

## **Relationalism and unconscious perception**

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**Abstract:** Relationalism holds that perceptual experiences are relations between subjects and perceived objects. But much evidence suggests that perceptual states can be unconscious. We argue here that unconscious perception raises difficulties for relationalism. Relationalists would seem to have three options. First, they may deny that there is unconscious perception or question whether we have sufficient evidence to posit it. Second, they may allow for unconscious perception but deny that the relationalist analysis applies to it. Third, they may offer a relationalist explanation of unconscious perception. We argue that each of these strategies is questionable.

**Keywords:** perceptual representation, perceptual relation, unconscious perception, third relatum

### *1. Introduction*

According to representationalism, perceptual experiences are representations (see Harman 1990; Tye 1995; Pautz 2010). There is, however, much evidence suggesting that perceptual states also occur without being conscious, as in cases of masked priming or blindsight (see Kouider and Dehaene 2007 and Weiskrantz 2009 respectively). In the representationalist framework, unconscious perception can be accounted for in a straightforward manner: we can consider both conscious and unconscious perceptual states to be representational, with the conscious states involving some additional consciousness-making feature (for review, see Pautz 2010: 333-334; Lau & Rosenthal 2011: 366).

By contrast, the view known as ‘relationalism’ (or ‘naïve realism’) holds that perceptual experiences are relations between subjects, perceived objects, and -- on some versions -- a third relatum (see Campbell 2002; Martin 2004; Brewer 2011). On this view, perceptual experiences are not representations (or, sometimes more modestly, not primarily or essentially representations); rather, they have their objects as constitutive parts. Like representationalism, relationalism is often formulated as an account of the phenomenology of perceptual experience (see Martin 2004; Brewer 2011). Relationalists typically maintain that the reddish character of an experience of an apple is simply the redness of the apple itself, which is literally a constituent of the experience.

So what then can relationalists say about unconscious perception? There appear to be three options:

- (A) Relationalists may deny that there is unconscious perception or question whether we have sufficient evidence to posit it.
- (B) Relationalists may allow for unconscious perception but deny that the relationalist analysis applies to it.
- (C) Relationalists may offer a relationalist explanation of unconscious perception.

In this paper, we argue that each of these strategies is questionable; the burden is thus on relationalists to adequately address unconscious perception.

### *2. No unconscious perception*

The simplest way for relationalists to engage with the issue of unconscious perception is to deny that it exists or to question whether we have sufficient evidence to posit it. This is a tall order, however, insofar as there is an enormous amount of experimental evidence for unconscious perception and the entrenched consensus within cognitive science is that perceptual states occur unconsciously (for a summary, see Block 2015). In a standard experiment involving masked priming, for example, stimuli are presented for short intervals and then quickly followed by so-called masks, which seemingly render the stimuli invisible to consciousness insofar as participants sincerely deny perceiving them; yet, there are reasons to think the stimuli are perceived insofar as they *prime* or influence participants' behavior in a perception-like manner. The conventional explanation is that participants token perceptual representations akin to conscious perceptual representations, except that they lack whatever feature(s) makes representations conscious.

Ian Phillips (2015; Phillips & Block 2016) recently pursues a skeptical approach to unconscious perception. The behavior of participants in masked-priming studies could be explained, for example, by appeal to representational states that are, to use Daniel Dennett's (1969: 93) expression, *subpersonal* insofar as they fail to meet the criteria for genuine perceptual states attributable to persons, as opposed to a person's subsystems.

While we are dubious of Phillips's arguments, evaluating the details of his challenge here would take us too far afield (but see, e.g., Block 2015; Block's contribution in Phillips & Block 2016). We simply note that, even if Phillips's accounts of the current evidence were sound, such an approach would hold relationalism hostage to forthcoming experimental results and entail that relationalism has significant theoretical consequences. This strategy would thereby be at odds with the fact that relationalism is typically offered as a pre-theoretical ('naïve') attitude toward perception. A better bet for relationalists, then, would be to attempt to accommodate unconscious perception.

### 3. *Unconscious perception is not relational*

Since relationalism is often put forward as an account of perceptual *phenomenology*, the second and perhaps most natural option for the relationalist is to allow for genuine unconscious perception but to deny that the relationalist analysis has anything to do with it. On this approach, relationalism is a theory of perceptual experience alone and some other theory must explain unconscious perception. Since some relationalists grant that perceptual experiences are both relations *and* have content (see Logue 2014), they might permit, for example, that unconscious perception involves not perceptual relations, but perceptual representations.

There are two ways to unpack this proposal, depending on the relationalist's attitude toward a standard assumption in consciousness studies -- namely, that the job of a theory of consciousness is to explain what would make an unconscious perceptual state a conscious perceptual experience. If a relationalist accepts this assumption, she could claim that it is the introduction of the mechanism of the correct theory of consciousness (whatever that may be) that changes an unconscious perceptual state into a perceptual relation. We can call this the 'transformational account'. Alternatively, a relationalist might reject this assumption, claiming that conscious and unconscious perception share nothing at all in common. We call this the 'non-transformational account'. Both views face difficulties.

#### 3.1. *The transformational account*

The fundamental problem for the transformational account is that it is unclear on any theory of consciousness why an unconscious perceptual state would change into a conscious

perceptual relation. We plainly cannot survey all theories of consciousness here, but for our purposes it will be sufficient to mention just a few:

**Attentional theories:** A perceptual state P is conscious iff P is suitably modulated by attention (see Prinz 2012).

**Global-workspace theories:** A perceptual state P is conscious iff P is “in” the global workspace and so suitably available for broadcast to the rest of the mind/brain (see Dehaene et al 2006).

**Higher-order theories:** A perceptual state P is conscious iff one is suitably aware of P (see Lau & Rosenthal 2011).

**Recurrent-feedback theories:** A perceptual state P is conscious iff it is realized by the appropriate state(s) of the brain, most likely recurrent feedback loops between higher and lower sensory areas (see Lamme 2003).

Consider popular global-workspace theories, which hold that many mental functions operate nonconsciously and that mental activity becomes conscious when it is made available to the so-called global workspace, a central module likely realized by frontal and/or parietal areas of the brain. Because the global workspace enjoys long-range neural connections to many brain areas, it can make information available for a wide range of impact on the mind and behavior. The main evidence for such theories includes neuroimaging data comparing conscious and unconscious perception, which purportedly shows that the difference consists in differing activations of frontal/parietal areas and widespread connections to other areas.

The relationalist transformational account faces problems. First, it is unclear how most theories of consciousness apply to perceptual relations. It is unclear, for example, what it might be for a perceptual relation to a perceived object to be made available to the global workspace. And even if the proposed mechanisms of consciousness can operate on perceptual relations, relationalists would need to explain why making a perceptual state available to the global workspace (or becoming aware of it, or whatever the correct theory of consciousness proposes) would *transform* it from a representational state into an ontologically distinct phenomenon -- a relation. It is hard to see how such functional changes would alter perceptual states' fundamental natures in this way.

There are, by contrast, no analogue issues for representationalism. Consider Michael Tye's (1995) well-known PANIC theory of perceptual experience, which combines a representational account of perceptual states and a global-workspace-type theory of consciousness. According to Tye, perceptual states have *abstract nonconceptual intentional contents* (the 'ANIC'), which are conscious just in case they are suitably *poised* (the 'P') for widespread impact on cognition and behavior. This is perfectly straightforward, and the coherence of such views is perhaps a main reason why most cognitive scientists simply assume perceptual states are representational.

### **3.2. The non-transformational account**

According to the non-transformational account, conscious and unconscious perception are fundamentally distinct; unconscious states cannot be transformed by any mechanism into conscious ones. This view is questionable for the following reason: it is unclear how it understands theories of consciousness; it is unclear what theories in consciousness studies are theories *of*. The relationalist might grant that there is experimental evidence that conscious but not unconscious perception involves availability for global broadcast, but such facts play no role in explaining why perception is conscious. Indeed, the non-transformational

account seemingly precludes standard varieties of experimental study of consciousness, which require unconscious states of type T to function as contrasts for conscious states of type T.

Relationalists might respond that the correct theory of consciousness is relevant insofar as its posited mechanism enables perceptual relations to obtain. John Campbell (2002), for example, claims that conscious attention enables perceivers to fix, in a relational way, onto perceived objects; his view thus resembles an attentional theory of consciousness. But unlike standard attentional theories that assume that conscious and unconscious perception are fundamentally the same, though the former but not the latter involves attention, Campbell's view asserts that perceptual relations that involve attention are ontologically distinct from unconscious perceptual states that do not.

Alternatively, relationalists might maintain that theories of consciousness are accounts of what must occur subpersonally in order for states to be conscious, not of mechanisms that themselves apply to perceptual relations. But while this is plausibly case for recurrent-feedback theories, the case is less clear for global-workplace views. And the mechanisms of other theories -- such as higher-order views -- plainly apply to person-level states. For those theories on which the consciousness-making features do apply to personal-level states, it would be ad hoc at best to assert that the absence of those mechanisms' modulation of a state (e.g., lack of suitable awareness of the state) entails that the state is subpersonal.

There are reasons to think that conscious and unconscious perception have more in common than the non-transformational account allows. There is experimental evidence, for example, that one can gradually degrade a stimulus so that it shades from conscious into unconscious perception (Cheesman and Merikle 1986). Such data seem to entail that *the very same perceptual state* can go from being conscious to being unconscious and vice versa (for additional reasons, see Block 2015). The non-transformational account, by contrast, maintains that a perceptual relation ceases to exist and a new unconscious state enters into existence. But since conscious and unconscious states play such similar functional roles, we would need very good reasons to embrace non-transformational explanations.

#### 4. *Unconscious perception is relational*

Relationalists might instead extend the relationalist analysis to unconscious perceptual states, claiming that the consciousness-making mechanism explains the difference between conscious and unconscious perceptual relations. This view would seem to put relationalism on par with representationalism in terms of explanatory unification.

The problem for relationalists is that they must then explain the difference between conscious and unconscious perceptual relations. On the face of it, the difference could consist in one of the two relata (or three if we count the third relatum) of the perceptual relation.

The relatum of the perceived object/properties does not seem like an open option, insofar as the token object (and its properties) perceived consciously and unconsciously can be the same. And the relatum of the subject does not seem promising either because the 'subject' of the perceptual relation for the relationalist is supposed to be straightforward: the perceiver. If the subject of conscious and unconscious perceptual relations were different, what proper parts of the perceiver would be considered to be a 'subject' for these purposes? There is no obvious way of allowing for some proper parts but not others.

The most promising candidate would seem to be the 'third relatum', which has been variously hypothesized to include features such as the subject's point of view, sense

modality, and lighting conditions. Given that advocates of the third relatum approach often explicitly include psychological phenomena in the third relatum (notably Campbell (2002), who includes the allocation of attention; cf. Brewer 2011: 96), relationalists might similarly propose that whatever consciousness involves is fixed by the third relatum. On this view, unconscious perception involves a kind of degraded perceptual relation to objects, where the perceptual relation is unconscious because of some features of the third relatum (on a somewhat similar proposal, see Brewer 2011: 116-117; see also Phillips's contribution in Phillips & Block 2016: 176, where he alludes to this way of proceeding).

There are nonetheless some empirical problems with this proposal. Consider how relationalists might attempt to explain the following kinds of experimental findings (see also Nanay 2014). In some cases of optical illusions, the size or spatial-location properties present in perceptual experience can be very different from the analogue properties that guide our fine-grained actions as evidenced by, for example, the grip size with which we approach the object or the direction in which we reach. And the unconscious perceptual processes track these properties more accurately than perceptual experience (see Goodale and Milner 2004).

Representationalists have no problem accounting for such evidence: the perceptual experience and the unconscious action-guiding perceptual state represent the object as having different properties. But it is difficult to see what the relationalist could say. Differences in the third relatum would need to render one perceptual relation conscious and the other relation unconscious *simultaneously* in order to explain these optical illusions. Some of these features, lighting conditions for example, can alter the perceptual relation, even if the subject and the perceived object remain fixed. But the same subject arguably cannot stand in two perceptual relations to the same object both in good and in poor lighting conditions -- or while attending to and not attending to the object. Even if the third relatum simply were to include consciousness, what would be needed to explain these experimental findings would be an account of how this feature could be both present and not simultaneously. As none of the other features often attributed to the third relatum (i.e. the subject's point of view, lighting conditions, allocation of attention, background knowledge) seem to provide such an account, positing a consciousness feature that works this way would seem suspiciously *ad hoc*.

## 5. Conclusion

Relationalists have difficulties accommodating unconscious perception. We examined four ways in which they might do so. Two of these -- denying the possibility of unconscious perception and giving a non-transformative account of it -- are in tension with the very idea of consciousness studies. And the other two -- giving a relational or a transformative account of it -- seem to conflict with the fundamental ideas of relationalism itself. While representationalism has a straightforward way of handling unconscious perception, relationalism has troubles doing so.<sup>1</sup>

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