

Reply to Prinz

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Four of Prinz's criticisms target the Rich Content View itself, and the rest target my phenomenal contrast arguments for it. I'll start with his criticisms of the Rich Content View.

The Rich Content View is the thesis that rich contents can reflect the phenomenal character of experience. Nothing counts as a content of experience if it does not reflect the phenomenal character of experience, either by co-varying with phenomenal character or by otherwise reflecting it. This restriction on what contents of experience are also falls out directly from the way I defend the Content View.

In making his criticisms Prinz initially uses the terms "contents" and "Rich Content View" differently from the way I defined them (p. 6, p. 78). In Prinz's usage, an experience can have contents, a fortiori rich contents, even if those contents do not reflect the phenomenal character of experience. This usage obscures the distinction between two ways in which, according to Prinz, a visual experience may represent a property that figures in its contents: it may represent the property directly, in which case the visual system detects the property, or it may represent the property indirectly, by virtue of inferential or causal connections to the properties that are directly represented. Prinz favors what he calls the modest approach, where experience has rich contents in his sense, but its having these contents makes no difference to phenomenal character at all. His initial charge that the Rich Content View leaves unspecified whether rich contents do or don't reflect the phenomenal character of experience would stick only if "contents" and "Rich Content view" are understood in his way.

Prinz's first of four objections to the Rich Content View is that it fails to meet a putative isolation requirement on the properties represented in visual experience. "If K-properties make a phenomenal difference in vision," he writes, "then we should be able to experience them in isolation. After all, uncontroversial cases of visual qualities can be experienced in different combinations and on their own (a red ganzfeld, a solitary circle, etc.) But can we experience pinehood without shape? Causation without forms coinciding in time? An expression of doubt without facial features? Presumably not, at least not visually. And that leads me to think these are not visual qualities at all."

But there is no isolation requirement on the properties that can be represented in vision. To take Prinz's example of the solitary circle, it's highly unlikely - as Bishop Berkeley observed - that we can visually experience shapes without experiencing their colors. The isolation requirement would rule out shape as a visual quality. So even if it there were an isolation requirement, it would be at odds with Prinz's own view about which qualities are visual.

Prinz's second objection is that the Rich Content View is incompatible with content externalism. He writes, "A resident of Earth refers to pine trees not twin-pines, because pines are the pine-like trees in this world...What externalism shows is that natural kind properties make no phenomenal difference." But externalism does not show this. To show that the natural kind properties make no phenomenal difference, the relevant contrast would be between a perceiver in contact with a natural kind, and a perceiver in contact with no natural kinds. Prinz instead compares twin perceivers who are in contact with different natural kinds. If there is no phenomenal difference between those perceivers, that could be because those two natural kinds are represented by the same phenomenal state. Prinz seems to miss this point when he writes, "Any phenomenal change that comes about when we learn to recognize a natural kind must be a change in something other than the property of representing that kind; it must involve the acquisition of whatever me and my twin share in common." Prinz also assumes that what twins share in common are ..."representations of superficial appearances", and that "Thus externalism implies that the phenomenally available aspects of content are modest, not rich." But externalism about experience content is also compatible with the thesis that the properties represented by *both* Prinz and twin-Prinz's experiences are themselves kind properties – narrow kinds. Prinz overlooks this possibility.

By putting these two points about externalism together, we can see that to support the modest view, more than externalism is needed. What's needed would be a defense of externalism, together with the further theses that (i) externally determined contents do not merely supervene on phenomenal features, but instead co-vary with them, and (ii) any internally-determined contents of experience are devoid of K-properties. At that point, the entire debate surrounding the Rich Content View would just have to be recapitulated at the level of internally-determined contents. So the appeal to externalist theories of content does little to move the debate over the Rich Content View forward.

Third, Prinz claims that the neuroscience of vision tells against the Rich Content View, on the grounds that no cells in the visual system are dedicated to responding to kind properties. "It would seem extravagant to say that any cells in the visual system respond to K-properties without also corresponding to modest properties," he writes. "One gets a face cell to fire by presenting a configuration of shapes, for example. There are no visual cells known to fire invariantly across presentations of natural kinds that differ dramatically in appearance." The claim that visual cells fire invariantly only in response to non-K properties is contested by Ison et al, who find medial temporal cells that fire in response to pictures of faces (the experiments were done with Jennifer Aniston and Oprah Winfrey) as well as in response to the names of the people pictured, and makes the case that these firings play characteristic roles of both vision and

memory.¹ Their claim illustrates the fluidity within neuroscience of the categories of visual and non-visual cells, and other examples of such fluidity can be found in the literature on sensory integration.² Such fluidity is a major obstacle to any direct argument against the Rich Content View from the neuroscience of vision.

In addition, Prinz seems to assume an atomistic picture of neural correlates on which for each property represented in experience (in my sense), different cells would have to fire corresponding to each property. Perhaps this is what he would mean if he said that a property is (directly) represented in visual experience. But it is not built in to the notion of representation in visual experience that figures in my discussion. According to the notion I employ, a property is represented in visual experience only if the property constrains the accuracy condition of the experience. By itself this notion does not constrain what kind of neural correlate visual experiences have. Those correlates could take a holistic form, in which activations of areas of the brain not standardly or currently considered visual nonetheless correlate with visual experiences.

Prinz's fourth objection targets the idea that gaining expertise can affect the contents of experience. Prinz states the worry like this:

“Siegel invokes the intuition that there is a change in phenomenology after learning the meaning of a word. It is important to her argument that it is a change in visual phenomenology. But if we were to allow that argument, it would prove way too much. ...If each word we learned resulted in a visual change corresponding to the content of that word, then there would be a visual quality corresponding to everything words can represent.”

Notice that as stated, this overgeneralization worry applies widely, reaching beyond any argument for the Rich Content View. It would apply equally to the claim that semantic competence affects visual phenomenal by influencing which non-K properties are represented in experience.

Prinz is assuming that if expertise ever affects visual phenomenology, then it has to always affect visual phenomenology. This conditional is doubtful for several reasons. First, one could grant that the Cyrillic example involves a visual phenomenal difference, without settling whether that effect is atomistic or holistic. If it's atomistic, then the recognition of each word making a distinctive contribution to phenomenal character. But if the effect of recognition on phenomenology is holistic, then the contribution is made by recognition of a larger unit such as a sentence or a sentence in a context. And

¹ Ison, M. e al 2011. “Selectivity of pyramidal cells and interneurons in the human medial temporal lobe”. *Journal of Neurophysiology* 106: 1713–1721.

² Bayne, T. and Spence, C., forthcoming. “Multisensory Perception” in *Handbook of Philosophy of Perception*, Ed. M. Matthen. Oxford University Press.

then it won't be the case that "each word we learn results in a visual change corresponding to the content of that word".

Second, Prinz's conditional greatly oversimplifies the theory of what determines the phenomenal character of a visual experience. It overlooks the possibility that myriad factors could interact with expertise in ways that would facilitate its effect on visual phenomenology in some cases or prevent it in others. We can't read off from cases in which learning affects phenomenology whether such phenomenological effects are the default or the exception, or whether the mechanisms by which they operate are present in every case of learning.

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I turn now to Prinz's objections to my phenomenal contrast arguments. He renders the structure of such arguments as follows:

- (0) E1 differs in its phenomenology from E2.
- (1) If (0), then there is a phenomenological difference between E1 and E2.
- (2) If (1), then E1 and E2 differ in content.
- (3) If (2), it is a difference with respect to K-properties represented in E1 and E2.

This list of theses does not reflect the structure of my contrast arguments, because it makes the antecedents of (2) and (3) theses (1) and (2) respectively. Instead they should be the consequents of (1) and (2). Even with this adjustment, the result is too specific to characterize the method itself. What it characterizes is my application of the contrast method to defend the Rich Content View.

Prinz does not always distinguish between the phenomenal contrast method and specific applications of it. He writes:

"It's worth recalling the introspectionist psychology collapsed precisely because different labs offered different explanations of the same phenomenal states. For example, Wundt argued that the experience of action intentions involves bodily imagery, and Külpe denied this. Introspection couldn't settle who is right, and that entire approach to psychology went down in flames. ... Siegel tries to bypass the pitfalls of introspection by resisting the temptation to assign content by introspection alone. The method of phenomenal contrast assigns only content differences between pairs of states, and then K-properties are introduced to explain those differences. But I've tried to argue that there are modest interpretations of all Siegel's examples."

These remarks mischaracterize the method of phenomenal contrast in several ways. The method itself does not assign any content differences at all. Rather, a precondition for using the method is that there is a pair of cases that differ phenomenally. Whether they also differ in content is a substantive question whose answer depends on further theses linking phenomenal character to contents, such as intentionalism, or considerations specific to the case in question. In addition, it is not

part of the method that the Rich Content view explains any differences at all - either differences in content or differences in phenomenology. The method of phenomenal contrast could just as well be used to argue against the Rich Content View, on a piecemeal basis, by selecting pairs of experiences whose phenomenal differences the Rich Content View proponent would try to explain by appealing to Rich Contents, and then arguing that in all those cases, the phenomenal differences are best explained in some way that excludes rich contents.

From Prinz's criticisms of my contrast arguments, we can reconstruct distinct criticisms of my application of the contrast method, and criticisms of the method itself. Prinz's modest alternative explanations of the phenomenal contrasts that I discuss are criticisms of my application of the method. Curiously, Prinz regards these alternatives as resulting only in a "Scottish verdict" – that is, a verdict that is neither for nor against the Rich Content View - and relies on the four considerations discussed earlier to seal the deal for modesty. I find this characterization by him of his own arguments odd, because an abductive argument cannot be rebutted merely by the existence of alternative explanations. To rebut an abductive argument, the alternatives have to be put forward as being *better* than the explanation they are alternatives to. Presumably Prinz regards the modest alternatives as better than the Rich Content View, especially when combined with the four considerations against it. If he doesn't regard the alternatives as better than the Rich Content View, then they don't undermine my contrast arguments at all – not even to the point of reaching a Scottish verdict.

In any case, the modest alternatives Prinz offers are not better explanations of the contrasts I discuss. Prinz says the evidence for those alternatives is weak (this is his official reason for the Scottish verdict), but even if there were more evidence for them, that would still not make them better explanations of the phenomenal contrasts at issue. In the case of causation, Prinz attributes to me the claim that mechanical causation of the sort discussed by Michotte (sometimes called 'perceptual causation') is represented in experience. He then offers an alternative explanation of phenomenal differences between causal and non-causal experiences involving expectations of displacement in mechanical causation, such as an expectation that a billiard ball colliding with another ball will displace it.

The fact that there are modest hypotheses about the contents of experiences of mechanical causation misfires as an objection to my defense of the Rich Content View, because my case for the Causal Thesis rests on examples that do not involve mechanical causation at all. Both of my examples involve changes in light. The ball-toss example (where a ball lands with a thump in a plant) involves a change in light that could not be anticipated, barring a change in our usual methods for turning off electrical lights. I am sympathetic to the claim that mechanical causation is represented in experience as well, but my case for the Causal Thesis proceeds from non-mechanical causation, rather than from mechanical causation. If non-mechanical causation is represented in experience, then that would give us reason to think mechanical causation is as well.

I agree with Prinz that it may be more difficult to get traction on the Causal Thesis using the method of phenomenal contrast, if we start with a pair of cases where one experience represents the input conditions that Michotte discovered while the other does not. Since those input conditions do not involve K-properties – they are purely spatio-temporal parameters – the Causal Thesis and the thesis that the causal judgments (or perhaps causal metaphors) arise in response to non-K input conditions are competing explanations. On the face of it, it is hard to see what kinds of considerations would favor one of these explanations of this contrast over the other, if we focus exclusively on this pair of cases as an explanandum. However if we broaden the explanandum to include contrast cases involving non-mechanical causation, we get more traction on the issue.

When Prinz discusses the pair of cases that form of the basis of my phenomenal contrast argument for the Causal Thesis, he writes:

“In both cases, we draw open a window curtain and we experience an increase in light coming in, but in one case, these events are perceived as causally tied and, in the other, the increase in the light is attributed to a shift in a cloud that was blocking the sun, and happened to move just as the sun curtain was drawn. Siegel is going out on an empirical limb here, when she says that we can experience the second case without a causal construal. If the curtain opens at exactly the same rate that the light increases, causal attribution may be inevitable, even if correctable.”

None of the evidence for inevitable causal attributions bear on cases like these. The evidence for an input analyzer that is sensitive to spatio-temporal information is limited to mechanical causation.³ The type of case that does figure in my argument is not associated with any spatio-temporal input conditions that trigger the kind of mandatory response characteristic of input analyzers or modules.

More generally, none of my arguments for the Rich Content View purport to identify general conditions sufficient to produce experiences with rich contents. An argument that did that would provide a theory of intentionality for experiences, purporting to identify the factors that explain why certain experiences have the contents they do. Such an account would be deeply illuminating, but philosophy is far from having any such account. And as mentioned above, there is good reason to doubt that expertise itself could be the main factor in such an account.

³ Saxe, R., & Carey, S., 2006. The perception of causality in infancy. *Acta Psychologica*, 123, 144-165.

Prinz suggests that instead of representing causal properties in experience, perhaps in events like those in my curtain cases, a causal impression arises because “we tend to gaze back at the putative cause or attend to the cause and effect jointly. We also tend to simulate causal events with congruent movements in our bodies...”. But what kind of bodily movement simulates light entering a room, or a ball landing in a plant and turning on a light, or heat boiling water? Congruence is not in the offing. And in cases of simultaneous causation, such as the knife cutting bread, a cat weighing down a hammock, a cup resting on a table, two dancers mutually causing each other to dance, a musician causing music to come out of a violin, or my curtain cases, there is no difference between attending to the cause and effect jointly versus attending to each separately. At best, Prinz’s suggestions only get purchase on a subclass of cases of mechanical causation – the subclass in which the relata occur in succession. And even here, Prinz’s suggested alternatives – bodily simulation and joint attention - seem not to apply to the knife cutting bread, which is one of Michotte’s paradigms of mechanical causation. So while Prinz’s modest alternative explanations can be articulated, they do not survive as the best explanation.

A different strand in Prinz’s reply could be seen as expressing general skepticism about whether the phenomenal contrast method can work at all – regardless of which hypotheses it is employed to test. There are two sorts of criticisms one might levy against the contrast method. First, one might doubt that introspection can play even the minimal role it is invoked to play in the contrast method, either by taking the radical line that in general, introspection is unreliable guide to phenomenal contrasts, or by taking the less radical line that there are no phenomenal contrasts in the specific cases I discuss.⁴ Second, one might grant that there sometimes are phenomenal contrasts, maybe even introspectively detectable ones, but doubt that any theses about the contents of experiences can be discovered by attempts to explain why the experiences differ.

The first doubt might seem to be suggested by Prinz’s earlier comparison of the contrast method with introspectionist psychology, as well by a later charge that the contrast method covertly relies on introspection for more than just the detection of a phenomenal contrast:

⁴ If we could never tell, for *any* pair of experiences, whether they differ phenomenally, then the contrast method could not get off the ground. I doubt that Prinz would want to go that far in discrediting introspection, since it would amount to saying that we can never tell the difference by introspection between seeing red and seeing green, or between the sound of C# and the sound of B, and so on.

“In other words, she has not established that there are phenomenal contrasts between cases that attribute K-properties and cases that represent a complex of associated properties that are more modest. If I am right, the method of phenomenal contrast unwittingly falls back on the method of introspection.”

But despite appearances, I think that Prinz is allowing that the contrast cases I discuss are genuinely cases of phenomenal contrast – after all, he offers alternative explanations of those very contrasts, and if there is no contrast to begin with then there is nothing for his alternatives to explain. What he’s denying is that I’ve made the case that experiences ever represent K-properties. If experiences never represent K-properties, then there won’t be any pairs of experiences that differ phenomenally, in that one represents a K-property while the other represents none.

On this interpretation, Prinz’s criticism of the method is limited to the second doubt, according to which there is no way to establish whether the phenomenal contrasts that actually figure in my arguments are best explained by the Rich Content View or not. The second doubt is suggested by Prinz’s claim that the modest alternatives to the Rich Content View result only in a Scottish verdict:

“I’ve tried to argue that there are modest alternatives to all Siegel’s examples. That means, even if she can show that attribution of K-properties can alter ordinary experiences, she cannot show by the method that the alteration results directly from K-properties, and not associated changes in attention, cross-modal associations, or imagery involving superficial visual features.”

Why exactly should we think there is no rational basis for choosing between the modest and the rich alternatives? And why does Prinz think that the contrast method is condemned to fall back on relying exclusively on introspection? The four considerations against the Rich Content View that Prinz himself gives would seem, by his lights, to be precisely the sorts of considerations that should bear decisively on the debate over whether the Rich Content View best explains phenomenal contrasts in the cases I discuss. None of the considerations I draw on in applying the contrast method to defend the Rich Content View in the cases of kind properties, causation or mind-independence rely on introspection beyond the initial step of detecting a contrast. They rely on a wide range of other plausibility considerations. By granting that my applications of the contrast method start from introspectively detectable phenomenal contrasts, and by offering modest explanations of them, Prinz engages in the method of phenomenal contrast himself.