

Perceptual Expertise, Universality, and Objectivity

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Abstract

Perceptual malleability and diversity can stem from perceptual learning, expertise, genetics, disease, or accident. Perceptual malleability and diversity force us to reject the claim that perceptual capacities, perceptual experience, and perceptual content are universal across subjects and times. And it casts doubt on the presumption of a universal human perceptual nature. However, it does not directly challenge perceptual objectivity, understood as the claim that one can perceive a world of things and features that are independent from oneself and one’s experiences and that could be perceived by other subjects.

Keywords

Perceptual learning, perceptual expertise, perceptual diversity, observation, objectivity

1 “Our contact with the world is very much our own”

According to *Thinking and Perceiving* (Dustin Stokes, Routledge, 2021; henceforth, *T&P*), some people are better perceivers owing to what they have learned. Perceptual experts discern things novices miss, focus on the right diagnostic features, or become more reliable in a perceptual domain. In this view, perceptual expertise shows cognition affects perception (*TaP*) in ways that improve it (*TiP*). Since the improvement stems from one’s efforts, the perceptual skill is a creditable virtue.

I'll explore some implications of the thesis that thinking affects perceiving (TaP) that occupy Chapter 8, focusing on ideas discussed especially in §8.2 and §8.4—about the theory ladenness of perceptual observation, and about the accuracy, success, and contents of perception. I'll dwell on how cognitively-driven perceptual malleability bears on questions of objectivity.

To illustrate what's at stake, start with the concluding sentence of Chapter 8: "There is a lot more of us, as individuals, in what we perceive" (235). This is echoed in the Conclusion: "[W]e are genuine agents in how we make contact with the world. ... [O]ur contact with the world is very much our own" (244).

There are two ways to interpret what is being said. One is more conservative and one is more revisionary. According to the first, what we do and what we learn influences what we can and do perceive. Which parts of the world we perceptually contact stems more from our ideas and efforts than some think. According to the second, what we perceive depends in a deeper way on what we learn and do. Our thoughts, concepts, beliefs, aims, and intentions find their way into our perceptions.

In the first reading, we are agents in causing it to be the case that we perceive what we do. We are partly responsible for the perceptual contact we come to have with the world—in that sense, we *own it*. In the second reading, what we perceive constitutively depends on or is by its nature partly a matter of what we think and do. We are more literally *in* what we perceive, and our contact is uniquely *our own*. The first is compatible with objectivity—what we perceive can be

fully mind-independent. On its face, the second is not—what we perceive depends constitutively on our beliefs, concepts, and concerns.

T&P invites us at various points to interpret it in light of one or the other of these two readings. Sometimes, it suggests perceptual expertise and malleability entail only the more conservative claim. In other key places, it suggests the stronger, more revisionary claim alone does justice to the phenomena. I'll build the case that *T&P* does not decisively resolve the tension, but favors the revisionary reading. I'll argue, counter to the approach described in *T&P*, the conservative approach suffices to deal with perceptual malleability. This relies on decoupling objectivity from universality.

2 Theory-laden observation and objectivity

T&P says perceptual expertise involves theory-laden perception (§8.2). This presents a worry. If perception depends on one's thoughts, then observation is not a wholly neutral arbiter. Thus, it cannot objectively resolve disputes. (This also may preclude genuine communication using observational concepts.)

T&P argues that perceptual malleability does not undermine objectivity. Theory-laden perception precludes objectivity only if the bar is set too high. For a claim or process of investigation to be objective *does not* require an a-perspectival “view from nowhere”:

On this characterization, a theory or observation will be objective if it represents the facts of the world absent any subject's or group's perspective on those facts.

This notion—call it Objectivity*—entails further that contextual factors such as social, political, and other values do not influence theory or observation if they are to achieve objectivity. And finally, idiosyncratic features of any one individual should not bias the scientific process or its outcomes. (213)

According to *T&P*, expert perception is laden with perspective and theory and influenced by further factors, but this is compatible with objectivity. Shared epistemic norms and practices, as described by Helen Longino and others, help cancel idiosyncrasies in our individual perceptions. Indeed, in scientific practice, observation is not truly individual. It relies on checks and balances throughout an epistemic community.

In this conception, a community achieves objectivity. It resolves disputes socially and collectively, by appealing to shared standards, not just by direct comparison with the mind-independent world.

So, even if perception is malleable and theory-laden, inquiry need not collapse into skepticism or relativism. Our idiosyncrasies are compatible with the mind-independence of our theories and investigative practices, including perceptual observation. *T&P* calls this *intersubjective objectivity*.

The most natural way to understand “objectivity” in this discussion is *epistemological*. As in, “an objective observer,” or “an objective voice or authority.” Objectivity concerns representations of a subject matter or one’s manner of approaching and investigating it.

T&P rejects that a theory, investigation, or observation is objective only if it represents things in the world “absent any subject’s or group’s perspective” and without influence from idiosyncrasies, beliefs, and values. Perspective and pragmatic factors can influence theories and observations. But epistemic and social practices provide collective standards that regulate what counts as support from observational evidence, how theories get assessed and compared, and the semantics of theoretical terms. So there are standards for communicating and resolving disputes that are independent from any particular individual or observation.

Notice, however, this does not imply that the subject matter or content of theories and observations is mind-independent. A theory or theory-laden observation may or may not describe something *metaphysically* fully “out there.”

T&P’s approach—intersubjective objectivity—is compatible with two ways to understand the general metaphysical nature of what perceptual experts perceive in theory-laden observations.

The first is roughly akin to Kantian objectivity. Intersubjective objectivity here amounts to distinct observers sharing a subjective or qualitative perspective—a universal or generalized subjectivity. However, the malleability of perceptual expertise introduces greater diversity than “the fixed structure of human nature” (Fodor 1985; *T&P* 223). So intersubjective objectivity among diverse, malleable perceivers looks more like the upshot of socially negotiating subjectively *differing* perceptions.

The second is pluralistic realism (229). Individual perceivers differ. Experts perceive things and features novices do not perceive. Theory-laden observations latch on to distinct features, such as tumors and distinctive configurations of sensible qualities. Experts and novices each perceive the same world, they just do not perceive all the same things in it. Intersubjective objectivity means we negotiate to figure out which bits of the world we each perceive. But real disputes are resolved objectively, by the mind-independent world.

Both Kantian objectivity and pluralistic realism can avoid skepticism and relativism by appealing to intersubjective epistemological objectivity. Only pluralistic realism says what perceptual experts and novices perceive is metaphysically mind-independent. So it avoids metaphysical subjectivism. Negotiation and shared standards serve to police epistemic practices and theories, but the world itself settles the disputes.

So there's a way to preserve the more conservative reading of the book's main conclusion that there is more of us, as individuals, in what we perceive, and our contact with the world is very much our own. Embrace intersubjective epistemological objectivity and pluralistic realism.

3 Accuracy, success, and content

There's a complication. Given malleability, how should we understand the differing contents of novice and expert perceptual experiences? When faced with one scene, experts and novices perceive it differently.

Suppose we understand the content of a perceptual episode in terms of its accuracy conditions, or what would have to be the case in order for the episode to be accurate or correct—to faithfully represent things. *T&P* maintains that Objectivity* also is defective as a standard for determining perceptual accuracy:

Given this description, one might be tempted to think that there is a single set of accuracy conditions for any distinct perceiver that might be in these very same perceptual circumstances. Fix the basic sensory capacities of the perceiver, her viewing conditions, and all points in the visible scene, and you fix the accuracy conditions for that perceptual circumstance. Accuracy conditions, in other words, are an Objective* matter. However, if the analysis here is correct, then this temptation should be resisted. The accuracy and success of perceptual representation can be, to some non-trivial degree, perceiver and context-relative. But again, we can accept this without falling into a thoroughgoing perceptual relativism or worrisome scepticism. In other words, we can keep objectivity even if we give up Objectivity*. (225)

The key to objectivity is to treat accuracy conditions as determined not just by “basic sensory capacities of the perceiver, her viewing conditions, and all the points in the visual scene” but also by further facts about the perceiver’s practical needs and social context. Perceptual experience sometimes is accurate or inaccurate only “relative to the epistemic and/or scientific community in which it occurs” (226). Thus, insofar as the wider practical, social, and evaluative context differs, accuracy conditions for experiences may differ.

T&P offers an illustration. Imagine a sports physician and a goalkeeper observing from the same location in the same conditions a soccer player kicking a penalty shot. Each perceives the kick differently, given their differing expertise. The physician looks for evidence of injury, weight distribution, foot placement, and weaknesses, while the goalkeeper looks at the angle of the hips to see which direction the shooter is aiming. Each sees it differently and picks up distinct things and features of the scene. Thus, no single set of accuracy conditions applies to each perceiver, and neither perceptual experience, as such, is more accurate than the other. The physician and goalkeeper have different aims, interests, and skills. So, what determines the accuracy conditions and thus the contents of their experiences differs.

Now, one response is that the perceptual capacities of the physician and the goalkeeper just differ. One is good at detecting signs of muscle weakness and the other is good at detecting kick direction indicators. If so, we have not fixed “basic sensory capacities of the perceiver, her viewing conditions, and all the points in the visual scene” while varying further factors. Accordingly, the example does not challenge the claim that accuracy conditions are an Objective* matter. The contents differ because the capacities differ.

This draws attention to *the* important lesson of perceptual malleability. We do not all share the same stock of perceptual capacities. What one can perceive differs between subjects and across a lifetime, and for all sorts of reasons ranging from development, skill, and refinement to genetics, disease, damage, and decline.

But for contents to be objective, mind-independent, or even Objective* does not require that they are the same from person to person. Moreover, matching contents between people do not guarantee objectivity, mind-independence, or Objectivity*. Universality and objectivity are orthogonal. Traditional modularists overestimated universality in perception. But universality just makes it easier practically and epistemically to resolve disputes. Objectivity does not require it.

So the doctor and goalkeeper see the same event. Maybe each sees it objectively. But they see different features or aspects of it, given their differing perceptual capacities. The accuracy conditions for their experiences may be a matter that is Objective*.

What then does intersubjective objectivity contribute to understanding perceptual accuracy conditions?

T&P suggests a more radical, revisionary thesis about perceptual content, beyond the claim that contents differ between subjects.

The consequences of the TiP thesis are not only epistemic. The thesis will also force, it was argued, a revision to traditional theories of perceptual content.

Determinants of perceptual content are not Objective; they are inter-subjectively objective. They include facts about the environment, but also facts about the perceiver's epistemic community, which can be very broad or quite narrow.*

Perceptual success, including accuracy, is determined in part by the task or goal of the perceiver, which can be specific to a domain. (242, emphasis added)

The claim is that what makes an experience accurate depends on the task, domain-specific goals, and one's epistemic community. There are three ways to understand this claim.

The first interpretation is that which accuracy conditions and contents one's experience possesses is illuminated or explained by facts about the task, domain, and context. Practicing sports medicine is part of the reason or cause for why the physician comes to perceive signs of injury. Being a soccer player who protects the net is partly responsible for a goalkeeper's seeing indicators of kick direction. The determination of accuracy conditions by such factors is, roughly, causal.

This is compatible with accuracy conditions and contents being Objective*. Given perceptual malleability, history and context may be useful tools in helping a third party figure out what a subject perceives and the conditions under which an experience is accurate. But, once a perceiver's unique history and context are taken into account, content ascription may be a wholly mind-independent matter that relies on performance and how things stand in the world, independent from any subject's or group's perspective.

There is a stronger reading of the revision *T&P* suggests. According to this second interpretation, the accuracy conditions of an experience are constituted by facts about the task, domain, and context. Part of what it is for the physician's experience to be accurate implicates domain-

specific goals, values, and standards. It would not *be* accurate, correct, or successful outside that context. Such factors partly fix or ground its content, while sensory capacities, viewing conditions, and the scene underdetermine its content.

This is not just the claim that subjects perceive different things and features in the world. If accuracy is relative to goals, values, and standards, then this stronger, constitutive claim is incompatible with Objectivity*. Contents are not determined in a way that is independent from facts about any subject's or group's perspective and the social and evaluative context.

Moreover, in the most natural understanding, the perceptual contents or accuracy conditions thereby determined themselves exist only in relation to subjects and groups of subjects in a way that is at odds with the mind-independence of what we perceptually experience. That is, the contents specified are subjective.

The upshot is that the most natural way to interpret what *T&P* says about accuracy conditions in light of perceptual expertise and malleability that is wholly unsafe for Objectivity* (cf. Kantian objectivity) about perceptual contents, also is at odds with their mind-independence.

There is a third way. According to this interpretation, further facts (beyond capacities, conditions, and the scene; for instance, about a perceiver's epistemic community) constitutively are part of what determines in which conditions an experience is accurate or successful. Furthermore, those conditions can be specified only relative to—thus, by taking into account—a perceiver's specific

task or goal. Nevertheless, the contents so determined are familiar ones: objects, colors, angles, hips, and kicks.

This does not look so revisionary. The accuracy conditions and contents specified vary from person to person, so they are not universal. But malleability and diversity themselves present no obstacle to contents' being wholly objective or mind-independent. This interpretation is compatible with pluralistic realism. In fact, it is compatible with Objectivity* concerning the accuracy conditions and contents of each perceptual experience, understood as the configuration of things and features that satisfies it. In that respect at least, content can be more than intersubjectively objective, given malleability.

This last interpretation draws attention to the importance of distinguishing an account of how accuracy conditions and contents are determined from an account of the nature of accuracy conditions and contents themselves. The objectivity of each ought to be considered as distinct questions.

4 “There is a lot more of us, as individuals, in what we perceive”

T&P begins by saying we make perceptual contact with the world. It ends by saying we are agents in how we make contact with the world. As a consequence, “Our contact with the world is very much our own.”

One way to read this is that we are agents in causing it to be the case that we perceive whichever things and features we perceive. This can differ over time and across subjects thanks to acquired

perceptual expertise. Another way to read it is that what we perceptually experience is partly constituted by what we have learned, our aims and values, and even the epistemic communities in which we take part. The nature of conscious perceptual content depends on these facts.

T&P often seems to say that perceptual expertise and malleability only imply the more conservative claim. But, especially in §8.2 and §8.4—in discussing theory-laden perception, accuracy conditions, success, content, and intersubjective objectivity—*T&P* reads as if only the more revisionary claim does justice to the implications of perceptual expertise and malleability. That second reading more literally situates a lot of ourselves in what we perceptually experience. Does this count as genuine contact with the world out there, or at least the sort of contact one would aspire to own?

I'd maintain that perceptual diversity, whether it stems from expertise, perceptual learning, genetics, disease, or accident, forces only that we reject universality—of perceptual capacities, perceptual experience, and perceptual content. Indeed, about perceptual human nature.

Objectivity, as such, is orthogonal—a question for another day.