Of all the problems attending the sense-datum theory, arguably the deepest is that it draws a veil of appearances over the external world. Today, the sense-datum theory is widely regarded as an overreaction to the problem of hallucination. Instead of accounting for hallucination in terms of intentional relations to sense data, it is often thought that we should account for it in terms of intentional relations to properties. In this paper, however, I argue that in the versions that might address the problem of hallucination, this newer account is guilty of a vice similar to sense-datum theory’s: it draws a veil of abstracta over the concrete world.

1. Sense-Datum Theory

One of the most ill-reputed theories in the philosophy of mind, perhaps the whole of philosophy, is the sense-datum theory of perception (see Russell 1912). There are different ways to formulate the theory, but a natural one is as the thesis that perceptual experiences individuate in terms of intentional relations to sense data. More precisely:

(1) For any perceptual experience E, (a) what makes E the perceptual experience it is (rather than another experience) is that E bears an intentional relation to the sense data it does (rather than to other sense data), and (b) what makes E a perceptual experience at all (rather than a non-perceptual and/or non-experiential state) is that E bears an intentional relation to sense data.

Thus the identity and existence conditions of perceptual experiences are determined, on this view, by the sense data the experiences are intentionally related to.
It is beneficial to factorize the sense-datum theory of perception into two theses: an intentionalist theory of perception and a sense-datum theory of perceptual intentionality. Respectively:

(2) For any perceptual experience $E$, (a) what makes $E$ the perceptual experience it is is that $E$ falls under the (maximally specific) intentional type it does, and (b) what makes $E$ a perceptual experience at all is that $E$ falls under an intentional type.²

(3) For any perceptual experience $E$, (a) what makes $E$ fall under the (maximally specific) intentional type it does is that $E$ bears an intentional relation to the sense data it does, and (b) what makes $E$ fall under an intentional type at all is that $E$ bears an intentional relation to sense data.

This factorization is beneficial in that it distinguishes two very different ways of rejecting the sense-datum theory of perception: mid-century adverbialists (e.g., Chisholm 1957) seem to have rejected (2), whereas current-day intentionalists (e.g., Dretske 1995) reject (3).³

2. The Veil of Appearances

Why is sense-datum theory (henceforth, SDT) so ill-reputed? Reasons are legion, but they fall into three broad categories: phenomenological, ontological, and epistemological.

First, there simply seem to be no phenomenological traces of sense data anywhere in our conscious awareness. I will not focus on this source of trouble for SDT, as it is familiar from discussions of the celebrated ‘transparency of experience’ (Harman 1990).⁴

Secondly, the ontology of sense data is disconcerting, insofar as it is in tension with physicalist metaphysics. Physicalism is often formulated in terms of properties: all properties are, or metaphysically supervene upon, physical properties. But there is an even more fundamental tenet of physicalism, indeed so fundamental—and so fundamentally plausible—that it is often taken for granted: namely, that all concrete particulars are physical, or physically constituted.⁵ This thesis militates against sense data, since they are mental particulars.⁶

Sense data are especially disconcerting given that we have no other reason to believe in them. There are no metaphysical considerations independent of the theory of perception that recommend positing such entities. The only considerations adduced in their favor pertain to the nature of perception. Yet it is a little surprising that one's ontology should be beholden to one's theory of perception in this way.⁷
The deepest problem with SDT, however, is often taken to be epistemo-
logical. The complaint is sometimes framed as the claim that if perception
was an intentional relation to sense data, we could never have knowledge
of the external world. The thought is that unless we can make perceptual
contact with ordinary physical objects, we will not be able to form justified
beliefs about them. In other words, SDT leads to skepticism about knowledge
of external objects. This claim may be a little too strong to be plausible,
inasmuch as a sense-datum theorist could suggest, as Russell (1912) did,
that knowledge of ordinary physical objects could be justifiably formed on
the basis of inference to the best explanation from certain features of sense
data. But a subtler epistemological concern is that, in casting knowledge of
ordinary physical objects as based on something like inference to the best
explanation, SDT offers the wrong model of such knowledge. On a more
plausible model, we know that the table is brown by seeing that the table is
brown and endorsing what we see. We do not know that the table is brown
by first being perceptually aware of objects other than the table and then
inferring that there must be a brown table if we are to be perceptually aware
of those other objects.

The point may be put as follows. There are two models of the epis-
temic relation between perceptual experiences and perceptual beliefs: the
endorsement model and the inference model. According to the endorsement
model, at least some perceptual beliefs are justified simply by taking at
face value one’s current perceptual experience. Such ‘endorsement’ of one’s
experience provides one with immediate justification for one’s consequent
belief. According to the inference model, the justification of perceptual
beliefs by perceptual experiences is never immediate in this way. On the
contrary, it is always mediated by inference—inference from the expe-
rience to the belief. The epistemological problem with SDT is that it
implies the inference model, whereas it is the endorsement model that is
correct.

The key difference between the two models concerns the existence of
an intentional commonality between perceptual experiences and (some)
perceptual beliefs. For endorsement to take place, what the belief is about
must be the same as, or be ‘encompassed’ by, what the perception is about.9
This means that there is some entity, such that both the perception and the
belief bear an intentional relation to it. This is what is missing in the inference
model: perceptual experiences and perceptual beliefs are intentionally related
to entirely distinct entities.10

The inference model is of course apt in some areas. Consider scientific
knowledge of theoretical entities: beliefs about leptons and quarks are
justified by inference from perception of things other than leptons and
quarks. But it is the wrong model for our knowledge of ordinary physical
objects, such as tables and butterflies. When I perceive that the table is brown
and when I believe that the table is brown on the basis of my perception,
I bear an intentional relation to the same thing. SDT cannot accommodate this simple fact.

(There is a close connection between the endorsement model of perceptual justification and the view sometimes called ‘phenomenal conservatism’ (Huemer 2001, Pryor 2005). According to the latter, whenever a subject perceives something, she is prima facie justified in believing what she perceives. This principle, combined with the premise that there exist perceptual experiences, entails that some beliefs are justified simply by endorsement of perceptual experiences. However, the converse does not hold: the fact that some beliefs are justified by endorsement does not entail that all perceptual experiences justify beliefs in what is perceived. Thus phenomenal conservatism is sufficient but unnecessary for the endorsement model.¹¹)

The problem with SDT appears to be that, in opposition to what is recommended by the endorsement model, it drives a wedge between the objects we perceive around us and the objects we believe ourselves to live among. They are different objects: the former are sense data, the latter ordinary physical objects. Call this consequence the Veil Thesis, which to a first approximation we may formulate as follows: there are entities to which all our perceptual beliefs are related but none of our perceptual experiences are. More precisely:

(VT1) There is a class of entities \(X_1, \ldots, X_n\), such that for any perceptual experience \(E\) and some perceptual belief \(B\), (i) \(E\) does not bear an intentional relation to a member of \(X_1, \ldots, X_n\) and (ii) \(B\) does bear an intentional relation to a member of \(X_1, \ldots, X_n\).

The epistemological problem with SDT can now be put simply as follows: SDT implies (VT1), but (VT1) is false.¹²

This is only a first approximation, however. For SDT, as formulated in (1), does allow perceptual experiences to bear intentional relations to ordinary physical objects. What it disallows is that doing so makes them the perceptual experiences they are (and at all). That is, perceptual experiences may bear intentional relations to ordinary objects, but they never individuate in terms of such relations. Thus, typical versions of SDT claim that veridical perceptual experiences do bear intentional relations to ordinary physical objects. In a veridical lemon experience, for example, one perceives directly a lemony sense datum and indirectly an ordinary physical lemon, where both the direct-perceiving and indirect perceiving are intentional relations. However, it is still the case that on these views non-veridical lemon experiences do not bear intentional relations to ordinary physical lemons, and yet are epistemically and subjectively indistinguishable from veridical lemon experiences: epistemically, because they justify lemon beliefs equally well; subjectively, because from the inside the subject cannot tell whether her
experience is veridical or not. So a second approximation of the Veil Thesis may be this:

(VT2) There is a class of entities \(X_1, \ldots, X_n\), such that for any perceptual experience \(E\) and some perceptual belief \(B\), (i) \(E\) does not bear an epistemically and subjectively relevant intentional relation to a member of \(X_1, \ldots, X_n\), and (ii) \(B\) does bear an intentional relation to a member of \(X_1, \ldots, X_n\).

An intentional relation is ‘epistemically irrelevant’ if the experience would justify the same beliefs even if it did not bear it. An intentional relation is ‘subjectively irrelevant’ if the subject could not tell the experience apart from another, otherwise similar experience that did not bear it. We may now present the following veil argument against sense-datum theory: SDT entails (VT2); (VT2) is false; therefore, SDT is false.

What supports the first premise of the argument—that SDT implies (VT2)—is that, by the lights of SDT, many perceptual beliefs bear intentional relations to ordinary physical objects, but no perceptual experience does (at least not epistemically and subjectively relevant ones). (VT2) follows from this by existential generalization. What supports the second premise—that (VT2) is false—is the fact that (VT2) conflicts with the endorsement model, which is intuitively overwhelmingly more plausible than the inference model. The latter casts the objects we believe ourselves to live among as different from the objects we perceive around us—where the difference is not just in what properties these objects have, but in which objects they are. That is precisely the intuitive offense involved in the traditional idea of the veil of appearances.

Interestingly, the veil argument offers a way we can reason from premises about the intentionality of perceptual beliefs to conclusions about the intentionality of perceptual experiences. It does so via assumption of the endorsement model, which requires that at least some perceptual experiences bear intentional relations to the same entities as the perceptual beliefs they justify. The endorsement model can of course be challenged, and such a challenge would undermine this form of reasoning. But in this paper I continue to assume the endorsement model. The plan is to derive stronger conclusions about the intentionality of perceptual experience than just the falsity of SDT.

3. The Argument from Hallucination

It would seem, then, that SDT is afflicted with numerous and varied problems. Yet the theory is motivated by a fundamentally sound observation. It is that hallucinatory experiences do not bear intentional relations to ordinary physical objects, yet what makes them the perceptual experiences
they are (and at all) must be the same as what makes veridical experiences the perceptual experiences they are (and at all). It seems to follow that veridical experiences cannot be the perceptual experiences they are (or at all) in virtue of bearing intentional relations to ordinary physical objects. Call this the ‘argument from hallucination.’

The starting point of the argument from hallucination is the claim that there could be subjectively indistinguishable perceptual experiences, such that one is veridical and the other is not. Next it is claimed that subjectively indistinguishable perceptual experiences fall under the same (maximally specific) intentional type—are intentionally type-identical. From these two premises it follows that there could be intentionally type-identical perceptual experiences, such that one is veridical and one is not. The final step of the argument is the claim that what makes non-veridical perceptual experiences fall under the intentional types they do is not any intentional relation they bear to ordinary physical objects. With this claim in place, we derive the conclusion: what makes (both veridical and non-veridical) perceptual experiences fall under the intentional type they do is not any intentional relation they bear to ordinary physical objects.

Note that this is not yet an argument for SDT. Rather, it is an argument for something negative: that perceptual experiences do not individuate in terms of intentional relations to ordinary physical objects. To obtain a positive argument for SDT, one would have to further argue that intentional relations to sense data are the best candidates to replace intentional relations to ordinary physical objects in the individuation of perceptual experiences.

As it stands, it seems to me that the argument from hallucination is quite cogent: none of its premises can be comfortably dismissed as antecedently implausible. Some philosophers have dismissed some of the premises. Disjunctivists, for example, are naturally interpreted as rejecting the claim that subjectively indistinguishable experiences must be type-identical. But disjunctivism has always struck me as a cure worse than the disease, and I will not consider it here. Instead, in the next section I will consider what seems the most common reaction to the argument in current-day philosophy of mind.

4. Property Theory

A traditional alternative to SDT that tries to take into account the upshot of the argument from hallucination appeals not to existent mental particulars, but to non-existent physical particulars. Thus, when I hallucinate a lemon, my experience bears an intentional relation not to a lemony entity that exists only in my mind, but to a lemon that does not exist at all (see Meinong 1904, Priest 2005).

The Meinongian theory of perceptual intentionality is often taken to face acuter versions of the phenomenological, ontological, and epistemological
problems cited in §2. To my mind, however, it is straightforwardly incoherent, as it posits relations that can be instantiated in the actual world even when their relata do not exist in the actual world. Compare the view that some monadic property can be instantiated in the actual world even if no instantiater exists in the actual world. To hold this view is to misunderstand what the word ‘property’ means. Likewise, to hold the view that some relations can be actually instantiated even in the absence of the appropriate number of actual relata is to misunderstand the word ‘relation.’

It is easy to dismiss the Meinongian theory, but it is not as easy to offer a positive account of perceptual intentionality that respects the upshot of the argument from hallucination. The Meinongian theory accepts the argument’s conclusion, and reasons that since perceptual experiences do not individuate in terms of intentional relations to ordinary physical objects, they must therefore individuate in terms of intentional relations to extraordinary physical objects—non-existent ones. This may not be plausible, but it is less clear what is plausible, given the argument from hallucination.

A third way to accept the argument’s conclusion is to suggest that perceptual experiences individuate in terms of intentional relations to entities that are not objects at all—are not concrete particulars—but are entities of a different ontological category altogether. Most naturally, one might suggest that perceptual experiences individuate in terms of intentional relations to properties. Call this the property theory of perception:

(4) For any perceptual experience E, (a) what makes E the perceptual experience it is is that E bears an intentional relation to the properties it does, and (b) what makes E a perceptual experience at all is that E bears an intentional relation to properties.21

Thus the identity and existence conditions of perceptual experiences are determined, on this view, by the properties these experiences are intentionally related to.

As with SDT, we can factorize the property theory of perception into two theses, an intentionalist theory of perception and a property theory of perceptual intentionality. The former is Thesis (2) from §1. The latter is:

(5) For any perceptual experience E, (a) what makes E fall under the (maximally specific) intentional type it does is that E bears an intentional relation to the properties it does, and (b) what makes E fall under an intentional type at all is that E bears an intentional relation to properties.

As before, (4) follows from the conjunction of (2) and (5). In what follows, I will argue against (5), the property theory of perceptual intentionality (henceforth, PTPI), but with arguments that should apply equally to (4),
the property theory of perception. I focus on PTPI because I presuppose that the intentionalist theory of perception is true, which makes the property theories of perception and perceptual intentionality stand or fall together. Importantly, the property theory is probably the most common view among intentionalists about perception. It is developed most fully, it seems to me, by Johnston (2004), but can be found in one form or another in the writings of a number of recent authors of intentionalist bent (e.g., Dretske 1995, Forrest 2005, Pautz 2007).22

PTPI has the advantage that it can accept the conclusion of the argument from hallucination.23 Moreover, it accounts elegantly for the intentional commonality between veridical and hallucinatory experiences: in both cases, the experience bears the relevant intentional relations to the same properties. At the same time, it has an elegant account of the distinction between veridical and hallucinatory perceptual experiences, namely, in terms of whether the relevant properties are instantiated.24 Finally, unlike sense data and Meinongian objects, properties are not spooky. Although some controversy certainly stalks their existence, they are much more commonly countenanced—by both philosophers and (arguably) the folk.

Nonetheless, I want to argue, there are strong reasons to reject PTPI. The argument proceeds as a destructive trilemma: after distinguishing three views on the metaphysics of properties, I argue that the three resulting versions of PTPI all run into serious—to my mind, fatal—problems. In fact, the problems are not very different from those that bedevil SDT.

5. Three Views of Properties

The three views of the metaphysics of properties that I will consider construe properties as (a) universals ante rem, (b) universals in re, or (c) bundles of tropes.

The classical account of properties is as universals ante rem. This is the Platonic picture whereby properties are abstract, non-spatial entities (somewhat as numbers are) that exist independently of what goes on in the realm of concreta. Importantly, on this view the property of horse-ness and the property of unicorn-ness are both necessary existents of equal ontological status. The only difference between them is relational and contingent: it just so happens that in the actual world some concreta bear the instantiation relation to the former but none do to the latter. This contingent and relational fact does not affect the nature, or essence, of the properties. The properties are what they are, and are at all, independently of concreta. Indeed, they could exist in a world devoid of any concrete things. In that sense, they are prior to those things—they are ante rem.

An alternative, Aristotelian conception of properties still construes them as universals, but casts them as immanent, rather than transcendent, to the
concrete things that instantiate them—they exist in those things, and are thus universals in re. What makes them universals is that they are wholly present in different places at the same time. My laptop is only in one place at a time, and the state of Hawaii, by virtue of being scattered across several islands, can be found in several different places at the same time, but is only partially present in each of them. The property of being a laptop, or being a state, by contrast, is wholly present in different places at the same time. Whether this renders it an ‘abstract entity’ is a somewhat verbal matter. It is not abstract in the strong sense of being non-spatial, but it is abstract in the weaker sense of being wholly present at different places at the same time (in contrast to concrete objects). The important feature of universals in re is that, since they exist in the concreta that instantiate them, they cannot exist uninstantiated (see Armstrong 1978).

There are therefore two central differences between Platonic and Aristotelian, transcendent and immanent, universals. First, the latter are (or at least can be) wholly present at more than one place at the same time; the former are not present in any place at any time. But this difference seems to derive from a deeper, more essential one, pertaining to the relationship such universals bear to concreta. We may say that Platonic, transcendent universals (henceforth, ‘t-universals’) exist concreta-independently, whereas Aristotelian, immanent universals (henceforth, ‘i-universals’) exist concreta-dependently: whereas a t-universal exists regardless of whether there is a concrete object that instantiates it, for an i-universal to exist there must be a concrete object that instantiates it.

Opposed to both above accounts are nominalist approaches to properties. In some versions, nominalism is construed as eliminativist, i.e., as the thesis that there are no properties. In other, more plausible versions, it is construed as reductivist, i.e., as the thesis that properties can be somehow reduced to, or analyzed in terms of, particulars. Historically, reductive nominalism of this sort has attempted to account for properties in terms of sets of exactly (partially) similar concrete objects, or sets of (exactly partially similar) possible concrete objects. But more recently nominalism has gained something of a revival under the guise of trope theory (Williams 1953). Trope nominalism is the view that properties are nothing but bundles of (exactly similar) tropes, where a trope is something like what Aristotle called an ‘individual accident.’ It is natural to explain what a trope is by saying that it is a ‘particularized property’ or a ‘property instantiation,’ but this characterization is of course unavailable to the trope theorist who wishes to explicate properties in terms of tropes (on pain of circularity). Instead, she characterizes a trope as follows: an entity X is a trope iff (i) X cannot be in more than one place at the same time and (ii) X can be at the same place as other entities of the same ontological category at the same time.
same time as Socrates’ Greekness. This is what trope theorists call an ‘abstract particular.’ Note, however, that this notion of abstractness is different again from both above notions: it is a matter of being at the same place as other entities at a given time. According to trope nominalism, the property of being wise is nothing but a bundle of all individual wisbons: Socrates’, Lao Tzu’s, Kant’s, Lincoln’s, Gandhi’s, etc. More generally, properties are bundles of (actual) tropes, thus bundles of (actual) abstract particulars.

Interestingly, this may introduce two layers of abstractness into the trope account of properties: first, tropes are abstract in the trope-theoretical sense of sharing space with other entities; secondly, a bundle of tropes may be an abstract entity, depending on how bundles are understood (more on this below). Thus on all three accounts of properties—as t-universals, as i-universals, and as bundles of tropes—properties are abstract in one sense or another.

6. The Veil of Abstracta: Hallucination and Universals *Ante Rem*

Let us consider, then, how PTPI fares when combined with each of the three accounts of properties, starting with the account in terms of t-universals. I will argue that the resulting account of perceptual intentionality still entails the Veil Thesis, and furthermore is still vulnerable to the ontological difficulties that beset SDT.

When we combine PTPI with the account of properties as universals *ante rem*, or t-universals, we obtain the following:

(6) For any perceptual experience E, (a) what makes E fall under the (maximally specific) intentional type it does is that E bears an intentional relation to the t-universals it does, and (b) what makes E fall under an intentional type at all is that E bears an intentional relation to t-universals.

Call this the *t-universal theory of perceptual intentionality*.

One immediate problem with this theory is its commitment to the existence of t-universals. The postulation of non-spatial entities is ontologically problematic in general, and may be interpreted as in tension with philosophical naturalism. Kim (2003), for example, analyzes naturalism as the thesis that all entities are spatiotemporal and causally efficacious. To posit an entity that is either epiphenomenal or non-spatial is, on this analysis, to posit a super-natural, or at least non-natural, entity. It is questionable whether t-universals are causally efficacious, but it is unquestionable that they are non-spatial.

Moreover, the non-spatial nature of t-universals also creates problems for their causal efficacy vis-à-vis spatiotemporal entities. Assuming that the
spatiotemporal realm is causally closed, there is no place for non-spatial entities causally affecting concrete, spatiotemporal entities. Furthermore, if we accept that knowledge of an entity X requires causal interaction with X (Goldman 1967), and that human possessors of such knowledge are concrete and spatiotemporal, it would follow that non-spatial entities are unknowable by humans. If we further accept that perception of X requires causal interaction with X, as per causal theories of perception (Grice 1961), then t-universals are not even perceptible. This result is particularly problematic in the present context, as it highlights the fact that (6) is incompatible with the causal theory of perception, or indeed with any causal requirement on perception.\(^3\)4

As with SDT, the postulation of these problematic entities is particularly embarrassing if there are no other reasons to do so. And indeed, modern arguments for universals support at most the postulation of i-universals. The main argument is due to Armstrong (1978), and can be thought of as an argument from inference to the best, or only, explanation. The phenomenon in need of explanation is the obtaining of systematic objective similarity relations among some objects. The explanation adduced is that there is a universal shared by all and only objectively similar objects.\(^3\)5 As Armstrong recognizes, this argument supports only the existence of i-universals. Recall that a key difference between i- and t-universals is that only t-universals can exist uninstantiated. Armstrong’s argument from similarity does not support the existence of uninstantiated universals, since the obtaining of similarity relations is missing where a property is not instantiated. For example, there is no need to posit a property of unicorn-ness given that there exist no objects whose similarity can be best explained in terms of their sharing such a property. Thus Armstrong’s argument for universals supports only the existence of universals whose existence is tied up with their being instantiated, that is, i-universals.

The deepest problem with (6), however, is that it still entails the aforementioned Veil Thesis. As with SDT, we can appreciate this in two steps. First, consider that our perceptual beliefs, such as my current belief that my laptop is silver, are partially about ordinary physical objects, such as my laptop, which are concrete. This is to say that such beliefs bear intentional relations to concrete objects. They are concerned partly with entities within spacetime. If the perceptual experiences they are based on bear intentional relations only to t-universals, which are abstract and non-spatial, and never to any concrete objects, then the relevant beliefs cannot be fully justified in accordance with the endorsement model.

The question is whether (6) indeed entails that perceptual experiences do not bear intentional relations to concreta, and the answer to that is negative. A proponent of (6), appealing to the distinction between direct and indirect perceiving, might argue that we perceive a chair by perceiving its properties, that is, by perceiving the t-universals the chair instantiates. This is a parallel
move to the sense-datum theorist’s suggestion, encountered in §2, that we perceive external objects by perceiving sense data that conform to them. Here the idea would be that perceptual experiences do bear intentional relations to concrete objects—it is just that they do not fall under the intentional types they do in terms of such relations to concreta.

As with SDT, however, this would apply only to veridical perceptual experiences, not to hallucinations. In the hallucinatory case, there is no object that instantiates the t-universals the experience is intentionally related to, so the experience does not bear an intentional relation to any object. Yet as noted, the hallucinatory experience is epistemically and subjectively indistinguishable from a type-identical veridical experience, and therefore justifies certain beliefs despite lacking intentional relations anything but t-universals. Thus only their intentional relations to t-universals are epistemically (and subjectively) relevant in the sense explicated above. If so, perceptual beliefs about concrete objects cannot be generally justified simply through endorsement of perceptual experiences, as they seem to.

In other words, t-universal theory entails (VT2). Unlike SDT, it does not draw a veil of appearances over external objects. Instead, it draws a veil of abstracta over concrete objects. That is, by the lights of t-universal theory, many perceptual beliefs bear intentional relations to concrete objects, and no perceptual experience bears epistemically and subjectively relevant intentional relations to concrete objects. From this (VT2) follows, again by existential generalization. This provides us with the following veil argument against t-universal theory: t-universal theory entails (VT2); (VT2) is false; therefore, t-universal theory is false.

7. Hallucination and Universals In Re

Next, let us consider how PTPI fares when combined with an i-universal account of the metaphysics of properties. The i-universal theory of perceptual intentionality is a variant on (6) that adverts to i-universals instead of t-universals. I want to argue that this combination still entails the Veil Thesis.

Ontologically, i-universals are less spooky than t-universals. In addition, there is no special problem with the possibility of their causal interaction with spatiotemporal concreta, since they are themselves spatiotemporal. Thus in light of Kim’s aforementioned criterion, they do not pose a threat to naturalism. The intelligibility of an entity wholly present at different places at the same time is not altogether unproblematic, but managing to wrap one’s mind around this kind of entity may justifiably be thought of as an achievement of the philosophical imagination. In any case, such an entity is genuinely needed: the alternative is to either deny that there is objective similarity among objects or treat it as an inexplicable and fundamental feature of the world.
It might be claimed that the i-universal theory surmounts not only the ontological problem but also the epistemological (veil) problem. To be sure, it still seems that perceptual beliefs bear intentional relations to concrete objects, so if perceptual experiences bear epistemically and subjectively relevant relations only to i-universals, then perceptual beliefs cannot be justified by endorsement of perceptual experiences. However, the i-universal theorist might perhaps deny that perceptual beliefs bear intentional relations to concrete objects, and suggest instead that they bear intentional relations to bundles of i-universals only. This move is not open to t-universal theorists, since it is exceedingly implausible that our perceptual beliefs concern only bundles of non-spatial entities. But given that i-universals are spatial entities (albeit of an unusual variety), the i-universal theorist could much more reasonably reject the otherwise commonsensical view that laptop and table beliefs bear intentional relations to laptops and tables. Few philosophers would be antecedently enamored of the notion that our perceptual beliefs are not genuinely about concrete objects, but perhaps this outcome could be accepted on balance as the lesser evil.

This move does face a problem, concerning the nature of ‘bundles.’ There are two natural understandings of bundles: as sets, and as sums. Given that sets are non-spatial entities, however, if perceptual beliefs were intentionally related to sets of i-universals, they would be intentionally related to non-spatial entities after all. Thus the i-universal theorist would do better to hold that perceptual beliefs are intentionally related to sums of i-universals. The intelligibility of summing universals is again not a trivial matter, and the result would still be that, contrary to appearances, perceptual beliefs are not really about the concrete objects before the subject, but rather about sums of entities wholly present at different places at the same time. But at least the result that perceptual beliefs are really about non-spatial entities would be avoided.

The more serious problem with the i-universal theory of perceptual intentionality, however, is that it cannot actually accommodate hallucination, or more accurately a certain kind of hallucination. I have in mind hallucination as of objects exhibiting properties that are in fact uninstantiated. Thus, a subject might hallucinate a unicorn, and another a dragon. The i-universal theory cannot say that what makes those hallucinations the perceptual experiences they are, and perceptual experiences at all, is that the former bears an intentional relation to the i-universal of unicorn-ness whereas the latter bears one to the i-universal of dragon-ness, since there exist no such i-universals. This appears to saddle the i-universal theory with the untoward consequence that there could be no hallucinations as of unicorns or dragons.

One way the i-universal theorist might attempt to avoid this consequence is by appeal to a certain kind of compositionality. She might argue, for example, that an hallucinatory perceptual experience of a unicorn bears an
intentional relation to the i-universal of horse-ness and the i-universal of horned-ness, both of which do exist (since the properties of being a horse and being horned are both instantiated).

However, this compositional move would only work if the only possible hallucinations were as of *composites*. But this is implausible. Imagine a world where, as it happens, nothing is yellow. If I lived in that world, I imagine I could still very well hallucinate a yellow horse. Yet in that world there would be no i-universal of yellowness (since the property of being yellow would be uninstantiated), nor any other i-universals that together 'compose' yellowness. So the i-universal theorist has to heavy-handedly and arbitrarily deny that a subject hallucinating a yellow lemon is genuinely possible in that world. In reality, however, there is some evidence that hallucination as of uninstantiated color properties is not only possible but actual: there are certain ‘chimerical colors’ that we can experience but which are in fact nomologically impossible, that is, are uninstantiated in all nomologically possible worlds (Churchland 2005).

In conclusion, the i-universal theory is viable only against the backdrop of two antecedently highly implausible claims: that perceptual beliefs are not really about concrete objects, but rather about sums of i-universals, and that hallucinatory perceptual experiences as of uninstantiated incomposite properties are impossible. If the former claim turns out to be false, the veil of abstracta rises again; if the latter does, the i-universal theory cannot accommodate (all) hallucination. My own sense is that both claims are false.

8. Hallucination and Tropes

The third and final metaphysic of properties that could be used in the development of PTPI is the trope-theoretic account of properties. According to this, a property is just a bundle of (similar) tropes. Yellowness, for example, is nothing but the bundle of this lemon’s yellowness, that banana’s yellowness, my neighbor’s Ferrari’s yellowness, etc. If a bundle is understood to be a set, this will again raise a veil of non-spatial abstracta. It is therefore preferable to understand bundles as sums, and formulate the emerging *trope theory of perceptual intentionality* as follows:

(7) For any perceptual experience E, (a) what makes E fall under the (maximally specific) intentional type it does is that E bears an intentional relation to the sums of tropes it does, and (b) what makes E fall under an intentional type at all is that E bears an intentional relation to sums of tropes.

This trope theory of perceptual intentionality is a species of PTPI, since it exploits the view of properties as sums of similar tropes. There is also a kind
of trope theory that is not clearly a species of PTPI, namely, the theory that perceptual experiences fall under the (maximally specific) intentional types they do in virtue of intentional relations not to sums of similar tropes but to individual tropes (Campbell 1981). For example, a perceptual experience as of a yellow square is a mental state that bears an intentional relation to one specific yellowness trope and one specific squareness trope. The view is this:

(8) For any perceptual experience E, (a) what makes E fall under the (maximally specific) intentional type it does is that E bears an intentional relation to the individual tropes it does, and (b) what makes E fall under an intentional type at all is that E bears an intentional relation to individual tropes.

This is also a trope theory of perceptual intentionality, but one that is not a species of PTPI.

My discussion of both trope theories will be brief, as I contend that they represent no progress over the i-universal theory: they both force a reconstrual of perceptual beliefs and deny the manifest possibility of some hallucinations. The reasons for this are the same as in the previous section. Perceptual beliefs seem to be beliefs about concrete particulars, not about sums of similar abstract particulars, nor about individual tropes. So if perceptual experiences individuate in terms of epistemically and subjectively relevant intentional relations to sums of similar tropes, or to individual tropes, then perceptual beliefs cannot be justified by endorsement of perceptual experiences. The proponent of (7) might suggest, analogously to the i-universal theorist in the previous section, that in fact perceptual beliefs are about sums of compresent sums of similar tropes, and the proponent of (8), that such beliefs are really about sums of compresent tropes. But in any case trope theory cannot accommodate chimerical-color hallucinations and other hallucinatory perceptual experiences as of incomposite uninstantiated properties. For there are no tropes, hence no sums of tropes, associated with such.

9. The Lesson of Hallucination

I have argued that, at least in versions that can accommodate (all) hallucination, PTPI draws a veil of abstracta over the concrete world. The nature of the veil changes depending on the operative conception of properties (Platonic, Aristotelian, or trope-theoretic). But in all its forms the veil creates a conflict between the notion that perceptual experiences fall under intentional types in virtue of bearing intentional relations to properties and the idea that perceptual beliefs can sometimes be formed and justified by endorsement of perceptual experiences. In this closing section, my question is: Where do we go from here?
One option is to stick to PTPI and simply bite the bullet and claim that perceptual beliefs are formed and justified by inference from perceptual experiences rather than by endorsement thereof. This is to accept that there is a veil of some sort drawn over the concrete external world. It is not clear, however, why we should prefer this way of resolving the conflict over the more natural route of rejecting PTPI. The latter carries no pre-theoretic conviction, after all, whereas the endorsement view does.42

A second option is to protect PTPI by denying the possibility of certain hallucinations, thus denying that for any veridical experience there could be a subjectively indistinguishable hallucinatory experience. The problem with this option is that such hallucinatory experiences are plainly conceivable, so denying that they are possible simply to protect one’s preferred theory would seem to beg the question.43

A third option is the disjunctivist option, which I dismissed as a cure worse than the disease.

A fourth and final option is to adopt an adverbial theory of perceptual intentionality. According to this, a perceptual experience falls under the (maximally specific) intentional type it does not in virtue of any intentional relations it might bear, but in virtue of bearing certain non-relational intentional properties. The property of representing yellow-lemon-wise is, on this view, a non-relational intentional property that veridical and hallucinatory perceptual experiences as of yellow lemons share. More generally, the adverbial theory may be put as follows:

(9) For any perceptual experience E, (a) what makes E fall under the (maximally specific) intentional type it does is that E bears the non-relational intentional property it does, and (b) what makes E fall under an intentional type at all is that E bears a non-relational intentional property.

In the present context, the impressive feature of the adverbial theory is that it can produce an intentional commonality between veridical and hallucinatory experiences without drawing any veil over the concrete external world.

This achievement depends on generalizing the adverbial treatment to perceptual beliefs. If my perceptual belief that the laptop is on the table falls under the intentional type it does in virtue of bearing the property of representing-laptop-on-table-wise, and my perceptual experience of the laptop on the table falls under the intentional type it does in virtue of bearing the same ‘adverbial’ property, then the former can be formed and justified simply be endorsement of the latter.44 Thus unlike SDT and PTPI, the adverbial theory of intentionality does not lead to (VT2).

There are, of course, important challenges for such an approach to perceptual intentionality. I address many elsewhere (Kriegel 2007, 2008, ...
What is important to keep in mind is that this adverbialism about perceptual intentionality is very different from the aforementioned mid-century adverbialism, which as noted in §1 was a way of rejecting the intentionalist theory of perception. On the contrary, (9) can be combined with (2) to yield an account of perception which is both adverbialist and intentionalist.

It might be objected that the adverbial theory draws something like a ‘veil of nothingness’ over the external world: in eschewing intentional relations to worldly entities and replacing them with non-relational intentional properties, it undercuts any connection between mind and world.

This may, however, be the deep lesson of hallucination: there is no way to understand perceptual intentionality in terms of intentional relations to some entities consistent with respecting (i) the manner in which perceptual experience seems to justify perceptual belief and (ii) the apparent possibility of intentionally indistinguishable hallucination. Instead, we should think of intentional relations to worldly entities as involved centrally only in veridical perceptual experience. It is not involved in hallucinatory experiences and thus not involved in the intentionality of experience as such. It is not a constitutive element of perceptual intentionality. Upon reflection, this may be quite reasonable: the mind’s connection to the world is established only in veridical experience (and thought). It is not established in non-veridical experience (and thought). So we should not expect perceptual intentionality as such to guarantee a connection to the world. What perceptual intentionality as such does is lay the conditions for connecting to the world—it generates veridicality conditions. It is only the satisfying of these conditions that involves intentional relations to the world; the setting of these conditions does not. The setting of veridicality conditions is done by the non-relational intentional properties the adverbialist appeals to.

Notes

1. A full characterization of sense-datum theory would require a characterization of sense data themselves. This is somewhat treacherous territory, but some things are clear. First, sense data are mental particulars—they are non-physical concrete particulars. Secondly, they either occur ‘inside the mind of the perceiver’ or else are non-spatial. Thirdly, they serve as the intentional objects of perceptual experiences. Fourthly, they are sometimes thought to conform, in some sense, to ordinary physical objects; the conformity relation is sometimes understood in terms of resemblance and sometimes not.

2. This is at least a first approximation. It might require making explicit the kind of intentionality that perceptual experiences individuate in terms of—in a way that distinguishes it from the intentionality of emotional experiences, somatic experiences, and any other kind of non-perceptual experience. It also calls for clarification of the notion of a ‘maximally specific’ intentional type.
3. According to the former, what makes a perceptual experience the perceptual experience it is, and at all, is that it undergoes the intrinsic modification that it does. According to the latter, to a first approximation, what makes it the perceptual experience it is, and at all, is that it bears intentional relations to external objects and properties that it does. Much more on this below.

4. There are various versions, or interpretations, of the thesis. A weak one is this: when we attend to our conscious experiences, we are only aware of their intentional directedness. This weak version of the thesis does not conflict with SDT, but consider the following stronger version: when we attend to our conscious experiences, we are only aware of their intentional directedness toward external objects and features. This stronger thesis does militate against SDT, since it entails the following: when we attend to our conscious experiences, we are not aware of any intentional directedness toward mental particulars.

5. This is the thesis denied by substance dualism, according to which there is a non-physical substance (perhaps souldust of sorts) by which some concrete particulars are constituted. Inasmuch as substance dualism is a much more radical thesis than property dualism, the physicalist tenet denying it is much harder to reject than the thesis about properties.

6. Such mental particulars can thus be countenanced only by a dualist, and of a fairly strong variety, one that does not confines its dualism to properties but applies it to particulars as well. A physicalist cannot accept the existence of such particulars. Hence the oft-heard reprimand that when one opens the head one does not find sense data, only neurons. Expecting otherwise would be a silly mistake for the sense-datum theorist to make, of course, but only against the background of an already accepted physicalist metaphysics.

7. There is a trivial and innocuous sense in which ontology is beholden to the theory of perception, namely, the sense in which the theory that I am perceiving a laptop right now gives me reason to adopt a laptop ontology. But the kind of connection between ontology and the theory of perception at stake here is of a different kind. It derives ontological conclusions not from claims about what we perceive, but from claim about the nature of perception, or more specifically the nature of the intentional structure of perception.

8. According to Russell, there are certain stable patterns and invariances within the realm of sense data that are best explained by the hypothesis that these sense data are caused by mind-independent objects. Thus lack of perceptual contact with ordinary physical objects does not exclude knowledge of them.

9. The relevant kind of encompassing can be understood in terms of entailment, or parthood, or some other way. Such encompassing is necessary if the content of the belief is to be inherited, or extracted, from that of the experience. Without it, the belief could not be formed, much less justified, simply by the subject endorsing the content of the perception.

10. Thus, beliefs formed by inference from experiences directed at sense data always bear intentional relations to entities other than sense data, namely ordinary physical objects.

11. Another connection worth commenting about is to general conservatism (Harman 1986), the view that all beliefs are by default prima facie justified. This does not seem to me to be in tension with the endorsement model, insofar as prima facie justification can be amalgamated: a belief that is prima facie justified
by two separate sources can be, under the right conditions, more justified than one that is so justified by one source only.

12. *A fortiori*, SDT entails the falsity of phenomenal conservatism, but many philosophers consider phenomenal conservatism plausible.

13. What is involved in *subjective indistinguishability* is a matter of some debate, but the general idea is that the subject undergoing the experiences cannot tell them apart. One way to think of subjective indistinguishability is in terms of *introspective accessibility*: what is introspectively accessible to the subject in the veridical and non-veridical cases is the same. Another way is in terms of *phenomenal character*: the phenomenal character of a veridical experience and a non-veridical experience could be the same. These two characterization may or may not turn out to be equivalent, depending on one's view of the relationship between phenomenal character and introspectibility. And there may be other ways to construe subjective indistinguishability.

14. The endorsement model thus underwrites a principle that Silins (forthcoming) formulates as follows: If a subject S has an experience E which gives S immediate justification to believe the content that \( p \), then E has the content that \( p \).

15. There is a related ‘argument from illusion’ (Ayer 1956) that I will not discuss here. I am assuming a commonplace distinction between illusion and hallucination: the former is a perceptual experience as of some object O having some property P when in reality O is not P, the latter a perceptual experience as of O having P when in reality O does not exist.

16. This is supported by the intuition that they are type-identical perceptual experiences and the intentionalist theory of perception, captured in (2) above, according to which what makes a perceptual experience the perceptual experience it is is that it falls under the intentional type it does, so that type-identical perceptual experiences must be intentionally type-identical (i.e., perceptual-experience-ly type-identical states must be intentionally type-identical states).

17. This is supported by the fact that non-veridical perceptual experiences do not bear any such relation to ordinary physical objects (combined with the truism that what makes a perceptual experience fall under an intentional type cannot be a property the perceptual experiences does not have).

18. The claim might also be rejected by certain non-conjunctivists (e.g., Williamson 2000) whose view I do not find nearly as unacceptable, but I will not discuss that view here either.

19. The particulars are physical in the sense that if they existed, their existence would be physical.

20. The intentional commonality between veridical and non-veridical experiences would presumably have to be accounted for in terms of the a genus of object that has two species, existent objects and non-existent objects. Perhaps possibilia, understood in the manner of Lewisian realism, or ‘concretism’ (Lewis 1991), would form the relevant the genus.

21. It might be, especially in light of the second clause, that this would need to be restricted to certain properties. The thesis would then read: There is a class of properties \( F_1, \ldots, F_n \), such that for any perceptual experience E, (a) what makes E the perceptual experience it is is that E bears an intentional relation to the member(s) of \( F_1, \ldots, F_n \) that it does, and (b) what makes E a perceptual experience at all is that E bears an intentional relation to a member of \( F_1, \ldots, \).
Fₙ at all. A similar qualification will apply to related theses formulated later in the paper.

22. Pautz’s (2007) position is a little subtler than others’ in this group. He argues that perceptual experiences do not bear an awareness relation to anything, but insists that they do bear a sensory-entertaining relation to properties. The sensory-entertaining relation is an intentional relation, so Pautz does qualify as a property theorist of perception.

23. That is, it can accept that perceptual experiences do not individuate in terms of intentional relations they bear to ordinary physical objects. This is because, as noted, it claims that they individuate in terms of intentional relations to entities that are not objects at all, namely, properties.

24. To a first approximation, it may be proposed that in the veridical case, the properties to which the experience bears an intentional relation are instantiated, whereas in the hallucinatory case they are not. This cannot quite work, however, since when one hallucinates a lemon, the properties of being yellow, lemon-shaped, etc. are all instantiated somewhere in the world—just not where one experiences them to be instantiated. So the proposal should rather be this: in the veridical case, the properties to which the experience bears an intentional relation are instantiated more or less where they are experienced to be instantiated, whereas in the hallucinatory case they are not.

25. The qualification ‘or at least can be’ is needed in light of the possibility of a property being instantiated by only one object. For example, if all ducks but one died, the property of being a duck would be instantiated in one place only at a certain time. The property of being a duck would therefore not be wholly present in more than one place at that time. But it would still be the case that the property of being a duck can be wholly present in more than one place at that time (where the relevant modality is metaphysical).

26. This traditional form of reductive nominalism is widely considered problematic, however. Reducing properties to sets of (actual) objects entails that coextensive properties are always identical (e.g., being a renate and being a cordate are one and the same property), which seems false, while reducing properties to sets of possible objects avoids this problem only at the cost of embroiling one in the ontological can of worms that is the assay of possibilia. This view also entails that necessarily coextensive properties must be identical, which some ontologists find more problematic than others. Being a road from Athens to Thebes and being a road from Thebes to Athens, for example, are necessarily coextensive, but are arguably numerically distinct properties.

27. Two clarifications are in order. First, the qualification ‘of the same ontological category’ is needed, because otherwise concrete objects would also qualify as tropes. For example, Socrates can be at the same place at the same time as Socrates’ wisdom (and cannot be wholly present at more than one place at the same time). However, what Socrates cannot be is at the same place at the same time as Plato, or any other concrete object. Secondly, for the characterization to be extensionally adequate, we would have to either deny that the statue and the clay are two distinct entities (e.g., by holding that the status is nothing but the clay), or else allow that they are they are distinct but deny that they belong to the same ontological category (e.g., by denying that the matter that composes and object is itself an object).
28. Thus the difference between traditional nominalism and trope nominalism is that the former attempts to reduce properties to concrete particulars whereas the latter to abstract particulars.

29. This is the second clause in the biconditional above. It is different from the notion used by Platonist universal theorists, of an altogether non-spatial entity, and the notion used by Aristotelian universal theorists, of an entity that can be wholly present at more than one place at the same time. As far as conceptual analysis of the everyday term ‘abstract’ is concerned, the Platonist understanding is probably the most accurate. But for present purposes we can treat all three understandings as stipulative, and simply keep in mind that they are different.

30. Note the reversal of order of explanation between properties and similarity in trope theory as opposed to ‘universal’ theory. Suppose we have two yellow lemons, Jimmy and Johnny. Whereas the universal theory accounts for the similarity between Jimmy and Johnny in terms of their sharing a property (yellowness), trope nominalism accounts for the sharing of the property in terms of the similarity between them (their individual yellowness tropes resemble).

31. The tropes can be actual, because Jimmy’s renateness and Jimmy cordateness are distinct tropes associated with Jimmy, so that the set of all actual individual renatenesses and the set of all actual individual cordatenesses are different sets (since sets are different if they have a single different member). It therefore does not follow that coextensive properties (or even necessarily coextensive ones) are identical.

32. It is harder for me to assess whether the phenomenological problem with SDT will apply here as well, that is, whether the transparency of experience can be naturally interpreted as telling against an account of perception in terms of intentional relations to universals ante rem.

33. This could be said, of course, of numbers as well. And indeed it is the tension with naturalism that seems to motivate fictionalist work in this area (e.g., Field 1980).

34. Note that there is no antecedent reason for them to conflict. The former focuses on the intentional objects of perception, the latter on the intentional relations between perception and its object.

35. Naturally, this kind of explanation is not causal, or otherwise scientific, explanation, but rather a constitutive, or philosophical, one.

36. I remind the reader that (VT2) is this thesis: There is a type of entity X and a type of belief B, such that for any perceptual experience E, (i) all tokens of B are perceptually grounded, (ii) many tokens of B bear intentional relations to tokens of X, and (iii) E does not bear epistemically and subjectively relevant intentional relations to tokens of X.

37. If the i-universal theorist also embraces the bundle theory of objects, according to which objects just are bundles of properties, then she can even claim that perceptual beliefs are in fact about (at least apparently concrete) objects. However, the problems with the bundle theory of objects are well documented, and need not be rehearsed here (see Van Cleve 1985).

38. The alternatives are (i) to deny that there are perceptual beliefs, or (ii) to claim that perceptual beliefs are not justified by endorsement of perceptual experiences, or (iii) claim that veridical perceptual experiences can never be type-identical with hallucinatory experiences, or (iv) reject the intentionalist theory of perception.
39. Recall that the i-universal account of properties is committed to the non-existence of uninstantiated properties (which both unicorn-ness and dragon-ness are).

40. This consequence can play out in one of two ways: either as the brazen denial of the possibility of what is manifestly conceivable, namely, that a subject might undergo an experience as of a unicorn or a dragon, or as the disjunctivist claim that such an experience is possible but would not qualify as a perceptual experience. To my mind, both interpretations of the consequence are utterly implausible. The first consequence is highly implausible, as the hallucination of unicorns is quite evidently metaphysically possible, and probably even nomologically possible: given the laws of neuropsychology, there is no reason why we could not feed a lifelong envatted brain the kind of sensory stimulation that would make it hallucinate unicorns. The second, alternative consequence is implausible in the way all disjunctivist views are.

41. This is most naturally understood as denying that perceptual beliefs are about concrete objects, and reconstruing perceptual beliefs, though it may also be understood as arguing that concrete objects just are sums of compresent sums of similar abstract particulars, or sums of compresent individual tropes. The latter is problematic in some familiar ways, in particular in its treatment of compresence (and in one case similarity) as primitive and inexplicable.

42. Moreover, this does not by itself make PTPI preferable over SDT or the Meinongian theory, although arguably the ontological advantages of at least some versions of PTPI might make them preferable.

43. Moreover, once we go the route of denying the possibility of certain hallucinations, there is no motivation for doing so for the protection of PTPI. We might as well allow perceptual experiences to fall under intentional types in virtue of intentional relations to concrete objects, and deny the possibility of intentionally type-identical hallucinatory experiences, thus relieving ourselves of the need to find concrete objects for such hallucinatory experiences to bear intentional relations to.

44. It does not follow that the experience and the belief are themselves intentionally type-identical. For the property of representing-laptop-on-table-wise may be a determinable, or a genus, of two distinct more determinate properties, namely, visually-representing-laptop-on-table-wise and doxastically-representing-laptop-on-table-wise. The experience bears only the former and the belief only the latter, both the genus of which both properties are species constitutes an intentional commonality between the experience and the belief.

45. Note well, however: in Ch.3 of Kriegel 2011, I conclude that overall this adverbialist option is probably slightly less plausible than the second option I mention in the text, namely, denying the possibility of certain hallucinations. Both options are by far better than the first and third options and the option of adopting SDT or a Meinongian theory.

46. This ‘adverbial intentionalism,’ if you will, would be the following thesis: For any perceptual experience E, (a) what makes E the perceptual experience it is is that E bears the non-relational intentional property it does, and (b) what makes E a perceptual experience at all is that E bears a non-relational intentional property at all.

47. This line is developed more fully in Kriegel 2011 Ch.3.
48. For comments on a previous draft, I am grateful to David Chalmers, Juan Comesañana, and Joseph Tolliver.

References

Silins, N. Forthcoming. ‘The Significance of High Level Content.’ Philosophical Studies.