

Preface

In 2007, I went on vacation to Tulum, México with my mother and my two-year old daughter. I was finishing my first book, *The Contents of Visual Experience*, which I wrote because I wanted to understand which properties we can be presented with in conscious visual perception. In that book I argued that in conscious visual perception, which I called “visual experience,” we’re presented with all sorts of complex properties—not just color, shape, luminance, and motion, but also kind properties (such as being a tree, or a bicycle, or a dog), causal properties (such as the property a cat can have of being supported by a hammock, or the property a knife can have of slicing through a piece of bread), and even personal identity (such as the property of being John Malkovich). I had set aside the epistemological question about visual experience that had shaped much of the discussion of perception in analytic philosophy during the twentieth century: whether, and how, perception can provide justification for everyday beliefs about ordinary things, such as the belief that there’s mustard in your fridge. Like many philosophers, including many who wrote long before there was such a thing as analytic philosophy, I found this question irresistible to think about. But the answer seemed to depend on what kind of mental phenomenon visual experience was. Did experiences even purport to tell us about ordinary things, like bicycles and mustard jars? If so, what could it purport to tell us about these things? Perception is indispensable to every type of inquiry, from the curiosity-driven (are any birds at the feeder?) to the practical (is the mustard in the fridge? who just stepped in to the elevator?) and the scientific (what color does sulfur burn?). The role of perception in justifying external-world beliefs will depend heavily on what perception tells us about the external world. Settling on an answer to that question makes it clearer what one is asking, when one asks what role perceptual experience plays in justifying beliefs.

My analysis in *The Contents of Visual Experience* drew on the claim that being able to visually recognize things such as your own neighborhood, pine trees, or John Malkovich can influence how those things look to you when you see them. I took it for granted that these influences on

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perceptual experience are possible. It still seems plain to me that they are. My vacation did what vacations should do: it brought my mind away from the book I was writing, but also helped me see its cornerstones more clearly. And by the sea, an epistemic question about the phenomenon I was writing about began to bother me. If your ability to recognize John Malkovich, your neighborhood, or pine trees could change the way these things look to you when you see them, then couldn't beliefs, desires, or fears do the same? And if your prior beliefs could influence your experiences, how could your experience go on to strengthen those very beliefs? Reminded daily of the marvel of birth by my young child's existence, I thought of the story (probably apocryphal) about the seventeenth-century Dutch preformationists, who triumphantly claimed to see embryos in sperm cells.¹ At the time, microscopes had only recently been invented. Imagine looking into the hitherto invisible structure of the physical world! What a thrill to look behind the appearances, and find evidence for what you suspected was true all along: that humans reproduce by sowing a seed that contains miniature, pre-formed humans. From these fictional preformationists' point of view, what they saw using the new scientific instruments gave them evidence for preformationism.

Anyone narrating this fiction could feel its absurdity. It was almost a comedy. A moment of seemingly scientific discovery with its gleeful "I knew it!" turns out to be nothing more than the machinations of the inquirer's own mind. What should a person in such a situation believe? I was gripped by the fact that for this realistically complex fictional hero, as for many others, the concepts of blame and responsibility seemed to have no clear application. Could you blame the fictional preformationist for strengthening his belief after looking in the microscope, when you considered how things looked from his point of view? Not really. Yet since the problem originates in his own mind, what else besides his mind is there to blame? The epistemic situation seemed to call for normative notions that allowed us to consider the preformationist's situation by viewing it from outside their point of view. The normative notion that mattered, it seemed to me, had to allow that the kind of epistemic support our preformationist hero failed to get from his experience was

¹ For a book-length study of seventeenth- and eighteenth-century preformationism that traces the life of this story, see Pinto-Correia (1997).

also a kind that he could have gotten, if his experience had come about in a different way. The fact that his experience failed him seemed independent of whether he could be blamed for believing his eyes.

The more I turned this epistemic problem around in my mind, the more of its complexities came into view. I initially favored a simple approach to the epistemic role of perceptual experience. Normally, merely by seeing an ordinary scene, such as the inside of one's refrigerator, one gets excellent reason to believe that things are the way they appear. I was drawn to this simple approach because it gave a lot of weight to perceptual experience, and in countless everyday cases, perceptual experience carries this weight easily. If it looks to you as if there's mustard in the fridge, then unless you have good reason to think things aren't as they appear, you get good reason to believe that there's mustard in the fridge. And even if the property of being mustard in the fridge is too complex a property for perceptual experience alone to attribute, perceptual experience makes it reasonable for you to believe that what you see has less complex properties, such as color and shape, and helps make it reasonable to believe that the fridge contains mustard.

The preformationist's situation seemed to complicate this simple approach. It made me think that the weight that experience could carry in justifying belief was sensitive to the route by which the experience came to occur in the subject's mind. If experience could be an artifact of a prior belief, suspicion, or preference for preformation, then it seemed susceptible to something like confirmation bias. In Tulum, I began to write "Cognitive Penetrability and Perceptual Justification" in an effort to identify the most basic constraints that the preformationist case placed on perceptual justification, and the theories of perceptual justification that could meet them. That paper, which the journal *Nous* accepted in 2009, was my first attempt to understand the contours of the epistemological problem. It seemed to me that the constraints placed by the problem could be met by many theories of justification, but not by the most straightforward one, known as phenomenal conservatism. According to this position, merely having a perceptual experience suffices to provide prima-facie justification for believing suitably related contents. Such extraordinary power belongs to perceptual experience, on this view, thanks to its *phenomenal character*: the subjective aspects of experience that characterize how the world looks to the subject, in having the experience. Phenomenal conservatism appeals strongly to many philosophers, and

I felt the appeal myself. It answers a basic question in a way that simply rings true: When you look in the fridge, why is it reasonable for you to believe that mustard is on the shelf?—Because it looks that way. And its looking that way partly constitutes your perceptual experience. Yet this appealing approach seemed unable to respect the complexities of cases like the preformationist's. The role of experiences in justifying beliefs might be saved, but that role could not be supported purely by phenomenal character.

I found this conclusion disturbing. It opened more questions for me than it settled. This book grew out of my attempts to answer them. The pressures that shaped my answers came from three corners: epistemology, psychology, and politics. Here is how they combined to produce this book.

From epistemology, I felt pressure to understand the implications of possible cases like the preformationist's on our knowledge of the world. If such cases were pervasive, would they obstruct the route from perception to reasonable belief? To make progress with this question, I felt I had to identify what, if anything, saps the preformationist's experience of its power to justify his belief that the sperm cell contains an embryo. What was the epistemic culprit? I had convinced myself in "Cognitive Penetrability and Epistemic Justification" that there were bad-making features in the preformation case and others like it, including cases in which perception is influenced in ways that fall outside the narrowly defined category of cognitive penetration. But I didn't know what the bad-making features were. And not knowing what they were made it hard to assess the extent to which they preclude gaining reasonable belief about the external world from perception. The mere fact that an experience is influenced by one's prior outlook is often innocuous. Sometimes it is even beneficial, as when expertise allows one to see a tumor in an X-ray. What made the difference between epistemically good influences on perceptual experiences from within one's mind, and epistemically bad ones?

From psychology, an obvious pressing question was whether cases like these really are pervasive, and indeed whether they occur at all. I set out to learn more about the kinds of influences a mind could harbor between perception and one's other mental states. Are perceptual experiences ever actually influenced in the ways depicted by the preformationist scenario? I knew the long-standing controversy surrounding cognitive

penetration. At the level of theoretical psychology, the controversy plays out in debates over the role of stored information and past experience in perceptual processing. At the level of experimental work, there are many paradigms that purport to show these kinds of influence on perception. These experiments come from the labs of psychologists aiming to revive the questions posed by New Look psychologists of the 1970s.² Other experiments come from researchers working at the intersection of vision science and social psychology—two fields that for a long time had little to do with one another.³ There is also a host of spirited attempts to rebut individual experiments at the level of their specific methods.⁴

It is not hard to find evidence that judgments and other behavior are influenced by prior beliefs and presumptions—that conclusion is hardly news. But which of these effects, if any, are effects on perceptual experience? Which are effects on properly perceptual processing, whether that processing culminates in experience or in unconscious perception? These questions are the ones with controversial answers. Many experiments leave open the possibility that influences on behavior and judgment operate through influence on perceptual experience: gray bananas are categorized as more yellowish than gray patches; a face is matched to a darker or lighter patch depending on the racial label placed under it; faces in a continuum are seen to shift from pleased to angry at a lower threshold by physically abused children compared to children who have not been abused; a mild human collision is seen as aggressive or playful depending on the race of the shover; a boy in a photograph said to be accused of a felony is estimated to be older when the child is black than when he is white or latino.⁵

I eventually came to think that the epistemological questions didn't depend on how these controversies got resolved. Perception in the narrowest senses allowed by psychology is a category at one extreme, and perception in the broad sense encompassing judgments about a

² Bruner (1973). One group of researchers collaborate with Dennis Proffitt (Bhalla and Proffitt (1999), Proffitt et al. (2003), Schnall et al. (2008), Witt and Proffitt (2005), Witt et al. (2005)). For a review of other work, see Collins and Olson (2014).

³ The papers in Adams et al. (2010) attempt to bring these fields together.

⁴ A small sample includes Fodor (1984) and (1988), Durgin et al. (2009), Russell and Durgin (2008), Firestone and Scholl (2015).

⁵ Bananas: Witzel et al. (2011) and Olkkonen et al. (2008), Hansen et al. (2006), Goldstone (1995); Faces: Levin and Banaji (2006), Anger: Pollak and Sinha (2002); Shoving: Duncan (1976), Sagar and Schofield (1980); Age: Goff et al. (2014).

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situation is a category at the other extreme. Between the two extremes, perceptual experiences are the conscious dimensions of perception that subjects respond to in forming judgments. As a phenomenological category, perceptual experience—the conscious dimension of the sensory modalities (vision, touch, audition, taste, smell), and of their interaction—seems well-defined, even if it is an open question which processes in the mind actually give rise to it.⁶ Some opponents of the cognitive penetration of perception, such as Zenon Pylyshyn, work with a category of perception distinct from perceptual experience. When Pylyshyn claims there are no “top-down”-influences on perception, he is talking about early vision.⁷ But there is more to visual experience than the products of early vision, and there is more to perceptual experience than purely visual experience, due to the other sensory modalities and their interaction.

More importantly, even for scientists who were talking about perceptual experience, or who claimed to be, the epistemological questions seemed indifferent to whether such influences actually occurred. We want to know, in epistemology, what epistemic powers perceptual experiences have, and we think we can find this out by considering non-actual situations. Just as experimental scientists use controls to rule out confounds, philosophers use hypothetical situations to isolate some factors and screen out others. We isolate factors in this way to help us understand what difference they may make to a subject’s epistemic situation. As a piece of history, the preformationist story would probably be fraudulent. And to categorize its fiction as psychologically realistic might turn out to be overreaching. But with all their artificiality, fictional cases play an important role in epistemology as controlled experiments play in science. I use fictional cases to discuss my basic epistemological question: what epistemic impact on perceptual experience can beliefs, fears, desires, or other psychological precursors to it have?

I knew I could make the question more exact by specifying the kind of influences at issue. Here bloomed another set of complications. Consider the many parameters along which routes from psychological states to experience can vary: experiences could arise through “cognitive”

⁶ For more discussion of the category of perceptual experience, see Siegel (2016) and (2010) ch. 1.

⁷ Pylyshyn (1999).

influences of expertise, fear, preferences, or through perceptual learning (processes internal to perceptual systems); through Bayesian inferences (either within or across the boundaries between perception and cognition), or inferences of other kinds, or non-inferential processes. And the differences multiply when one factors in differences in the format and structure of the influencing states alone—such as whether those states are associations, belief-like representations, desire-like motivations, pure affect, fears, or some combination; what kind of representation, if any, they involve; and so on. Which of those psychological differences make a difference to the epistemic impact on perceptual experience? And why? These questions are not answerable by experimental methods. But they are nonetheless related to psychology in a different way. The questions let us formulate hypotheses about different routes to experience. Each of these routes involve different potential psychological mechanisms.

I gradually came to think that the distinctions that mattered in psychology mattered much less in epistemology. I wanted to know what kinds of relationships between experiences and their psychological precursors had an epistemic impact on those experiences, and I didn't see any reason to assume at the outset that there was a psychological configuration, or set of them, that aligned exactly with those epistemic relationships. Moreover, in all of the examples that seemed to pose the kind of epistemic problem illustrated by the preformationist, the types of influencing states had something in common: they formed an antecedent *outlook* of the subject on the world. So I thought it would be best to try and identify what the epistemological relationships were between antecedent outlooks and perceptual experience.

At this point, the central idea of this book came into focus. Perceptual experiences themselves—or more exactly, the state of a subject's having the experience, or the event of their undergoing it—could manifest an epistemic status in the same way beliefs do. Experiences could thereby enter the calculus that determines in the most general way how rational or how irrational a subject is. And like the epistemic status of beliefs as justified or anti-justified, the epistemic status of experiences could be affected by how they are formed.⁸ Just as beliefs could be formed

⁸ Since “un-justified” is ambiguous between having negative justificatory status and lacking either positive or negative justificatory status altogether, I use “anti-justified” here to denote the state of having negative justificatory status. The terms “rational” and

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epistemically badly, for instance if they resulted from wishful thinking, or if they were unduly influenced by fears, the same could happen to experiences. Locating experiences on the same dimensions of epistemic evaluation as beliefs provided an answer to the epistemic questions that had been hanging over me ever since I began thinking about the preformationists. What was the epistemic culprit in the preformationist case? Wishful seeing. Why didn't cognitive penetration per se always have epistemically bad effects? Because it is not always an irrational route to belief.

The approach to perception in these answers provided a framework for describing the ways in which what seems commonsensical can be deeply shaped by cultural forces. Perception is the underside of common sense. When something seems obvious, you seem to be able to just see it. And in many situations, you can. When you peer into the fridge looking for mustard, it can be obvious that a jar of mustard is there. But in other types of perceptual situations, what seems commonsensical and even obvious in perception is shaped directly by highly specific cultural forces. The psychologist J. J. Gibson appreciated this point. He used the concept of affordances to suggest that social configurations, despite their cultural contingency, are perceivable as plainly as any other information conveyed by vision. In his discussion of affordances, he wrote:

What other persons afford, for man, comprise the whole realm of social significance. We pay the closest attention to the optical information that specifies what the other person is, what he invites, what he threatens, and what he does. For each of these kinds of affordance the question we must ask is, how is it perceived?⁹

The realm of social significance includes the realm of social value. Think of the experience of feeling summed up at a glance, for better or worse. When this happens, of all the human interactions that are possible in a situation, it is as if some of those possibilities are foregrounded, and others pushed into the background, and still others are off the radar. One's sense of this modal profile can be more accurate or less accurate, since there is no doubt that in every interaction, some possibilities of

“irrational” have many uses in philosophy, psychology, and elsewhere. In Chapter 2, section 2.1, I explain the meaning they have in this book. Until then, a specific definition won't be needed.

⁹ Gibson (1977).

interactions really are closer and others farther away. In the hypothesis that we can have perceptual experiences of affordances, I found a way to describe how social hierarchies that are culturally contingent can nevertheless make themselves felt as normal, and even, for some people, as part of common sense.

This idea unlocked the political dimensions of the phenomenon illustrated by the preformationist. These dimensions provided the third set of pressures that shaped this book. Since political phenomena are best illustrated with examples from specific times and places, I decided to focus on a phenomenon close to (my) home and central to US history. The annals of American history are replete with narratives in which racialized identities of being white or black are taken for granted. In some such narratives, which take place in public spaces—elevators, sidewalks, parks, schoolrooms, or retail stores, for example—a white perceiver instantly perceives a black perceiver as dangerous, threatening, or out of place. Sometimes the results are quietly insulting, as when white perceivers feel they must cross the street or clutch their belongings to maintain their sense of security. Other times, the white perceiver's fear, disdain, or discomfiture results in aggression or violence, rather than silent aversion. Narratives like these can be found in political science, psychology, criminology, legal scholarship, American history, and myriad art forms—memoir, fiction, poetry, music, film, television series—where these dynamics are discussed, depicted, or re-enacted.¹⁰

One can't read off the contents of anyone's perceptual experience from the narratives that depict this well-documented dimension of American public life. That's because the distinction between perceptual experience and judgment matters mainly in the context of discussing philosophical problems about perception and epistemology. And though the range of contexts in which these familiar narratives occur is very wide, it has not typically included academic discussions of epistemic problems about perception. What we can infer from the phenomenon behind the familiar narrative is that purely as a function of someone's outlook, a minimal

¹⁰ The occurrences of this narrative would be too numerous to list, and even cursory familiarity with American culture from outside observers is likely to encompass them. For a contemporary analysis and discussion of this dimension of social meaning in America by political scientists, see Lerman and Weaver (2014), ch. 5, and for a popular depiction of it in the form of memoir, see Coates (2015).

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social situation consisting simply of perception can on the one hand become a social trading of racialized fears, or an exchange of fear for incredulity or resentment, or on other hand it can be a humdrum moment in a stretch of uneventful neutrality, undeserving of study or artistic re-enactment. The familiarity of this pervasive narrative warrants a metaphorical attribution, to a cultural milieu, of the presumption that black men are dangerous—as if a milieu were the kind of thing that can make presumptions. Why black *men* in particular? In the interests of specificity, I decided to focus on only one of the explicitly gendered forms of this presumption—the one most commonly articulated.¹¹

Thinking through the political dimension of perception using the example of the narrative I've described has shaped this inquiry in two ways.

First, it convinced me that perceptual experiences themselves can be epistemically weakened by their psychological precursors. Cases like the preformationist's had brought the problem into focus for me, which meant that they left me feeling the force of both sides of the problem: the side from which the preformatist's experience of sperm cells in the embryo seemed *just as powerful* as it could be, without being influenced by favoring preformationism; and the side from which the experience seemed to be *made less powerful* by this influence. In contrast, the political examples seem to be ones in which the second of these two sides was more compelling than the first. The political cases showed me which way to tip the balance in cases like the preformationist.

Second, the political example raised a scaled-up version of the epistemic question with which I began. The scaled-up question concerned the epistemic relationship between a person's cultural context and the marks it leaves on their mind. I was most interested in a special case of this relationship: the case in which a person's mind recapitulates a culturally entrenched presumption. My question was this: if the culturally entrenched presumption was epistemically ill-founded, and someone whose social position allowed them to absorb the presumption with ease

¹¹ Arguably, the presumptions that rationalize white aversion to sharing public spaces and institutions with blacks in the US have long been gendered (Cooper 1872). Some of the ways in which they affect black girls and women is discussed in a contemporary context by Crenshaw (2015) and Morris (2016). I thank Lauren Woomer for discussion of this point.

made it their own, would the recapitulation of the presumption in that individual's mind be ill-founded as well?

In considering this epistemic question, I encountered a problem isomorphic to the problem concerning the preformationist. Whereas that the preformationist's problem concerns a relationship within an individual's mind, this problem concerns the interface between individual minds and cultural milieu. Like the intra-personal epistemic problem, this epistemic problem consists of two conflicting ideas.

The first idea was that even if the presumption in what I decided to call "the mind of world" is ill-founded, the result of an individual's absorbing it need not be.¹² Here I was reminded of how elusive the notions of blame and responsibility proved to be, in the case of the preformationist. One could not obviously be individually blamed on the usual grounds for absorbing a culturally pervasive outlook. Nor was one responsible, initially, for such absorption, at least not in the usual ways. And these facts could seem to suggest that alongside the moral obtuseness and political oblivion of an individual—most realistically, a white individual whose ordinary life tends not to be shared with black relatives or friends—there might be nothing epistemically wrong with this individual's presumption that black men are dangerous.

But on the other hand, the second idea, at odds with the first, was that there did seem to be epistemic shortcomings of the individual who absorbs this outlook from his cultural milieu. The observations about blamelessness seemed orthogonal to the epistemic standing of the outlook that some people absorb. If the source of the individual's presumption is an ill-founded presumption in the mind of the world, why shouldn't the individual inherit the ill-foundedness?

This problem seemed to me to admit of the same kind of solution as the intrapersonal problem illustrated by the preformationist. From the point of view of the person whose social position allows them to absorb the socially normal presumption with ease, the presumption seemed commonsensical. The idea that it could nonetheless be epistemically unsupported fit together with my core idea that perceptual experiences

¹² I unpack the metaphor of the mind of the world in Chapter 10, and argue that it earns its explanatory keep. The *world* in the metaphor is a cultural world, and minds of worlds are as numerous as cultural milieu.

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could be irrational, even if they are experienced by the perceiver as the ground of common sense.

I could anticipate many responses to my use of the political example, including this one: perhaps it was impolitic or disturbing to say so, but wasn't the presumption in the United States that black men (or a subset of black men) are dangerous in some sense reasonable? I imagined and encountered several versions of this response. My answers to them are in Chapter 10. It seemed that I had to solve the scaled-up problem, because it arose from the political example that led me to my confidence in the Rationality of Perception, and it played that dialectical role most powerfully on the assumption that the racial attitude—the attitude that hijacked perception—was ill-founded.

My idea was that just as beliefs can inherit the rational standing of their psychological precursors, such as a racial attitude, so can experiences. If such an attitude led a perceiver to jump to the conclusion that a man they saw as racially black was also dangerous, that route to the conclusion would be at least as epistemically poor as the presumption itself. In drawing this conclusion, the perceiver would be irrational. My core idea was that the same would be true of a perceiver whose perceptual experience itself was shaped by the presumption. In having the perceptual experience of the person as dangerous, the perceiver was irrational, because that perceptual experience arose from an unreasonable presumption.

At first, my core idea seemed like overkill. Wouldn't it be enough to account for the preformationism case, the political example, and others like them, if experiences simply lost their power to support subsequent beliefs? Why not stop short of the idea that perceptual experiences can be rational or irrational, and settle instead for the traditional position that takes perceptual experiences to be beyond reproach? The more cautious position seemed to account for the central epistemic phenomenon, but left intact the picture that had grown entrenched in epistemology: perceptual experiences can provide justification, but cannot be justified or anti-justified in themselves. In contrast, the fuller position accounts for the phenomena in a way that overturns the entrenched assumption that perceptual experience stops at the threshold of the house of reason.

Both positions have similar motivations. It seemed to me worth exploring the fullest version of the idea, rather than stopping at the highly circumscribed, less disruptive one. In philosophical situations like these, it is often illuminating to anchor a discussion to a more

extreme position, especially when it is simpler, and then see what, if anything, forces one away from it. If one keeps the more extreme position out of view, it can be harder to assess whether it really is less plausible than its more measured cousin. Both positions, I found, have a lot of explaining to do. And the more I explored considerations against the idea that experiences can manifest an epistemic status like justification, the less powerful those considerations seemed. This discovery made me view my initial instinct to favor the measured position as a habitual rehearsal of philosophical caution, rather than a stopping point demanded by intellectual rigor.¹³

The less measured, more extreme view offers a cleaner account of the epistemic situation than the moderate view. Once it is granted that absorbing an outlook can make one less reasonable, it seems to pull the punch to deny that perceptual experiences shaped by the outlook do the same. *The Rationality of Perception* is an attempt to see what the epistemology of perception looks like if perceptual experiences can be rational or irrational. To see what it looks like, what's needed is an account of what exactly it would mean for perceptual experiences to be rational or irrational, how it could be that perceptual experiences could be formed rationally or irrationally, and what epistemic roles perceptual experiences would then play. Such an account can be provided only by describing these roles in detail, and clarifying the concepts used to describe them. And that is what this book does. What better register for probing these topics than analytic philosophy, with its ear for new questions, its respect for complexity, its caution with common sense, and its patience with the realm of the possible?

¹³ My initial instinct framed the discussion in Siegel (2013a).