

**The Epistemology of Perception**  
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## Introduction

Seeing a jar of mustard in the refrigerator can give you rational support for believing 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 rational support for beliefs, they justify them.<sup>1</sup> 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 that only 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. Often the transition from experience to introspective belief was taken as unproblematic, and subsequent debate

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<sup>1</sup> We focus on the visual case, leaving it to the reader to consider how the discussion generalizes to other modalities.

concerned how the transition from introspective beliefs to external-world beliefs could be rational.<sup>2</sup>

In this entry, we assume without argument these positions are mistaken. 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, and that the justification experience provides does not have to rely on justification for introspective beliefs. 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.<sup>3</sup> Our main question is this: what features of experiences explain how they justify external world beliefs? The grammar of the question might suggest that experiences suffice all by themselves to provide justification for external world beliefs. But don't read this into the grammar of the phrase "experiences justify beliefs". We can distinguish between the claim that an experience can justify a belief that P, and the claim that an experience can justify a belief that P without help from other features it only contingently has. 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 features of experience falling into two broad categories: constitutive features of experience, including its phenomenal character, its contents, its status as attentive or inattentive (sections 3-7); and 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 space around the subject. 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

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<sup>2</sup> The two-step 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.

<sup>3</sup> 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.

divide. The philosophical problems that give shape to the topic of perceptual justification look very different, depending on where one stands with respect to the claim that experiences represent or refer to how things are in the external world.<sup>4</sup>

Rather than departing from Sellars's traditional starting point, we begin from three substantial assumptions about visual experiences that are entrenched in many contemporary discussions bearing on perceptual justification. First, we assume that the transition from experiences to (external world) beliefs can indeed be rational, and that its rationality does not systematically rely on justification for introspective beliefs. Second, we assume that visual experiences are distinct from beliefs, so that perceivers need not believe that things are as experiences present them, even though often they do believe this.<sup>5</sup> Third, experiences have contents that determine at least some of the propositions that are good candidates for being justified by the experience. Because our three starting assumptions have become widespread, we want to outline the epistemological problems they shape and the options they open for solving them. Readers who reject any of the assumptions may nonetheless want to see what the problems of perceptual justification look like once the assumptions are made.

## 1. Experiences

Our central question asks about the rational role of conscious visual experiences in justifying beliefs about what you see.<sup>6</sup> So far, we've referred to a conscious state or episode of seeing as an experience.<sup>7</sup> 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.<sup>8</sup>

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<sup>4</sup> For an overview of responses to this problem that reject the assumption, see Bonjour 2009.

<sup>5</sup> For a contemporary defense of the thesis that experiences are a form of belief, see Glüer 2009, who argues that experiences are beliefs about the ways things look, and Byrne 2009. For background and discussion of the idea that experiences are a form of belief, see section 2.2 of Siegel 2011a.

<sup>6</sup> 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.

<sup>7</sup> Since the differences between states and episodes are largely irrelevant to our discussion, we ignore them.

<sup>8</sup> 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.

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.<sup>9</sup> 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 is rational for a subject to believe.<sup>10</sup> 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

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<sup>9</sup> Of course these characterizations of the phenomenal character of experience are exceedingly simplified.

<sup>10</sup> 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 (e.g., Peacocke 2004). 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 (see Jackson forthcoming, for discussion), and in other cases it is arguably irrational not to believe obvious logical consequences of what you already rationally believe. Another possibility is that justification is or is sometimes a type of correctness (such as ‘fittingness’) that cannot be expressed using a modal operator. For discussion of this last point thanks to Selim Berker.

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.<sup>11</sup> 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 provide propositional justification into two broad categories: features related to the constitutive nature of experience, and features related to the etiology of experience. Both

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<sup>11</sup> 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 this construal, an account of the basing relation must avoid mere causal or counterfactual dependence, while still allowing for "bad basing". This challenge is avoided by a different construal of basing, on which 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, Kvanvig (2003), Turri (2010, 2011), and Evans (ms).

categories---which are not exclusive---are examined in Parts II and III.<sup>12</sup> 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 mustard in the fridge, but when you open the fridge door, you see some mustard (and it looks like mustard). In many cases, it seems plain that you can rationally believe that there is mustard 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*.<sup>13</sup> 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. (Given the assumption that the amount of justification one gains from experience can come in degrees, it is natural to assume that experiences can be defeated to various degrees as well.)<sup>14</sup> 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

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<sup>12</sup> 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, Stalnaker 2003. 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. For an application of externalist views of content to the project of explaining how experiences justify beliefs, see Burge 2003, Peacocke 2004, and Majors and Sawyer 2005. For a use of such views to respond to skepticism, see Putnam 1981, ch. 1, which is discussed in Brueckner 1992, Warfield 1998, and DeRose 2000.

<sup>13</sup> 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.

<sup>14</sup> A third form of defeat allows defeated experiences to retain all their justificatory force, and holds that defeated experiences are outweighed by other factors.

an experience, given one's initial overall doxastic state.<sup>15</sup> 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 needed can be sharpened by the notion of *immediate justification*.<sup>16</sup> 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.<sup>17</sup> 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.<sup>18</sup> 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

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<sup>15</sup> For approaches of this sort, see Gupta 2006.

<sup>16</sup> For defenses of the thesis that our experiences immediately justify some external world beliefs, see Chisholm 1966, Pollock 1974, Pryor 2000 and 2004, Huemer 2001, Burge 2003, Feldman 2003, Peacocke 2004, Goldman 2008, Silins 2008, Tucker 2010.

<sup>17</sup> 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), Silins (2008), and McGrath (forthcoming).

<sup>18</sup> For discussion of foundationalism, see Bonjour 1985, Audi 1993: chapters 1-4, DePaul 2000, Pollock 2000, Feldman 2003.

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 an experience E with content P, then E gives you immediate justification for P.

Immediacy does not pin down what makes a transition from experience to belief rational, when the experience would (or does) immediately justify the belief. It is a theory about the structure of justification, not an explanation of what confers justification. In Parts II and III, we examine factors that have been thought to confer immediate justification.

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 arguably, you should lower your confidence. 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.<sup>19</sup> An experience provides *prima-facie justification* if and only if it provides justification, in the absence of defeaters.<sup>20</sup> Here's the thesis modified:

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

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<sup>19</sup> For more on defeat, see Pollock 1986 and Pollock and Cruz 1999, Bergmann 2006, ch 5, Pryor (forthcoming), Kotzen (forthcoming), or Silins (forthcoming-a).

<sup>20</sup> It is a further question to what degree defeaters reduce the justificatory force of experience when they are present.



Once the notion of prima-facie justification is on the table, other sufficiency theses can be defined independently of the notion of immediate justification.<sup>21</sup> Like the other sufficiency theses, 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 all has 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.<sup>22</sup>

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.

So,

**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.<sup>23</sup> 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

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<sup>21</sup> For instance, the weaker thesis that for some proposition P, there is a phenomenal type of experience E such that having E suffices to provide prima-facie justification for P. This view is suggested by Peacocke 2004, chapter 1. For useful further discussion of different Sufficiency theses, see Graham (2006).

<sup>22</sup> 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), Fumerton (2005, 2009), Tye (2009), Markie (2009), Pace (2010) and Smithies (ms). For further challenges to Sufficiency theses, see Steup (2004) or Wright (2007).

<sup>23</sup> We use the term "easy justification" to echo Cohen (2002)'s discussion of "easy knowledge". See also Wright (1985, 2000), Cohen 2002 and 2005, White 2006, Kotzen (ms). For discussion of probabilistic considerations about whether the inference is capable of enhancing one's justification to believe the conclusion, see Okasha (2004), White 2006, Weatherson 2007, Silins 2008, Willenken 2010, Pryor (forthcoming), or Moretti (forthcoming).

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.<sup>24</sup>

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.<sup>25</sup> 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.<sup>26</sup>

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.<sup>27</sup> 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.<sup>28</sup> 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

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<sup>24</sup> 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), or Weatherson (2005).

<sup>25</sup> Pryor 2004, Davies 2004, and Markie 2005 make this response, which is criticized by Cohen 2005.

<sup>26</sup> For defense see McDowell 1995, 2008, for criticism see Wright 2002.

<sup>27</sup> 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 and criticized by White 2006.

<sup>28</sup> Silins (2008), Neta (2010), Wedgwood (forthcoming).

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.<sup>29</sup> 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.<sup>30</sup>

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.<sup>31</sup> When reasoning through such an argument, one would suppose that one has an experience with the content that p, and then infers 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

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<sup>29</sup> Varieties of the bootstrapping objection are made by Cohen 2002, 2005, and White 2006. The problem is discussed with reference to reliabilist views by Fumerton 1995 and Vogel 2000 and 2008.

<sup>30</sup> For discussion of responses along these lines, see Sosa (1997), Van Cleve 2003, Bergmann 2004, Brown 2004 and Kornblith 2009. For an application of analogous reasoning to the case of deductive inference, see Boghossian 2000.

<sup>31</sup> One might wonder how the response is compatible with claims like Immediacy, for discussion see Wedgwood (ms) Cohen 2010.

beliefs. This response entails that Immediacy makes no prediction about the legitimacy of bootstrapping reasoning.<sup>32</sup>

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 either their phenomenal character.<sup>33</sup> 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.<sup>34</sup>

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 the subject.<sup>35</sup> 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.<sup>36</sup> 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

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<sup>32</sup> Weisberg 2010.

<sup>33</sup> Campbell 2002, Pryor 2000, Huemer 2001, 2006, 2007, Peacocke 2004, Johnston 2006, Silins 2008, forthcoming-a Smithies forthcoming a and b.

<sup>34</sup> 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.

<sup>35</sup> Feldman and Conee 2001.

<sup>36</sup> For criticism of the idea that only introspectively accessible perceptual states can play rational roles, see Goldman 1999, Wedgwood 2002, Williamson 2000, Gibbons 2006.

features of experience potentially tied to phenomenal character in this way include attention,<sup>37</sup> states of seeing,<sup>38</sup> and being a state of seeming with accuracy conditions.<sup>39</sup>

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 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.<sup>40</sup> 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. Roughly, 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, but only to its role for the speaker. Normally, when you hear someone else assert a declarative sentence, you register the

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<sup>37</sup> Campbell 2002, Dickie 2011.

<sup>38</sup> McDowell 1995 and 2008, Peacocke 2004, Johnston 2006, Campbell 2002, Neta 2003, 2011, Jackson 2010.

<sup>39</sup> Feldman 2003, Huemer 2006.

<sup>40</sup> Heck 2000, Pryor 2000 fn 37, Martin 2002, **Matthen 2005 ch.13**, Siegel 2010 ch 2.

assertoric force attached to what they say, but you need not thereby feel any coercion to believe it. You might feel no inclination whatsoever to believe what you're told. In contrast, 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.

The phenomenal force that attaches to perceptual experience has been thought to help explain apparent epistemological differences between perceptual experience and other kinds of mental states.<sup>41</sup> For instance, phenomenal force might be thought to answer "Sellars's Dilemma" (Sellars 1956). On one horn of the dilemma, if the Premise Principle is true, and experiences must assertively represent propositions to justify beliefs in those propositions, then experiences must themselves be justified in order to justify, and no longer can serve as stoppers of regresses regarding the justification of beliefs. Roughly speaking, here experiences are allegedly too similar to beliefs. On the other horn of the dilemma, if the Premise Principle is false, and experiences need not assertively represent propositions in order to justify, it is no longer clear how experiences are capable of justifying beliefs at all. Here, experiences are allegedly too *dissimilar* from beliefs.<sup>42</sup>

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.<sup>43</sup>

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

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<sup>41</sup>. 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) and Ichikawa (2008).

<sup>42</sup> For discussion of Sellars's dilemma, see Sellars (1956), Bonjour (1985), Burge (2003), Pryor (2005), Huemer 2007, and Lyons (2008).

<sup>43</sup> 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?

subjects ended up claiming that they were imagining rather than seeing a red dot.<sup>44</sup> 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.<sup>45</sup> But the Perky experiment does raise the possibility that justificatory power and phenomenal force may come apart in some visual experiences.<sup>46</sup>

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.

## 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 are the kinds of states that can be accurate, and the contents of experience are conditions under which experiences have this status.<sup>47</sup>

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<sup>44</sup> For attempts to replicate this result, see Segal 1972. For discussion see Nigel 2010 .

<sup>45</sup> 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.

<sup>46</sup> For a potential case of phenomenal force without visual experience, consider sufferers of Anton's syndrome, who are blind but deny that they are blind. Perhaps they have visual imagery which is subjectively indistinguishable from 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. For more discussion, see Stoljar (ms).

<sup>47</sup> This assumption is less contentious than it might sound. It does not entail that the phenomenal character of experiences determines its representational features, or the converse. It also leaves open questions of priority of phenomenal character and content: does the phenomenal force explain why experiences have accuracy conditions, or does the explanatory priority go around the other way? Or does neither factor explain the other? For discussion of these questions, see Chalmers 2004, section 10, and the essays in Horgan and

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 sometimes motivated 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).<sup>48</sup>

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 by 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.<sup>49</sup> 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.<sup>50</sup> 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

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Kriegel (forthcoming). Finally, this conception of experience is compatible with a wide range of theories of the nature of experience (see Siegel 2010a), though for potentially opposing perspectives, see Travis 2004 or Brewer 2006, 2011.

<sup>48</sup> See also Brewer (1999, ch. 5) and Kornblith 1980.

<sup>49</sup> For a variety of self-representational views of contents of experience, see Searle 1983, Chalmers 2004, Siegel 2006, Kriegel 2009.

<sup>50</sup> For a defense of this idea, see McGinn 1982, Searle 1992, Langsam 1995. For challenges to it, see Pitcher 1970, Tye 1995a, Bain 2003, Hill 2006.



justified as they are.<sup>51</sup> 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 (perhaps you've never before seen a red roller skate).

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.<sup>52</sup>

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 of the 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

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<sup>51</sup> At least, the contents provide no obvious support, on the assumption (contra Searle 1983, Chalmers 2004, Kriegel 2009) that the contents do not include self-representational contents such as "I am having an experience as of something red" or "I am in pain".

<sup>52</sup> Goldman 2008 assumes that there should be no such hiving off, treating unified accounts as an explanatory virtue. In contrast, Boyle 2009, following Moran 2001, argues in favor of hiving off self-ascriptions of bodily sensations for special treatment.

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.<sup>53</sup> However, even proponents of nonconceptual content can agree that some belief-contents are closer to some exclusively perceptual contents than others.<sup>54</sup> 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 red<sup>39</sup> 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. 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.

According to a more specific version of the Content Constraint, an experience can provide immediate justification for believing P, only if P is a *phenomenal* content of the experience. A phenomenal content of an experience E is a content that supervenes on its phenomenology, so that it will be shared with any experience that has the same phenomenal character as E.<sup>55</sup> The Phenomenal Content Constraint is a strong thesis which combines the idea that both phenomenal character and content bestow justificatory force on experiences.

To see the Phenomenal Content Constraint in action, consider a pair of experiences that you have before and after you become spectrally inverted. After the inversion, with respect to hue, red things look the way green things looked before the inversion, and green things look the way red things looked before the inversion. Now consider two strawberries, a red ripe one and a green unripe one, that are identical in all visible respects except color. With respect to color, your experience of seeing the red ripe strawberry before the inversion is phenomenally

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<sup>53</sup> Peacocke (1995), but see Stalnaker 2003. For useful discussion of various notions of "nonconceptual content", see Speaks (2005), Byrne (2005), and Chuard (2009).

<sup>54</sup> Compare Peacocke's notion of "canonical correspondence" between nonconceptual and conceptual contents in his 2004.

<sup>55</sup> For defense of the idea that experiences have phenomenal contents, see Siewert 1998, Byrne 2001, Tye 2002, or Chalmers 2004.

the same as your experience of seeing the unripe green strawberry after the inversion. Drawing on externalist theories of content-determination, some philosophers have argued that your experiences in these cases could both be veridical with respect to color.<sup>56</sup> On this line of thought, color content is not phenomenal content, since experiences that are phenomenally the same can differ with respect to which colors they represent. According to the Phenomenal Content Constraint, your color beliefs will not be immediately justified by experiences in such a case, since they will not have contents sufficiently close to the phenomenology of experience.

Silins (2011) raises a challenge to the Content Constraints, arguing that in a range of common cases, including color experiences and experiences in which you see more items than you have time to count, experiences may provide immediate justification for believing propositions that are not included among their contents, and are not even entailed by those contents. And 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.

Even if the Content Constraints on immediate justification fail, 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 (phenomenal) 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?

This question might be pursued in several ways.<sup>57</sup> First, one might try to read off the contents of experience from substantive theories about what determines which contents experiences (or perhaps mental states in general) have, such as a causal co-variation theory of content. Second, one might try to devise principles linking the contents of perceptual reports to the contents of experiences reported.<sup>58</sup> Third, one might defend hypotheses about contents on the grounds that they best explain contrasts between phenomenal character of select pairs of experiences, perhaps finding contrasting experiences in disorders such as agnosia or Capgras syndrome, or in experimental effects such as perceptual adaption.<sup>59</sup> Finally, one might try to gain traction on which contents are contents of experiences via epistemological considerations. 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.

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<sup>56</sup> Block (1990), Shoemaker (1994), or Chalmers (2004).

<sup>57</sup> Macpherson and Hawley (2009) and Brogaard (forthcoming(a)) contain papers on this debate. See also Prinz 2006, Bayne 2009, Siegel 2010, Nanay 2011. **Masroux 2011.**

<sup>58</sup> Brogaard (forthcoming(b))

<sup>59</sup> On the contrast method, see Siegel 2010. On agnosia, see Bayne 2009.

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.<sup>60</sup>

## 7. Attention and the Phenomenal Approach

Earlier we considered 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...”).<sup>61</sup> 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.<sup>62</sup> 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?<sup>63</sup>

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. The restriction to propositional justification is important. Both positions could allow that attention is needed (or that it is typically needed) for forming doxastically justified beliefs. The issue is whether attention is needed upstream of belief formation, for experiences to provide propositional justification.

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

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<sup>60</sup> A version of the Reverse Content Constraint could also be formulated for phenomenal contents: If an experience E immediately justifies believing P, then P is a phenomenal content of E. For discussion, see Silins (2011, forthcoming-b).

<sup>61</sup> Moore 1939.

<sup>62</sup> For the view that all experiences are attentive, see Mack and Rock 1998 or Prinz 2010. For its denial, see Searle 1992 or Mole 2011.

<sup>63</sup> For existing discussion of the role of attention in epistemology, see Mole 2008, 2011, and Smithies forthcoming-a, forthcoming-b.

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  $x \neq y$ . 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.

We can illustrate the predictions of the two views by considering some classic experiments. In a typical inattentive 'blindness' experiment (Most 2001, 2005), subjects are asked to perform the attentionally demanding task of counting how many white boxes bounce off 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.

Which position, Attention Needed and Attention Optional, is closer to the truth? 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.<sup>64</sup> On this view, the thesis that states of seeing help explain how experiences provide justification falls under the Phenomenal Approach.<sup>65</sup>

In discussing whether the things seen are causally or constitutively related to experiences, we have ignored the differences between seeing objects, facts, events, and other things. It is an open question which locutions involving “see” denote different mental states (contrast “see the ball”, “see the ball roll away”, “see the ball rolling away”, “see that the ball is rolling away”, etc.) 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 a state of affairs, and seeing that the basketball is bouncing, which is arguably a relation to a proposition. The locution *seeing that p* is often taken to be factive (you can see that p only if p is true), and we’ll assume that it denotes a factive state.<sup>66</sup>

Let us begin with both factive and non-factive states of seeing. We will focus on how much justification such states provide for beliefs, leaving open the corresponding issues about knowledge, or still other epistemic states (perhaps states of seeing do have an epistemically privileged role to play, just not with respect to justification). Non-factive states of seeing can be present in cases of illusion, for example when the things you see look to have properties they in fact lack, but not hallucination. Does the status of an experience as a state of seeing of either sort contribute to the justificatory force of the experience? A main motivation for thinking it does concerns *de re* beliefs about what you see. The perceptual beliefs we form about the objects we see are typically beliefs whose truth or falsity, relative to a world *w*, depends on how things are with that object in world *w*.<sup>67</sup> Intuitively, seeing an object makes it possible to form a *de re* belief about it (as well as making it possible to form other *de re* mental states about it, such as desires and hopes). Some philosophers invoke this role to argue either that phenomenal states themselves have singular contents, or are sometimes partly constituted by

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<sup>64</sup> Individual experiential episodes may be constitutively linked to states of seeing. But our discussion should be understood to be at the level of types.

<sup>65</sup> See Campbell (2002), chapter 6.

<sup>66</sup> Sometimes it is also assumed to entail that the subject *knows that P* (Dretske 1969, 2006, Williamson 2000), and other times merely that the subject *believes that P*. We will not assume that either of these additional entailments hold.

<sup>67</sup> 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 cube”, where the demonstratives are rigid designators. For discussion, see Kaplan 1989.

relations of seeing and the objects seen.<sup>68</sup> But independently of whether being a state of object-seeing is a causal or constitutive feature of experiences, we can ask whether there are asymmetries between the rational roles of states of seeing, on the one hand, and hallucinations, or hallucinations and illusions, on the other.

A first kind of 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. 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.<sup>69</sup>

A second kind of 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. Similarly, if factive states of seeing provide more justification than non-factive experiential states, then factive states of seeing have a privileged status as providers of justification.

Both McDowell (1996, 2008) and Williamson (2000) could be seen as defending asymmetries in the degree of justification provided by factive states of seeing, as opposed to hallucinations and non-factive states of seeing.<sup>70</sup> 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

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<sup>68</sup> On this motivation for taking relations of seeing to be partly constitutive of experiences, see Campbell 2002, Tye 2009, Schellenberg 2009.

<sup>69</sup> 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 states about it. For discussion, see Johnston 2004.

<sup>70</sup> See also Peacocke 2004, Johnston 2006, Campbell 2002, Neta 2003, 2011, Jackson 2010.

cannot make that guess without  $p$  being true.<sup>71</sup> 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 or overlooking necessary truths.

According to a different reason to think that factive states of seeing enjoy privileged epistemic status with respect to justification, someone in a factive state of seeing has two sources of justification for believing the general proposition (*there is a pig in the pigpen*), whereas the subject who hallucinates a pig in the pigpen has only one source of justification. For the factively seeing subject, on this theory, the general proposition is both a content of their experience, and is known to be entailed by the singular content of their state of seeing. The hallucinator shares the first source of justification, by having the general proposition among the contents of their experience. But they do not share the second source of justification, so long as they are not in any psychological state with singular content that entails the general proposition.

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.<sup>72</sup> (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. The epistemological upshots of metaphysical disjunctivism are highly controversial.<sup>73</sup>

## 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

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<sup>71</sup> 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.

<sup>72</sup> For discussion of seamless transition cases, see Johnston 2004 and Neta 2008. For further criticisms of the idea that factive states are privileged with respect to justification, see Wedgwood 2002, Silins 2005, and Schiffer 2009.

<sup>73</sup> See McDowell (1982), Conee (2007), Wright (2008) and Logue (this volume).



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.<sup>74</sup>

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.<sup>75</sup>

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 blind-sighted 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

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<sup>74</sup> For discussion of the status of reliabilism and related views as a response to skepticism, see Bonjour (1985), Bergmann (2000), and Fumerton (1995, 2006).

<sup>75</sup> Reliabilism might be thought to entail Immediacy, but it is compatible with its denial. For instance, in principle, a perceptual process (call it A) by which one forms reliably true beliefs that P might encompass a process by which one forms reliably true beliefs that Q. If so, then on the face of it, to be justified by perception in believing p on the basis of A, one might have to rely on being justified in believing Q. If process A were the only perceptual route by which one could reliably form true beliefs that Q, then by virtue of resulting from process A, beliefs in Q would be justified, but such beliefs could only ever be justified mediately. To illustrate, consider a demonstrative belief, about an object o that you see, that it is a car. Suppose that this belief results from a process that generates reliably true beliefs, roughly the process by which you successfully recognize cars as cars. And suppose that this recognitional process encompasses a process by which you form reliably true beliefs about what cars looks like, beliefs whose contents are approximated by the contents of the sentence-schema 'Cars looks like \_\_\_', where the blank is filled in with a term denoting a type of phenomenal state. A reliabilist might hold that the justification of believing of o that it is a car is both mediate, and conferred by the fact that the belief results from a reliable process.

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.<sup>76</sup> 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.<sup>77</sup>

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 that P.<sup>78</sup> 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.<sup>79</sup> Responses to the Generality Problem that specify the relevant type of process may address the earlier objections as well.

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<sup>76</sup> Bonjour 1980. For discussion of responses, see Prichard 2005.

<sup>77</sup> Lehrer and Cohen 1983, Cohen 1984. For responses, see Goldman 1986, Greco 2005, and Littlejohn 2009.

<sup>78</sup> Goldman 1979, 2008. For further refinements of reliabilist approaches, see Sosa 1991, 2007, 2009, Plantinga 1993, 1996, Comesaña 2002, 2010, Burge 2003, Peacocke 2004, Sawyer and Majors 2005, Bergmann 2006, Lyons 2009, or Graham 2011. The Burge/Peacocke/Sawyer approach privileges the role of one's relations to the environment in individuating the contents of one's perceptual states, for evaluation, see Martin 2001 and Silins forthcoming.

<sup>79</sup> The Generality Problem was first formulated and labeled as such by Feldman 1985, though something like it is anticipated by Goldman 1979. 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

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.<sup>80</sup> 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.<sup>81</sup> 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 chihuahau 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 chihuahau 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 chihuahau 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.<sup>82</sup> 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.<sup>83</sup> 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

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reliable process, but presumably not all beliefs formed on the basis of veridical hallucinations are justified. For responses to the generality problem, see Beebe 2004 and Comesaña 2006. For an argument that the problem generalizes beyond reliabilism, see Bishop 2010.

<sup>80</sup> A case described by Russell 1948.

<sup>81</sup> Nozick 1981, with important precedents in Dretske 1971 and Goldman 1979.

<sup>82</sup> For similar cases see Goldman 1979 and Hawthorne 2005.

<sup>83</sup> Discussion with Max Kwon was helpful here.

of seeing, or phenomenal states that a subject can be in, regardless of whether they are seeing.<sup>84</sup>

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 presumably would 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.<sup>85</sup> 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.<sup>86</sup>

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.<sup>87</sup> 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 chihuahua 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.<sup>88</sup> As improbable as the hypothesis is,

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<sup>84</sup> If states of seeing are privileged, sensitivity accounts cease to predict that you don't know you're not a brain in a vat, given that you would not be able to use the method of relying upon states of seeing if you were a brain in a vat. But proponents of the approach such as Nozick 1981 actually seek the result that you don't know you're not a brain in a vat. For further overview of the challenges in specifying a sensitivity account, see DeRose 1995, 2010, or Williamson 2000.

<sup>85</sup> Vogel 2000.

<sup>86</sup> Nozick 1981 and Dretske 2005 embrace the conclusion and reject closure. Vogel (1990) and Hawthorne (2005) defends the closure principle. Roush 2006 argues that the sensitivity approach can avoid rejecting closure. For more recent worries about closure principles, see Laasonen-Aarnio (2008) and Schechter (forthcoming). For discussion of whether any closure principle is both strong enough and plausible enough to sustain a skeptical argument, David and Warfield (2004), Lawlor (2005), or Blome-Tillman (2006).

<sup>87</sup> Sosa 1999 and 2007, Sainsbury 1997, Williamson 2000, Pritchard 2005, also Manley (2007). For criticisms, see Brueckner and Fiocco (2002), Neta and Rohrbaugh (2004) or Comesaña (2005).

<sup>88</sup> The example is from Hawthorne 2004. See also Hawthorne and Laasonen-Aarnio (2009).

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.<sup>89</sup> 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.<sup>90</sup>

Many internalists about justification appeal to the intuition that the experiences of an unwitting brain in the vat or victim of an evil demon would not be robbed of their justificatory power, despite the fact that they do not feed into a process that reliably generates true beliefs.<sup>91</sup> According to this view, the suboptimal etiology of such experiences is not enough by itself to reduce (let alone to eliminate) their justificatory power. Some reliabilists acknowledge the force of this intuition, while nonetheless maintaining that etiological facts about experiences can affect whether they provide justification, even if the subject is not aware of those etiological features.<sup>92</sup> We now consider other ways in which the unknown etiology of experiences might affect the epistemic status of experiences.

## 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 expert birdwatcher who identifies a bird she sees as a flycatcher, on the basis of her background belief (developed in the course of learning to discriminate different birds) 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

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<sup>89</sup> One might maintain that, as the safety approach is best understood, one need only avoid false belief that *p* in *most* of the worlds sufficiently similar to the actual world (see Pritchard 2005). A potential difficulty for this response is whether it can be combined with an original motivation of the safety approach. For example, one might motivate the safety approach by saying that it explains the fact that one doesn’t know one’s lottery ticket will lose, since one falsely believes that one’s ticket will lose in a world which is sufficiently similar to the actual world. This explanation won’t work on the new understanding of the safety requirement---one does avoid false belief about whether one’s ticket will lose in *most* worlds sufficiently similar to the actual world. For discussion of the problem, see Greco (2007).

<sup>90</sup> The worry traces to Kripke’s unpublished lectures on Nozick’s theory of knowledge. For a published discussion see e.g. Cohen 2008. **Vogel “Subjunctivitis”?**

<sup>91</sup> Cohen 1984, Wedgewood 2002

<sup>92</sup> Goldman 1988.

difference could result from attention, as when the expert pays attention to different features of the same bird than the novice, or it could arise perhaps 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.<sup>93</sup> We can call influences on the phenomenal character of experience by any of these kinds of states ‘cognitive penetration.’<sup>94</sup> Some forms of cognitive penetration, such as those that may be found in expertise, seem to belong to overall improvements in the 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.<sup>95</sup> 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.<sup>96</sup> A host of experimental results suggest that non-perceptual states of all sorts can

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<sup>93</sup> For instance, it is sometimes said that in depression, things look grey. For discussion see Barrick 2002.

<sup>94</sup> 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.

<sup>95</sup> Chisholm 1966.

<sup>96</sup> 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

influence perception, and on the face of it, many of these seem to threaten modularism about perception.<sup>97</sup> All of these results are tendentious, and further interpretation and experimentation is needed to discover the exact nature of the impact on perception that prior mental states have. Prior mental states could influence solely actions or judgments downstream of experience, leaving experience itself intact, and in this case would not take the form of cognitive penetration. When prior states do impact experience, they could impact the contents of experience, or the role of experience in belief-formation, or the pattern of experiences one is likely to have. We can then ask to what extent, if any, these effects on experience prevent us from using it to compare our prior beliefs, suspicions, or fears with reality, to reach a reasonable verdict on whether they are true.

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 has no direct impact on justification. 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 when one sees the Müller-Lyer lines, or in scenarios that put experiences systematically in error, such as thought-experiments in which a demon or scientist manipulates the brain of the subject. No etiological facts about experiences can affect their status as providers of prima-facie justification, according to some internalist theories. Setting internalism aside, 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 prima-facie 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. The process by which suspicion morphs imperceptibly into belief without an intervening experience is a paradigmatic irrational way of forming a belief. The same holds for fear and hope morphing into belief: these are cases of fearful or wishful thinking. The crucial epistemological question is then whether the fact that an experience happens along the way makes this process of belief-formation any less irrational. It is open to internalists to hold that it is not any less irrational, and that whereas experiences caused a-rationally by a demon manipulating their brain provide prima-facie justification, experiences caused by irrational processes internal to the subject do not.<sup>98</sup>

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end of the process of belief-fixation as he construes it that it is partly the output of central processing.

<sup>97</sup> For a range of results claimed to challenge modularism, see Levin and Banaji 2006, the papers collected in Bar 2011, also Proffitt and Linkenauger (forthcoming) and many of the papers cited therein.

<sup>98</sup> This position is explored in Siegel (forthcoming). Epistemological issues arising from the possibility of cognitive penetration are discussed by Markie (2005), Lyons (2011), Siegel

The idea that experiences can have irrational etiologies is at odds with the traditional idea that the epistemic goodness or badness of belief derives from the way it is grounded in reason and experience. On the traditional picture, reason and experience are the two ultimate arbiters of belief. Both are clearly sources of rational belief, yet neither source is itself grounded in either reason or experience. As some foundationalists would put it, experiences justify beliefs without themselves being justified, or otherwise susceptible to rational evaluation. On the revised picture, experiences can themselves be grounded, well or badly, in prior reason and experience, and this grounding affects the rational role they can play, as well as their role in stopping regresses when we examine the antecedent sources of justification of a belief.

### **Conclusion**

Traditionally, discussions of perceptual justification have focused on whether the transition from perception to belief can be rational. In contrast, in this entry, we begin from the substantive assumption that the transition is sometimes rational, and explore a range of potential features of experiences that make experiences suited to stand in such rational relations, when they do.

When the topic has this shape, it can be approached by examining which transitions between experience and belief yield rationally as opposed to irrationally formed beliefs. This approach would foreground doxastic justification, in its focus on how beliefs are formed in response to experiences. The topic can also be approached by foregrounding propositional justification provided by experience, by attempting to draw conclusions about the rational roles of experience from metaphysical premises about the nature of experiences, such as their underlying metaphysical structure, their contents, their phenomenal character, or their etiology. Both approaches bring into focus the complex interrelationship between the philosophy of perception and epistemology.<sup>99</sup>

### **Bibliography**

Audi, R. (1986). Belief, Reason, and Inference. *Philosophical Topics* 14 (1):27-65.

Ayer, A. J. (1973) *The Central Questions of Philosophy*, London: Weidenfeld.

Bain, D. 2003. 'Intentionalism and Pain'. *Philosophical Quarterly*, 53, 213, 502-23.

Bar, 2011 (ed). *Prediction and the Brain*. OUP.

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(2011b). For classic discussions in the philosophy of science of the "theory-dependence of observation", see Hanson (1958), Kuhn (1962), Churchland (1979, 1988), and Fodor (1984, 1988).

<sup>99</sup> Acknowledgments.



Barrick, C. et al 2002. "Color sensitivity and mood disorders: biology or metaphor?". *Journal of Affective Disorders* 68 (2002) 67–71.

Tim Bayne (2009): "Perception and the Reach of Phenomenal Content", *Philosophical Quarterly* 59 (236): 385-404.

Beebe, J. (2004). The Generality Problem, Statistical Relevance and the Tri-Level Hypothesis. *Noûs* 38 (1):177-195.

Bergmann, M. (2006). *Justification Without Awareness: A Defense of Epistemic Externalism*. Oxford University Press.

Bergmann, M. (2004). Epistemic Circularity: Malignant and Benign. *Philosophy and Phenomenological Research* 69 (3):709–727.

Bird, A. (2007). Justified Judging. *Philosophy and Phenomenological Research* 74 (1):81-110.

Bishop, M. (forthcoming). Why the generality problem is everybody's problem. *Philosophical Studies*.

Block, Ned 1990: 'Inverted Earth'. *Philosophical Perspectives*, 4, pp. 53-79.

Block, N. (2008). Consciousness and cognitive access. *Proceedings of the Aristotelian Society* 108 (1pt3): 289-317.

Michael Blome-Tillmann (2006). [A Closer Look at Closure Scepticism](#). *Proceedings of the Aristotelian Society* 106 (3):381–390.

Boghossian, P. 2000: "Knowledge of Logic", in (eds.) Peacocke and Boghossian *New Essays on the A Priori*. OUP.

Bonjour, L. 1980: "Externalist Theories of Empirical Knowledge", *Midwest Studies in Philosophy*, 5: 53-73.

Bonjour, L. 1985: *The Structure of Empirical Knowledge*. OUP.

BonJour , L. 2009. "Epistemological Problems of Perception", *The Stanford Encyclopedia of Philosophy (Spring 2009 Edition)*, Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/spr2009/entries/perception-episprob/>.

Boyle, M. (2009). Two kinds of self-knowledge. *Philosophy and Phenomenological Research* 78 (1):133-164.

- Brewer, B. (1999). *Perception and Reason*. Oxford University Press.
- Brewer, B. (2006). Perception and Content. *European Journal of Philosophy* 14 (2): 165-181.
- Brewer, B. (2011). *Perception and Its Objects*. Oxford University Press.
- Brown, J. (2004). Non-Inferential Justification and Epistemic Circularity. *Analysis* 64 (4): 339–348.
- Brogaard, B. (forthcoming) “What do we say when we say what and how we feel?”
- Brogaard, B. ed. High-Level Contents of Perception. Special Issue of *Philosophical Studies*
- Anthony L. Brueckner (1992). Semantic Answers to Skepticism. *Pacific Philosophical Quarterly* 73 (3):200-19.
- Anthony Brueckner & M. Oreste Fiocco (2002). [Williamson's Anti-Luminosity Argument](#). *Philosophical Studies* 110 (3):285–293.
- Audi, R. 1993: *The Structure of Justification*. OUP.
- Tyler Burge (1982). Other Bodies. In Andrew Woodfield (ed.), *Thought and Object*. Oxford University Press.
- Burge, T. (2003): ‘Perceptual Entitlement’, *Philosophy and Phenomenological Research*, 67: 503-48.
- Tyler Burge (2005). Disjunctivism and Perceptual Psychology. *Philosophical Topics* 33 (1): 1-78.
- Tyler Burge (2010)). *Origins of Objectivity*. OUP.
- Byrne, A. (1996). Spin control: Comment on McDowell's Mind and World. *Philosophical Issues* 7:261-73.
- Byrne, Alex 2001: ‘Intentionalism Defended’. *Philosophical Review*, 110, pp. 199-240.
- Byrne, A. (2009). Experience and content. *Philosophical Quarterly* 59 (236):429-451.
- Byrne, A. (2010). Recollection, perception, imagination. *Philosophical Studies* 148 (1).
- Campbell, J. 2002. *Reference and Consciousness*. New York: Oxford.
- Chalmers, D. (2004). The representational character of experience. In Brian Leiter (ed.), *The Future for Philosophy*. Oxford University Press.

- Chisholm, R. (1966) *Theory of knowledge*. Englewood Cliffs, N.J., Prentice-Hall
- Churchland, Paul M. (1979), *Scientific Realism and the Plasticity of Mind*. Cambridge: Cambridge University Press.
- Churchland, Paul M. (1988). "Perceptual Plasticity and Theoretical Neutrality: A Reply to Jerry Fodor", *Philosophy of Science* 55: 167-187.
- Cohen, S. and Lehrer, K. 1983: "Justification, Truth, and Coherence", *Synthese* 55: 191-207.
- Cohen, S. 1984: "Justification and Truth", *Philosophical Studies*, 46: 279-295.
- Cohen, S. (2002). Basic knowledge and the problem of easy knowledge. *Philosophy and Phenomenological Research* 65 (2):309-329.
- Cohen, S. (2005). Why basic knowledge is easy knowledge. *Philosophy and Phenomenological Research* 70 (2):417-430.
- Cohen, S. (2008). Structure and Connection: Comments on Sosa's Epistemology. In (ed.) J. Greco *Sosa and his Critics*. Blackwell.
- Cohen, S. (2010). Bootstrapping, defeasible reasoning, and a priori justification. *Philosophical Perspectives* 24 (1):141-159.
- Juan Comesaña (2002). The Diagonal and the Demon. *Philosophical Studies* 110 (3).
- Juan Comesaña (2005). Unsafe Knowledge. *Synthese* 146: 395-404.
- Comesaña, J. (2006). A well-founded solution to the generality problem. *Philosophical Studies* 129 (1).
- Juan Comesaña (2010). Evidentialist Reliabilism. *Noûs* 44 (4):571-600.
- Conee, E. and R. Feldman (1998). The generality problem for reliabilism. *Philosophical Studies* 89 (1):1-29.
- Conee, E. and R. Feldman (2001) "Internalism Defended". Reprinted in E. Conee and R. Feldman, Eds. *Evidentialism*. Oxford University Press, 2004.
- Conee, E. (2007). Disjunctivism and anti-skepticism. *Philosophical Issues* 17 (1):16-36.
- Marian David & Ted A. Warfield (2008). Knowledge-Closure and Skepticism. In Quentin Smith (ed.), *Epistemology: New Essays*. Oxford University Press.

Davidson, D., 1986, 'A Coherence Theory of Truth and Knowledge,' *Truth And Interpretation, Perspectives on the Philosophy of Donald Davidson*, Ernest LePore (ed.), Oxford: Basil Blackwell, 307-19.

Davies, M. 2004: "Epistemic Entitlement, Warrant Transmission and Easy Knowledge", *Aristotelian Society Supplementary Volume*, 78: 213-45.

DePaul, M. (ed) 2000: *Resurrecting Old-Fashioned Foundationalism*. Rowman and Littlefield.

Keith DeRose (1995). Solving the Skeptical Problem. *Philosophical Review* 104:1-52.

Keith DeRose (2000). How Can We Know That We're Not Brains in Vats? *Southern Journal of Philosophy* 38 (S1):121-148.

Keith DeRose (2004). Sosa, Safety, Sensitivity, and Skeptical Hypotheses. In J. Greco (ed.), *Ernest Sosa and His Critics*. Blackwell.

DeRose, K. 2010. Insensitivity is back, baby! *Philosophical Perspectives* 24 (1): 161-187.

Dickie, I. 2011 "Visual Attention Fixes Demonstrative Reference by Eliminating Referential Luck" in Chris Mole, Declan Smithies and Wayne Wu (eds.) *Attention: Philosophical and Psychological Essays*

Dretske, Fred. 1969. *Seeing and Knowing*. Chicago.

Dretske, Fred. 1970. "Epistemic Operators", *The Journal of Philosophy*, 67, pp. 1007-23.

Dretske, F. 1971, "Conclusive Reasons," *Australasian Journal of Philosophy*, 49: 1–22.

Dretske, F. 1997 *Naturalizing the Mind*. Cambridge: MIT Press.

Fred Dretske (2004). Change\_Blindness\_ *Philosophical Studies* 120 (1-3): 1-18.

Dretske 2005, "Is Knowledge Closed Under Known Entailment?" in Steup 2005.

Dretske, F. (2006). Information and closure. *Erkenntnis* 64 (3).

Evans, I. "The Problem of the Basing Relation" (ms).

Feldman, R. (2003) *Epistemology*. Prentice Hall, Foundations of Philosophy Series.

Feldman, Richard. 2004. "Foundational Justification," in Ernest Sosa

and His Critics, ed. John Greco. Oxford: Blackwell Publishing.

Fodor, J. (1983) *The Modularity of Mind*. Cambridge, MA: MIT Press

Fodor, Jerry (1984), "Observation Reconsidered", *Philosophy of Science* 51: 23-43.

Fodor, Jerry (1988) "A Reply to Churchland's "Perceptual Plasticity and Theoretical Neutrality"", *Philosophy of Science* 55: 188-198.

Fodor, J. 2007 'The revenge of the given', in J. Cohen and B. McLaughlin (eds.), *Contemporary Debates in Philosophy of Mind*. Oxford, Blackwell, 105–16.

Fumerton, R. (1995). *Metaepistemology and Skepticism*. Rowman & Littlefield.

Fumerton, R. 2005. Speckled hens and objects of acquaintance. *Philosophical Perspectives* 19: 121–138.

Fumerton, R. 2006. "Epistemic Internalism, Philosophical Assurance, and the Skeptical Predicament." In *Knowledge and Reality: Essays in Honor of Alvin Plantinga*, eds. Thomas M. Crisp, Matthew Davidson, and David Vander Laan. Kluwer.

Richard Fumerton (2009). Markie, Speckles, and Classical Foundationalism. *Philosophy and Phenomenological Research* 79 (1):207-212.

Gibbons, John 2006 "Access Externalism" *Mind*

Glüer, K. "In Defence of a Doxastic Account of Experience", in *Mind & Language* 24, 2009: 297-373

Goldman, A. (1976). Discrimination and Perceptual Knowledge. *Journal of Philosophy* 73 (November): 771-791.

Goldman, A. 1986 *Epistemology and Cognition*. Cambridge: Harvard University Press.

Goldman, A. (1999). Internalism exposed. *Journal of Philosophy* 96 (6):271-293.

Goldman, A. 2008. Reliability and Immediate Justification. In (ed.) Q. Smith *Epistemology: New Essays*. OUP.

Peter J. Graham (2006). Liberal Fundamentalism and its Rivals. In Jennifer Lackey & Ernest Sosa (eds.), *The Epistemology of Testimony*. Oxford.

Peter J. Graham (2011). Epistemic Entitlement. *Noûs* online publication 0:1-34.

John Greco (2007). Worries About Pritchard's Safety. *Synthese* 158: 299-302.

Greco, J. 2005: Justification is Not Internal, in M. Steup and E. Sosa, eds., *Contemporary Debates in Epistemology*, Blackwell.

Gupta, A. 2006, *Empiricism and Experience*. Oxford University Press.

Haddock, A. and MacPherson, F (eds.). 2008. *Disjunctivism: Perception, Action and Knowledge*. OUP.

Hanson, N.R., 1958, *Patterns of Discovery*, Cambridge, Cambridge University Press.

Hawthorne, J. 2004. *Knowledge and Lotteries*. OUP.

Hawthorne 2005 "The Case for Closure" In *Contemporary Debates in Epistemology*. Malden, Ma: Blackwell. eds. M. Steup and E. Sosa, 26-42.

Heck, R. (2007). Are there different kinds of content? In Brian P. McLaughlin & Jonathan D. Cohen (eds.), *Contemporary Debates in Philosophy of Mind*. Blackwell.

Heck, R. (2000). Nonconceptual content and the "space of reasons". *Philosophical Review* 109 (4):483-523.

Hellie, B. (2010). An externalist's guide to inner experience. In Bence Nanay (ed.), *Perceiving the World*. Oxford University Press.

Hellie, B. (forthcoming). There it is. *Philosophical Issues*.

Hill, C. (2006). Ow! The Paradox of Pain. *Pain: New Essays on Its Nature and the Methodology of Its Study*. M. Aydede, Ed. Cambridge. Mass.: MIT Press.

Horgan, T. and Kriegel, U. (forthcoming) "The Phenomenal Intentionality Research Program", in Horgan and Kriegel, eds , *Phenomenal Intentionality: New Essays*. New York: Oxford University Press.

Huemer, M. 2001. *Skepticism and the Veil of Perception*. Rowman and Littlefield.

Huemer, M. (2006). Phenomenal Conservatism and the Internalist Intuition. *American Philosophical Quarterly* 43 (2):147-158.

Huemer, M. (2007). Compassionate phenomenal conservatism. *Philosophy and Phenomenological Research* 74 (1):30–55.

- Jonathan Ichikawa (2008). Skepticism and the Imagination Model of Dreaming. *Philosophical Quarterly* 58 (232):519–527.
- Jackson, A. 2010. Appearances, Reality and Justified Belief. *Philosophy and Phenomenological Research*.
- Johnston, M. (2004). The obscure object of hallucination. *Philosophical Studies* 120 (1-3):113-83.
- Johnston, M. (2006). Better than mere knowledge? The function of sensory awareness. In T.S. Gendler & John Hawthorne (eds.), *Perceptual Experience*. Oxford University Press.
- Kaplan, D. 1989 "Demonstratives" and "Afterthoughts" in *Themes From Kaplan* (Almog, et al., eds.), Oxford: Oxford University Press.
- Kentridge, R., Heywood, C., and Weiskrantz, L. "Attention without Awareness in Blindsight". *Proceedings: Biological Sciences*, Vol. 266, No. 1430. (Sep. 7, 1999), pp. 1805-1811.
- Korcz, K. 1997. "Recent Work on the Basing Relation," *American Philosophical Quarterly* 34.2: 171–92.
- Kotzen, M. (ms) Dragging and Confirming
- Kornblith, H. (1980) Beyond Foundationalism and Coherence Theory *Journal of Philosophy* LXXVII, 597-612.
- Kornblith, H. (2009). A reliabilist solution to the problem of promiscuous bootstrapping. *Analysis* 69 (2):263-267.
- Kriegel, U. 2009 *Subjective Consciousness: A Self-Representational Theory*. Oxford: Oxford University Press.
- Kuhn, T.S., *The Structure of Scientific Revolutions*, 1962, Chicago: University of Chicago Press, reprinted, 1996.
- Kvanvig, Jonathan (2003). Justification and proper basing. In Erik J. Olsson (Ed.), *The epistemology of Keith Lehrer* (pp. 43–62). Dordrecht: Kluwer Academic Publishers.
- Langsam, H. (1995) Why pains are mental objects. *Journal of Philosophy* 92 (6):303-13.
- Lasonen-Aarnio, M. (2008). Single Premise Deduction and Risk. *Philosophical Studies* 141 (2).
- Krista Lawlor (2005). Living Without Closure. *Grazer Philosophische Studien* 69 (1):25-50.

John Hawthorne & Maria Lasonen-Aarnio (2009). Knowledge and Objective Chance. In Patrick Greenough & Duncan Pritchard (eds.), *Williamson on Knowledge*. Oxford University Press.

Lehrer, K. (1971). How Reasons Give Us Knowledge, or the Case of the Gypsy Lawyer. *Journal of Philosophy* 68 (10):311-313.

Lehrer, K. and Cohen, S. (1983). Justification, truth, and coherence. *Synthese* 55 (2).

Levin, R. and Banaji, M. 2006 "Distortions in the perceived lightness of faces: The role of race categories." *Journal of Experimental Psychology: General*, 135, 501-512.

Clayton Littlejohn (2009). The Externalist's Demon. *Canadian Journal of Philosophy* 39 (3):pp. 399-434.

Locke, J. (1894) *An Essay Concerning Human Understanding*. Oxford.

Lycan, W. (2001). The case for phenomenal externalism. *Philosophical Perspectives* 15 (s15):17-35.

Lyons, J. (2008) Evidence, experience, and externalism. *Australasian Journal of Philosophy* 86 (3):461 – 479.

Lyons, J. (2009) *Perception and Basic Beliefs*. New York: Oxford University Press.

MacPherson and Hawley (2009): *The Admissible Contents of Experience*. Special issue of *Philosophical Quarterly* 59.

Mack, A. and Rock, I. 1998. *Inattentional Blindness*. MIT Press.

Manley, D (2007). Safety, Content, Apriority, Self-Knowledge. *Journal of Philosophy* 104 (8):403-23.

Markie, P. (2005). The mystery of direct perceptual justification. *Philosophical Studies* 126 (3):347-373.

Markie, P. (2006). Epistemically appropriate perceptual belief. *Noûs* 40 (1):118-142.

Markie, P. 2009. Classical foundationalism and speckled hens. *Philosophy and Phenomenological Research* 79: 190–206.

Michael G. F. Martin (2001). Epistemic Openness and Perceptual Defeasibility. *Philosophy and Phenomenological Research* 63 (2):441-448.



- Martin, M. G. F. (2002). The transparency of experience. *Mind and Language* 4 (4):376-425.
- Michael G. F. Martin (2004). The Limits of Self-Awareness. *Philosophical Studies* 120 (1-3):37-89.
- Martin, M. G. F. (2006). On being alienated. In Tamar S. Gendler & John Hawthorne (eds.), *Perceptual Experience*. Oxford University Press.
- McDowell, J. (2008). The disjunctive conception of experience as material for a transcendental argument. In Fiona Macpherson & Adrian Haddock (eds.), *Disjunctivism: Perception, Action, Knowledge*. Oxford University Press.
- McDowell, J. (1994). *Mind and World*. Cambridge: Harvard University Press.
- McDowell, J. (1995). Knowledge and the Internal. *Philosophy and Phenomenological Research* 55 (4):877-93.
- McDowell, J. 1982: Criteria, Defeasibility, and Knowledge, *Proceedings of the British Academy* (68): 455-79. Also in J. Dancy, ed., *Perceptual Knowledge*, Oxford University Press, 1988.
- McGinn, C. (2004). *Consciousness and Its Objects*. Oxford University Press University Press.
- McGrath, M. forthcoming. "Dogmatism, Underminers, and Scepticism" *Philosophy and Phenomenological Research*.
- Christopher Mole (2008). Attention and Consciousness. *Journal of Consciousness Studies* 15 (4):86-104.
- Mole, C. 2011. *Attention is Cognitive Unison*. New York: Oxford University Press.
- Moore, G. E. 1939: "Proof of an External World," *Proceedings of the British Academy* 25, 273-300.
- Moran, R. (2001). *Authority and Estrangement: An Essay on Self-Knowledge*. Princeton University Press.
- Nanay, B. 2011. Do We Perceive Apples as Edible? *Pacific Philosophical Quarterly*
- Ram Neta (2003). Contextualism and the Problem of the External World. *Philosophy and Phenomenological Research* 66 (1):1–31.
- Ram Neta & Guy Rohrbaugh (2004). Luminosity and the Safety of Knowledge. *Pacific Philosophical Quarterly* 85 (4):396–406.

- Neta, R. 2008. "In Defense of Disjunctivism" in *Disjunctivism: Perception, Action, and Knowledge*, ed. by MacPherson and Haddock (Oxford, 2008): 311 - 329.
- Neta, R. 2010 "Liberalism and Conservatism in the Epistemology of Perceptual Belief" *Australasian Journal of Philosophy* 88: 1 - 21.
- Neta, R. 2011. "A Refutation of Cartesian Infallibilism" *Nous* online publication: 1-38.
- Nigel J.T., "Mental Imagery", *The Stanford Encyclopedia of Philosophy (Fall 2010 Edition)*, Edward N. Zalta (ed.). <http://plato.stanford.edu/archives/fall2010/entries/mental-imagery/>.
- Nozick, R. (1981). *Philosophical Explanations*. Harvard University Press.
- Most, S. B., Simons, D. J., Scholl, B. J., Jimenez, R., Clifford, E. & Chabris, C. F. 2001: "How not to be seen: The contribution of similarity and selective ignoring to sustained inattentional blindness." *Psychological Science* 12:9 – 17.
- Most, S. B., Scholl, B. J., Clifford, E., & Simons, D. J: 2005: "What you see is what you set: Sustained inattentional blindness and the capture of awareness." *Psychological Review*, 112(1), 217 - 242.
- Samir Okasha (2004). Wright on the Transmission of Support: A Bayesian Analysis. *Analysis* 64 (2): 139–146.
- Moretti, L. forthcoming: "Wright, Okasha and Chandler on Transmission Failure". Forthcoming in *Synthese*.
- Michael Pace (2010). Foundationally Justified Perceptual Beliefs and the Problem of the Speckled Hen. *Pacific Philosophical Quarterly* 91 (3): 401-441.
- Pautz, A. 2010 "Why Explain Visual Experience in terms of Content?" in B. Nanay, *Perceiving the World*. New York: Oxford.
- Peacocke, C. 1992 *A Study of Concepts*. Cambridge MA, MIT Press.
- Peacocke, C. 2004 *The Realm of Reason* New York: Oxford
- Perky, C.W. (1910) An Experimental Study of Imagination. *American Journal of Psychology* (21) 422–52.
- Pitcher, G. 1970b. 'Pain Perception', *Philosophical Review*, 79, 368-393.
- Plantinga, Alvin. 1993: *Warrant and Proper Function* Oxford: OUP.

----- 1996: "Respondeo", in J. Kvanvig (ed.) *Warrant in Contemporary Epistemology* Lanham, MD: Rowman and Littlefield.

Pollock, John (1974) *Knowledge and Justification* (Princeton).

Pollock, J. 1986 *Contemporary Theories of Knowledge*

Pollock 2000 "Nondoxastic Foundationalism" in Michael DePaul (ed.), *Resurrecting Old-Fashioned Foundationalism* (Lanham, Maryland: Rowman & Littlefield).

Pollock and Cruz 1999 *Contemporary Theories of Knowledge*.

Prinz, J. 2006. "Beyond Appearances: The Content of Sensation and Perception." In (eds.) Gendler and Hawthorne *Perceptual Experience*. OUP.

Prinz, J. 2010. "When Is Perception Conscious?" in B. Nanay (ed) *Perceiving the World*. New York: Oxford University Press.

Pritchard, D. (2005). *Epistemic Luck*. Clarendon Press.

Proffitt, D. and Linkenauger, S. (forthcoming) "Perception Viewed as a Phenotypic Expression" In W. Prinz, M. Beisert, & A. Herwig (Eds.), *Tutorials In Action Science*, MIT Press.

Pryor, James 2000. The skeptic and the dogmatist. *Noûs* 34 (4):517–549.

Jim Pryor (2001) "Highlights of Recent Epistemology" *British Journal for the Philosophy of Science* 52:95-12

Pryor 2004, "What's Wrong with Moore's Argument?", *Philosophical Issues*, 14: 349-78.

Pryor, J 2004 Comments on Sosa's "Relevant Alternatives, Contextualism Included". *Philosophical Studies* 119 (1-2):67-72.

Pryor, J. 2005 Is there Immediate Justification? In *Contemporary Debates in Epistemology*. Eds. M. Steup. Blackwell.

Putnam, H. 1975 "The Meaning of 'Meaning'" *Minnesota Studies in the Philosophy of Science* 7:131-193.

Pylyshyn, Z.W. (1998) "Is vision continuous with cognition?: The case for cognitive impenetrability of visual perception" *Behavioral and Brain Sciences* (1999), 22: 341-365

Pylyshyn, Z. W. (2003). *Seeing and visualizing: It's not what you think*. Cambridge, MA: MIT Press.

Roush, S. 2006. *Tracking Truth: Knowledge, Evidence, and Science* New York: Oxford.

Russell, B. (1948) *Human Knowledge: Its Scope and Limits*

Russell, B. (1912) *The Problems of Philosophy*. New York: Henry Holt and Company.

Sainsbury, R.M. (1997). Easy Possibilities. *Philosophy and Phenomenological Research* 57 (4):907-919.

Searle, J. 1992. *The Rediscovery of the Mind*. Cambridge: MIT Press.

Schechter, J. (forthcoming). Rational Self-Doubt and the Failure of Closure. *Philosophical Studies*.

Schellenberg, S. (2010). The Particularity and Phenomenology of Perceptual Experience. *Philosophical Studies* 149 (1).

Schiffer, S. 2009 "Evidence = Knowledge: Williamson's Response to Skepticism". In Williamson on Knowledge. Eds. P. Greenough and D. Pritchard. Oxford: Oxford University Press.

Searle, J. (1983): *Intentionality: An Essay in the Philosophy of Mind*. Cambridge.

Segal, S.J. (1972). Assimilation of a Stimulus in the Construction of an Image: The Perky Effect Revisited. In P.W. Sheehan (Ed.), *The Function and Nature of Imagery*, (pp. 203-230). New York & London: Academic Press.

Wilfrid Sellars, 1956 "Empiricism and the Philosophy of Mind," in Herbert Feigl and Michael Scriven, eds., *Minnesota Studies in the Philosophy of Science, Volume I: The Foundations of Science and the Concepts of Psychology and Psychoanalysis* (University of Minnesota Press, 1956), pp. 253-329

Shoemaker, S. 1994: 'Phenomenal Character'. *Noûs*, 28, pp. 21-38.

Shoemaker, S. 2006 "On the Ways Things Appear" in T. Gendler and J. Hawthorne, eds. *Perceptual Experience*. New York: Oxford University Press.

Siegel, S. 2004. "Indiscriminability and the Phenomenal" *Philosophical Studies* 120, 91-112.

Siegel, S. 2006 "Subject and Object in the Contents of Visual Experience" *Philosophical Review* 120.

Siegel, S. (2006): "Which Properties are Represented in Perception?", T. Gendler and J. Hawthorne (eds.) *Perceptual Experience*. Oxford: Oxford University Press.

---- (2009): "[The Visual Experience of Causation](#)", *Philosophical Quarterly* 59 (236):519-540.

Siegel, S. 2010a *The Contents of Visual Experience* New York: Oxford

Siegel, S. 2010b "Do Visual Experiences Have Contents?" in B. Nanay, ed. *Perceiving the World*. New York: Oxford University Press.

Siegel, S. 2011a , "The Contents of Perception", *The Stanford Encyclopedia of Philosophy (Spring 2011 Edition)*, Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/spr2011/entries/perception-contents/>.

Siegel, S. 2011b. "Cognitive Penetrability and Perceptual Justification" *Nous*  
Siewert, Charles 1998: *The Significance of Consciousness*. Princeton: Princeton University Press.

Silins, N. (2005). Deception and evidence. *Philosophical Perspectives* 19 (1):375–404.

Silins, N. (2008). Basic Justification and the Moorean Response to the Skeptic. *Oxford Studies in Epistemology: Volume 2*.

Silins, N. (2011). Seeing Through the "Veil of Perception". *Mind*.

Silins, N. (forthcominga). The Agony of Defeat? *Philosophy and Phenomenological Research*.

Silins, N. (forthcomingb): Explaining Perceptual Entitlement. *Erkenntnis*.

Smith, Q. (2008). *Epistemology: New Essays*. Oxford University Press.

Smithies, D. 2011(a) "What is the role of consciousness in demonstrative thought?", forthcoming in *Journal of Philosophy*

Smithies, D. 2011(b) "Attention as Rational-Access Consciousness", in *Attention: Philosophical and Psychological Essays*, edited by C. Mole, D. Smithies and W. Wu, New York: Oxford University Press

Smithies, D. ms: "Mentalism and Epistemic Transparency"

Ernest Sosa (1997). Reflective Knowledge in the Best Circles. *Journal of Philosophy* 94 (8):410-430.

Ernest Sosa (1991). *Knowledge in Perspective: Selected Essays in Epistemology*. Cambridge University Press.

Ernest Sosa (1999). How to Defeat Opposition to Moore. *Philosophical Perspectives* 13 (s13):137-49.

Ernest Sosa (2005). Dreams and Philosophy. *Proceedings and Addresses of the American Philosophical Association* 79 (2):7-18.

Ernest Sosa (2007) *A Virtue Epistemology: Apt Belief and Reflective Knowledge, Volume I*. Oxford: Oxford University Press.

Ernest Sosa (2009) *Reflective Knowledge: Apt Belief and Reflective Knowledge, Volume II*. OUP.

Soteriou, Matthew 2010. "The Disjunctive Theory of Perception", *The Stanford Encyclopedia of Philosophy (Winter 2010 Edition)*, Edward N. Zalta (ed.), URL = <http://plato.stanford.edu/archives/win2010/entries/perception-disjunctive/>.

Sperling, G. (1960). The information available in brief visual presentations. *Psychological Monographs*, 74 1-29.

Stalnaker, R (2003). What might nonconceptual content be? In York H. Gunther (ed.), *Essays on Nonconceptual Content*. MIT Press.

Matthias Steup (2004). Internalist Reliabilism. *Philosophical Issues* 14 (1):403–425.

Swain 1979, "Justification and the Basis of Belief" in G. Pappas, ed, *Justification and Knowledge*. Boston: D Reidel

Travis. C. (2004) "The Silence of the Senses", *Mind* 113: 57-94.

Tucker, C. (2010). Why open-minded people should endorse dogmatism. *Philosophical Perspectives* 24 (1):529-545.

Turri, J. 2010: "On the Relation Between Propositional and Doxastic Justification", *Philosophy and Phenomenological Research* 80: 312-326.

Turri, J. 2011 "Believing for a Reason" *Erkenntnis* 74.3

Tye, M 1995a. *Ten Problems of Consciousness: A Representational Theory of the Phenomenal Mind*. MIT Press.

Tye, M. 1995b, 'A Representational Theory of Pains and Their Phenomenal Character', *Philosophical Perspectives 9: AI, Connectionism, and Philosophical Psychology*, 223-39.

- Tye, M. 2002: 'Representationalism and the Transparency of Experience'. *Noûs*, 36, pp. 137-51.
- Tye, M. (2009). The admissible contents of visual experience. *Philosophical Quarterly* 59 (236):541-562.
- Van Cleve, J. 2003 "Is Knowledge Easy or Impossible?" In *The Sceptics: Contemporary Essays*, Ed. Steven Luper. Ashgate Publishing Limited, Hampshire, England.
- Vogel, J. (1990a) Cartesian Skepticism and Inference to the Best Explanation. *The Journal of Philosophy*, Vol. 87, No. 11, Eighty-Seventh Annual Meeting American Philosophical Association, Eastern Division (Nov., 1990), pp. 658-666
- Vogel, J. (1990b) "Are there counterexamples to closure?" In Michael David Roth & Glenn Ross (eds.), *Doubting: Contemporary Perspectives on Skepticism*. Dordrecht: Kluwer.
- Vogel, J. (2000). Reliabilism leveled. *Journal of Philosophy* 97 (11):602-623.
- Vogel, J. (2008). Epistemic bootstrapping. *Journal of Philosophy* 105 (9).
- Warfield, T. (1998): 'A Priori Knowledge of the World: Knowing the World by Knowing our Minds' *Philosophical Studies* 92: 127-47.
- Brian Weatherson (2005). Scepticism, Rationalism and Externalism. *Oxford Studies in Epistemology* 1: 311-331.
- Weatherson, B. (2007) "The Bayesian and the Dogmatist" *Proceedings of the Aristotelian Society* 107 (2007): 169-85.
- Wedgwood, R. (201x) A Priori Bootstrapping.
- Wedgwood, R. (2002). Internalism Explained. *Philosophy and Phenomenological Research* 65:349-369.
- Wedgwood, R. (1990). Scepticism and rational belief. *Philosophical Quarterly* 40 (158):45-64.
- Jonathan Weisberg (2010). Bootstrapping in General. *Philosophy and Phenomenological Research* 81 (3):525-548.
- Roger White (2006). Problems for dogmatism. *Philosophical Studies* 131 (3):525--57.
- Timothy Williamson (2000). *Knowledge and its Limits*. Oxford University Press.

Williamson (2007) "On Being Justified in One's Head". In Timmons and Greco (eds.) *Rationality and the Good: Critical Essays on the Ethics and Epistemology of Robert Audi*. OUP.

Willenken, T. 2010 "Moorean Responses to Skepticism: A Defense" *Philosophical Studies*.

Wright, C. (2007). The perils of dogmatism. In Nuccetelli & Seay (eds.), *Themes from G. E. Moore: New Essays in Epistemology*. Oxford University Press.

Wright, C. (2002). (Anti-)sceptics simple and subtle: G. E. Moore and John McDowell. *Philosophy and Phenomenological Research* 65 (2):330-348.

Wright, C. (1991). Scepticism and dreaming: Imploding the demon. *Noûs* 25 (2):205.

Wright, C. 1985: "Facts and Certainty", *Proceedings of the British Academy*, 71, pp. 429-472.

Wright, C. 2003: "Some Reflections on the Acquisition of Warrant by Inference", in S. Nuccetelli (ed) *New Essays on Semantic Externalism and Self-Knowledge*, pp. 57-78. Cambridge: MIT Press.

Wright, C. 2004: "Warrant for Nothing (And Foundations for Free?) *Proceedings of the Aristotelian Society* 78: 167-212.

Crispin Wright (2007). The Perils of Dogmatism. In Nuccetelli & Seay (eds.), *Themes from G. E. Moore: New Essays in Epistemology*. Oxford University Press.