**The Epistemology of Perception**

for the Oxford Handbook on the Philosophy of Perception

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**Introduction**

Seeing a jar of mustard in the refrigerator can give you reason to believe that the fridge contains mustard. Or so it seems natural to suppose. When you see a jar of mustard, you have a perceptual experience, or experience for short, and we’ll say that when experiences provide reason for beliefs, they justify them.[[1]](#footnote-1) Some philosophers have denied that experiences can justify beliefs. Donald Davidson (1986) held that the transition from experience to belief is merely causal, rather than rational, on the grounds that experiences are not beliefs, and thatonly b vb beliefs can justify other beliefs. Some skeptics hold that no external-world beliefs are justified, *a fortiori* that none are justified by experience. Other philosophers assume that experiences justify only introspective beliefs, and that perceptual justification, and more generally empirical knowledge, has to be reconstructed as an inference from an introspective belief to an external-world belief.[[2]](#footnote-2)

In this entry, we begin from the assumption that experiences (such as the one you have when you see the mustard) can justify external world beliefs about the things you see, such as beliefs that the mustard jar is in the fridge. From now on, we often let it remain implicit that we are talking about external world beliefs, when we talk about the kind of beliefs that experiences justify.[[3]](#footnote-3) Our main question is this: what features of experiences explain how they justify external world beliefs?

We clarify our question further in Part I, where we explain why we have chosen this point of departure, and highlight a range of theses about the role of experience in providing different types of justification. In Parts II and III, we consider the role of two categories of features of experience. Part II considers *constitutive* features of experience, including its phenomenal character, its contents, and its status as attentive or inattentive (sections 3-7). Part III considers *causal* features of experience, such as its reliability, and the impact of other mental states on its formation (sections 8-10). Along the way, we discuss the relationships between visual experience and seeing (sections 1 and 8), and we contrast perceptual justification and perceptual knowledge (section 9).

**Part I. Our point of departure**

For many philosophers, the topic of perceptual justification takes its shape from the idea that experience differs fundamentally from belief. For instance, in his classic discussion of perceptual justification, Sellars (1956) considers whether experiences could be foundations of knowledge, if they were acts of sensing particular mental objects, and not states with contents that can be correct or incorrect depending on what’s in the subject’s surroundings. If experiences do not represent or refer to how things are in the external world, part of the problem of perceptual justification will be to explain how to rationally bridge the divide between states that do not represent the external world, and states that do. In contrast, if experiences already represent or refer to things in the external world, then a theory of how the transition from experience to belief can be rational need not also explain how to bridge that divide. The philosophical problems that give shape to the topic of perceptual justification look very different, depending on whether it’s assumed that experiences represent or refer to how things are in the external world.[[4]](#footnote-4)

Rather than departing from Sellars’s traditional starting point, in which experiences don’t represent or refer to the external world, we begin from two assumptions about the nature of visual experiences that have become entrenched in many contemporary discussions. First, we assume experiences have externally directed contents, ones that determine at least some of the propositions that are good candidates for being justified by the experience. Second, we assume that perceivers need not believe that things are as experiences present them, even though often they do believe this. Because these assumptions have become widespread, we want to outline the epistemological problems they give shape to, and the options they open up for solving those problems. Even readers who reject these assumptions may want to see what the problems of perceptual justification look like, once they are made.

**1. Experiences**

Our central question asks about the rational role of conscious visual experiences in justifying beliefs about what you see.[[5]](#footnote-5) So far, we’ve referred to a conscious state or episode of seeing as an experience.[[6]](#footnote-6) Since both ‘experience’ and ‘seeing’ have multiple uses in ordinary language and philosophy, we pause to explain how we use these terms.

In our usage, an experience is a phenomenal state, individuated by what it is like to be in that state (or equivalently, by its phenomenal character). Some phenomenal states are distinct from any states of seeing, which are in turn individuated by relations to one’s surroundings. If you were hallucinating when you opened the fridge, for example, you would be having a visual experience, but wouldn’t be seeing anything.

It is controversial how phenomenal states are related to states of seeing. It is thus also controversial whether any experiences in our sense are identical with any states of seeing.[[7]](#footnote-7) When we ask about the epistemic role of experiences, we are asking about the role of phenomenal states, whatever their relation to states of seeing turns out to be. For the sake of fixing ideas, however, it is easiest to use phrases such as ‘mustard-experience’ and ‘hand-experience’ to denote experiences, whether they are hallucinations or not, in which you seem to see mustard (or hands) and it looks to you as if there is some mustard (or there are some hands) in front of you.[[8]](#footnote-8) In section 8, we discuss epistemic roles that may be specific to states of seeing.

**2.**  **Justification**

Justification is a normative notion, tied to what it is rational for a subject to believe.[[9]](#footnote-9)

Within the basic normative notion of justification, we can distinguish between two rational roles experiences can play. These roles can be elucidated using the notions of *propositional* justification, which concerns (roughly) what reasons we have, and *doxastic* justification, which concerns (roughly) how we respond to reasons we have.

Suppose you suspect that there is mustard in the fridge, and open the door to check. There’s the mustard, in plain view. You see it, and notice it, and don’t suffer any illusion. Whether or not you actually increase your confidence that there’s mustard in the fridge, it would be rational for you to do so. We’ll say that an experience of a subject provides *propositional* justification if and only if it provides justification for a proposition, whether or not the subject believes the proposition or adjusts her confidence in it on the basis of the experience. The notion of propositional justification arises from the idea that we can ask what kind of rational support a mental state provides for believing a proposition, while abstracting away from the role it actually plays (if any) in the subject’s forming or maintaining a belief in that proposition.

In contrast, the notion of doxastic justification arises from the idea that there are rationally better and rationally worse ways to form and maintain beliefs. For instance, normally, looking in the fridge is an epistemically good way to form beliefs about whether the fridge contains mustard. The idea that experiences can lead to doxastically justified beliefs is closely related to the more general idea that some beliefs are *based on* experience, just as they can be based on other beliefs. Very roughly, a belief that is based on a mental state M is a response to M. Paradigmatically, your belief that you are hungry will be based on your feeling of hunger, and your belief that tomorrow is Wednesday will be based on your belief that it is Tuesday. Satisfactory analyses of the basing relation have proven elusive. But such a notion is needed if there are rationally better and worse ways in which beliefs can be formed or maintained.[[10]](#footnote-10) We’ll say that a belief is doxastically justified by an experience if and only if it is rationally formed, adjusted or maintained on the basis of experience. (We can think of adjusting beliefs as special cases of forming them).

In principle, one could approach the topic of perceptual justification by starting with justified beliefs that are formed as the result of perception, and then ask:

* What kind of process gave rise to that belief?
* Which aspects of the process, if any, made it a rational process by which to form the belief?
* What role did the perceptual experience play in that process?

Analogous questions could be asked for adjustments of beliefs. These questions look backward at the etiology of the belief, and ask about the relationship between the belief’s etiology and its epistemic status.

Our starting point is different. We focus mainly on propositional justification. Rather than start with beliefs, we start with experiences and ask:

* Given an experience, which propositions, if any, does this experience provide rational support for believing?
* Which features of the experience make it the case that it can provide rational support for those propositions?

These questions approach the topic by looking forward from experiences to the propositions they rationally support. We can divide the features of experience that potentially explain what makes them support propositions into two broad categories: features related to the constitutive nature of experience, and features related to the etiology of experience. Both categories are examined in Parts II and III.[[11]](#footnote-11) I In the rest of Part I, we draw more distinctions within the basic normative notion of justification, to highlight different aspects of normative support that experiences could in principle provide for beliefs. We begin with the ways in which experiences and prior beliefs rationally interact.

Suppose you know that it is unlikely for there to be money in the fridge, but when you open the fridge door, you see some money (and it looks like money). In many cases, it seems plain that you can rationally believe that there is money in the fridge, on the strength of your experience. But is it always rational for experiences to override prior beliefs in this way? Suppose you know there is unlikely to be water in the distance in the desert---even if you seem to see some---and when you look ahead in the desert you seem to see a pool. In such a case, the rational thing to do is presumably to raise your confidence that you are seeing a mirage, rather than to revise your antecedent expectation. A theory of perceptual justification should allow prior beliefs to influence the epistemic status of experiences.

When prior beliefs have a negative influence on the rational support provided by experiences, they act as *defeaters*.[[12]](#footnote-12) In a simple form of defeat, they remove all justificatory force from experience. In more complex form of influence, prior beliefs reduce the justificatory force that experiences provide without completely eliminating it. If the epistemic status of experiences is sensitive to prior beliefs and their epistemic status, then a theory of perceptual justification needs a way to describe this kind of sensitivity. For instance, one could frame a theory around the question of which transitions to a new doxastic state are licensed by an experience, given one’s initial overall doxastic state.[[13]](#footnote-13) This framework employs the basic normative notion of justification to describe changes in overall doxastic states.

It is one thing for prior beliefs to defeat an experience as a source of rational support for a belief. It is another for prior beliefs always to be needed, for experiences to provide rational support at all. The idea that prior beliefs are not always neededcan be sharpened by the notion of *immediate justification*.[[14]](#footnote-14) Intuitively, when you know you are in pain, the only source of justification you are relying on is the pain itself. You are not relying on separate grounds for believing that your pain beliefs are reliable, or on background beliefs that identify your sensation as a pain. Your pain instead gives you justification to believe you are in pain in a way which does not rely on your having reason to hold any other beliefs.[[15]](#footnote-15) When applied to perceptual experiences, the notion of immediate justification figures in defenses of foundationalism, the view that the justification of all beliefs ultimately depends on a special class of beliefs, which need not themselves be justified by relations to any other beliefs.[[16]](#footnote-16) The notion also figures in responses to skepticism about knowledge and justification along the lines of G.E. Moore, who claimed to refute the skeptic by looking at his hands. (We discuss Moore’s reasoning below).

Even if experiences sometimes provide immediate justification, having an experience need not suffice to provide any kind of justification. Suppose that your hand-experience (call it E) provides immediate justification for believing *that you have hands*. Some contingent factor might still need to be added to E, in order for E to immediately justify this proposition (or any other). For example, E might need to be part of a process that reliably produces true beliefs, or it might need to be a case of seeing. We can thus distinguish between two theses concerning immediate justification by experience.

**Immediacy:** For some external-world proposition P, there is an experience E which provides immediate justification for P.

**Sufficiency-for-IJ**: Necessarily, if you have anexperience with content P, then the experience gives you immediate justification for P.

The Sufficiency-for-IJ thesis bears on a central question in epistemology. If we want to carve perceptual justification at its joints, will experience turn out to be a basic element in the story, or will the most basic elements be combinations of experiences with other factors (such as beliefs, inferential dispositions, or other mental states) or other non-mental factors (such as causes of the experience)? Immediacy leaves both options open, whereas Sufficiency-for-IJ entails that experiences are joints in the basic structure of justification. Just what else besides a phenomenal state constitutes the joint will depend on the ultimate explanation for what makes the experience provide immediate justification.

As stated, the Sufficiency-for-IJ entails that an experience provides justification, even if you know that you’re hallucinating*.* But you should lower your confidence in such a case. To avoid the result that you shouldn’t lower your confidence, the Sufficiency-for-IJ thesis could be modified using the notion of *prima-facie* *justification*. A subject’s knowledge that she is hallucinating is a paradigm of a *defeater* for the experience.[[17]](#footnote-17) An experience provides *prima-facie justification* if and only if it provides justification, in the absence of defeaters. HeHre’s the thesis modified:

**Sufficiency-for-pf-IJ:** Necessarily, if you have anexperience E with content P, then E gives you prima-facie immediate justification for P.

Other sufficiency theses can be defined independently of the notion of immediate justification. These too entail that experiences form a joint in the overall structure of justification.

We now turn from exposition of theses concerning immediate justification to their evaluation. The idea that experiences can provide immediate justification at allhas been challenged on the grounds that it attributes to experiences more justificatory power than they have. We describe two of the most influential challenges of this sort.[[18]](#footnote-18)

First, Immediacy seems to allow that we have justification from experience to believe the following Moorean premise, without having to already have justification to believe the Moorean conclusion.

**Moorean Premise**: I have hands.

**Link**: If I have hands, then I am not a handless brain in a vat.

**Moorean Conclusion**: I am not a handless brain in vat.

But if one has immediate justification to believe the premise of the argument, nothing would seem to bar one from acquiring justification to believe the conclusion simply by deducing it from the premise. According to the *easy justification* objection, Immediacy allows one to gain justification to reject skeptical hypotheses too easily.[[19]](#footnote-19) I After all, if one were a handless brain in a vat, one’s hands-experience would be inaccurate. According to the objector, we cannot rely on experience itself to answer questions about its own accuracy. (Compare: we arguably cannot rely on witnesses to testify to their own accuracy).If so, then we cannot become justified in rejecting skeptical hypotheses by the inference corresponding to the argument above. And if we cannot gain justification to reject skeptical hypotheses by performing such inferences, the objector says, we do not gain immediate justification from our experiences for external world beliefs either.[[20]](#footnote-20)

Proponents of Immediacy have several lines of response to this argument. A first response embraces the Moorean reasoning, on the grounds that the inference can indeed be successful, and the sense that it can’t provide justification can be explained away. For instance, the inference might merely seem defective, because of its dialectical impotence to persuade an interlocutor who *doubts* the conclusion, leaving open that it provides justification for the subject who performs the inference (Pryor 2004). Compare: when I reason that I must exist given that I am thinking, I acquire justification to believe that I exist in a perfectly legitimate way, despite the fact that the reasoning will probably not rationally persuade someone who doubts that I exist.  Alternatively, perhaps the inference seems defective because we underestimate what justifies the subject in believing the Moorean premise.  If the experiences that justify one in believing the Moorean premise are also states of seeing hands (as we’ll discuss in section 7), then the state which justifies one in believing the Moorean premise guarantees the truth of the Moorean conclusion. According to this line of thought, an experience that can be had, only if the Moorean conclusion is true, is a good candidate for providing justification to believe the Moorean conclusion (for criticism, see Wright 2002).

A second response to the easy-justification objection denies that Immediacy legitimates Moorean reasoning. According to this response, the hand-experience gives one immediate justification to believe that one has hands, without providing justification (via inference) to deny that one is a handless brain in a vat.  One possibility here is that an experience could give one immediate justification to believe an ordinary proposition about the external world, while one fails to have any justification to reject the skeptical hypothesis.[[21]](#footnote-21) Another possibility is that when an experience gives one immediate justification to believe an ordinary proposition about the external world, one has an independent source of justification to reject the skeptical hypothesis, even though that independent source is not part of what gives one perceptual justification to believe the ordinary proposition in the first place (Silins 2008). Compare: whenever you have perceptual justification to believe you have hands, you have independent justification to believe the triviality that all hands are hands, but you do not have perceptual justification to believe that you have hands in virtue of having independent reason to believe that all hands are hands.

Like the easy-justification objection to Immediacy, the *bootstrapping* objection develops the idea that Immediacy makes justification too easy. According to the Bootstrapping objection, Immediacy implies that one’s experiences can give one justification to believe that they themselves are reliable, where experiences have no power to do any such thing (Cohen 2002).

Suppose one forms a series of justified beliefs of this form:

It visually seems to me that something at location L has F, and something at L has property F.

According to the objection, one could then deduce that one’s experiences were accurate on all the occasions surveyed, and one could then rationally conclude by induction that one’s experiences are reliable---why else would they have been accurate on all those occasions?

A natural way to block the bootstrapping inference would be to propose that an experience justifies one in believing that P, only if one already has justification to believe that experience is a reliable source.  But this response seems to compromise the status of justification as immediate.

Just as the proponent of Immediacy could embrace the Moorean reasoning above, here too, a first response to the bootstrapping objection is to maintain that we can have justification, via experience, to believe our experiences are reliable, on the grounds that this seems to be the only possible source of justification to believe they are reliable, barring a great expansion of the domain of *a priori* justification (see Van Cleve 2003 for discussion).

A second response holds that the domain of a priori justification is indeed wider than we might have thought. We have a priori justification to believe that one’s experiences are reliable thanks to the availability of what Wedgwood calls an “a priori bootstrapping” argument.[[22]](#footnote-22) When reasoning through such an argument, one would suppose that one has an experience with the content that p, and then infer that, on the supposition one has the experience with the content that p, it is the case that p. One could then conclude that, *if* one has the experience with the content that p, p.

A third response is that bootstrapping reasoning uses a defective form of induction, where the defect has nothing specific to do with whether experiences ever immediately justify beliefs. This response entails that Immediacy makes no prediction about the legitimacy of bootstrapping reasoning (Weisberg 2010).

If these objections can be answered, then a further question is: in virtue of what do experiences provide immediate justification? If the objections stand, then our starting question remains: in virtue of what do experiences provide justification at all, whether it is immediate or not? In principle, the same answers may apply to both questions. We now turn to two types of answers: those that invoke constitutive features of experience, and those that invoke causal features of experience.

**Part II. Constitutive features of experience**

**3. The Phenomenal Approach**

According to the *Phenomenal Approach*, experiences provide justification at least partly in virtue of their phenomenal character.[[23]](#footnote-23) Some proponents of the Phenomenal Approach motivate it by contrasting the epistemic situation of sighted and blindsighted subjects. For instance, consider a sighted subject who enjoys a visual experience of a basketball, while a blindsighted subject has no experience of the ball but nevertheless registers its presence in unconscious perceptual processing. Across a range of cases, both subjects reliably form accurate judgments about whether a basketball is present. If the sighted subject has more justification for believing that a ball is there, or a different kind of justification, then one might think that the justificatory difference is due to the conscious character of her experience, since the conscious and the unconscious perception are so similar in their other features.[[24]](#footnote-24)

Smithies (2011) draws on principles to give a direct argument for the Phenomenal Approach by appealing to a version of *access internalism* about justification, the idea that the factors that determine whether a subject is justified in believing a proposition are both internal and accessible to thesubject**.**[[25]](#footnote-25) According to Smithies, the introspective accessibility of the sighted subject’s visual experience enables it to provide justification, whereas the introspective inaccessibility of the blind-sighter’s subpersonal state makes it unable to provide justification.[[26]](#footnote-26) Other philosophers defend the Phenomenal Approach indirectly, by first arguing that phenomenal character of experience is directly implicated in other features of experiences, and that these features in turn help explain how experiences justify external world beliefs. Some features of experience potentially tied to phenomenal character in this way include attention, states of seeing, and being a state of seeming with accuracy conditions.

The Phenomenal Approach could also be bolstered by a conception of phenomenal character of perceptual experiences that fits naturally with the idea that experiences have accuracy conditions.This conception of phenomenal character has two strands.The first strand is that phenomenal character conveys information about external objects. The idea that experiences provide justification for external world beliefs in virtue of their phenomenal character might well seem less compelling, against the background assumption that it is a raw feel or mere sensory affect that does not present any properties as being instantiated in the space around the perceiver. For instance, according to Laurence BonJour (2001), in virtue of their phenomenal character, experiences immediately justify self-ascriptions of experiences, but not external world beliefs. Perhaps BonJour was drawn to this position by his assumption that one could only describe the phenomenal character of experience “in terms of patches of color arranged in two-dimensional visual space” (2001, p. 32). Likewise, if Davidson (1986) had thought that experiences were belief-like in ways that allowed their contents to stand in the same kinds of relations (such as entailment or probabilification) that the contents of beliefs stand in to one another, perhaps he would not have excluded experiences from the states that he thought could justify beliefs.

The second strand is that the phenomenal character takes a stand on how things are in the space around the perceiver. This putative aspect of phenomenal character, or something like it, has been discussed under various labels, including assertoric, phenomenal or coercive *force*, in parallel with Frege’s idea that assertoric sentences have forces in addition to senses.[[27]](#footnote-27) We discuss phenomenal force in section 4, and its potential link to accuracy conditions in section 5. In section 6 we discuss the idea that the specific objects and properties that figure in the contents of experience constrain the propositions that the experiences can justify.

**4. Phenomenal force**

          We can fix on the phenomenal force of perceptual experiences by contrasting it with other kinds of phenomenal character. There seems to be an aspect of the phenomenal character of perceptual experience that is distinct from the phenomenal character of imagery, episodes of wondering, and pangs of desire - even when these states are all directed toward the same thing. Our perceptual experience purports to reveal how the world is, whereas visualizing the dot, wondering whether there is such a black dot in front of you, or feeling a pang of desire for a black dot does not.

Phenomenal force is analogous to assertoric force, in its role for the speaker. Making an assertion is a way to express how you believe things to be. Similarly, perceptual experience is a way to take in how things seem to you to be. Phenomenal force is analogous to assertoric force to the extent that both attach to belief-like states.

Do perceptual experiences really enjoy a distinctive kind of phenomenal force, a kind that imagery lacks? According to a Humean line of objection to this idea, there is no deep difference in kind between visualizing and visual experience, only a difference of degree.  Visual experience is not distinguished from visualizing by its phenomenal force, but instead only by the greater determinacy of its content.  The epistemic role of visual experience, according to the Humean we have in mind, is due to the greater determinacy of its content.

This objection fails, if there are perceptual experiences with less determinate content than imagination, but which still provide better justification. For instance, a degraded visual experience of a tomato in poor lighting might still provide justification for believing that a round thing is present, whereas one might think that your imagining a tomato, no matter how vividly, does not give you any justification at all to believe this.[[28]](#footnote-28)

A classic experiment done by Perky (1910) suggests that phenomenal force may not be pervasive among visual perceptual experiences. Subjects were asked to look at a screen and to imagine a red dot. A faint red dot was projected onto the back of a white screen. Most subjects ended up claiming that they were imagining a red dot.[[29]](#footnote-29)

On the basis of her result, one might claim that the subject of the experiment has a visual perceptual experience, although the experience lacks phenomenal force---if they did have an experience with phenomenal force, why would they say they are merely imagining? By itself, this verdict does not directly challenge the idea that the phenomenal force of experiences helps explain how they provide justification, since the Perky subject may well lack justification from her experience for believing that a red dot is in front of her.[[30]](#footnote-30) But the Perky experiment does raise the possibility that justificatory power and phenomenal force may come apart in some visual experiences.[[31]](#footnote-31)

According to a different interpretation of the Perky result, the Perky subject is having a visual experience with phenomenal force, and simply is mistaken insofar as she thinks she does not. On this interpretation, even if subjects mistakenly deny that they were seeing a red dot, this does not undermine claims about the phenomenal differences between visualizing and visual experience.  Analogously, a subject might falsely believe she is in pain, but this does not in any way undermine the claim that there is a phenomenal difference between pain and non-pain.

The idea that experiences have phenomenal force has been thought to help explain apparent epistemological differences between perceptual experience and other kinds of mental states. [[32]](#footnote-32) For instance, phenomenal force might be thought to answer “Sellars’s Dilemma” (Sellars 1956). On one horn of the dilemma, if experiences assertorically represent propositions, then they would have to be justified in order to justify belief in those propositions, and thus could no longer can serve as stoppers of regresses regarding the justification of beliefs. Here, experiences are allegedly too similar to beliefs. On the other horn of the dilemma, if experiences do not do not assertively represent propositions, then it is no longer clear how they are capable of justifying beliefs at all. Here, experiences are allegedly too *dis*similar from beliefs.

In response, one could hold that phenomenal force of experiences make them belief-like enough to justify because they assertively represent propositions, but they are not belief-like enough to require justification themselves. In effect, this response questions the reasoning in the first horn, holding that a state can assertorically represent a proposition and provide justification for believing it, without needing justification itself.[[33]](#footnote-33)

**5. Accuracy conditions and the Phenomenal Approach**

In the previous section, we discussed the idea that perceptual experiences take a stand on how things are in the space around the perceiver. This conception of experiences can be made more precise by the thesis that experiences have accuracy conditions. Beliefs have contents, and the contents of beliefs are conditions under which the belief (i.e. the state of believing) is true. According to the conception of experience assumed here, experiences can be accurate, and the contents of experience are conditions under which experiences have this status.[[34]](#footnote-34)

In this section and the next, we discuss potential rational roles for contents of experiences. Although we do so under the rubric of the Phenomenal Approach, our discussion could be adapted to theories that focus simply on the contents of experiences, or on non-phenomenal features of experiences such as their reliability, without assigning any rational role to phenomenology. Some such theories allow that unconscious perception provides as much justification for external world beliefs as conscious perception.

How might having contents enable experiences to justify beliefs? This claim is sometimesmotivated by the idea that the kind of relation that premises of an argument stand in to a conclusion provides a model for justification in general. Pryor (2005) calls this idea the “Premise Principle”:

**Premise Principle**: The only things that can justify a belief that P are other states that assertively represent propositions, and those propositions have to be ones that *could be used as premises* in an argument for P. They have to stand in some kind of inferential relation to P: they have to imply it or inductively support it (2005: 189).

The Premise Principle faces a number of challenges. First, the principle is motivated by the idea that when one's state S1 gives one justification to be in state S2, one can give a justifying argument in favor of the content of S2 by affirming the content of S1.  But consider a case where an experience of something red justifies believing that something is red.  Here one cannot give a justifying argument in favor of the claim that something is red justby affirming that something is red. The motivation for the Premise Principle suggests that to justify my belief that something is red, my experience would instead need to have the self-representational content that *I see something is red*, or some other content which could be marshaled in a defense of the claim that something is red (Searle 1983). However, a visual experience with the content that something is red is presumably a good candidate to justify believing that something is red, whether or not it has such further contents.

A different pair of challenges relates to introspection. First, suppose that pains do not have contents. Even if one grants this assumption, it would seem that headaches could still justify self-ascriptions of headaches. Second, even if (contrary to the assumption), pains do have contents, these contents typically provide no obvious inferential support for the contents of self-ascriptions, or at least not enough support for our self-ascriptions of pain to be as justified as they are. This point applies equally to the self-ascription of bodily sensations and perceptual experiences. For instance, the proposition that a red roller skate is front of you does not entail that you are seeing a red roller skate, and intuitively, there need be no inductive generalization linking the presence of red roller skates in your vicinity to your seeing red roller skates.

These challenges could be avoided by limiting the Premise Principle to perceptual experience (as opposed to bodily sensations, to avoid controversy about the status of pains as contentful), and to external world beliefs (as opposed to self-ascriptions). According to the limited thesis that results, perceptual experiences justify external world beliefs, only if the perceptual experiences have accuracy conditions. The limited thesis suggests that no unified account of justification by experiences is available, and that the justification of any beliefs by bodily sensations, as well as the justification of self-ascriptions of any sort of experiences, is explained by different features than those that explain the justification of external world beliefs by perceptual experiences. It is an open question whether the joints of epistemology fall in the way the doubly limited thesis suggests, with both non-perceptual experiences and self-ascriptions needing special treatment.[[35]](#footnote-35)

Even if, contrary to the original Premise Principle, having content is not necessary for experiences to justify belief, the specific contents an experience has may help explain which propositions they provide justification for believing. We turn to this idea next.

**6. Contents and the Phenomenal Approach**

It is plausible that when experiences justify beliefs, there is a non-arbitrary relationship between the contents of the experience and the contents of beliefs they justify. For instance, by looking in the fridge, you get justification to believe that it contains mustard, but not justification to believe that the sunset is streaked with orange. The objections to the Premise Principle suggest that this non-arbitrary relationship cannot be shoehorned into the structure ofthe relation between a premise and a conclusion in a dialectically effective argument.

Given the assumption that experiences have contents and provide justification for beliefs, it is natural to think that the specific content of an experience helps explain which propositions it can justify believing. According to a simple version of this idea, experiences can justify beliefs whose contents are among the contents of experience. This idea presupposes that beliefs can have exactly the same kind of contents as experience. Different forms of this presupposition are defended by McDowell (1994), Brewer (1999) and Stalnaker (2003) (but Brewer 2006, 2011 and McDowell 2009 revise their earlier views). The presupposition has come under attack from philosophers who argue that it is not possible to believe exactly what you experience, because experiences form part of a system of perceptual representation that is so different from belief that the states of each system have fundamentally different contents. Often the specifically perceptual contents are called ‘nonconceptual’, here in the sense that they are cannot be believed.[[36]](#footnote-36) However, even proponents of nonconceptual content can agree that some belief-contents are closer to some exclusively perceptual contents than others.[[37]](#footnote-37) In some cases, the notion of closeness might be cashed out in terms of similarity between properties. For instance, suppose an experience represents a determinate color such as red39 and attributes it to an apple. Now compare a belief that attributes a more determinable property (such as darkish red) to the apple, with a belief that attributes a completely different color property (such as green) or a different kind of property altogether (such as being an elephant). The content of the experience is closer to the content of the belief attributing darkish red, than it is to the content of the belief attributing the property of being an elephant. In general, one might think that an experience presenting a red square on the left provides justification for believing a proposition closely related to these contents. Feldman (2003) endorses this idea, claiming that “when the contents of the belief are closer to the direct contents of experience, they are more apt to be properly based on experience” (75).

The contents of experience might plausibly be thought to delimit the contents for which experiences provide immediate justification.[[38]](#footnote-38) According to a proposal along these lines, an experience can provide immediate justification for believing P, only if P is a content of the experience, or is suitably close to such a content. Call this the Content Constraint on immediate justification. The closer the content of experience is to a proposition P, the less the experience might seem to need to be supplemented to provide justification for P. For instance, if the contents of experiences were limited to color, shape and illumination properties, it might seem that it could justify believing that mustard is in the fridge, only when supplemented with justification for believing that the layout of colored shapes you see is a mustard jar.

One might challenge the Content Constraint, on the grounds that in a range of common cases, experiences provide immediate justification for believing propositions that are not included among their contents, and are not even entailed by those contents. For example, perhaps perceptual experiences can immediately justify self-ascriptions of those experiences, even though they differ in contents, roughly in the way that the sentences “there is a red cube in front of me” and “I see a red cube in front of me” differ in their contents. Much will depend here on how the qualifications of “suitably close” contents are cashed out.[[39]](#footnote-39)

Even if the Content Constraint on immediate justification fails, there may still be a non-arbitrary relationship between the contents of experience and the propositions a subject’s experience provides justification for believing. And if the range of propositions an experience justifies depends on which contents it has, then it becomes important to settle which contents can be contents of experience. Are the contents of perceptual experience are limited to ‘low-level’ properties such as color, shape, texture illumination, motion, or can they represent more complex properties such as being a lemon, being familiar, or being a cause of an event?

One might try to gain traction on this question via epistemological considerations, rather than trying to gain traction on the epistemological questions via considerations about which contents experiences have. For instance, the Content Constraint could be reversed, as follows:

Reverse Content Constraint: If an experience E immediately justifies believing P, then P is a content of E.

If there are independent reasons to think that experiences can immediately justify believing contents as complex as “Fiona is carrying a dog” or “My kite is teetering on the edge of a cliff”, then according to the Reverse Content Constraint, these contents are contents of experience.

**7. Attention and the Phenomenal Approach**

Earlier we floated the intuition that a blindsighted subject who unconsciously registers the presence of a red ball would have less justification for believing that a red ball is present, compared with a sighted subject who saw the red ball (and had an experience in which it looked red and spherical). The blindsight intuition does not tell us whether *attending* to the red ball is necessary for the subject to have justification from her experience. For all the blindsight scenario has specified so far, the sighted subject may be attending to the ball. Likewise, standard cases of perceptual justification are also cases in which the subject is attending to what she sees – as when you look in the fridge and find the mustard you were searching for, or when Moore, while giving his Proof of the external world attends to his hands (“I hold up a hand and gesture…”, Moore 1939). If the Phenomenal Approach is correct, is it only attentive experiences that provide justification, or do inattentive experiences provide justification as well?

This question will not arise if, necessarily, *all* experiences are attentive, since consciousness requires attention. But if there are *inattentive* experiences – phenomenal states in which one has an experience of representing a red ball but does not attend to it – then the Phenomenal Approach faces a basic question about its scope: is it phenomenal character per se that provides justification, or is it phenomenal character of the sort one has when attending to what one sees?[[40]](#footnote-40)

We can distinguish between two answers to this question. According to the *Attention Needed* view, only attentive experiences provide propositional justification. According to the *Attention Optional* view, inattentive experiences can provide propositional justification. We can illustrate their different predictions by considering some classic experiments about inattentional blindness. In a typical experiment (Most 2001, 2005) subjects are asked to perform the attentionally demanding task of counting how many white boxes bounce of the side of a display. Many of the subjects do not report seeing a red cross that passes slowly (over 5 seconds) through the fixation point. Assuming that these subjects experience the red cross (as a red cross) without attending it, their inattentive experience does not influence what they report. According to the Attention Needed view, the inattentive experience of the red cross cannot provide propositional justification for a red-cross belief. According to the Attention Optional view, it can.

Prima facie, both positions seem defensible. It seems plain that attention is not epistemically idle. Typically, if you look closely in the fridge, you’ll be in a better epistemic position with respect to whether there’s mustard inside, compared to your epistemic position if you look quickly or carelessly. Perhaps at the limit, if attention runs out but consciousness persists, there’s no justification provided by the experience. If so, this conclusion would favor the Attention Needed view.

On the other hand, evidence can survive un-noticed, and this may seem to favor the Attention Optional view. Attentive experiences tend to correlate with experiences that are accessible to the rest of the cognitive system (for instance, by feeding into belief and action). Suppose you know that you have an appointment with x alone at noon, that you have an appointment with y alone at noon, and that x ≠ y. You could have propositional justification to believe that you have conflicting appointments, even if you haven’t noticed the conflict. Once you notice it, you’ll have based your belief on the previously un-noticed evidence. So long as the evidence is un-noticed, it is in that sense inaccessible. If beliefs can provide un-noticed evidence, then there seems no obvious reason to deny that experiences could do the same. If they can, this conclusion would favor the Attention Optional view.

Which position, Attention Needed or Attention Optional, is true? This question matters for debates about “internalism” and “externalism” in epistemology. According to *internalism* about justification, whether a subject is justified in believing a proposition depend exclusively on factors internal to the subject’s mind. It is natural to think that, if one privileges the role of consciousness in epistemology, one will be as “internalist” as one could be. But which factors internal to the mind matter? Does everything given in consciousness deserve the privilege, or only what the subject is given in attention, and thereby made cognitively accessible? If consciousness outside attention is rationally idle, as it is on the Attention Needed view, that suggests that perceptual justification depends on the kind of cognitive accessibility bestowed by attention. The Attention Needed view could be seen as an accessibilist form of internalism that filters out inattentive experiences from the grounds for justification, leaving in only attentive experiences.

**8. States of seeing**

Which features of experiences explain how they provide justification? In discussing this question, we’ve divided constitutive features of experience from causal features. On which side of this distinction does the status of an experience as a state of seeing belong? The answer depends on whether the relationship between visual experiences and the things you see is causal or constitutive. For simplicity, we assume that if this relation is causal, it is also non-constitutive and contingent.

If the relation is causal and non-constitutive, then you could have the same experience (a state with the same phenomenal character), even if you were hallucinating. Whether an experience is a state of seeing as opposed to hallucination depends on its etiology. Hallucinations have endogenous causes, whereas states of seeing are caused in part by the things seen (scenes, objects, events, etc).

In contrast, if the relation between visual experiences and states of seeing is constitutive, then which experiences you have (or equivalently, which phenomenal state you are in) depends on whether you are seeing or not. Whether you are seeing or hallucinating is thus not merely a matter of etiology.[[41]](#footnote-41) On this view, the thesis that states of seeing help explain how experiences provide justification falls under the Phenomenal Approach.[[42]](#footnote-42)

There is a range of states of seeing which might be privileged in epistemology. So far we have ignored the differences between seeing objects, facts, events, and other entities. Let us focus on states of seeing ordinary objects such as basketballs, and ignore the differences between seeing the basketball bouncing, which is arguably a relation to an event or a state of affairs, and seeing that the basketball is bouncing, which is arguably a relation to a proposition. Either way, to see that the basketball is bouncing, or to see the basketball bouncing, it needs to be the case that the basketball is bouncing. Moreover, such *factive* states of seeing are absent from cases of illusion (when the things you see look to have properties they in fact lack) and hallucination.[[43]](#footnote-43) Non-factive states of seeing can be present in cases of illusion, when you do see the basketball, but misperceive its color or motion. Non-factive states of seeing are still not present in cases of hallucination.

Let us begin with both factive and non-factive states of seeing, and focus on how much justification such states provide for beliefs, leaving open the corresponding issues about knowledge, or still other epistemic states. Does the status of an experience as a state of seeing of either sort contribute to its justificatory force?

A first potential asymmetry concerns the propositions for which states of seeing provide justification. Are there propositions that are justified by states of seeing, but not by hallucinations? Candidates include the propositions that figure in *de re* beliefs about the things you see. *De re* beliefs about objects are beliefs whose truth or falsity, relative to a world w, depends on how things are with that object in world w.[[44]](#footnote-44) The perceptual beliefs we form about the objects we see are typically *de re* beliefs, such as when we from the belief that would be natural to express by saying *that is an orange ball*.[[45]](#footnote-45) Since in (pure) hallucinations, there is nothing that you see, the hallucination does not put you in a position to form such *de re* beliefs, let alone provide justification for them.[[46]](#footnote-46)

A second potential asymmetry concerns the *degree* of justification provided by factive states of seeing, as opposed to all other experiences (both hallucinations and non-factive states of seeing). Normally, if you see a pig in a pigpen, and it is the way it looks, your factive state of seeing settles the question for you of whether there is a pig in the pigpen. And aside from justifying the *de re* belief (*that* is a pig in a pigpen), your state of seeing the pig also justifies a belief with existentially quantified contents (*there is* *a* pig in the pigpen). Unlike the *de re* belief with singular contents, the belief with general content can be formed on the basis of experience in cases of hallucination. With respect to propositions that are available to be believed in cases of factive seeing, non-factive seeing, and hallucination, do factive states of seeing provide more justification than hallucinations? If so, then these states of seeing have a privileged status as providers of justification, compared with hallucinations.

Both McDowell (1996, 2008) and Johnston (2006) could be seen as defending asymmetries in the degree of justification provided by factive states of seeing, as opposed to hallucinationsand non-factive states of seeing. The idea that factive states of seeing, or a limited subclass of them, enjoy a privileged epistemic status is motivated by the idea that such states are constitutively connected to the facts that make true the very beliefs that those perceptual states justify. The factive state of seeing is constitutively infallible with respect to the proposition that *Wilbur* (the pig you see) *is a pig in the pigpen*. You won’t count as seeing that *that is a pig in a pigpen*, unless *that* is a pig in a pigpen.

Constitutive infallibility involves modal features that may attach equally to states with necessarily true contents, yet which intuitively do not provide justification for believing those contents. For instance, if you guess that p (for some necessarily true proposition p), then you cannot make that guess without p being true.[[47]](#footnote-47) An analogous point holds for forgetting or overlooking necessary truths. But a proponent of the idea that factive states of seeing provide more justification than non-factive experiential states (including non-factive states of seeing) might invoke additional features besides constitutive infallibility to ground the epistemic privilege of factive states of seeing, such as the phenomenal force found in states of seeing, and not found in guesses or cases of forgetting necessary truths.

An opponent of the idea that factive states of seeing enjoy privileged epistemic status with respect to justification might focus on the rational responses to seamless transitions between such states and hallucinations.[[48]](#footnote-48) (This point of focus is also found in the “new evil demon” problem to be discussed in the next section.) If factive states of seeing provide some additional boost of justification, then it will be irrational to maintain confidence at the same level through seamless transition from seeing to hallucination, when one starts out with the highest degree of confidence justified by the state of seeing. Contraposing, if it would be rational to maintain the same confidence level across such transitions, then this undermines the idea that factive states of seeing enjoy privileged epistemic status with respect to justification.

We have examined the pros and cons of the idea that factive states of seeing are epistemically privileged with respect to justification, regardless of whether such states are identified with phenomenal states (*experiences* in our official sense). The epistemic advantages of factive states of seeing could arguably be enjoyed whether or not any phenomenal state is identical with a factive state of seeing, as would be maintained by a metaphysical disjunctivist. The epistemological upshots of metaphysical disjunctivism are highly controversial.[[49]](#footnote-49)

**Part II. Causal features**

How might the etiology of an experience affect its ability to provide justification? A first idea, explored in the previous section, is that an experience might be caused by an object or scene that you see, and its status as a state of seeing helps explain some of its justificatory powers. A second idea, examined in section 9, is that experiences confer justification, when they do, in virtue of being parts of processes that reliably give rise to true beliefs. A third idea, examined in section 10, is that causal influences on experiences from subject’s prior mental states can affect the epistemic status of the experience.

**9. Reliability**

We begin with a simple version of reliabilism, according to which your experience of type E gives you justification to believe that P, just in case E is reliably correlated with its being the case that P. This simple version of reliabilism draws a straightforward connection between justification and truth. Since this idea is so powerful and reliabilism in its many forms is so influential, we won’t say much else by way of motivation.

Reliabilism is compatible with Immediacy, as we mentioned in section 2.In general, Immediacy is compatible with the idea that as phenomenal types, experiences do not suffice to provide immediate justification, because further etiological constraints must be met. For instance, Goldman (2008) argues that experiences can and do provide immediate justification, but only if they are part of process that generates reliably true beliefs.

Reliabilism is versatile enough to be compatible with the Phenomenal Approach (which denies that the blindsighter’s perceptions provide justification), as well as the opposing position. Since the perceptual states of the blindsighter are as reliable as the experiences of the sighted subject, simple reliabilists will say that the blindsighted subject has just as much justification from his perceptual states as the sighted subject gains from his experience. The phenomenology enjoyed by the sighted subject will not contribute to justification. But in principle, a more refined version of reliabilism could be combined with the Phenomenal Approach, resulting in the position that experience provides justification for believing certain contents, in virtue of both its phenomenal character and the type of process to which it belongs, because the appropriate process has to be individuated in part by a phenomenal state.

Simple reliabilism has been attacked from a number of directions. First, as a sufficient condition for perceptual justification, reliable correlation is often held to be insufficiently demanding, on the grounds that an agent might be endowed with a reliable faculty of clairvoyance, while still failing to gain justification from it, if the subject has no inkling that she has such a faculty, or if she has what are intuitively good reasons to think her perception is unreliable (Bonjour 1980). A related objection is exactly analogous to the bootstrapping objection discussed in section 3. According to the bootstrapping objection, if reliabilism is true, then one’s experiences can end up themselves giving one a justified belief that they are reliable. In response, the same options listed in section 3 are available here as well.

Second, as a necessary condition for perceptual justification, reliable correlation is often held to be too demanding. Suppose an evil demon makes someone’s experiences misleading most of the time. When it visually seems to the person that P, it tends to not be the case that P.  Suppose further that these misleading experiences could not easily have been accurate, so that they are robustly unreliable.  According to the classic objection, contrary to what reliabilism about perceptual justification predicts, the victim’s experiences still give her justification for ordinary beliefs (Lehrer and Cohen 1983).

Simple reliabilism might be refined as a causal theory, as in *process reliabilism*, according to which an experience justifies a proposition P if and only if it results from a process that reliably produces true beliefs thatP.[[50]](#footnote-50) When one forms a perceptual belief on the basis of a given process, that process falls under many process types, and these types of process may differ in how reliable they are.

A reliabilist theory will make different predictions about which beliefs are justified, depending on which process type figures in the theory. A third objection to reliabilism, known as the *Generality Problem*, specifically targets process reliabilism. A given process that generates a belief presumably can fall under many types, such as being a process generated by veridical perception, being a process which occurs on Tuesday, and so on. The challenge is to specify which process type is relevant (Conee and Feldman 1998).[[51]](#footnote-51) A related challenge is to specify the relevant type in such a way that a reliability requirement is not too easily satisfied by every true perceptual belief.  For instance, being formed on the basis of a veridical hallucination is a reliable process, but presumably not all beliefs formed on the basis of veridical hallucinations are justified. Responses to the Generality Problem that specify the relevant type of process may address the earlier objections as well.

In contrast to the controversy over reliabilism about justification, the reliability of processes by which beliefs are formed has been less controversial as a necessary condition for perceptual knowledge.  Reliability has been advanced as a condition that rules out the sort of “epistemic luck” present in classic Gettier cases, in which one has a justified true belief without yet having knowledge. For a potential example of such a case, suppose that, at noon, you happen to check the time on a clock with a dial frozen at noon (Russell 1948 has a similar case). Several different anti-luck conditions have been proposed to explain why knowledge is absent from such cases, appealing to different kinds of co-variation between one’s beliefs and the facts one putatively knows.

            First, according to “sensitivity” requirements for knowledge (to a first approximation), one’s knowing that P requires that if it weren’t the case that P, one would not believe that P (Nozick 1981). For instance, suppose that someone is looking at a wolf which looks like a dog, where the person forms a perceptual belief that there is a dog in front of her.  Suppose further that there is indeed a dog in front of her---namely a chihauhau which the wolf happens to have just gulped down.  If the person doesn’t know of the wolf’s recent dog-consumption, she presumably does not know that there is a dog in front of her.  According to the proponent of a sensitivity requirement for knowledge, the best diagnosis for the person’s failure to know is that she would still have believed that there is a dog in front of her, even if there hadn’t been a dog in front of her, because the wolf hadn’t recently swallowed one.

            Providing an adequate formulation of a sensitivity requirement for perceptual knowledge is challenging.  Suppose that someone is looking at a chihauhau in good conditions, and let us stipulate that if there hadn’t been a dog in front of her, there would have been a dog-resembling wolf in front of her instead.  Here she still seems to be in a perfectly good position to know that there is a dog in front of her, given that she is looking at a chihauhau in good conditions.  However, if there hadn’t been a dog in front of her, she would still have believed that there’s a dog in front of her, due to the presence of the dog-looking wolf (Goldman 1979 has a similar case). Or consider the everyday sort of change blindness discussed by Dretske 2004. If your friend shaved off his moustache, you would fail to notice, and so would retain your belief that he has a moustache. Still, such facts do not seem to damage your ability to know that he has a moustache when he is right in front of you.[[52]](#footnote-52) To avoid the counterexamples, one might focus on the specific method used by the person to form her belief. But this raises the question, reminiscent of the Generality Problem for reliabilism about justification, about how to individuate the method. For example, one question is whether the perceptual states essential to the method are states of seeing, or phenomenal states that a subject can be in, regardless of whether they are seeing.[[53]](#footnote-53)

            Setting aside exactly how to articulate a sensitivity requirement for perceptual knowledge, many reject the sensitivity approach on the grounds that it is too demanding.  Consider any belief you have to the effect that you do not falsely believe that P.  If you were to falsely believe that P, you presumablywould still believe that you didn’t falsely believe that P.  Knowledge that you don’t falsely believe that p thus seems out of reach on the sensitivity approach, and a restriction of the approach just to perceptual knowledge of the environment is presumably ad hoc (Vogel 2000).  Indeed, if skepticism is to be avoided by the proponent of the sensitivity approach, they will have to allow that you might have perceptual knowledge that P, as well as logical knowledge that: *P only if you don’t falsely believe that P*, yet still be unable to know that you don’t falsely believe that P.  On pain of accepting skepticism, the sensitivity approach would seem to have to violate a “closure” principle to the effect that knowledge is “closed” under known entailment.[[54]](#footnote-54)

            According to reliabilist critics of sensitivity conditions on knowledge, we should prefer a different reliability requirement for perceptual knowledge called “safety”.  Here the key idea is that if one has perceptual knowledge that p, then one could not easily have been mistaken about whether P (Sosa 1999, Williamson 2000). Proponents of the safety requirement say that it avoids the over-demanding character of the sensitivity requirement for perceptual knowledge, while providing a good diagnosis of the absence of knowledge in classic Gettier cases. If the dog-looking wolf could easily have failed to come by the chihauhau to eat, one could easily have been mistaken in believing that there is a dog in front of one.

            Whether the safety requirement indeed avoids the challenges facing the sensitivity requirement is unclear. First, consider the quantum mechanical hypothesis that the matter in my car disperses so as to leave behind a mere car façade (Hawthorne 2004). As improbable as the hypothesis is, it still arguably could “easily” have been true, in the sense that it is true in some worlds only slightly different from the actual world.  In such worlds, however, I make a mistake about whether my car is outside, and thus fail to have perceptual knowledge in the actual world, at least on one understanding of the safety proposal.[[55]](#footnote-55) Second, some philosophers have argued that a safety requirement for knowledge cannot be combined with acceptance of a suitable closure principle for knowledge, without accepting skepticism.[[56]](#footnote-56)

Debates surrounding reliabilism raise the question whether etiological facts about experiences can affect whether they provide justification, even when the subject is not aware of those etiological features.[[57]](#footnote-57) These debates focus on “etiology from without” – causal chains that originate outside the subject’s mind and terminate in experience or belief. We now consider a range of ways in which the etiology of experiences from within the subject’s mind might affect the epistemic status of experiences – even when the subject is unaware of it.

**10. Cognitive penetration**

There is no doubt that a subject’s background beliefs affect how she responds to what she sees, and how it is reasonable for her to respond. Consider an experienced birdwatcher who identifies a bird she sees as a flycatcher, on the basis of her expert background beliefs about how flycatchers look. In contrast, if someone unaccustomed to observing birds saw the same bird from exactly the same position, she would normally not form any belief about what specific kind of bird it is, because she cannot discriminate kinds of birds from one another. If she did form the belief that it’s a flycatcher, that would be a lucky guess, unjustified by any expertise or reasoning (Feldman 2003).

It is one thing for expert and novice to form different beliefs on the basis of what they both see. It is another for the expert and novice to have phenomenally different experiences as the result of their difference in what else they know or believe. In principle, a phenomenal difference could result from attention, as when the expert pays attention to different features of the same bird than the novice, or perhaps it could arise even when expert and novice attend to the exactly the same features. In either case, the contents of the experiences could differ, along with its phenomenal character, as the result of the differences in expertise.

In this example, it is expertise that influences the experiences, but we could imagine examples in which the influence comes from moods, desires, suspicions, fears, or other mental states. We can call influences on the phenomenal character of experience by any of these kinds of states ‘cognitive penetration.’[[58]](#footnote-58)Some forms of cognitive penetration, such as those that may be found in expertise, seem to improve subject’s epistemological situation. For instance, suppose that expertise in radiology changes what one sees when looking at an x-ray by perceptual reorganization, creating new perceptual cues that are unavailable to the non-expert. This kind of cognitive penetration would help the radiologist spot the tumors when looking for them on x-rays.

Other forms of cognitive penetration seem to put pressure on a traditional conception of the rational roles played by experiences. In science, experiments play a central role in confirming scientific theories, because they allow for controlled observation that allows experimenters to test hypotheses against one another. In everyday contexts, we treat perception as a means of finding out mundane facts, such as whether there is mustard in the fridge, or whether the dog is inside. At the level of abstraction found in philosophy, experience and reason are traditionally taken to be the two ultimate sources of rational support for beliefs. But if what you see is determined by what you already fear, suspect, or believe to be the case, then these penetrating psychological states seem to stack the tribunal of experience in their favor, preventing us from using experience to rationally assess our beliefs, fears or suspicions.

How widespread is cognitive penetration? The idea that perception and scientific observation can be free of such influences underlies the idea that perceptual systems are *modular*, taking in information without systematic influence from other parts of the cognitive system.[[59]](#footnote-59) A host of experimental results suggest that non-perceptual states of all sorts can influence perception, and on the face of it, many of these seem to threaten modularism about perception.[[60]](#footnote-60) All of these results are controversial, and further interpretation and experimentation is needed to discover the exact nature of the impact on perception that prior mental states have.

From the perspective of some internalist theories of justification, such as those which say that an experience with the content that P is sufficient to give one prima facie justification to believe that P, cognitive penetration can have no direct impact onjustification. According to these theories, cognitive penetration may lead to illusory (falsidical) experiences, but the rational role of these experiences is not compromised any more than it is in standard visual illusions (such as seeing the Müller-Lyer lines), or in scenarios where experiences are systematically in error (think of the Matrix-like brain-in-vat scenarios, where brains of subjects are systematically manipulated to produce illusory experiences). Some reliabilist theories might also hold that cognitive penetration has little epistemological significance, if what the theory privileges is the reliability of perception at a sufficiently general level.

Other versions of internalism, however, can grant that cognitive penetration can compromise the status of experiences as providers of justification, without allowing that experiences in standard visual illusions or brain-in-a-vat scenarios are compromised. For instance, suppose someone’s unjustified suspicion that there is a gun in her fridge influences the contents of her experience, so that when she opens the fridge to look inside, she has an experience as of a gun. It is open to internalists to hold that this case of “fearful seeing” is not any less irrational than a structurally similar case of fearful belief, where fear influences belief directly (Siegel, forthcoming).

The idea that experiences can have irrational etiologies is at odds with the traditional idea that experience, like reason itself, is an ultimate arbiter of belief. On the traditional picture, the epistemic goodness or badness of belief derives from the way it is grounded in reason and experience, but reason and experience themselves never have any further grounds. As some foundationalists would put it, experiences justify beliefs without themselves being justified, or otherwise susceptible to rational evaluation.On the revised picture, experiences of wishful seeing, like wishful thinking, are conduits of irrationality, and in that sense those experiences are susceptible to rational evaluation.

**Conclusion**

Traditionally, discussions of perceptual justification have focused on whether the transition from perception to belief can be rational. In this entry, we began from the substantive assumption that the transition is sometimes rational, and explored a range of potential features of experiences that make experiences suited to stand in such rational relations, when they do. This approach brings into focus the complex interrelationship between the philosophy of perception and epistemology.[[61]](#footnote-61)

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1. We focus on the visual case, leaving it to the reader to consider how the discussion generalizes to other modalities. [↑](#footnote-ref-1)
2. This structure is the hallmark of *indirect realist* theories of empirical knowledge. Different versions of this structure are found in Chisholm (1966), Russell (1912) and Ayer (1973). On the relationship between indirect realism and early modern theories of perception and its epistemic role, see entries in this volume by Caston, Perler and Simmons. [↑](#footnote-ref-2)
3. The distinction between external world beliefs and beliefs about one’s mental states can seem oversimplified when one considers the perspectival characteristics of visual experience. For discussion, see Peacocke’s entry on vision and the first person. [↑](#footnote-ref-3)
4. For an overview of responses to this problem that reject the assumption, see BonJour 2009. [↑](#footnote-ref-4)
5. Any rational role for unconscious perception is beyond the scope of our discussion, although we will touch on related issues at the beginning of sections 3 and 5. [↑](#footnote-ref-5)
6. Since the differences between states and episodes are largely irrelevant to our discussion, we ignore them. [↑](#footnote-ref-6)
7. Some *disjunctivists* about phenomenal character identify some phenomenal states with certain states of seeing, such as the state of seeing the mustard when it looks yellow. For discussion, see Soteriou 2010. [↑](#footnote-ref-7)
8. Of course these characterizations of the phenomenal character of experience are exceedingly simplified. [↑](#footnote-ref-8)
9. This notion of justification leaves several substantive issues unsettled. First, it is not tied by definition to being able to produce explicit reasons, or to being blameless in forming or maintaining a belief. For discussion, see Pryor 2001. Second, it is an open question exactly what normative notion justification or epistemic rationality is. Standardly it is taken the form of permissibility, so that justified beliefs are those it is permissible to form. In some cases, obligation rather than permissibility seems to be at issue. For instance, in some visual cases it is arguably irrational not to believe your eyes, and in other cases it is arguably irrational not to believe obvious logical consequences of what you already rationally believe. [↑](#footnote-ref-9)
10. One construal of basing allows for “bad basing”: a belief B can be based on a mental state M, where M gives propositional justification to hold B, even if B is not thereby doxastically justified. On a different construal of basing, basing B on a mental state which supplies propositional justification for B’s content is sufficient for B to be doxastically justified. For further discussion of the basing relation, see Lehrer (1971), Swain (1979), Audi (1986), Korcz (1997). [↑](#footnote-ref-10)
11. A feature of an experience could be both constitutive and causal. For instance, according to a standard externalist theory of content-determination inspired by Putnam’s theory of natural kind terms (Putnam 1975) and Burge’s theory of deference (Burge 1982), a mental state has the content it does by virtue of the state’s standing in certain causal relations (roughly, a mental state represents redness if it tends to be tokened by red things). If a mental state is partly constituted by having the contents it does, then according to these externalist theories, having those contents is both a constitutive feature of the state and a causal feature of it. Externalist theories are applied to the contents of visual experiences by Dretske 1997,Tye 1995**,** Lycan 2001,Burge 2003, 2010. Lycan and Dretske identify the phenomenal character of experiences with the property of having specific content. Once that move is made, phenomenal character is another example of a feature of experience that is both constitutive and causal. [↑](#footnote-ref-11)
12. One might say that prior beliefs as such are never defeaters, instead ascribing all negative effects of defeat to one’s justification to have to those beliefs, so that an unjustified belief would never have a defeating effect. For discussion of this issue, see Pryor 2004. [↑](#footnote-ref-12)
13. For approaches of this sort, see Gupta 2006. [↑](#footnote-ref-13)
14. For defenses of the thesis that our experiences immediately justify some external world beliefs, see Pollock 1974, Pryor 2000 and 2004, Huemer 2001. [↑](#footnote-ref-14)
15. Immediate justification can be defined in terms of mediate justification.

    Your experience E gives you mediate justification to believe that P just in case E gives you justification to believe that P, in a way which depends on your having justification to believe some proposition, from some source other than E.

    For example, your experience gives you justification to believe that it will rain, in a way which depends on your having justification from memory to believe that, if there are dark clouds, then it will rain. Immediate justification can now be defined as follows:

    E gives you immediate justification to believe that p just in case E gives you justification to believe that p that is not mediate justification to believe that P.

    This definition allows that an experience can immediately justify a subject in believing more than one proposition, such as the proposition that you have hands, and the proposition that you are seeing your hands, so long as E is the sole source on which you are relying for justification in believing both propositions. For further clarification of the notion of immediate justification, see Audi 1993, Pryor 2000, 2005. [↑](#footnote-ref-15)
16. For discussion of foundationalism, see Bonjour 1985, Audi 1993: chapters 1-4. [↑](#footnote-ref-16)
17. For more on defeat, see Pollock 1986 and Pollock and Cruz 1999. [↑](#footnote-ref-17)
18. Other challenges for the Sufficiency theses are surveyed in sections 8-10. A further challenge comes from the example of the “speckled hen”, which goes back at least as far as Chisholm (1942)---if you see a speckled hen in good conditions, and the side facing you has say 39 speckles, does your experience both represent that there are 39 speckles and give you justification to believe that there are 39 speckles? For discussion of how much detail our experiences represent, and of whether they give us justification to believe their most specific contents, see Sosa (2003), Feldman (2004). [↑](#footnote-ref-18)
19. We use the term “easy justification” to echo Cohen (2002)’s discussion of “easy knowledge”. See also Wright (1985, 2000), White (2006). [↑](#footnote-ref-19)
20. The argument can be expanded into one for skepticism, when combined with the further claim that nothing other than an experience could justify one in rejecting skeptical hypotheses, and with the claim that we must have justification to reject skeptical hypotheses to have justification from our experiences. For discussion, see Pryor 2000, Wright 2004. [↑](#footnote-ref-20)
21. This move holds that you can have justification for P, know that P entails Q, yet lack justification for Q. It is defended by Dretske 1970. [↑](#footnote-ref-21)
22. Is this response is compatible with claims like Immediacy? For discussion see Wedgwood (forthcoming) or Cohen 2010. [↑](#footnote-ref-22)
23. Campbell 2002, Pryor 2000, Huemer 2001, Johnston 2006, Smithies (2011). [↑](#footnote-ref-23)
24. Not all theorists will agree that the sighted subject has more justification to believe that an orange sphere is present, or even be disposed to make the intuitive judgment that the sighted subject has more justification to believe that an orange sphere is present. See Lyons 2009, also Burge 2003**.**  [↑](#footnote-ref-24)
25. On access internalism, see Feldman and Conee 2001. [↑](#footnote-ref-25)
26. For criticism of access internalism, see Goldman 1999. [↑](#footnote-ref-26)
27. Heck 2000, Martin 2002, Matthen 2005 ch.13. [↑](#footnote-ref-27)
28. For discussion, see McGinn (2004). A separate question concerns the scope of phenomenal force.  Consider your experience of an object partly occluded by a fence, or your experience of a triangle vs your experience of a Kanisza triangle. There is a difference between the way the whole object is presented to you, and the way that its visible parts between the bars of the fence are presented to you.  Does your experience give you more justification to believe that the visible parts are present, than it does to believe that the whole object is present?  [↑](#footnote-ref-28)
29. For attempts to replicate this result, see Segal 1972. For discussion see Nigel 2010.  [↑](#footnote-ref-29)
30. For instance, perhaps the fact that the subject reasonably believes that she is imagining a red dot, and not seeing one, defeats any justification that such experiences could otherwise provide for a red-dot proposition. [↑](#footnote-ref-30)
31. For a potential case of phenomenal force that does not confer justification, consider sufferers of Antons’s syndrome, who are blind but deny that they are blind. Perhaps they have visual imagery which is phenomenally identical to normal visual experiences of seeing. According to one line of thought, the status of their visual experiences as imagery precludes those experiences from having any justificatory force, even though it does not preclude them from having phenomenal force. [↑](#footnote-ref-31)
32. A further question concerns whether the phenomenology of waking visual experiences is ever present when one dreams. For discussion of this issue, as well as of its significance for skeptical arguments involving considerations about dreaming, see Sosa 2005. [↑](#footnote-ref-32)
33. For further discussion of Sellars’s dilemma, see Bonjour 1985 or Pryor 2005. [↑](#footnote-ref-33)
34. This assumption is compatible with a wide range of theories of the nature of experience (see Siegel 2010, for dispute see Travis (forthcoming)). [↑](#footnote-ref-34)
35. Goldman 2008 assumes that there should be no such hiving off, treating unified accounts as an explanatory virtue. In contrast, Moran 2001 argues for hiving off self-ascriptions of bodily sensations for special treatment. [↑](#footnote-ref-35)
36. Peacocke 1995, but see Stalnaker 2003. For useful discussion of various notions of “nonconceptual content”, see Speaks 2005. [↑](#footnote-ref-36)
37. Compare Peacocke’s notion of “canonical correspondence” between nonconceptual and conceptual contents in his 2004. [↑](#footnote-ref-37)
38. A more ambitious project is to explain how experiences justify---rather than simply identify what they justify---in terms of what makes experiences have the contents they do. For instances of such a program, see Burge 2003 or Peacocke 2004, and for evaluation, see Martin 2001 or Silins 2012. [↑](#footnote-ref-38)
39. See Silins 2011 for further discussion. [↑](#footnote-ref-39)
40. For discussion of the role of inattentive experiences in epistemology, see Silins and Siegel (forthcoming). [↑](#footnote-ref-40)
41. Individual experiential episodes may be constitutively linked to states of seeing. But our discussion should be understood to be at the level of types. [↑](#footnote-ref-41)
42. See Campbell (2002), chapter 6. [↑](#footnote-ref-42)
43. Sometimes it is also assumed to entail that the subject *knows that P (*Dretske 1969, Williamson 2000), and other times merely that the subject *believes that P*. We will not assume that either of these additional entailments hold. [↑](#footnote-ref-43)
44. The need to specify truth relative to a world arises from the fact that experiences provide justification for beliefs that can be expressed using sentences containing demonstratives such as “that is a red ball”, where the demonstratives are rigid designators. For discussion, see Kaplan 1989. [↑](#footnote-ref-44)
45. Some philosophers invoke this role to argue either that phenomenal states themselves have singular contents, or are sometimes partly constituted by relations of seeing and the objects seen. On this motivation for taking relations of seeing to be partly constitutive of experiences, see Campbell 2002. [↑](#footnote-ref-45)
46. We set aside putative hallucinations with *de re* contents, such as hallucinations of your father. Arguably even these do not put the subject in a position to initiate the kind of connection to an object that makes a mental state *de re* with respect to that object, though once such a connection is established, a *de re* hallucination may put one in a position to form new *de re* mental statesabout it. For discussion, see Johnston 2004. [↑](#footnote-ref-46)
47. An important difference between factive seeing and factive guessing is that the constitutive infallibility stems from the content of the guess, but from the state in the case of factive seeing. [↑](#footnote-ref-47)
48. For some discussion of seamless transition cases, see Johnston 2004. [↑](#footnote-ref-48)
49. See Logue (this volume). [↑](#footnote-ref-49)
50. Goldman 1979, 2008. For further refinements of reliabilist approaches, see Sosa 1991, 2007, 2009, Plantinga 1993, 1996, or Comesaña 2002, 2010. [↑](#footnote-ref-50)
51. For responses to the generality problem, see Beebe 2004 or Comesaña 2006.  [↑](#footnote-ref-51)
52. Discussion with Max Kwon was helpful here. [↑](#footnote-ref-52)
53. For discussion of the challenges to specifying a sensitivity account, see DeRose 1995, 2010, or Williamson 2000. [↑](#footnote-ref-53)
54. Nozick 1981 and Dretske 2005 embrace the conclusion and reject closure. Vogel 1990 and Hawthorne 2005 defend the closure principle. Roush 2006 argues that the sensitivity approach can avoid rejecting closure. [↑](#footnote-ref-54)
55. For further discussion, see Pritchard 2005 and Greco 2007. [↑](#footnote-ref-55)
56. The worry traces to Kripke’s unpublished lectures on Nozick’s theory of knowledge. For a published discussion see e.g. Cohen 2008. For further criticisms of safety requirements for knowledge, see Brueckner and Fiocco (2002) or Neta and Rohrbaugh (2004). [↑](#footnote-ref-56)
57. Goldman 1988. [↑](#footnote-ref-57)
58. This use of “cognitive penetration” is broader than the kind targeted by Pylyshyn in his (1998). Pylyshyn argues that early vision is exclusively the output of a module and as such is not the product of other cognitive states (though its outputs maybe influenced by perceptual learning. See Goldstone’s entry, this volume). In contrast, we are concerned with whether visual experience can be influenced by prior mental states. It can be, even if experience is partly the output of a module.  [↑](#footnote-ref-58)
59. Fodor 1983 holds that modular processes form only one part of perception, leaving it as an open question whether he thinks conscious perceptual experience is exclusively or even mainly the output of modules. Some of Fodor’s examples of outputs of modules are conscious experiences, such as the experience of seeing the Müller-Lyer lines as different in length even when one knows they have the same length. But other experiences may arise so close to the end of the process of belief-fixation as he construes it that it is partly the output of central processing. [↑](#footnote-ref-59)
60. Some of the results claimed to challenge modularism include Levin and Banaji 2006, the papers collected in Bar 2011, and many of the papers cited in Proffitt and Linkenauger (forthcoming). [↑](#footnote-ref-60)
61. For helpful discussion and criticism, thanks to Selim Berker, Alex Byrne, Dan Greco, Sophie Horowitz, Mohan Matthen, James Pryor, Declan Smithies, Zeynep Soysal, Scott Sturgeon, Jonathan Vogel, and members of the MIT Epistemology Reading Group. [↑](#footnote-ref-61)