

Appearance and Illusion

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Abstract: Recent debates between representational and relational theories of perceptual experience sometimes fail to clarify in what respect the two views differ. In this essay, I explain that the relational view rejects two related claims endorsed by most representationalists: the claim that perceptual experiences can be erroneous, and the claim that having the same representational content is what explains the indiscriminability of veridical perceptions and phenomenally matching illusions or hallucinations. I then show how the relational view can claim that errors associated with perception should be explained in terms of false judgments, and develop a theory of illusions based on the idea that appearances are properties of objects in the surrounding environment. I provide an account of why appearances are sometimes misleading, and conclude by showing how the availability of this view undermines one of the most common ways of motivating representationalist theories of perception.

Truth or illusion is not in the object, in so far as it is intuited, but in the judgment about it, in so far as it is thought. It is therefore correct to say that the senses do not err—not because they always judge rightly but because they do not judge at all. (Kant 1787/1929, A294/B350)

I am not disclosing a fact about myself, but about petrol, when I say that petrol looks like water. (Austin 1962, p. 43)

1. Introduction

Perceiving the way objects appear to us is one of the most fundamental means by which we become aware of how things are in the surrounding environment. Given the epistemic centrality of appearances, explaining the observation that *things are not always as they appear to be* is one of the primary aims of philosophical theorizing about perception. To account for misleading appearances, some have proposed that the immediate objects of perception are sense-data existing only in the mind, which may or may not correspond to mind-independent objects. Others have suggested that perception is an adverbial state—we experience objects in different ‘ways’ (e.g., red-ly or round-ly), where the way an object is experienced explains why it appears to have

particular properties. Still others have argued that perception is a representational state like belief, the content of which characterizes the way things appear to the perceiving subject, and which can succeed or fail to accurately represent perceived objects.

A common feature of these theories is that they treat appearances as subjective, psychological facts about individual perceivers. If a red tomato appears orange in yellow lighting, this is something to be explained in terms of goings on in the mind of the perceiver: she is seeing an orange sense-datum, experiencing the tomato orange-ly, or representing the tomato as orange. Against these views, I will suggest that appearances are not properties of psychological states, but rather are mind-independent properties instantiated by objects in the surrounding environment. I will explain how accepting this view provides the means for understanding how perception, while sometimes misleading, never itself involves any error. Instead, I will claim that perceptual illusions can be understood as experiences that tend to produce false judgments. While the claims that appearances are objective properties and that illusions can be explained in terms of false judgments are not entirely novel¹, combining them within a single view provides explanatory resources that neither claim possesses on its own.²

The idea that appearances are psychological gains a large part of its credibility from the account it provides of the commonality between normal perceptual experiences and indiscriminable illusory or hallucinatory ones. On accounts of this sort, the reason a red tomato seen in yellow lighting looks just like an orange tomato seen in white lighting is that both experiences involve the same appearance. The common appearance is then explained in terms of

¹ See, for example, Shoemaker (1994, 2000) for the view that appearances are partly objective, and Noë (2005) for the idea that appearances are ‘perspectival properties’ of objects. Armstrong (1968) defends the view that perceptual error is explained by false judgment.

² Historically, elements of the view I will defend derive from Descartes (1641/1996), Kant (1787/1929), and more recently Austin (1962). Kalderon (2011) and Travis (2004) have adopted versions of this approach in recent work, without developing it in full generality (Kalderon focuses on the case of color; Travis suggests the view in passing while advancing a criticism of representationalist theories of perception). Other related proposals which differ in important ways from the view I defend here will be discussed below.

sense-data, ways of experiencing, or representational content. Since accounting for the indiscriminability of erroneous perceptual experiences and normal ones is a major explanatory aim of a theory of perception, the view that appearances are psychological can seem like a promising starting point.

In recent work on perception, few philosophers defend sense-datum or adverbial theories.³ These views face serious epistemological and phenomenological difficulties which have been well discussed by others, and I won't repeat the arguments against these views here.⁴ The view that perceptual experiences are representational states, however, is generally thought to be much more promising, and is widely accepted.⁵ While this view, which I will call *representationalism*⁶ about perceptual experience, exists in a variety of formulations, all share the central claim that the representational content of perception specifies conditions of satisfaction which, when compared with the actual state of the world, determine whether or not the experience is veridical or non-veridical. Representationalism is often endorsed because it is thought to provide the best account of erroneous perceptual experiences (illusions and hallucinations) while avoiding the difficulties of sense-datum and adverbial theories. In particular, representationalism seems able to reject the claim that when an object appears a particular way to a perceiver, the perceiver must be aware of something that accounts for the way the object appears (such as a sense-datum). Representationalists claim instead that what it is for

³ For some exceptions see Foster 2000 and Robinson 1999.

⁴ For criticisms of the adverbial theory see Jackson 1977. Problems with sense-datum theories are discussed in Austin 1962 and Martin 2002.

⁵ See, for example, Block 2003, Burge 1991, 2005, Byrne 2001, 2009, Chalmers 2004, Dretske 1995, Fodor 1987, Harman 1990, Peacocke 1993, Schellenberg 2011, Searle 1983, Siegel 2005, 2010, and Tye 1995.

⁶ Some philosophers call the view I will be concerned with 'intentionalism'. Another view that is sometimes called 'representationalism' is the view that the phenomenal character of a perceptual experience is reducible to or supervenes on representational content. This variety of representationalism is a version of the view I will be discussing, but so are representationalist views which deny that phenomenal character supervenes. For a helpful discussion of the debate between these views and its relation to my topic, see Crane 2006.

an object to appear a certain way to a perceiver is for the perceiver to be in the relevant representational state.

Despite the popularity of representationalism, in recent years a growing number of philosophers have argued that it is a mistake to treat perception as a representational state.⁷ According to these philosophers, perception is a relation of direct awareness to objects in the surrounding environment such that objects and their properties are constitutive of perceptual experience, and allowing this fact to play its explanatory role is incompatible with representationalism. Following Campbell (2002), I will call this view the *relational* view of perception. At first glance, however, it's not entirely clear why the relational view should be opposed to representationalism. One might think that the view that perception is a relation of direct awareness is perfectly compatible with representationalism, at least for cases of veridical perception. Moreover, the relational view doesn't obviously possess the resources to account for experiences in which perceived objects don't have the properties they appear to have (illusions), or in which we don't perceive any objects at all (hallucinations). After all, if perception is just a relation of direct awareness to objects and their properties, how could it involve these sorts of errors?

I believe that the relational view *is* a genuine alternative to representationalism, however, so my first aim (Sect. 2) will be to clarify what I take the fundamental difference between the two views to be. In brief, I will suggest that the difference lies in the fact that the relational view rejects two related commitments of representationalism: the claim that properties figure in perceptual experience as abstract representations rather than as perceived property instances (which is required for representationalism to explain the indiscriminability of veridical

⁷ See Campbell 2002, 2009, Fish 2009, Kalderon 2011, Noë 2005, Travis 2004, and Brewer 2011.

perceptual experiences and illusions), and the claim that perceptual experiences can be erroneous. The relational view need not reject that idea that there are representational states which are closely related to perceptual experience, however, and in order to explain how the view can avoid the claim that perceptual experiences themselves can be erroneous, I will introduce the idea that perceptual error is *doxastic*—a matter of forming mistaken perceptual beliefs rather than an error attributable to perception itself (Sect. 3).

I will then turn to my main topic, which is the question of how a relational view can explain misleading appearances. In addressing this question, I will begin by contrasting the traditional view that appearances are psychological phenomena with the idea that they are mind-independent properties of physical objects (Sect. 4). After distinguishing several different varieties of illusions and hallucinations, and setting aside the case of total hallucination, I will show how the view that appearances are mind-independent properties, in conjunction with a doxastic view of perceptual error, can provide an account of misleading appearances for the relational view (Sect. 5). I will then examine in more detail how this account explains why appearances are misleading in the case of illusions, but not in the case of perceptual constancy phenomena, such as viewing a coin from an angle so that it appears elliptical, without this appearance being misleading (Sect. 6). I will conclude by summarizing how the view of illusions I have proposed undermines one of the primary motivations for representationalist theories of perceptual experience (Sect. 7).

Two final preliminary notes: first, how things appear to a perceiving subject is frequently thought to be equivalent to the *phenomenology* of experience, which in turn is glossed in terms of ‘what it is like’, qualitatively speaking, to have or undergo the experience. This qualitative aspect of experience is often taken to be individuated by what an experiencing subject can

introspect—two experiences are of the same qualitative type (i.e., have the same phenomenology) if they are such that a subject could not discriminate between them on the basis of introspection alone. If how things appear in a perceptual experience is equivalent to its phenomenology, and phenomenology is explained solely in terms of introspectable properties of experience (such as qualia or representational properties⁸), this would result in it being trivially true that appearances are properties of experiences.

This line of thinking can be resisted at both stages. To begin with, as I will argue at length below, while appearances may be partly constitutive of the phenomenology of experience, they need not be explained in terms of it. Second, some philosophers have recently suggested reasons for doubting that phenomenology can be explained solely in terms of properties of subjective experiential states, particularly when taken in isolation from the relations in which the experiencing subject stands to properties of objects in the surrounding environment.⁹ Rather, the phenomenology of perceptual experience is constituted by the phenomena encountered therein, which are typically not, or at least not exclusively, properties of experience itself. Hence, the gloss on phenomenology in terms of ‘what experience is like’ provides a poor characterization of the first-person experiential standpoint, since it narrows the subject matter of phenomenological reflection to strictly psychological phenomena. Therefore, while I won’t question the idea that there is an important relationship between appearances and the phenomenology of experience (according to the view proposed below, the former are partly constitutive of the latter), I will assume that it is not true as a matter of definition that appearances can or should be explained solely in terms of properties of experience.

⁸ For discussion see Crane 2006 and Kennedy 2009 (Sect. 2).

⁹ See Campbell 2002 (Ch. 6), Fish 2009 (Ch. 1), Hellie 2010, Kennedy 2009, and Martin 1998, ms. (Ch. 2). My discussion of this point follows that of Kennedy 2009 (Sects. 1.2 and 4.2).

Second, a decisive case against representationalism, or in favor of a relational view of perceptual experience, would require consideration of a broad range of arguments which have been proposed on both sides.¹⁰ This is a considerable task, and goes well beyond what I can accomplish here. In fact, I will not offer any arguments against representationalism or in favor of the relational view, since developing a theory of misleading appearances for the relational view will turn out to be a complex matter in its own right. My goal will rather be to show that, contrary to what is usually assumed, there is no straightforward argument in favor of representationalism based on the need to account for perceptual error, because a relational theory of perception can explain how appearances can be misleading while denying that perceptual error is so much as possible.

2. Representationalism and the relational view of perception

According to representationalism, perceptual experiences are representational states the contents of which characterize how things appear to the perceiving subject and which, like beliefs, can represent the world either correctly or incorrectly. There are many debates among representationalists concerning the nature of perceptual contents, but for present purposes I will abstract from these debates, and focus instead on the central claim common to different versions of representationalism, which is well captured by Susanna Schellenberg: ‘The most minimal representationalist commitment is that perceptual experience is a matter of a subject representing her environment as being a certain way’ (Schellenberg 2011, p.715).

This minimal commitment is usually put to use in support of two further claims. The first claim is that the way perception represents objects in the environment as being is not necessarily

¹⁰ In addition to explaining perceptual error, other considerations include the question of which view provides the best account of the phenomenology of perception, which provides a stronger framework for explaining perceptual justification and knowledge, and which coheres better with scientific theorizing about perception. For discussion of these and other issues, see the papers collected in Gendler and Hawthorne 2006 and Nanay 2010.

the way that they are. In other words, perceptual experiences can be erroneous. The second claim is that the representational content of perception is what accounts for why two experiences that differ with respect to veridicality can be exactly alike from the standpoint of the perceiving subject. If things appear the same way to a perceiver in two experiences, one of which is veridical and the other of which is an illusion, this is because the experiences both represent the world as being the same way (cf. Byrne 2009, pp. 447–8; Schellenberg 2011, Sect. 4). One could accept the first of these claims and reject the second, as sense-datum and adverbial theories of perception do, by holding that perceptual experiences can be erroneous, but that representationalism is mistaken about what explains the indiscriminability of veridical perceptions and illusions.

The relational view of perception, on the other hand, rejects both of these claims about the nature of perceptual experience. The reason for rejecting them is an insistence on the idea that the epistemological and phenomenological features of perception should be explained entirely in terms of perceivers standing in a relation of direct sensory awareness to mind-independent objects and their properties. This approach pursues a broadly empiricist line of thinking, which holds that perceptual experience must be understood as a psychological state that is in important respects more primitive than states such as belief, imagination, and memory if central features of these latter states are to be explained as deriving from perception. For example, as John Campbell (2002, Ch. 6) argues, in order to explain the intentionality of world-directed cognitive states in terms of perceptual awareness of the world, perception itself should not be understood as an intentional state, for in that case its intentionality would require some further explanation. If perception is explained simply as a relation to particular objects and their properties, then there is no room for an abstract representational content to play the role of

explaining the indiscriminability of veridical perceptions and matching illusions. As Bill Brewer puts it, ‘in perceptual experience, a person is simply presented with constituents of the physical world itself’ (Brewer 2006, p. 169). Moreover, given that perception just involves direct awareness of the surrounding world, there is no question of there being any perceptual error: ‘Error, strictly speaking, given how the world actually is, is never an essential feature of experience ... ’ (Brewer 2006, p. 169). While denying the core commitments of representationalism carves out a distinct position in logical space, in order for the relational view to be plausible more needs to be said about the relation of direct awareness and the theoretical resources it can provide.¹¹

The idea that perception is a relation of direct awareness, in which both a perceiving subject and various objects and their properties are *relata*, is traced by Campbell to the idea of *knowledge by acquaintance* first developed by Bertrand Russell. Campbell writes:

The idea of ‘acquaintance’ is the idea of a kind of epistemic contact with a thing or property ... Russell argued that our knowledge of things cannot, in general, be explained in terms of our knowledge of truths. Russell thought that there were two sorts of knowledge: knowledge of truths, and knowledge of things. Knowledge of truths depended on knowledge of things. (Campbell 2009, pp. 648–9)

Russell’s conception of knowledge by acquaintance was one that he explicitly contrasted with propositional knowledge (knowledge of truths), and one that Campbell also contrasts with the idea of unconscious information carried by a subject’s perceptual information processing systems. Acquaintance is a relation that is epistemically more basic than propositional knowledge of an object and which involves conscious awareness of that object. The upshot of this characterization is summarized by Imogen Dickie in a recent paper on the notion of acquaintance: ‘A subject, S, is “acquainted” with an object, *o*, iff S is in a position to think about

¹¹ It is worth noting that, *contra* Burge 2005, rejecting the claim that conscious perceptual experiences are representational states is not at all incompatible with the idea that perceptual processes in the brain and nervous system are fruitfully characterized in terms of representations. See Campbell 2010 for a clear account of this issue.

o in virtue of a perceptual link with *o* and without the use of any conceptual or descriptive intermediary' (Dickie 2010, p. 213). For present purposes, a 'perceptual link' can be thought of as having conscious sensory awareness of an object and its properties, where *sensory* awareness contrasts with the sort of cognitive, propositional awareness one might have of an object on the basis of testimony. Acquaintance with an object, on this proposal, is at least one way of accounting for how an individual can be in a position to entertain singular thoughts about that object.

There are a number of other reasons one might want to accept that knowledge by acquaintance has an important role to play in a theory of the mind: one might take it as a kind of epistemically basic mental state in the context of articulating a foundationalist theory of knowledge, or one might make use of it, as Campbell does, in developing an account of demonstrative reference. For now, the main idea is that a view which accepts that there can be such a thing as knowledge by acquaintance allows that there can be mental states relating subjects to objects that do not require representing those objects as being some particular way.

The view that perceptual experiences are relational, according to which objects of perception play the role of constituents of experience in virtue of being *relata* of the acquaintance relation, might not sound so different from some ways of conceiving what it is to be in a representational relation to objects. While some representationalists (e.g., Searle 1983, Ch. 2) claim that the contents of perception are abstract, existentially quantified propositions, others (e.g., Speaks 2009), following Russell's 1903 account of propositions, conceive of objects and properties as constituents of experiences, since they conceive of objects and properties as partly constituting representational contents. On a Russellian view of this sort, however, the content of a perceptual experience still specifies a correctness condition—a way the world must

be if the experience is to be veridical. If the experience *is* veridical, then the subject is aware of how things are in her environment. But a subject could be having an experience with the very same content, even if the world were not as she experiences it as being. The reason for this is that even though a particular object can be thought of as constituting the experience, the properties it is experienced as having figure in the content of the experience abstractly, as universals rather than as property instances, for the object could be experienced as having those very same properties even if it lacked them. So even if a representationalist conceives objects and properties as constituting perceptual content, the way things are in the environment does not play an essential role in determining the content of her experience, since for any given content, the subject could be having an experience with that very content even if the object she was perceiving had different properties.

A representationalist who attributes Russellian contents to experiences could perhaps claim that in a case of veridical perception the experience is constituted by the object and the instances of the properties it possess, but that abstract properties figure in illusory experiences. The problem is, if this were the case, the veridical perception and indiscriminable illusion would have different representational contents. This means that the indiscriminability of the veridical and illusory cases would not be explained by sameness of representational content, which is supposed to be one of the central theoretical payoffs of representationalism.¹²

The same goes for other representationalist theories that ascribe singular contents to perceptual experience. A particularly clear statement of this approach is provided by Schellenberg (2011, section 4), who claims that perceptual contents are constituted by *de re*

¹² Though see Pautz 2009 for the suggestion that representationalism can be motivated on other grounds.

modes of presentation.¹³ According to Schellenberg, such contents are partly abstract, but also involve a *de re* element which refers directly to objects and properties, independently of the descriptive contents associated with the modes of presentation. So, for example, an experience of a white cup would involve a mode of presentation (a concept of the relevant object) which refers *de re* to the cup, as well as a mode of presentation of the property of being white, which refers *de re* to the whiteness instantiated by the cup. In a case of illusion or hallucination, however, the *de re* element of one or more of the concepts involved will fail to refer.

Considered at an abstract level, such contents are ‘gappy’, that is, their conditions of satisfaction are not fully specified until the relevant referents are taken into account. The experience is veridical, according to Schellenberg, just in case the gaps are filled by the *de re* elements having appropriate referents. What explains the indiscriminability of a veridical case and a matching illusion or hallucination is that the modes of presentation involved are the same. This is what a defender of the relational view will object to in the view—although Schellenberg allows that perceptual experiences can involve relations to particular objects and their properties, the relations themselves aren’t fundamental for explaining the way things appear in a particular case.¹⁴ What explains why a veridical perception and an illusion are indiscriminable, on her view, is the experiences having a shared content considered at the abstract, gappy level.

¹³ See also Burge 1991, and Byrne and Logue 2008 (Sect. 9). For a helpful discussion Burge’s view, see Schellenberg 2011 (fn. 41).

¹⁴ Schellenberg accounts for the phenomenological impact of these relations in terms of the *de re* referential element in the representational content. The idea, roughly, is that contents with *de re* elements represent the relevant objects and properties as phenomenologically present (though the objects and properties themselves may not in fact be present). Explanations of the phenomenological presence of objects and properties in terms of representational content have been criticized by Matthew Kennedy in his discussion of the *transparency* of experience (Kennedy 2009). According to Kennedy, representationalist explanations of the phenomenological fact that objects and their properties are ‘manifestly present’ to us in experience are out of step with the phenomenon itself. The reason for this, Kennedy argues, is that representationalists account for the phenomenology of experience in terms of properties of experience itself (namely, its representational properties), rather than in terms of perceived objects and their properties. If objects *are* manifestly present when we perceive them, this will be a fact attributable to objects themselves, rather than a psychological fact. The present discussion extends Kennedy’s argument to representationalist views such as Schellenberg’s, which attribute singular contents to perception. Although these

Importantly, according to Schellenberg, the concepts employed in perceptual contents are themselves grounded in ‘perceptual relations to the very objects or property-instances that the concepts pick out’ (Schellenberg 2011, p. 732). In order to possess a perceptual concept, a subject must be able to discriminate relevant instances of the concept in question. As mentioned above, however, it is the fact that the content of a veridical perception and an indiscriminable illusion or hallucination employ the same concepts that accounts for the fact that a perceiving subject cannot tell them apart:

[A]ny experience in which the same concepts are employed in the same sensory mode will have the same phenomenology ... As a consequence, the suggested view can give a positive explanation of what accounts for the possibility that a perception and a hallucination could be subjectively indistinguishable. In subjectively indistinguishable experiences, the very same concepts are employed in the same sensory mode. (Schellenberg 2011, p. 733)

On Schellenberg’s view, the subject’s perceptual relation to presently perceived property instances is not necessary to explain how a particular object appears. Although the subject may employ concepts grounded in the ability to attend to and discriminate instances of an object and its properties, that fact that the subject is related to appropriate property instances is not relevant to the explanation of what her experience is like, for according to Schellenberg’s view, the subject could be having an experience with the very same phenomenology even if the relevant concepts failed to refer.

So although Schellenberg’s view is very close to the relational view in endorsing the claim that perceived objects and properties are constitutive of perceptual experiences, as well as grasping the concepts that are employed in them, she does not endorse the relational view’s claim that the epistemological and phenomenological facts of perception can be accounted for

views endorse the idea that relations to objects and properties are constitutive of at least some cases of perceptual experience, these relations play no role in accounting for perceptual phenomenology, and hence cannot be utilized by representationalists in order to respond to Kennedy’s argument.

entirely in terms of the acquaintance relation. For this very reason she calls the view *austere relationalism*, since it does not allow any explanatory role for representational content, as her own view does.

According to the relational view as I have been presenting it, perceptual experience acquaints a subject with the way things actually are in her environment, that is, with the relevant objects and particular instantiations of the properties they possess.¹⁵ The fundamental point of disagreement between defenders of the relational view, on the one hand, and representationalists who endorse Russellian propositions or other singular contents, on the other, concerns the role of particular objects and their properties in constituting perceptual experiences. For representationalists, even if relations to objects and their properties have a role to play in explaining some aspects of perceptual experience, the abstract features of representational contents will also be fundamental to explaining the phenomenology and epistemology of perception. For the relational view, however, only relations to perceived objects and properties are fundamental for explanatory purposes.¹⁶ It is this disagreement that leads the defender of the relational view to reject the idea that perception is a representational state.

One might wonder whether or not a defender of the relational view could admit that there are contents associated with perceptual experience, but that these contents play no explanatory

¹⁵ There are different ways of developing the idea that we are acquainted with objects and instantiations of the properties they possess. One way would be to claim that what we are aware of, in addition to objects themselves, are tropes. Another way would be to hold that the objects of perception are facts, understood as states of affairs or truthmakers (as opposed to true propositions). The correct account will be constrained to some extent by empirical theories of how the perceptual system processes information about the presence of objects and properties on the basis of sensory stimulation.

¹⁶ Some representationalist theories of perception might appear to have an advantage over relational theories in this regard. If one holds that perceptual experiences need to have conceptual contents of some kind in order to stand in epistemic relations that are appropriate for rationally justifying empirical beliefs, one may conclude that the relational view cannot provide a plausible theory of perceptual justification. But this conclusion is premature. The idea that justificatory relations between perceptual experience and belief require attributing conceptual contents to perceptual experiences assumes that perceptual justification is paradigmatically *inferential* in character. This is a view that has been challenged (e.g., Pryor 2005), and the idea of immediate, non-inferential justification can be put to use in defense of a relational view of perception, though I will not be able to explore this idea here.

role. This proposal is difficult to evaluate, because the question of which contents one should attribute to various perceptual experiences is typically pursued in the context of the explanatory goals of the theory. Representationalists who have discussed this proposal typically suppose that associated contents will at least account for the way objects appear in experience (e.g. Schellenberg 2011, Sect. 3; Siegel 2010, Sect. 6). If attributions of content actually served no explanatory purpose, as the relational view claims, it is unclear how one could determine what the associated contents would be.

While the relational view presents an alternative to representationalism with respect to how perceptual experience is constituted, as I have characterized it so far it faces a *prima facie* difficulty. The difficulty is that the relational view seems to supply a merely extensional description of what a subject perceives, rather than explaining how things appear to her in the experience. The problem is that if all the relational view mentions is that a subject is perceptually aware of a certain object and its properties, it is unclear how the view can account for the fact the perceptual experience always seems to involve objects appearing some way to the perceiver. Consider two perceivers who observe the very same tomato from different locations, or who have differing levels of visual acuity (one might be near-sighted, or colorblind). Both stand in the relation of perceptual awareness to the very same object and properties, but the relational view needs to account for differences in the ways things might appear to them given the differences in their points of view and perceptual capacities.

A relational theorist can respond to this difficulty, however, by claiming that the constituents of the perceptual relation are partly determined by the subject's point of view and what she attends to in perception. If an individual sees a tomato on a table from a certain angle, an explanation of the way things appear to her will include reference to the properties of the

tomato she attends to, relative to her perspective, such that a slight change in attention or point of view will result in things appearing differently to her. The importance of taking point of view into account has been emphasized by Campbell (2009). As Campbell conceives it, perception is a three-place relation involving a subject, perceived objects, and a point of view (see also Noë 2003, Ch. 3). In addition, I am emphasizing the idea that perceived properties also figure in the perceptual relation, and also that which objects and properties enter into the relation is partly determined by what the perceiver can and does attend to. Although a subject may perceive more than she attends to, what she attends to will partly determine how perceived objects appear to her. Which features she attends to can depend on a variety of factors, including her current goals and interests, whether her perceptual capacities are functioning normally, and what the viewing conditions are like.¹⁷ By taking all of these factors into account, the relational view can explain the particular way things appear to a subject in perceptual experience, rather than providing a merely extensional characterization of what is perceived.

On the relational view, then, the way things are in a subject's environment, along with attention and point of view, constitute her perceptual experience. If the relevant objects and properties were not arranged just as they are, the subject would not have the very perceptual experience that she does, for the objects and properties—together with their arrangement—are part of the experience. Recall that according to representationalism, even if an experience has objects and properties as constituents, its having a particular content does not depend on the world being the way it is represented as being. For a relational view, on the other hand, the idea that perceptual experience is constituted by objects and properties means that the world always is

¹⁷ See Watzl 2011 (Sect. 3) for an overview of philosophical issues related to attention.

the way it appears to the subject as being, a claim I will explain in much more detail in the sections that follow.¹⁸

3. The Doxastic Approach to Perceptual Error

An interesting consequence of the relational view is that if it is correct, talk of non-veridical perceptual experiences is no longer coherent. Part of what it means for an experiential state to be perceptual is that it provides a subject with awareness of *how the world is*. Yet the relational view grants, as any plausible view of perception must, that perceptual experiences can involve misleading appearances. This initially sounds puzzling, for if perception is just a relation of awareness to objects and their properties, how could we ever be misled by experience? Even if one is sympathetic to the idea that experience is relational, the claim that perceptual experience fundamentally involves representing and sometimes misrepresenting how the world is can seem to be unavoidable. Part of the reason for this is that the idea that experiences sometimes misrepresent the world can sound like a re-description of the phenomenon of misleading appearances. Understanding misleading appearances in this way is not obligatory, however, for it depends on the idea that an appearance's status as being misleading is the result of an error that is attributable to perception, and this is a claim that one could deny, arguing instead that descriptions of appearances—misleading or not—should be understood doxastically, as reports of perceptual judgments. Doxastic accounts of perception sometimes identify perceptual experiences with belief states¹⁹, but one could accept the idea that appearances are explained in

¹⁸ Disjunctivist theories of experience (e.g., McDowell 1986, Martin 2004) also claim that perceptual experience is constituted by objects, so that an experience which involves perceptual awareness of an object, and a phenomenally indistinguishable hallucinatory experience that does not involve any awareness of objects should not be considered experiences of the same psychological kind. It is open to a disjunctivist, however, to accept a representationalist account of the relation between veridical perceptual experiences and object-involving illusions. This latter position is not open to the relational view as I have presented it here.

¹⁹ See, e.g., Armstrong 1968 and Glüer 2009.

terms of the propensity to cause various beliefs, without accepting the reduction of perception to belief. Such an account can be developed in service of the relational view of perception.

Consider again the case of a red tomato in yellow lighting: due to the presence of the lighting, it appears to me as though the tomato is orange. It seems correct to say that things are not as they appear to be. Had I known about the lighting, however, the way the tomato appeared wouldn't have struck me as the appearance of an orange tomato. I would instead have taken the appearance to be that of a red tomato in yellow lighting. So how things appear can be understood in terms of *the way one is inclined to judge things to be* on the basis of experience. If I am fooled by the lighting, on the other hand, this might lead me to conclude that the tomato is orange. In this case, the fact that the tomato appears orange to me is analyzed in terms of the fact that I would judge it to be so on the basis of my experience. On the doxastic account, appearances are explained in terms of the judgments one would make on the basis of perceptual experience, and appearances are misleading if they lead one to make false judgments. Perceptual experiences themselves are not erroneous—perceptual error belongs to the mistaken judgments one forms on the basis of them.

A doxastic approach to appearances faces some difficulties, however. In particular, it seems mistaken to think that perceptual experience always reflects what we would judge about our environment on the basis of a particular experience. If we consider a familiar case of visual illusion, such as the Müller-Lyer illusion (see Figure 1), although the drawing appears to present two lines of unequal length, someone who is familiar with the illusion will have no inclination to judge that the lines are of unequal length. The idea that perceptual judgments are what explain misleading appearances is undermined by this and other similar examples.²⁰

²⁰ Byrne (2009, p. 446) raises a related problem for Travis's (2004, p. 68) treatment of the Müller-Lyer illusion. The account of appearances I articulate below provides a reply to Byrne's criticism in the spirit of Travis's view.

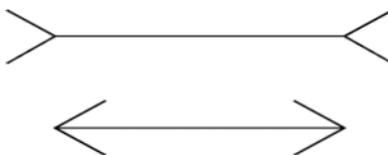


Figure 1

A defender of the doxastic view can respond to this objection by conceding that accounting for appearances doesn't require that things always appear the way one would judge them to be. When one looks at the Müller-Lyer drawing, things look a certain way, even though one may not be inclined to judge that they are that way. To say that they look that way reports how one *would* judge them to be if one were to discount other relevant knowledge one possessed (cf. Armstrong 1968, p. 222). While it is possible to be misled by the way the drawing looks into judging that the lines are of unequal length (which would be an erroneous judgment), we don't need to suppose that the way the lines are *perceived* is erroneous. A neutral way of describing the appearance of the drawing is that we experience the lines as looking the way two equal lines look when they have hashes drawn in a certain way at each end. What can be erroneous is the judgment one makes on the basis of the experience, and the particular judgment one is disposed to make will depend on what relevant background knowledge one possesses.

This reply by the defender of the doxastic view is helpful, but not entirely satisfying. It does seem right to say that we frequently recognize that things are not the way they appear—in cases of color constancy, for example, when we take an unevenly illuminated surface to be of uniform color. Nevertheless, which judgments subjects *would have* made in the absence of knowledge they in fact possess will often be underdetermined, since it is only in light of having particular background knowledge and familiarity with environmental conditions that we are able

to come to definite conclusions about the way things are given how they appear.²¹ Although the doxastic view provides a plausible account of perceptual error in terms of false belief, it falls short when it comes to providing an explanation of misleading appearances.²²

Nevertheless, the doxastic account offers a promising supplement to the relational view of perception. By accepting the claim that the only error related to perception comes from false judgments, the relational view can reject the representationalist commitment that perceptual experiences can be erroneous. What remains to be seen is how the relational view can utilize the framework of analyzing perception as a relation of awareness to objects and their properties to account for misleading appearances. The key to accomplishing this, I will argue, is to reject the claim—endorsed both by representationalism and the doxastic approach—that appearances should be explained in terms of facts about the psychological states of perceivers.

4. Appearances

Traditional theorizing about appearances in philosophy explains the way things appear to a perceiving subject in terms of facts about the perceiver's psychology. In opposition to this traditional view, I will defend the view that appearances are mind-independent properties of objects in the surrounding environment. John Austin expresses this idea in the first epigram to this essay: 'I am not disclosing a fact about *myself*, but about petrol, when I say that petrol looks like water' (Austin 1962 p. 43).

²¹ See Segal, Campbell, and Herskovits 1966, for example, on cultural differences in judgments about the Müller-Lyer illusion.

²² Glüer (2009) proposes that perceptual experiences are beliefs about the phenomenal properties of objects, that is, beliefs about the ways objects appear. If this view were successful, it would only save the doxastic account from the objection described above if objects have phenomenal properties corresponding to the contents of these beliefs. I will suggest below that objects *do* have such properties, but that our beliefs about objects typically do not make reference to their phenomenal properties. Moreover, I will argue that once we acknowledge phenomenal properties, one of the main motivations for attributing representational content to perception (as Glüer's version of the doxastic view proposes) is removed.

In recent literature on perception, Austin’s suggestive idea—that appearances are in some sense mind-independent—has been developed in a number of different contexts by philosophers employing quite different terminology. To give some examples: Alva Noë makes use of the notion of *perspectival properties* in explaining the phenomenon of perceptual constancy, such as a surface appearing uniformly colored despite being unevenly lit, or a round coin appearing elliptical when viewed from an angle (Noë 2004, Ch. 3). According to Noë, perspectival properties are genuine properties of objects—ways objects look from various points of view. Susanna Schellenberg argues for the existence of *situation-dependent properties* as playing a key role in perceptual epistemology given the perspectival and context dependent nature of perceptual experience (Schellenberg 2008), though she distinguishes these properties from appearances, which she thinks of as associated with the phenomenal character of experience. Kathrin Glüer has proposed that we perceive *phenomenal properties* of objects in defense of a doxastic account of perception from objections that such an account cannot adequately account for variation in appearances (Glüer 2009). Finally, Sydney Shoemaker develops the idea that objects possess *appearance properties* in the service of defending representationalism from arguments about spectral inversion (Shoemaker 1994, 2000).

The fact that so many different terminological innovations have been introduced in order to capture a set of quite related phenomena—namely variations in the perceivable properties of objects—obscures the fact that ‘appearance’ and related terms such as ‘looks’ can be used to pick out properties of objects, as the quotation from Austin suggests.²³ In what follows, when I

²³ Schellenberg (2008, fn. 4) suggests that various senses of appearance vocabulary are typically associated with the phenomenology of perception, where this is understood as a property of experience. As mentioned above, I reject the idea that phenomenology by definition encompasses only psychological phenomena. In addition to the suggestion pursued here that the term ‘appearance’ can pick out the same properties as those Schellenberg identifies as ‘situation-dependent’, some of the senses of appearance vocabulary Schellenberg mentions may have epistemic as opposed to phenomenological interpretations.

discuss the *appearances* of objects without further qualification, I mean to pick out mind-independent properties of objects.²⁴ My aim in the remainder of this section is primarily programmatic: to clarify a way of thinking of appearances as mind-independent, in order to show in the following sections how this view can be used, in combination with the doxastic view of perceptual error discussed above, to develop a theory of misleading appearances for the relational view of perception.

If one takes appearances to be objective, there are a variety of positions one could hold regarding their metaphysical nature. Shoemaker (2006), discussing one such view, suggests that appearances can be thought of as dispositional properties of objects, namely, dispositions to cause various kinds of experiences in perceivers. Understood in this way, although the relevant dispositions are partly grounded in more fundamental properties of objects, appearances are nevertheless partly mind-dependent, in that they are individuated by the experiences they typically cause. The same goes for other views which propose that perceiver's psychological states are part of what individuate the relevant relations (e.g. Antony 2011).

In contrast to these approaches, appearances can be understood as *entirely* mind-independent. The key idea here is that appearances are properties of objects they possess in virtue of their intrinsic properties, properties such as shape, size, and (as I will assume for present purposes) color. An important question concerns whether appearances are simply a subset of an object's intrinsic properties, namely those that are observable, or whether they are distinct from intrinsic properties. It is natural to think, for example, that a red object will look red in virtue of being red and the fact that redness is an observable property. Red objects do not always look red, however, and objects can look such that we would judge them to be red without

²⁴ The relation between this use of appearance vocabulary and comparative and epistemic uses (e.g., 'he looks like my uncle', 'he looks as if he's had a long day') is not a topic I will take up here. For a detailed discussion of this issue, see Martin 2010.

actually being red. In such cases the difference between an object's observable intrinsic properties and its appearance frequently arises because of conditions in the surrounding environment or the location from which the object is perceived.

This provides some initial motivation for taking appearances to be properties of objects distinct from their observable intrinsic properties.²⁵ Rather, we can think of appearances as relational properties that objects possess in virtue of their intrinsic properties and various environmental conditions such as illumination or the medium of light transmission. For example, a straight stick will display a particular appearance when partly submerged in water, and a different one when not in water. Likewise, a white wall will present one appearance under white lighting, and another under yellow lighting. On this analysis, appearances are not themselves dispositions, they are the *manifestations* of dispositions, and part of what is involved in an object possessing certain intrinsic properties is being disposed to appear various ways in various conditions. So the straight stick, in virtue of being straight, is disposed to appear one way when partly submerged in water, and another way when not submerged in water.

Note that I'm not claiming that the straight stick appears *bent* when partly submerged in water. As Austin forcefully points out in *Sense and Sensibilia*, the appearance of a straight stick when partly submerged in water is a different appearance than that of a bent stick not in water (Austin 1962, p. 29). As I will argue in more detail below, these appearances could be such that a given perceiver would not be able to discriminate between them by attending to the facts that differentiate them (that they are appearances of objects with different intrinsic properties), and as a result might judge the sticks to have the same appearance, or to be sticks with the same intrinsic shape properties. That a subject might fail to discriminate between two appearances

²⁵ See Martin 2010 for a minimalist approach to accounting for appearances as observable properties.

does not by itself show that the appearances are the same, however.²⁶ Given the way of individuating appearances proposed above, which appearances an object has is entirely independent of the discriminative capacities of perceivers or their inclinations to make judgments about the intrinsic properties of an object on the basis of its appearances.²⁷ This point will be very important for the account of misleading appearances proposed below.

In general, we should distinguish between an object having a particular appearance, and a subject perceiving its appearance on a given occasion. The latter requires that the perceiver possesses the relevant sensory physiology, occupies an appropriate vantage point, and actually attends to the appearance in question. So while appearances do figure in the psychological states of perceivers on this account, they are individuated entirely independently of any experience of them.²⁸ There is much more to be said about the underlying metaphysical nature of appearances, their relation to intrinsic properties, and our epistemic relation to both, and some further details will emerge in the sections that follow, but for present purposes the sketch I have given provides a framework for fitting appearances, understood as mind-independent properties, into our ontology.

²⁶ According to the present account, objects that are identical with respect to observable properties such as shape, size, and color will instantiate the same appearances in the same environmental conditions despite being numerically distinct. So there will be some cases in which the fact that a perceiver can't discriminate the appearances of two objects will be due to the fact that they have the very same appearances, rather than limitations in the perceiver's discriminative capacities (cf. Martin 2010, section 7). There may also be cases where distinct appearances resulting from distinct intrinsic properties are indiscriminable for perceivers with a given sensory physiology (metamers may be one such example).

²⁷ In this respect my view of appearances differs from a related view proposed by Louise Antony (2011, p. 36), who claims that subjectively indiscriminable objects of perception instantiate the same appearances. This suggests that for Antony, appearances are individuated in relation to perceiver's psychological states.

²⁸ Schellenberg (2008, Sect. II) provides a similar analysis of what she calls 'situation-dependent properties'. The main difference between our approaches is that Schellenberg defends representationalism, and holds that situation-dependent properties are represented in experience. So although there is considerable agreement between our views when it comes to the nature of these properties and some of the explanatory roles they can play in a theory of perception, she treats them as figuring in experience as abstract universals, given that a situation-dependent property can be represented as being instantiated without actually being instantiated, in line with the standard representationalist approach to illusions and hallucinations (see especially p. 62). According to the view I'm defending, on the other hand, perceptual experience is partly constituted by awareness of particular appearances, and need not be analyzed in terms of representation.

5. Misleading appearances

In the previous two sections, I have proposed that perceptual error is a matter of mistaken judgment and that appearances are mind-independent properties of objects. In this section and the following one, I will show how combining these two views can provide an account of misleading appearances for the relational view of perception. To begin with, however, it will be useful to distinguish different cases that might be taken to involve misleading appearances.

Philosophers usually divide misleading perceptual experiences into two categories: hallucinations—understood as experiences which lack a mind-independent object of awareness, and illusions—understood as experiences in which perceived objects appear to have properties they in fact lack. If one surveys examples of perceptual illusions discussed by psychologists, along with familiar examples of hallucinations, mirages, and other related phenomena, it turns out that they preclude such straightforward categorization. Particularly tricky cases include movement illusions such as the phi-phenomenon (where what are in fact multiple different objects appear to be a single moving object), and the Kanizsa triangle, which is typically described as an illusion, but which involves the appearance of a non-existent object (the triangle in the middle—see Figure 2).

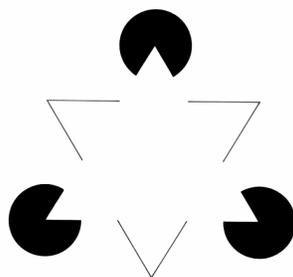


Figure 2

Further distinctions among illusions and hallucinations can be made. To begin with, there seem to be at least three kinds of illusions: first, those in which environmental conditions (lighting, the

medium of sound or light transmission, the presence of surrounding objects, etc.) are responsible for a perceived object appearing other than it is. *Environmental illusions* of this sort cover many familiar cases of illusion discussed by philosophers and psychologists, including the appearance of a straight stick partially submerged in water, lighting illusions, and the Müller-Lyer illusion. A second set of cases involve *cognitive illusions*, such as when one is looking for a friend in a crowd, other people who are superficially similar in appearance can briefly look just like the individual being searched for. Finally, *physiological illusions* involve the improper functioning of a subject's perceptual system, such as cases of objects appearing distorted or discolored when under the influence of drugs or sleep deprivation. Although these categories cover many widely discussed cases, tricky examples remain; for example, tactile illusions due to movement, and cross-modal illusions such as the McGurk-effect (a case in which seeing a person making mouth movements associated with certain sound can cause a different, actually produced sound to be heard differently than it would be normally).

We can also distinguish between different kinds of hallucinations: first, the hallucination of one or more non-existent objects in an otherwise normally perceived scene (a partial hallucination); and second, the hallucination of an entire scene, such that the subject's experience bears no relation to her actual environment (a total hallucination). Many hallucinations are due to physiological causes—drugs, sleep deprivation, stress, or perhaps direct manipulation of the subject's perceptual system. Some partial hallucinations, however, such as mirages, overtones, and the Kanizsa triangle mentioned above, can be thought of as akin to illusions caused by environmental conditions. If we consider the entire visual or auditory scene before a subject to be what the subject perceives, just as contextual factors can influence the visual appearance of an object or auditory appearance of a sound (e.g. sounds heard underwater), contextual factors can

also lead to the appearance of a non-existent object in a scene such as the appearance of a pool of water on the surface of the road caused by heat and refracted light (Humphries 1920, Pt. 4), or the sound of additional notes that have not been produced by any instrument or voice, as in the case of overtones (Deutsch 1999, Ch. 1). So at least some cases of partial hallucination would seem much more like illusions in that the cause of the appearance of the non-existent object(s) is environmental rather than being a matter of deficiencies with or manipulation of the subject's physiology.²⁹

Given the complexity of the different kinds of cases of illusion and hallucination, the attempt to give an exhaustive and unified account of the varieties of misleading experiences faces substantial challenges. Moreover, the relational view is committed to denying that perceptual error is so much as possible. This requires accounting for the idea that both illusions and hallucinations involve perceptual error in some other way. Total hallucinations have been widely discussed in recent debates between representationalists and defenders of the relational view.³⁰ At least some representationalists—those who accept the idea that perceived objects play a constitutive role in individuating perceptual experiences (e.g. Byrne 2009, p. 436)—will be in agreement with the relational view that total hallucinations cannot be accounted for along the same lines as experiences that involve awareness of mind-independent objects. Furthermore, accounts of hallucination have recently been proposed that are sympathetic to the motivations

²⁹ Further complications with these classifications arise due to the possibility of cases in which a subject's experience corresponds with the way things are in her environment, but for aberrant reasons. Such cases, known as *veridical* illusions or hallucinations, have been explored by David Lewis (1980), who argues (following Grice 1962) in favor of a counterfactual analysis of the role of causation in perception. The rough idea is that having an experience that corresponds with the state of one's environment is not sufficient for the experience to be a case of veridical perception. Instead, perceptual awareness of an object or property must involve causal relations with whatever one is aware of, such that if the state of affairs in the subject's environment had been different, the subject's experience would reflect this in appropriate ways. So, for example, if I am currently perceiving the green coffee mug on my desk as green, but have been given a special drug that makes all mugs look green, such that I would have experienced the mug as green regardless of its actual color, my experience of the mug's color does not count as a veridical perception. See Noë 2003 for a helpful critical discussion of Lewis's account.

³⁰ See the papers collected in Byrne and Logue 2009 and Haddock and Macpherson 2008.

behind the relational view of perception.³¹ For present purposes, I will set total hallucinations aside, and focus on cases of illusion and partial hallucination.

My goal in the rest of this section will be to explain how the relational view of perception can reject the existence of perceptual error while at the same time accounting for examples of illusion that seem like cases of perception going wrong. The key to explaining illusions, on the relational view, is to distinguish between misleading appearances and perceptual error. Since there are many different kinds of illusions, there are a wide variety of circumstances in which appearances can be misleading. The view of appearances I have been developing is particularly well-suited to address illusions and partial hallucinations caused by environmental factors, and in this section I will begin by focusing on such cases, and will return later to some natural ways for the view to address cognitive and physiological illusions. The present account is by no means exhaustive, but it provides a starting point for addressing the various different kinds of cases of misleading appearances.

The fact that conditions in the environment can contribute to objects appearing in ways that lead us to believe that they have properties they lack fits well with the idea the appearances are objective and that perceptual error is a matter of mistaken judgment. To illustrate this, consider the example of a white wall illuminated by strong yellow lighting. The appearance of the wall is one that a perceiver may not be able to discriminate from that of a yellow wall in white lighting. What it means to say that these situations involve distinct appearances is that the appearance of each wall depends on its intrinsic properties and environmental conditions, which are different in the two cases. What is important is that the relational view can claim that in both cases, the subject sees how the world is, for in each case she sees a property instantiated by the

³¹ See Fish 2009, Hellie forthcoming, Kennedy forthcoming, and Martin 2004.

wall in relation to its surroundings. This is not to deny that the illusory case can be misleading. A subject who sees a white wall in yellow lighting may very well judge on that basis that the wall *is* yellow, but she need not do so if she is sufficiently familiar with the effects of the lighting, as a cinematographer or painter might be.³²

To repeat a point introduced in the previous section, although the appearance of a white wall in yellow lighting and the appearance of a yellow wall in white lighting may be indiscriminable for a perceiver, this doesn't entail that the two experiences involve the same appearance. What explains the potential indiscriminability of the appearances is the subject's perceptual acuity, attention, and background knowledge. Whether or not she can tell the appearances apart will depend on her ability to make color discriminations, how carefully she is attending, and her familiarity with various lighting conditions. In general, as I will argue in more detail below, what determines whether or not a subject can judge accurately on the basis of an experience is her implicit understanding of the relationship between appearances and the intrinsic properties of objects in various environmental conditions.

Other classic examples of visual illusions, such as the Müller-Lyer illusion, or a straight stick partly submerged in a glass of water, can be analyzed in a similar way. The apparent lengths of the parallel lines in the Müller-Lyer illusion—considered in the context of the hashes on each end—may be such that a perceiver cannot discriminate them from the apparent lengths of two unequal lines with no hashes. According to the present account, having the appearance that they do belongs to the lines in virtue of their relation to the rest of the drawing. While this

³² For a related discussion of this example, see Noë 2005 (pp. 244–9). In a recent paper Matthen (2010) argues that cases like this involving color constancy can be explained by attributing properties to different parts of a perceived scene—for example by distinguishing the color of the illumination from the color of the wall. This proposal provides a more fine-grained characterization of a wide variety of cases involving illusion and perceptual constancy, but does not eliminate the need to appeal to the idea that appearances are properties of objects for a view that wants to account for perceptual illusions without invoking perceptual representation.

appearance might seem to indicate that the two lines are of unequal length, a sophisticated observer would not judge this to be so on the basis of observing the Müller-Lyer drawing (cf. Travis 2004, p. 68). The same goes for the straight stick partly submerged in water: a subject might not be able to discriminate its appearance from that of a bent stick not in water. Nevertheless, the subject experiences things *just as they are* when she looks at the stick, for the appearance is a property that belongs to the stick in virtue of its shape and given its partial immersion in the water. For anyone familiar with refraction, however, the way the stick appears indicates that it is straight (cf. Schellenberg 2008, pp. 74–5).

Focusing on the mind-independence of appearances shows how the relational view, in contrast to a representationalist account of perceptual experience, can claim that there is no question of perceptual experience going wrong in the case of illusions. The mistaken beliefs we form on the basis of experience are the fault of judgment—taking the world to be a way that it is not. Perceptual experiences are misleading when we are insufficiently familiar with the environmental conditions surrounding the objects we are perceiving, such that their appearances lead us to draw false conclusions. We need not be misled, however, if we are attuned to the relations between the appearances of objects and their intrinsic properties.³³

³³ Bill Brewer (2006, 2008, 2011) has proposed a related account of illusion in defense of a relational view of perceptual experience. Brewer claims that illusions can be explained in terms of salient similarities between objects:

Objects have visually relevant similarities when they share sufficiently many common properties amongst those that have a significant involvement in the various processes underlying vision. Thus and very crudely, visually relevant similarities are identities in such things as the way in which light is reflected and transmitted from the objects in question, and the way in which stimuli are handled by the visual system, given its evolutionary history and our shared training during development. (Brewer 2011, p. 103)

This approach differs from the one I've been describing here. Brewer claims that the similarity of two objects with respect to appearance should be determined relative to the evolutionary and developmental history of perceivers. This suggests that whether or not the way two objects appear is similar depends in part on the way our perceptual system would categorize them, or on what judgments we might make about them (cf. Brewer 2011, p. 121). The dispositions of different perceivers when it comes to a pair of distinct appearances may vary considerably, however—some may judge them to be quite similar, others as significantly different. In general, Brewer's account collapses the distinction between the way an object appears and the discriminative capacities of a perceiver. I agree with Brewer (2011, p. 104) that our judgments about objects based on the ways they appear will depend in part on

6. Knowledge of appearances

In analyzing illusory experiences in the way suggested above, I have put considerable weight on the idea that whether or not an appearance is misleading depends on a perceiving subject's level of perceptual and cognitive sophistication. What I am proposing is that whether or not a perceived appearance is misleading depends on the subject's understanding of the relationship between appearances and intrinsic properties in different contexts. In this section, I will explain this idea in more detail by comparing the environmental illusions discussed in the previous section with perceptual constancy phenomena, and discussing how the relational view can address other kinds of illusions mentioned above.

One interesting feature of many environmental illusions such as mirages or lighting illusions is that they can cease to be misleading as soon as we take up a different perspective or become aware of the relevant environmental conditions. We can still perceive the appearances that misled us, but we no longer take them to be appearances of what we previously did. Imagine, for example, entering a greenhouse with special fluorescent lighting and discovering it to be filled with plants possessing purple stems and leaves. This would be surprising until you realized that the appearance of the plants was the result of their green color under the fluorescent lighting. On future occasions, you would no longer take the appearance to be that of purple plants, but rather that of green plants under florescent lighting. This example illustrates how familiarity with environmental conditions influences how we interpret appearances. What occurs in such cases is a process of adaptation to environmental conditions that can be more or less gradual, and which influences the judgments we are disposed to make about the intrinsic properties of an object given how it appears. Once we become familiar with the way objects

what we count as paradigm cases of something possessing various intrinsic properties, but on my view this issue is independent of accounting for appearances themselves.

appear in various conditions, our judgments about the intrinsic properties they possess can become quite automatic and intuitive, and we are much less likely to be misled. Throughout this process of familiarization and adaption, however, appearances themselves remain the same.

Perceptual constancies present a phenomenon of just this sort, where familiarity with environmental conditions influences perceptual judgments. In cases of perceptual constancy, we easily form correct judgments about the intrinsic properties of objects despite perceiving them in conditions that present appearances which could be taken to be inconsistent with their intrinsic properties. For example, one typically takes a large building viewed from a distance to be large, despite the fact that it can be occluded in one's visual field by one's finger, and one takes the color of a uniformly colored wall to be uniform despite it being unevenly illuminated. These count as cases of perceptual constancy because our knowledge of the way an object with particular intrinsic properties will appear under certain conditions or from a particular point of view allows us to make appropriate judgments about its intrinsic properties.

Judgments about the intrinsic properties of objects in perceptual constancy cases can be so intuitive and automatic that it can be tempting to think that objects appear just as they do in cases not involving constancy. When one sees an unevenly illuminated wall of uniform color, one has no trouble judging that it is of uniform color, so it might seem that its appearance is no different than that of a uniformly colored wall that is evenly illuminated. It is important, however, to distinguish between the way an object appears in a given set of conditions and the way we would judge it to be given how it appears. According to the view I've proposed, appearances are properties objects have in virtue of their intrinsic properties relative to the environmental conditions. This suggests a way of explaining perceptual constancy phenomena that is in line with the treatment of illusions proposed above. On this line of thinking, the

appearances we perceive in constancy cases are distinct from those we perceive when conditions differ. We can see this by noting that in perceptual constancy cases, we can attend to the fact that appearances are different given current conditions than they would be otherwise. I can attend to the distinctive appearance of a building seen from far away by noting that it could be occluded by my finger, and I can attend to the appearance of an unevenly illuminated wall by noting that, from my current vantage point, I would need different color chips in order to match the apparent color of various parts of the wall.³⁴

So according to the view I'm advocating, when a subject perceives an object, she perceives a determinate set of appearance properties. These properties constitute the way the object appears in those environmental conditions, and how a perceiver judges the object to be will depend on her point of view and her familiarity with the way objects with those intrinsic properties appear in those conditions. If the conditions are unfamiliar, the way the object appears may mislead the perceiver about the intrinsic properties of the object, or at least may present appearances that she might judge to be inconsistent with other facts she knows about the object. When conditions are familiar, or when their unfamiliarity is not noticed, judgments about intrinsic properties may be made implicitly, but in cases where the unfamiliarity of the

³⁴ In a recent paper, Matthew Kennedy (2007) criticizes views which claim that appearances are objective properties, claiming that they get the phenomenology of perceptual constancy phenomena wrong. Focusing on the case of color constancy, he claims that when an unevenly illuminated wall of uniform color is experienced as being of uniform color, the appearance of different colors at different locations on the wall is not experienced as reflecting the color of the wall itself, so it is wrong to attribute the appearance to the wall itself (see Kennedy 2007, p. 305). I don't dispute Kennedy's characterization of the phenomenology, but rather his characterization of what a view that attributes appearances to objects is committed to. On my view, color appearances are relational properties of objects—they are properties an object has in a given perceptual context, and they are experienced (in constancy cases) as relative to the ambient illumination and other environmental conditions. In a color constancy case, an object's intrinsic color enters into the experience insofar as the perceiver understands that an object with a certain color appearance in the currently obtaining conditions has a particular intrinsic color. Given that the perceiver has the relevant background knowledge, she can see the intrinsic color in virtue of seeing the way it appears in the environmental conditions that obtain.

conditions is particularly salient, one may need to draw explicitly on relevant background knowledge in order to form a judgment.³⁵

The key feature of the account I have been proposing of environmental illusions and perceptual constancy phenomena involves distinguishing between the way an object appears given its intrinsic properties and the environmental conditions, and the judgments perceivers make about its intrinsic properties on that basis. How can this approach address cognitive and physiological illusions?

In the case of cognitive illusions, other cognitive states, such as the desire to find one's friend in a crowd of people, can exert an influence on the judgments we are disposed to make about objects on the basis of superficial observation of the way they appear. When looking around the crowd of faces, a quick glance might cause one to mistake someone with a similar appearance for one's friend. When one looks more carefully, however, one will no longer be disposed to make that judgment, despite the fact that the appearance of the person has not changed. What has changed is what one takes the appearance to be an appearance of. In the case of cognitive illusions, as with environmental illusions, the false judgments one is disposed to make is what accounts for the idea that the appearances involved are misleading.

One may want to protest that in this case, as well as others I've been discussing, the judgments a subject is disposed to make about the intrinsic properties of an object are not just a matter of background knowledge or familiarity with appearances and environmental conditions.

³⁵ William Fish proposes a similar treatment of some of the cases I have described here as part of his defense of a naïve realist theory of illusion, though the primary cases on which our accounts agree are cases of perceptual constancy rather than illusion (Fish 2009, pp. 150–61). When it comes to cases where one is disposed to make false judgments on the basis of what one perceives, Fish holds that part of the explanation of these cases should be given in terms of the beliefs the experiences cause, along with the behavioral effects resulting from those beliefs. This is related to Fish's general strategy for explaining the relation between hallucinations and perceptual experiences, as well as accounting for cognitive and physiological illusions. Although Fish provides different accounts of perceptual constancy cases and what he calls 'optical illusions' such as the Müller-Lyer illusion, in a footnote he acknowledges the possibility of a uniform treatment of the sort proposed here (Fish 2009, p. 172).

In a color constancy case, for example, the surface genuinely appears uniformly colored, and in the cognitive illusion, the face in the crowd really looks just like one's friend, even if only momentarily. In these sorts of cases, however, careful attention to perceived objects reveals appearances that are inconsistent with what one is initially disposed to judge. This suggests that knowledge that the appearance of a uniformly colored but unevenly lit wall indicates that the wall *is* uniformly colored can have an impact on the phenomenology of one's experience, perhaps by drawing one's attention away from the appearance instantiated by the uneven lighting. Likewise, expecting to see one's friend in a crowd can influence how carefully one attends to differences between people's appearances, such that one forms a premature judgment.

Some cases of illusion, such as the Müller-Lyer illusion, seem resistant to this sort of claim, however, because no matter how carefully one attends to the drawing, the lines may continue to appear in a way that is indiscriminable from the appearance of unequal lines. In this case, it may simply be that the depth cues presented in the drawing are so familiar to us that independent knowledge of the fact that the lines are actually equal is not sufficient to enable one to attend to the difference in appearance between the two cases.

Although the approach to illusory experiences I've been describing can be used to account for many different kinds of illusions, there are cases where aspects of how a perceiving subject experiences her environment as appearing cannot reasonably be analyzed in terms of mind-independent properties. These cases include clinical conditions such as schizophrenia, damage to the visual system (such as Balint's Syndrome, when patients cannot reliably bind objects and properties in visual perception), and perceptual impairment due to sleep deprivation or drugs. In some of these cases, part or all of the subject's experience may not be considered perceptual at all, but rather would be accounted for along the lines of total hallucination or

imagination (cf. Fish 2009, Ch. 6). When under the influence of drugs, for example, objects might appear distorted in shape or color. In such cases, while the subject might succeed in perceiving an object, the impairments to her visual system result in her experience possessing qualities that cannot be attributed to objects or conditions in the surrounding environment, but rather involve awareness of properties of the experience itself, which may in some cases be mistaken for properties of objects in the environment. In such cases, the phenomenology of experience may be accounted for partly in terms of the appearances of perceived objects, and partly in terms of properties of the experience itself.³⁶ Nevertheless, errors in judgment resulting from such experiences will not be perceptual errors. What is presented to a subject as a result of perceptual awareness will simply be objects and properties in the surrounding environment. Although additional cognitive and physiological factors may influence the subject's overall experience, these influences will not impact the basic structure of perception. While there is certainly much more to be said about how to understand different kinds of properties constituting the phenomenology of experience, the proposals offered above provide a framework for dealing with cases of cognitive and physiological illusion.

To summarize: the upshot of the considerations presented in this section and the previous one is that unlike representationalism, which adverts to the way a subject represents her environment in order to account for why two experiences might be indiscriminable (by claiming that each experience has the same representational content), the relational view can instead claim that failing to discriminate between two experiences can be explained in terms of a subject not

³⁶ Blurry vision due to degrading visual acuity presents a similar case, in which by being aware of the blurriness of her experience, a subject is aware of a property of the experience itself, in addition to having some awareness of the way objects in the surrounding environment appear. As I have been assuming throughout this paper, I assume here that an explanation of the total phenomenology of experience can constitutively (as opposed to merely causally) involve elements independent of the subject's mind, and that two experiences which are indiscriminable for a subject may be differently constituted.

possessing the capacities needed to attend to and appreciate the differences between distinct appearances. While this is by no means a full account of why a subject may or may not be able to discriminate between appearances, it does suggest that by highlighting the importance of a subject's capacities for attention and discrimination, the relational view can distinguish itself from a representationalist approach to misleading appearances.

7. Representationalism and Perceptual Error

In the preceding sections, I have developed a view that explains misleading appearances without appealing to the idea of perceptual representation or the claim that perceptual experience can be erroneous. Representationalists frequently motivate their view on the basis of the account it can provide of supposedly erroneous experiences, and I want to conclude by arguing that there is no reason to accept representationalism on this basis alone. In order to see this, it will be useful to consider an argument in favor of representationalism that focuses on misleading appearances. Such an argument has been proposed by Susanna Schellenberg (2011, pp. 719-20):

- P1:** If a subject is perceptually related to the world (and not suffering from blindsight etc.), then she is aware of the world.
- P2:** If a subject is aware of the world, then the world seems a certain way to her.
- P3:** If the world seems a certain way to her, then she has an experience with content *C*, where *C* corresponds to the way the world seems to her.
- Conclusion 1:** If a subject is perceptually related to the world (and not suffering from blindsight etc.), then she has an experience with content *C*, where *C* corresponds to the way the world seems to her.
- P4:** The world is either the way it seems to her or it is different from the way it seems to her.
- P5:** If a subject has an experience with content *C*, then *C* is either accurate (if the world is the way it seems to her) or inaccurate (if the world is not the way it seems to her).
- Conclusion 2:** If a subject is perceptually related to the world (and not suffering from blindsight etc.), then the content of her experience is either accurate or inaccurate.

How a defender of the relational view who accepts the view of appearances and illusions I have proposed here should respond to this argument depends on how one interprets some of the key terminology in the argument, in particular the notions of *seeming* and *content*. Consider P2: if the idea that the world seems a certain way to a perceiving subject is taken to capture facts about the perceiver's psychology, then the defender of the relational view should reject P2. According to the relational view, objects and their properties are constitutive of perceptual experience, and although some representationalist views, including Schellenberg's own, can accept this, according to such views objects and properties are not what account for the way things seem to a perceiver. A defender of the relational view could accept P2, however, if the world seeming a certain way to a perceiver is understood as a matter of objects possessing various mind-independent appearances.

A similar issue of interpretation arises for P3: if 'content' is taken to mean *representational* content, as it usually is, then a defender of the relational view should reject the claim that perceptual experience has a representational content in virtue of things appearing some particular way to a perceiver (though the view is consistent with contents of various kinds being attributed to states that are closely associated with perception, such a perceptual judgments). On the other hand, sometimes the notion of perceptual content is meant to capture something broader, namely what the experience is about, or directed towards, or has as its subject matter (cf. Siegel 2005 on different senses of 'content'). In this looser sense of content, the relational view could accept P3 and hence the first conclusion of the argument.

The relational view, at least on the defense of it I've proposed here, will part ways with Schellenberg's argument when it comes to P4, which introduces a distinction between appearance and reality. According to the relational view, appearances are part of reality, so there

is no question about whether or not objects are as they appear. Nor is it the case that objects always happen to be the way they appear, as though it were possible that they might not have been. The ways objects appear, on the present account, are among the ways objects are, and there is no conflict between appearances and the intrinsic properties of objects. If any conflict does arise, it is between the ways objects are, including how they appear, and the judgments we make about them.

It is easy to assume that representationalism is required to account for misleading appearances, for the idea that an appearance is misleading can seem to be equivalent to the claim that experience misrepresents how things are in the perceiver's environment. Given the availability of the view of appearances I have proposed here, however, this motivation for the representationalist approach to perception fails, and further arguments are needed in order to establish the view.³⁷ Representationalism is not required to explain perceptual error, since the relational view of perception can be developed so as to make sense of how illusions can lead to mistaken judgments. This account appeals to the idea that errors associated with perception are doxastic, and that appearances, misleading or otherwise, are objective properties in the surrounding environment rather than features of our psychology. It is sometimes thought that views which reject representationalism are hopeless, since they will not be able to account for perceptual error. Instead, I have tried to show that it is a mistake to assume that perceptual error is something that we need to account for in the first place.³⁸

³⁷ Note that Schellenberg (2011) does not take the above cited argument to establish the claim that attributions of representational content are required in order to explain central phenomenological and epistemological facts about perception. In order to address various objections that have been raised against representational views, Schellenberg claims that specific kinds of contents need to be attributed to experiences.

³⁸ This paper has a long history, and I have benefited greatly in thinking about the ideas presented in it from discussions with David Chalmers, Jonathan Cohen, Tim Crane, Hannah Ginsborg, Alison Gopnik, Heather Logue, Berislav Marušić, Ian Phillips, Ian Schnee, John Schwenkler, Jeff Speaks, and James Stazicker. I would like to thank Mohan Matthen for his very helpful comments on an early version of this material presented at the 2007 APA Pacific Division meeting, and also Jonathan Cohen, Heather Logue, Ian Phillips, Ian Schnee, Josh Sheptow, James

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