you know you are perceiving particular categorical properties rather than structural equivalents when you issue perception-based judgments such as: 'This table is rectangular'. As we saw, a defender of Phenomenal Objectivity who endorses Caused Representation cannot appeal to how things seem in experience to silence the sceptic because on Caused Representation, how things seem in perceptual experience is consistent with the experience of rectangularity being caused by a structural equivalent. But on the relational approach, there is no causal gap between how things seem, in cases of perceptual acquaintance, and how they are. And there is nothing you can reach for in describing how things seem to you other than the properties of the perceived object. The sceptic's question cannot get a foothold.<sup>12, 13</sup>

With this in place, let us return to Burge's dilemma. Recall, the basic two claims that provide the background to Burge's dilemma are these. First, normally, when you see an object you are aware, or conscious, of it; it is phenomenally present to you. This is what I called the 'ofness of consciousness'. Second, when you see an object, your perception is 'of' the object in the sense that the perception enables non-inferential judgments about the object. This is what I called the 'ofness of objective import'. The general background question we have been considering is: in

<sup>12</sup> This kind of appeal to acquaintance provides only a very crude initial statement of the basic idea of a relational theory, and it requires various modifications if it is to work as a theory that does justice to important features of the phenomenology of experience. For example, an immediate and obvious objection is that surely we can and do make sense of claims to the effect that things that are rectangular look square. At the very least, it is plausible that the relational theory will need modification to allow for such cases, for example by thinking of perception as a three-place relation between subject, object and physical point of view (see for example, Campbell 2005; Brewer 2011). Note too, that as I have formulated it, the relational theory does not exclude the claim that experiences also have representational contents. What it insists on denying, for our purposes, is, first, that the relation between the experience and the object perceived is causal; and, second, that we need to appeal to personal-level representational mediation to explain how basic observational properties of mind-independent objects 'make it into' the phenomenal character of our experiences. There is a view of perceptual experiences on which they are conceived of as states, the contents of which should be specified by appeal to world-dependent senses (see, e.g., McDowell 1996; Brewer 1999). Such views would endorse the first, anti-causal claim, but reject the second. The arguments I am presenting here do not rule out such a rejection. The postulation of 'world dependent sense' raises distinct issues, to do with the explanatory role of experience with respect to concept possession, and are not addressed here directly. On this, see, e.g., Campbell (2002).

<sup>13</sup> For discussion of a similar acquaintance-based move in response to Newman's objection to Russell's 1927 version of the causal theory of perception, see Eilan (2013).

<sup>11</sup> Here I am in agreement with Savage (1989). His paper also contains an excellent discussion of Russell's various takes on the nature of sense-data.



explaining what gives a perception the objective import it has, should we appeal to what makes it yield consciousness of the object? The Burge\* dilemma presented the following choice: either explain objective import by appeal to Caused Representation, and reject a role for ‘consciousness of’ in delivering objective import; or reject Caused Representation (and, possibly, give consciousness a role). The relational theory opts for the second horn of the dilemma. It says that the ofness of objective import in conscious perceptions is secured by acquaintance with the object and some of its instantiated properties, where this entails phenomenal presence to the subject. This is what distinguishes such objective import from the import of, for example, blindsighted perception (for which the Caused Representation claim may well be right).

That is the claim—the ‘relational response’ referred to in the title. There can be and have been many objections to relational theories of perceptual experience, and the relational response to the dilemma is only as good as the theory’s ability to deal with them. Here I make do with responses to two objections, and use these to set out what I take to be the most important challenge a relational theory must address. The first might be made by the real Burge in support of embracing the first horn of the dilemma. The second might be made by someone who endorses a ‘phenomenal intentionalist’ approach to explaining perceptual ‘consciousness of’ in support of rejecting the dilemma.

## 7 Two Brief Comparisons

### 7.1 Burge: The Argument from Science

Burge’s emphatic rejection of a disjunctivist approach to perception (see, e.g., Burge 2005) suggests that he would not particularly welcome support from relational theories for the exhaustiveness of the dilemma I attributed to the starred version of himself. His appeal to vision science is intended, as I understand it, to ground rejection of both the general idea that consciousness has a role in delivering objective import, and, specifically, relational versions of this idea. Crudely, science falsifies both.

According to Burge, we have perception in play, rather than mere sensory registration, when we have in play ‘objectification’, that is, the separation of ‘local, idiosyncratic registrations from representations of individual-independent, occasion-independent, mind-independent, perspective-independent reality, beyond the individual. Perceptual constancies are capacities for objectification’ (Burge 2010: 399); and when we have that in play we have ‘representational content that is as of a subject matter beyond idiosyncratic, proximal or subjective features of the individual’ (Burge 2010: 397). How this happens is explained by

scientific psychology in a way that does not require that the objectification be done by the individual in virtue of his/her capacity to represent the distinction between items idiosyncratic to the sensory system, on the one hand, and system-independent items, on the other. It is achieved by the perceptual subsystem in a way explained by science (Burge 2010: 401). The key here is the achievement of perceptual constancy in response to variations in proximal stimulation. It is this achievement of perceptual constancy that we should focus on when explaining objectivity. ‘A perceptual system achieves objectification by—and I am inclined to say only by—exercising perceptual constancies—given, of course, the background of relations to the environment and individual function’ (Burge 2010: 408). Or, ‘the presence of perceptual constancies is certainly sufficient for perception and objectivity, at least given the environmental and individual-functional background’ (Burge 2010: 413).

On this account, consciousness has no role to play in securing what he calls ‘objectification’, and the suggestion implicit here is that it therefore can have no role in explaining what I have been calling ‘objective import’. Turning now specifically to relationalism, Burge’s objection to relational accounts is part of his rejection of ‘disjunctivism’, on which veridical experiences and hallucinations are said to have different phenomenal characters, as there is no phenomenology-determining object in the hallucinatory case. According to Burge, scientific psychology conflicts directly with disjunctivism, and with relational theories, because it types perceptual states essentially by appeal to the kind of objectification achieved in response to proximal stimulation—which can yield a sameness of perceptual type between hallucinations and veridical perceptions—without appeal to the object perceived in the veridical case.

His reasons for rejecting of a role for consciousness in general and of relationalist accounts of such a role in particular raises many issues, but for our purposes the following brief response will have to suffice. David Marr, whose book *Vision* (Marr 1982) introduced philosophers to the extraordinary progress made in vision science, and forced serious reassessment of what it delivers, says that work in this area does not explain consciousness. What he means, at least, is that it does not tell us what perceptual consciousness is. Consequently, as I read him, he also means that vision science has nothing to say about how we should type conscious experiences, *qua* conscious experiences, and I think he is right. A relational theory is as consistent as is a narrow content theory with a narrow typing of the *causal mechanisms* underpinning conscious experience, indeed the causal mechanisms that deliver the kind of objectification Burge describes.

As to the connection between consciousness and objectivity, vision science itself does not deliver his claim that science tells us all there is to say about how

perceptions achieve objective import, as I have defined it. Everything Burge says about what science delivers with respect to what he calls 'objectification' could be true (though, in fact, one might have doubts on this front,<sup>14</sup> but it still be the case that in explaining the role perception has in grounding non-inferential judgments about the world, we do need to appeal to the role of phenomenal presence in making the world available to the subject, from her perspective. The sceptic's argument is one way of bringing home why we think consciousness is essential here.

## 7.2 Phenomenal Intentionality

The 'phenomenal intentionality programme' says that there is a distinctive kind of intentional content which is essentially phenomenal, i.e. has a phenomenal character, and is in some sense 'basic' or 'fundamental'. Developments of these claims vary somewhat, but a point in common to all developments is that this content is narrow. A good example of the application of the latter point to perceptual experience is to be found in the following passage, and my comments in what follows concern this version of the phenomenal intentionalist treatment of perceptual experience.

When experience presents various apparent objects as apparently instantiating properties and relations such as shape-properties and relative-position relations, experience thereby *acquaints* the experiencing subject with such properties and relations, and this mental acquaintance-relation grounds mental *reference* to these properties and relations. Such mental reference is wholly constituted phenomenologically. It makes no difference, so far as this phenomenally constituted and reference-grounding form of acquaintance is concerned, whether or not the relevant experiential presentations are *veridical*. In the case of your BIV [brain in a vat] phenomenal duplicate, for instance, the perceptual-experiential presentations are radically illusory: there are no *real* objects that are *really* perceived by that experiencing subject and that *really* instantiate the relevant properties and relations. But no matter: your BIV's duplicate's perceptual experience acquaints the BIV with shape-properties and relative-position properties just as much as your own perceptual experience does, even though this acquaintance occurs via radically non-veridical experiences of merely *apparent* instantiations of these properties and relations by merely apparent objects. And for the BIV, such experiential acquaintance with the properties and relations grounds mental reference to them—just as it does for you. Experientially

presented *apparent* instantiation of the properties and relations suffices to acquaint the experiencing subject with them, and thus suffices to ground mental reference to them, whether or not the experiencing subject is ever experientially presented with *actual* instantiations of them. (Horgan et al. 2004)

Let me begin with two terminological points about the use of 'acquaintance' in this passage, which I will initially set aside. First, it refers to 'acquaintance' with properties and 'experiential presentations' of property instantiations. There may be a distinction akin to Russell's here, between our relation to things and property instances, on the one hand, and what he called the 'fifth kind of acquaintance', acquaintance with universals, where this is what he said is required for understanding the concepts that refer to properties, on the other. I will ignore this initially, as it does not matter for current purposes. Secondly, it is not clear whether 'acquaintance' is meant, as it is for both Russell and the relationalist, to refer to a relation we have to properties and/or their instantiation that is unmediated by a mode of presentation, or sense. As I understand it, a key ingredient in the phenomenal intentionalist approach is commitment to a representationalism that says that all references are mediated by a mode of presentation, which makes appeal to 'acquaintance' somewhat confusing, relative to its historical philosophical meaning. Again, I initially set this aside. Glossing over these issues, I will refer to 'presentations of instances of properties' to cover both what the relationalist and the phenomenal intentionalist thinks occurs when we have perceptual experiences as of instances of properties such as 'square' or 'red'.

With this in place, the main difference between the two approaches can be summarized as follows. The phenomenal intentionalist thinks that in perceptual experience we are presented with *apparent objects* and *apparent instantiations*—something that occurs also when there is no actual object or actual perception. The relationalist, in contrast, says that in perceptual experience we are presented with *actual ('real') objects* and their *actual ('real') apparent properties*. (So, for the relationalist, whatever account we should give of the phenomenology of experiences, if they have any, of brains in vats, or of experiences that are not perceptual, it is distinct from the one we should give of perceptual experiences.)

The key distinction, relative to our immediate concerns, is that between *apparent instantiations of properties* and *actual ('real') instantiations of apparent properties*.<sup>15</sup> For the purposes of making vivid the significance of this distinction when comparing the phenomenalist and the relationalist accounts of perceptual experience, I will take the

<sup>14</sup> See e.g. Campbell (2011) and Phillips (2014).

<sup>15</sup> For an excellent discussion of closely related distinctions and issues see Martin (2010).

kind of relational approach I have in mind to be committed to arguing for some version or other of the following claims.

1. It is part and parcel of our ‘commonsense realism’ about the world around us that we take the various located objects that populate our world to have *apparent properties*. That is, we take it that the objects we perceive are, in Strawson’s terms ‘phenomenally-proprietyed’; they have ‘visual shapes and felt textures’ (Strawson 1979: 54). Or, as Ayer puts it, the objects we think of as inhabiting the mind-independent world we perceive are conceived of as ‘visuo-tactile continuants’ (Ayer 1973).
2. The objects around us have such properties. That is, our commonsense view of the world around us is correct insofar as we are right to treat such properties as properties of mind-independent objects.
3. The actual (‘real’) property instances we see are instances of apparent properties. That is, what we consciously perceive are instances of ‘shapes-as-seen’ or ‘as-felt’, ‘colours-as-seen’, and so forth. In perceptual experience, it is instances of such properties that determine the contours of our phenomenology, by being presented to us through acquaintance.<sup>16</sup>
4. Our perceptual experiences are transparent to such property instances. That is why we can consult our perceptual experience to find out about the world around us.<sup>17</sup>

What about phenomenal intentionalists? I take it they will not deny (1). (Even Ayer, who thinks we are wrong to be commonsense realists, and claims that objects don’t really have these kinds of properties, agrees this we *think* they do.) What about (2)–(4)? The following passage, a footnote to the passage quoted above, is helpful.

You, your Twin Earth phenomenal duplicate, and your BIV phenomenal duplicate all have phenomenally matching color-experience: apparent objects are experientially presented as having the same *color-appearances*. But this leaves open

(i) what properties colors *themselves* are, (ii) whether there are such properties at all, and (iii) whether mental reference to color-properties (if there are any) is constituted purely phenomenally, or instead has an externalistic aspect. (Horgan et al. 2004)

<sup>16</sup> Not all versions of relationalism speak of acquaintance with property instances. This is relevant to claim (3) below, too. See, e.g., Brewer (2011), who restricts the use of ‘acquaintance’ to our relation to objects. However, they would all deliver an account of what it is to be presented with property instances that would yield materials for rejecting the phenomenal intentionalist account.

<sup>17</sup> For this kind of appeal to ‘transparency’ in connection with colour, see, e.g., Campbell (2005).

If we read ‘colour appearances’ as ‘apparent colours’, this passage suggests agnosticism, at best, about (2) and (3). Alternatively, we might take ‘colour appearances’ to refer to an experiential way of representing colour. Again this would suggest agnosticism at best about (2) and (3). Either way, we can conclude that (4) would be rejected. *For all experience tells us, apparent colours, shapes and so forth, colours and shapes as they appear to us, are not instantiated by the real objects we perceive.*

This rejection of (4) captures the most important difference between the two approaches when we turn, finally, to the background question that has concerned us throughout. Does phenomenal consciousness have a constitutive role in delivering objective import? (The objective import of a perception, recall, is whatever it is about it that enables us to make non-inferential judgments about the mind-independent world.) Burge\*’s challenge was: either accept the Caused Representation claim, and reject a role for phenomenal consciousness in securing such import; or reject Caused Representation (and, possibly, defend such a role for consciousness). If the position just outlined captures at least some of what the phenomenal intentionalist thinks, then one thing we can say is that the phenomenal intentionalism on its own does not provide a way out of this dilemma. True, phenomenal intentionalists insist that conscious perceptions have a distinctive kind of phenomenal representational content. But this on its own does not give consciousness a role in delivering objective import, and hence does not provide a way of avoiding the dilemma. Indeed the particular account just sketched appears to rule out such a role. To put it in terms of the sceptical challenge discussed earlier: on the phenomenal intentionalist’s characterisation of phenomenal consciousness in perception, conscious perceivers are in no better a position than the blindseer in responding to the sceptic’s challenge to justify the claim that they are currently perceiving an instance of red rather than a structural equivalent.

The phenomenal intentionalist will respond that consciousness on its own is anyway not intended, on her theory, to secure objective import. She will say that she endorses Caused Representation, along with Burge\*, but that, contra Burge\*, holds that the suitably caused representations must be conscious, along the lines just described. We have objective import when conscious intentional states are caused by objects in fact perceived. Causation does the work of securing the link with the ‘real’ external world. This is the sense in which she rejects the dilemma.

The problem with this response is that nothing in the account offered of what phenomenal intentionality is does anything to address directly Burge\*’s Challenge to show what it is that consciousness gives us, as far as objective

import is concerned, that is not provided by non-conscious perceptions. Phenomenal consciousness, as described by this theory, seems inert on this front.

An alternative for the phenomenal intentionalist is to hold onto the account offered of conscious intentional contents, but to endorse, in addition, and in distinction, something like Burge's account of the content responsible for objective perceptual import. Thus, two of the chief exponents of phenomenal intentionality, Horgan and Kriegel, say that various mental states, in addition to having phenomenal intentional contents, also have 'externalistic', non-phenomenal contents, accounted for roughly in terms that comply with Burge's version of Caused Representation claim.<sup>18</sup> So they *may* be happy to give such contents the role of securing objective import, bypassing consciousness altogether, and not really proposing a way out of the dilemma.

The trouble with this kind of response, though, besides the fact that it isn't addressing the dilemma, is that it does not sit easily with the general rhetoric of taking consciousness seriously and treating it as the 'fundamental form of intentionality'. At least in the case of perception, surely one pre-theoretic reason for thinking perceptual consciousness is fundamental is that it puts us in touch with the world we perceive, in a way non-conscious perceptions do not—or, as I have been putting it, that it delivers a distinctive kind of objective import. Commitment to the claim that we are presented in perceptual experience only with 'apparent instances' of properties, in a way that may not tell us anything about what we are in fact perceiving, deprives the phenomenal intentionalist of this role for consciousness.

To my knowledge, the kind of relationalist position I have been sketching is not discussed as an alternative option in the intentional phenomenalist literature. There are doubtless many a priori theoretical commitments, such as commitment to the CTP, to the narrowness of content and so forth, which hide this option from view. However, given the centrality the relationalist gives to consciousness, I suggest it is a task the phenomenal intentionalist should undertake, to explain which of claims (2)–(4) she rejects, and why.

There are, as I see it, two main issues here. The first is an issue in the philosophy of mind: the relationalist insists, and the phenomenal intentionalist denies, that *not all subjectively significant relations to the world are mediated by personal-level representations*. In particular, in this context, perceptual consciousness, the relationalist claims, should not be explained in this way, but rather, by appeal to a non-representational relation of acquaintance. This is where we return to the major question I earlier shelved

about what the phenomenal intentionalist means by 'acquaintance.' This is not an issue that can or should be skirted. If talk of 'acquaintance' is just another way of talking about 'experiential modes of presentation', the problem of the gap between mode of presentation and what is represented remains, *wherever* we locate the property represented, where this gap deprives consciousness of a role in securing objective import.<sup>19</sup> If, on the other hand, it is meant to be the kind of relation to property instantiations that the relationalist has in mind, then: (a) this amounts to relinquishing a major theoretical commitment of phenomenal intentionalism, as it is usually presented—that is, the commitment to 'representationalism'; and (b) we need an account of why we cannot be acquainted with properties instantiated by 'real' perceived objects. Mere reiteration of the CTP at this point won't do this on its own, as it is precisely its truth that is being challenged by the relationalist.

The second issue is metaphysical, and presents a challenge to both sides of the debate. The relationalist insists that the world around us is 'phenomenally propertied'. The phenomenal intentionalist must either say that our commonsense view of the world is wrong and/or incoherent, and explain why; or endorse commonsense realism, and then explain how she can justify the adoption of commonsense realism without appeal to acquaintance with actual/real instances of apparent properties. The main challenge the relationalist faces, on the other hand, if relationalism is to justify a role for consciousness in securing objective import, is to make good the claim that a 'phenomenally propertied' world can, in whatever sense is required for the mind-independence of the object and properties perceived, be the same world as that described by science.

## References

- Ayer AJ (1973) *The central questions of philosophy*. Weidenfeld and Nicolson, London
- Block N (1995) On a confusion about a function of consciousness. *Behav Brain Sci* 18:227–247
- Brewer B (1999) *Perception and reason*. Oxford University Press, Oxford
- Brewer B (2011) *Perception and its objects*. Oxford University Press, Oxford
- Burge T (2005) Disjunctivism and perceptual psychology. *Philos Topics* 33:1–78
- Burge T (2010) *Origins of objectivity*. Oxford University Press, New York

<sup>18</sup> See e.g. Horgan et al. (2004), and Kriegel and Horgan (2008).

<sup>19</sup> Again, I am not considering appeal to the idea of world-dependent modes of presentation, which raise different problems. See footnote 12.

- Campbell J (2002) Reference and consciousness. Clarendon Press, Oxford
- Campbell J (2005) Transparency vs. revelation in color perception. *Philos Topics* 33:105–115
- Campbell J (2009) Consciousness and reference. In: McLaughlin B, Beckermann A, Walter S (eds) *Oxford handbook of philosophy of mind*. Oxford University Press, Oxford, pp. 648–662
- Campbell J (2011) Review essay on Tyler Burge, *Origins of objectivity*. *J Philos* 108:269–285
- Cowey A (2010) The blindsight saga. *Exp Brain Res* 200:3–23
- Dretske F (1997) *Naturalizing the mind*. MIT Press, Cambridge.
- Eilan N (2013) A relational response to Newman's objection to Russell's causal theory of perception. *Theoria* 80:2
- Grice P (1989) The causal theory of perception. In: *Studies in the ways of words*. Harvard University Press, Cambridge
- Horgan T, Tienson J, Graham G (2004) Phenomenal intentionality and the brain in a vat. In: Schantz R (ed) *The externalist challenge*. Walter De Gruyter
- Kriegel U, Horgan T (2008) Phenomenal intentionality meets the extended mind. *The Monist* 91:353–380
- Kriegel U, Horgan T (forthcoming) The phenomenal intentionality research program. In: Horgan, Kriegel (eds) *Phenomenal intentionality: new essays*. OUP, Oxford
- Lewis DK (1984) Putnam's paradox. *Australasian Journal of Philosophy* 62:221–236
- Marr D (1982) *Vision*. W. H. Freeman, San Francisco
- Martin MGF (2002) The transparency of experience. *Mind Lang* 17: 376–425
- Martin MGF (2010) What's in a look? In: Nanay Bence (ed) *Perceiving the world*. Oxford University Press, Oxford
- McDowell J (1996) *Mind and world*. Harvard University Press, Cambridge
- Newman MHA (1928) Mr. Russell's causal theory of perception. *Mind* 37:137–148
- Phillips I (2014) Unconscious perception reconsidered. <http://www.ianbphillips.com/uploads/2/2/9/4/22946642/antwerp.pdf>
- Russell B (1912) *The Problems of Philosophy*. Oxford University Press, Oxford
- Russell B (1913) The nature of sense-data: a reply to Dr Dawes Hicks. *Mind* 22(85):76–81
- Savage CW (1989) Sense-data in Russell's theories of knowledge. In: Savage SW, Anderson CA (eds) *Re-reading Russell: Bertrand Russell's metaphysics and epistemology: Minnesota studies in the philosophy of science*, vol 12. University of Minnesota Press, Minneapolis
- Siegel S (2010) *The contents of visual experience*. Oxford University Press, New York
- Smithies D (2011) What is the role of consciousness in demonstrative thought? *The Journal of Philosophy* 108(1):5–34
- Strawson PF (1979) Perception and its objects. In: Macdonald GF (ed) *Perception and identity*. The MacMillan Press, London
- Weiskrantz L (1986/2009) *Blindsight: a case study and implications*. OUP, Oxford
- Weiskrantz L (2002) Prime-sight and blindsight. *Conscious Cogn* 11(4):568–581