

Perceptual Particularity

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Perception grounds demonstrative reference, yields singular thoughts, and fixes the reference of singular terms. Moreover, perception provides us with knowledge of particulars in our environment and justifies singular thoughts about particulars. How does perception play these cognitive and epistemic roles in our lives? I address this question by exploring the fundamental nature of perceptual experience. I argue that perceptual states are constituted by particulars and discuss epistemic, ontological, psychologistic, and semantic approaches to account for perceptual particularity.

When we perceive our environment, we are perceptually related to particulars in that environment. What kind of mental state are we in when we are perceptually related to a particular? Is the mental state constituted by the particular? More specifically, assuming that the perceptual state is characterized by its content, is the content a singular proposition? To motivate these questions, consider Kim, who has three distinct, consecutive experiences. First, she sees a cup. Let's call it cup₁. Then, unbeknownst to her, the cup is replaced by a numerically distinct but qualitatively identical cup. So in the second experience, she sees a different cup. Let's call it cup₂. In the third experience, she hallucinates a cup and so is not perceptually related to any cup. All three experiences are subjectively indistinguishable: From Kim's perspective, it seems as if she saw just one cup. How do the three experiences differ? It is uncontroversial that they differ in that Kim is causally related to different environments. In the first experience, she is causally related to cup₁. In the second experience, she is causally related to cup₂. In the third experience, she is not causally related to any cup. In addition to this difference in causal relation, is there a difference in the epistemic relation between Kim and her environment? Is there a difference in the ontological nature of the three experiential states? Is there a difference in the sensory character? Finally, do the three perceptual states differ in content?

Kim's case brings into focus two central questions that structure the debate on perceptual particularity. One question is whether perceptual states are constituted only by particular elements, only by general elements, or both.¹ Assuming that perceptual states are

¹ Campbell (2002), Travis (2004), and Brewer (2006) among others have it that perceptual states are constituted only by particulars. Jackson (1977), Lewis (1980), Harman (1990), Millar (1991), Davies (1992), Siewert (1998), Byrne (2001), and Hill (2009) among others have it that perceptual states are constituted only by general elements. Evans (1982), Peacocke (1983), Searle (1983), Burge (1991, 2010), Recanati (1993, 2010), Soteriou (2000), Martin (2002), Johnston (2004), Chalmers (2006), Schellenberg (2006, 2010), Bach (2007), Byrne and Logue (2008), García-Carpintero (2010), Crane (2011), Speaks (2011, 2014), and Genone (2014) among others have it that perceptual states are constituted by both particular and general elements. Many are neutral on the matter, for example Siegel (2011).

constituted at least in part by particulars, a second question is whether perceptual particularity is a matter of the epistemic relation between the perceiver and her environment, ontological features of the perceptual state, the sensory character of the perceptual state, the content of the perceptual state, or a combination of the above.²

Let's call the following the *particularity thesis*: A subject's perceptual state M brought about by perceiving the particular α has the property that M is constituted by α . Here and throughout "A is constituted by B" is understood in the sense that A is at least partially constituted by B—leaving open that there may be other things that jointly with B constitute A.³ The particularity thesis posits that if M is a perceptual state brought about by perceiving particular α , and M^* is a perceptual state brought about not by perceiving α but by perceiving particular β , and α is not identical to β , then M and M^* are distinct perceptual states.⁴ So the thesis entails that if the particular to which a subject is perceptually related is switched with a different particular, the perceptual state changes. The relevant particulars can be objects, events, or property-instances in our environment. A perceptual state is the mental state a subject is in when she accurately perceives particulars in her environment. So a perceptual state is to be contrasted from the state one is in when one suffers an illusion or a hallucination. When one suffers an illusion, it seems to one that there is a property-instance, where there is no such property-instance. When one suffers a non-veridical hallucination, it seems to one that there is an object, where there is no such object—or at least not one that is causally relevant for one's experiential state. A perceptual state is a conscious mental state of a subject that is brought about by the subject perceiving her environment. Insofar as the mental state is a conscious mental state it has sensory character. At this stage of the discussion, we can and should stay neutral on whether its sensory character is the only crucial property of the perceptual state or whether the perceptual state is characterized moreover by semantic properties, epistemic properties, or ontological properties. Towards the end of this paper, I will relinquish neutrality on all accounts. I will remain neutral for now since the main argument of this paper can be accepted regardless of what stance one takes on this issue. We can, however, specify now that even if perceptual states have semantic properties there is no reason to think that perceptual states include judgments or that perceptual content is structured by concepts. After all, non-rational animals have perceptions, and so perceptual states cannot be structured by cognitive abilities that non-rational animals do not possess. A lot more could be said about the nature of perceptual states, but for the moment these specifications will suffice.

² Campbell (2002), Martin (2002), Johnston (2004), Brewer (2006), and Genone (2014) account for perceptual particularity in terms of the sensory character of experience. Recanati (2010) accounts for perceptual particularity in terms of the epistemic relation between the experiencing subject and her environment. Evans (1982), Peacocke (1983), Searle (1983), Burge (1991), García-Carpintero (2010), Soteriou (2000), Martin (2002), Chalmers (2006), Schellenberg (2006, 2010, 2011a), Byrne and Logue (2008), Crane (2011), and Speaks (2011, 2014) account for perceptual particularity in terms of its content.

³ There are a number of ways to understand the constitution relation. For instance, we can say that A is constituted by B, if and only if the identity of A is metaphysically determined by B. An alternative way of specifying the notion would be to say that A is constituted by B if and only if A "is what it is" in virtue of B. Yet a further way to specify the notion would be to say that A is constituted by B if and only if B is an essential property of A. There are many more options. I will present an argument for the particularity thesis that is neutral between these different ways of understanding constitution.

⁴ It does not matter for my purposes whether perceptions are states or events.

Particularism, that is, a view that endorses the particularity thesis, is to be contrasted from *generalism*, according to which perceptual states are constituted only by general elements.⁵ While the particularist holds that the perceptual state brought about by perceiving particular α is constituted at least in part by α , the generalist denies that the perceptual state brought about by perceiving α is in any way uniquely constituted by α . On the orthodox version of generalism, the general elements are accounted for in terms of existentially quantified content. An alternative is for the generalist to argue that perceptual content is constituted only by properties. Generalism is attractive for a number of reasons. It gives a neat explanation of what is in common between subjectively indistinguishable perceptions, hallucinations, and illusions, thus providing an elegant explanation for why they are subjectively indistinguishable. While a generalist view has its advantages, it comes at a cost. It does not give an adequate explanation of how it is that we single out particulars in perception by discriminating them from other particulars, thereby yielding perceptual knowledge of particulars, justifying singular thoughts, grounding demonstrative reference, fixing the reference of singular terms, and providing the basis for singular thoughts.

I will develop an account that preserves the advantages of generalism while nonetheless accounting for perceptual particularity. More specifically, I will defend the particularity thesis and will critically discuss epistemic, ontological, psychologistic, and semantic approaches to account for this thesis. I will proceed as follows. In Section 1, I will clarify what is at issue in the debate on perceptual particularity. In Section 2, I will discuss what could adjudicate the debate. I will present several arguments that one could formulate in support of the particularity thesis and will show how the generalist could avoid their conclusions. In Section 3, I will put forward the particularity argument, the conclusion of which is the particularity thesis. In Section 4, I will distinguish four different species of the particularity thesis and will argue that the semantic version of the particularity thesis—that is, the singular content thesis—is the most fundamental. Finally, in Section 5, I will present the singular content argument, the conclusion of which is the singular content thesis. So ultimately, I will argue that the particularity thesis is best explained by the semantic approach and so will defend the view that the content of perception is singular content. While I will in the end defend a semantic interpretation of the particularity thesis and while I will be distinguishing epistemic, ontological, psychologistic, and semantic interpretations of the particularity thesis, I will, whenever possible, use the general version of the particularity thesis which is neutral on these different interpretations. So for the most part, the arguments in this paper can be accepted regardless of how one interprets the particularity thesis.

1. Phenomenological and Relational Particularity

Perceptual experiences are (as) of particulars. When a subject consciously perceives her environment, it sensorily seems to her that there is a particular present. After all, any perceptual experience is at the very least (as) of a particular, that is, an object, event, or property-instance, where that property-instance could, for example, be an instance of a color, shape, size, sound, pitch, timbre, or taste. Insofar as it sensorily seems to the sub-

⁵ For generalist views, see Jackson (1977), Lewis (1980), Harman (1990), Millar (1991), Davies (1992), Siewert (1998), Byrne (2001), and Hill (2009).

ject that there is a particular present, she is in a conscious perceptual state that is (as) of a particular. This is a claim about the sensory character of the subject's perceptual state, not the conceptual content of any judgment she might form on the basis of her experience. Our experience can be as of a particular, even if we are not in fact perceptually related to a particular. After all, when we suffer a non-veridical hallucination as of, say, a yellow rubber duck, it seems to us that there is a yellow rubber duck where in fact there is no such duck. So it can seem to us that a particular is present even if we are not related to that particular. We can call this aspect of sensory character *phenomenological particularity*. A mental state manifests phenomenological particularity if and only if it seems to the subject that there is a particular present. So a mental state instantiates phenomenological particularity if and only if the particularity is in the scope of how things seem to the subject.

Every perceptual experience (as) of a particular manifests phenomenological particularity. Indeed it is unclear what it would be to have a perceptual experience that seems to be of a material, mind-independent particular without its seeming to the subject that such a particular is present. If a subject has an experience that is intentionally directed at a particular and subjectively indistinguishable from perceiving a particular, it will seem to her as if she is experiencing a particular—regardless of whether she is in fact perceptually related to a particular. So phenomenological particularity is a feature of any perceptual experience—be it a perception, a hallucination, or an illusion.

We can distinguish the uncontroversial idea that perceptual experience manifests phenomenological particularity from the controversial idea that perception instantiates *relational particularity*. A mental state instantiates relational particularity if and only if the mental state is constituted by the particular perceived. The particularity thesis entails that accurate perceptual states instantiate relational particularity. So, the controversial thesis to be defended is the thesis that a perceptual state instantiates relational particularity. Thus, here and throughout the term “perceptual particularity” denotes relational particularity and not phenomenological particularity.⁶

In order to get a clearer grip on the distinction between phenomenological and relational particularity, it will be helpful to compare it to a different, yet closely related distinction: the distinction between an aboutness criterion and a reference criterion for singular mental states. According to the aboutness criterion, a mental state is singular if and only if it purports to be directly about particulars—leaving open whether reference succeeds. According to the reference criterion, a mental state is singular if its content is constituted by the particular that the mental state is about. The distinction between phenomenological and relational particularity differs from the distinction between an about-

⁶ One might deny that there is such a phenomenon as phenomenological particularity. Should one deny this, one can nonetheless accept the argument of this paper since it concerns only relational particularity and not phenomenological particularity. There is a powerful tradition of sidelining relational particularity in favor of phenomenological particularity. For example, Crane—focusing on singular thought—puts all the weight on the cognitive or phenomenological role of a thought, that is, what I call phenomenological particularity: “what matters is not that the [singular] thought happens to refer to just one thing, but that it has a specific cognitive role. Singularity is a matter of the cognitive—that is, the psychological or phenomenological—role of the thought” (Crane 2011: 25). Crane’s focus is not on what makes one thought be about this particular rather than that one, but rather in virtue of what thoughts have a singular character, that is, what makes them manifest phenomenological particularity. Sidelining relational particularity in favor of phenomenological particularity is problematic. After all, two perceptual states can be constituted by different particulars, yet manifest the same phenomenological particularity.

ness and a reference criterion for singular mental states since a mental state could manifest relational particularity without the reference criterion holding. Satisfying the reference criterion presupposes that the mental state is characterized by semantic properties. But it has been argued that relational particularity can be accounted for in terms of sensory and epistemic facts that are not grounded in semantic properties of the perceptual state (see Campbell 2002, Brewer 2011). Such views have it that perceptual states instantiate relational particularity without satisfying the reference criterion for singular mental states. Thus, the two distinctions come apart.

Now, one question waiting in the wings is what counts as a particular. It is uncontroversial that objects and events are particulars. Arguably, however, we are not just perceptually related to objects and events, but also to property-instances, that is, for example instances of shapes, sizes, and color properties. To support this idea, note that the perceptual relation is a causal relation. So when we perceive, say, the shape of the cup in front of us, that shape must be causally efficacious—otherwise we could not perceive it. Thus, given plausible assumptions about causation, the shape of the cup must be a concrete spatio-temporal particular rather than a universal.⁷ After all, universals are not spatio-temporally located and not causally efficacious. There are a number of ways to understand property-instances: We can understand them as tropes or simply as instantiations of universals. Whichever way we understand them, they are particulars rather than universals.

With this idea in place, we can put the particularity thesis on firmer footing. The particularity thesis entails that any perception involves being perceptually related to at least one particular, where that particular could be an object, an event, or a property-instance. Should one reject the thesis that we can be perceptually related to property-instances, the particularity thesis entails only that any perception involves being perceptually related to at least one particular, where that particular could be an object or event. For the sake of specificity, and for the reasons given above, I will take property-instances to be particulars to which we could be perceptually related. The arguments I will put forward, however, stand, even if the particulars to which we are perceptually related are understood to include only objects and events.

2. Adjudicating the Debate on Perceptual Particularity

What could settle the question of whether perceptual states are constituted by particulars? There are at least three ways we could attempt to adjudicate the matter. We might consider the role that perception plays in our cognitive and epistemic lives and decide whether perception could play that role if perceptual states were constituted only by general elements. Alternatively, we could assess the truth of the particularity thesis by introspecting on our perceptual experiences. Finally, we could adjudicate whether perceptual states are constituted by particulars by way of analyzing the conditions under which a perceptual experience is accurate. After critically discussing each approach, I will, in Section 3, argue for a new and different approach based on fundamental properties of perception: The argument rests on the thesis that perception is fundamentally a matter of discriminating and singling out particulars in our environment.

⁷ For a defense of the thesis that property-instances are particulars to which we are perceptually related in much the way that we can be perceptually related to objects and events, see Schellenberg (2011b).

2.1 *The Role of Perception in Our Cognitive and Epistemic Lives*

Perception plays a number of roles at the intersection of mind and language. It grounds demonstrative reference, brings about *de re* mental states such as singular thoughts, and fixes the reference of singular terms. Furthermore, one might argue that in virtue of playing these roles at the intersection of mind and language, perception grounds language in the world. For each one of these roles one could argue that perceptual states must be constituted by mind-independent particulars in the perceiver's environment for perception to play that role in our cognitive lives. One could argue, for example, that if perceptual content contains a demonstrative element, then the truth-evaluable content that characterizes a perceiver's perceptual state must be constituted by the particulars to which she is perceptually related. Similarly, one might argue that perception could not fix the reference of singular terms, if perceptual states were not constituted by the particulars to which they refer. Or one might argue that perception could not ground language in the world, if perceptual states were not constituted by the perceiver's environment, and so by particulars in that environment. If perceptual states are constituted by the perceiver's environment, then they are constituted by particulars in the environment since the relevant elements of the environment to which we are perceptually related are particulars.

We can formulate an argument in support of the particularity thesis premised on each of the roles that perception plays in our cognitive lives. Here is one such argument:

The Argument from Singular Thoughts

1. A subject's perceptual state M brought about by perceiving the particular α can give rise to a singular thought ST about α .
2. If a subject's perceptual state M brought about by perceiving the particular α can give rise to a singular thought ST about α , then ST has singular content in virtue of M being constituted by α .
3. If ST has singular content in virtue of M being constituted by α , then the subject's perceptual state M brought about by perceiving the particular α has the property that M is constituted by α .
4. A subject's perceptual state M brought about by perceiving the particular α has the property that M is constituted by α .

The argument from singular thought relies on an inference to the best explanation to justify its crucial Premise 2. The crucial idea underlying the argument is that any singular thoughts based on perception are best explained if perceiving a particular α is constituted by α . Analogous arguments can be formulated premised on the other roles of perception at the intersection of mind and language. Like the argument from singular thoughts, each of these arguments would rely on an inference to the best explanation. Shortly, I will discuss how the generalist could respond to arguments of this kind. Before I do so, however, I will present a second set of considerations that one could appeal to in arguing for the particularity thesis—considerations that focus on the role of perception in our epistemic lives.

We have knowledge of particulars in our environment. One way we gain such knowledge is via perception. If that is right, then perception provides us with knowledge of particulars in our environment. If, however, perception yields knowledge of particulars in

our environment, then arguably perceptual states must differ, depending on which particular is perceived.⁸ An example will help motivate this idea. Say I see a black pen lying on my desk. In virtue of seeing the pen, I have perceptual knowledge that this black pen that I see is lying on the desk. It is plausible that a condition for perception to yield such knowledge is that I represent the very black pen to which I am perceptually related. After all, if I would merely represent that there is some black pen lying on some desk, then the content of my perceptual state would not carry information that could yield knowledge that this pen, rather than some other pen, is lying on my desk. Now, if I represent the very black pen to which I am perceptually related, then the content of my perception will be singular. If the content of my perception is singular, then my perceptual state is constituted by particulars. So the particularity thesis would be corroborated. We can formulate the point more generally such that it is not premised on the idea that the *content* of perception accounts for perceptual particularity. So we can formulate the point remaining neutral between the different ways one might interpret the particularity thesis: It is plausible that a condition for perception to yield knowledge of particulars is that perceptual states are constituted by the very particulars to which the perceiver is perceptually related.

Perception plays other roles at the intersection of mind and epistemology: It provides evidential and justificatory support for singular thoughts and beliefs about particulars. Say I see a red apple hanging from a tree. On the basis of seeing the red apple, I form the belief, “That is a red apple.” The belief is about a particular, namely, the red apple I am seeing. It is a kind of singular thought, namely, a singular thought based on perception. My belief, “That is a red apple,” is justified. It is plausible to say that what justifies my belief is the content of my perception. Arguably, the content of my perception could not justify the singular content of my belief if it did not itself have singular content. Again, we can formulate the point more generally in a way that does not rely on the idea that it is the *content* of perception that accounts for perceptual particularity: Arguably, perception provides evidence for beliefs about particulars and singular thoughts that are based on perception since perceptual states are constituted by the perceived particulars.⁹

In light of the roles that perception plays in our epistemic lives, we can formulate further arguments in support of the particularity thesis that would, like the argument from singular thought, rely on an inference to the best explanation. One such argument focuses on the role of perception in providing us with knowledge of particulars:

⁸ This idea relies on the plausible assumption that for x to yield knowledge, x must be a mental state. For a defense of the idea that knowing is a mental state, see Williamson (2000).

⁹ A further, albeit more contentious, role of perception at the intersection of mind and epistemology is that perception puts us in a better epistemic position than hallucination in that perception provides us with more and different evidence than hallucination does, even if the perception and hallucination are subjectively indistinguishable. So if I perceive, say, a black pen on my desk, I am in a better epistemic position regarding my belief that there is a black pen on my desk than if I merely hallucinate a black pen on my desk. I am in a better epistemic position because I have more and different evidence when I perceive than when I hallucinate. I have evidence due to being perceptually related to a black pen. I do not just have evidence due to its seeming to me that there is a black pen present. For arguments in support of this idea, see Williamson (2000), Pritchard (2012), and Schellenberg (2013a, 2014a).

The Argument from Perceptual Knowledge of Particulars

5. If a subject S perceives a particular α , then S can gain knowledge of α in virtue of perceiving α .
6. If S can gain knowledge of α in virtue of perceiving α , then S 's perceptual state M brought about by perceiving the particular α has the property that M is constituted by α .
7. If a subject S perceives a particular α , then S 's perceptual state M brought about by perceiving the particular α has the property that M is constituted by α .

Analogous arguments can be formulated premised on the role of perception in justifying singular thoughts and in providing us with evidence for beliefs about particulars.

How would the generalist respond to arguments of this kind? The generalist might say that for each of these arguments an alternative is to say that

- (a) perceptual states are constituted only by general elements

and that

- (b) the general content of perception in conjunction with the causal relation to a particular jointly account for how perception grounds demonstrative reference, forms the basis for *de re* mental states, fixes the reference of singular terms, yields knowledge of particulars, justifies singular thoughts, and provides evidence for beliefs about particulars.

More specifically, in the case of, say, the argument from singular thought, the generalist could reject Premise 2 in favor of Premise 2*:

- 2*. If a subject's perceptual state M brought about by perceiving the particular α can give rise to a singular thought ST about α , then ST has singular content in virtue of the general content of M and the causal relation between the perceiver and α .

There are several ways the particularist could respond to this generalist strategy. One is to argue that such a strategy is incongruous. It is incongruous since it allows that causal relations can yield singular content of a belief, while denying that the very same causal relation will yield singular content of a perception. This incongruity might be accepted given other attractive features of generalism. It is, however, important to note how odd it is to reduce the phenomenological particularity of perception to general perceptual content, only to posit that the content of beliefs based on perception can be singular via the very causal relations to particulars operating in perception itself.

Another way the particularist could respond to this generalist strategy is to argue that the causal relation between the perceiver and the particulars perceived is not the kind of thing that could give rise, for example, to perceptual knowledge of particulars. A causal relation is not sufficient to secure knowledge. The perceptual state needs to be constituted by the particular for perception to yield knowledge of particulars. Similarly, the particularist could argue that a causal relation between the perceiver and the particular perceived is not the kind of thing that could ground demonstrative reference or fix the reference of singular terms. The perceptual state must be constituted by the particular perceived for perception to ground demonstrative reference and fix the reference of singular terms.

The particularist could pursue these lines of argument against the generalist. I will not, however, do so here. Instead, I will present a new argument that explains why perceptual states are constituted by particulars without relying on the fact that perception plays certain roles in our cognitive and epistemic lives. This will allow me to go a level deeper and explain *why* it is that perception can play these roles in our cognitive and epistemic lives. First however, I will consider two further traditional ways to adjudicate the debate on perceptual particularity.

2.2 Introspection

One might argue that the particularity thesis is supported by the sensory character of perception and so use introspection to adjudicate the debate. An argument from sensory character could take the following form: If we perceive a particular, say a coffee cup on a desk, it seems to us that there is a particular present. If it seems to us that there is a particular present, then our mental state is characterized by particularized sensory character—or what I called phenomenological particularity. A particularist who takes this introspective approach will then need to show how this phenomenological evidence supports the particularity thesis.¹⁰ So, the introspective particularist would need to show that the fact that perceptual states manifest phenomenological particularity supports the thesis that perceptual states instantiate relational particularity. More formally, the argument could go as follows:

The Argument from Sensory Character

8. If a subject *S* perceives a particular α , then it seems to *S* that α is present.
9. If it seems to *S* that α is present, then *S*'s perceptual state *M* brought about by perceiving the particular α has the property that *M* is constituted by α .
10. If a subject *S* perceives a particular α , then *S*'s perceptual state *M* brought about by perceiving the particular α has the property that *M* is constituted by α .

The generalist could reject Premise 9 of this argument. He could argue that a view according to which the perceptual content is entirely general, and perceptual states are not in any other way constituted by particulars, could account for the phenomenological particularity of perception just as well as the particularist.

One does not need to be a generalist to reject Premise 9. One good reason to reject the premise is that the fact that perceptual experience manifests phenomenological particularity is no indication that perceptual states are constituted by particulars. Indeed, there are many examples of experiences that are seemingly of particulars for which we have no reason to posit that the relevant mental states are constituted by particulars. Hallucinations that are subjectively indistinguishable from perceptions manifest phenomenological particularity, but hallucinations are arguably not constituted by particulars—at least not by the object that it seems to the subject is present.¹¹ Similarly, after-images or experiences of floaters can manifest phenomenological particularity: It seems to one as if there is a particular patch of color in front of one's eyes. Such experiential states are, however, arguably not constituted by external, mind-independent particulars. If that is right, then

¹⁰ For an argument that takes such an approach, see for example Martin (1998).

¹¹ Some disjunctivists will deny that a hallucination is a perceptual experience and so will deny that hallucinations are one of the many examples of experiences that are seemingly of particulars for which we have no reason to posit that the relevant mental states are constituted by particulars. See for example Fish (2009).

the fact that introspection tells us that perceptual experience manifests phenomenological particularity is not a useful guide to establishing that perception instantiates relational particularity.¹²

2.3 Accuracy Conditions of Perception

A third way one might adjudicate the debate on perceptual particularity is to argue from the accuracy conditions of perception:

The Argument from Accuracy Conditions

11. If a subject S perceives a particular α , then S 's perceptual state M has accuracy conditions that are determined by α .
12. If M has accuracy conditions that are determined by α , then S 's perceptual state M brought about by perceiving the particular α has the property that M is constituted by α .
13. If a subject S perceives a particular α , then S 's perceptual state M brought about by perceiving the particular α has the property that M is constituted by α .

All the arguments considered so far have been neutral on whether perceptual states have content. The argument from accuracy conditions relinquishes neutrality on that question. It presupposes that perceptual states have content. After all, as soon as we posit that perceptual states have accuracy conditions, we must thereby posit that there is something that determines these accuracy conditions, namely, the content of the perceptual state.

Why should we accept the premises of the argument from accuracy conditions? The accuracy conditions of a perceptual state specify the way the world would have to be for the content of the perceptual state to be accurate. The condition that needs to be met for a perceptual state to be accurate is not just that there is an item in the world that possesses the properties specified by the content. It is necessary to specify which particular in a subject's environment is represented to determine whether the subject's environment really is as it is represented. If perceptual content lays down a condition under which it is accurate in a way that is sensitive to which particular (if any) is perceived, then the particular to which the subject is perceptually related makes a difference to the content of her perceptual state. If the particular to which the subject is perceptually related makes a difference to the content of her perceptual state, then the content of her perceptual state is at least in part constituted by that particular. If perceptual content is at least in part constituted by a particular, then it is singular content. If that is right, then the accuracy conditions of perceptual experience do not just track phenomenological particularity, but also relational particularity.¹³

¹² For a more general critical discussion of the limits of introspection, see Pereboom (1994) and Schwitzgebel (2008). For a detailed discussion of the relationship between sensory character and perceptual particularity, see Mehta (forthcoming).

¹³ Soteriou argues along these lines: "We need to determine which particular objects in the subject's environment are being perceived if we are to determine whether the subject's environment really is as it seems to her to be. We need to determine which particular objects in the subject's environment are represented by her experience if we are to determine whether the subject's environment really is as it is represented to be. So we need to determine which particulars are being perceived if we are to determine the veridicality of the subject's experience" (2000: 180). See also Burge (1991) and Schellenberg (2014b).

One way for the generalist to respond to this argument is to insist that all we need for the perceptual content “That’s a white cup” to be accurate is that there is some white cup present at the location where one sees one to be: It is not necessary that the particular white cup one seems to be singling out is present. There are, however, familiar examples going back to Grice that the particularist can draw on to undermine this generalist response. Suppose I look at a slanted mirror and have a visual experience that is caused by a white cup on my left reflected in the mirror. Not knowing that I am looking into a slanted mirror, it seems to me that the cup is straight ahead. As it happens, there is a white cup immediately behind the mirror just where it seems to me that there is a cup. Intuitively, my perceptual state has a false content. After all, my perceptual state is caused by the cup on my left not the one at the location behind the mirror. However, on the generalist conception of perceptual content, the content of my perceptual state would be accurate. After all, there happens to be a white cup at the very location where there seems to me that there is a cup. And according to the generalist, that is what is required for the content to be accurate. The problem with the generalist approach is that it is counterintuitive that the content of my perceptual state is accurate since the cup that caused my perceptual state is not the one that would be making the content of my perceptual state accurate. This suggests, contra the generalist, that perceptual content is singular rather than general. If perceptual content is singular, then in the Gricean case, my perceptual state does not have singular content that is constituted by the cup located behind the mirror.

While the particularist could respond to the generalist challenge by appealing to such Gricean cases, there remains room for the generalist to simply reject the intuition that my perceptual state has a false content in such cases, arguing that it simply does not matter whether the cup that caused the perception is in fact the same cup as the one that satisfies the existentially quantified content of perception. So, the search for an argument in support of the particularity thesis is not yet over.

3. The Particularity Argument

I have considered several arguments that one could formulate in support of the particularity thesis and have shown how the generalist could contest their conclusions: arguments that are premised on the role of perception in our cognitive and epistemic lives, arguments that are premised on what we can know about perception through introspection, as well as arguments that are premised on the accuracy conditions of perception. In this section, I will present a new argument in support of the particularity thesis—an argument that is based on fundamental properties of perception. Without further ado:

The Particularity Argument

- I. If a subject S perceives particular α , then S discriminates and singles out α .
- II. If S discriminates and singles out α , then the perceptual state M that S is in by virtue of doing this is constituted by discriminating and singling out α .
- III. If M is constituted by discriminating and singling out α , then M is constituted by α .
- IV. If S perceives α , then S 's perceptual state M is constituted by α .

In support of Premise I, we can say that discriminating and singling out a particular from its surround is a minimal condition on perceiving the particular. It is unclear what it would be to perceive a particular without at the very least discriminating and singling it out from its surround. Consider a perceiver who sees a white cup on a desk. He employs his capacity to discriminate white from other colors and to single out white in his environment. Similarly, he employs his capacity to differentiate and single out cup-shapes from, say, computer-shapes and lamp-shapes. Such discriminatory activity allows for scene segmentation, border and edge detection, and region extraction. If there is no discriminatory activity, it is unclear how he could be perceptually aware of the cup. Now he might get the location of the cup wrong, he might get its color wrong, he might get its shape wrong—but to perceive the cup, he must discriminate it in some way from its surround. When we perceive a scene, we can attend to one rather than another of the particulars in view and so single out one rather than another particular. Singling out a particular is a proto-conceptual analogue of referring to a particular. Non-rational animals and infants as young as four months old can perceptually single out objects and property-instances in their environment, yet they do not have the capacity to refer. While referring requires conceptual capacities, singling out particulars requires no such capacities.¹⁴

Premise II is supported by the following general principle: If a subject engages in a mental activity in virtue of which she is in a mental state, then that mental state is constituted at least in part by that mental activity. If the subject is, for example, in a mental state in virtue of employing concepts, then that mental state will be constituted by employing those concepts. Closer to home: If a subject is in a perceptual state in virtue of discriminating and singling out a particular from its surround, then her perceptual state will be constituted by that discriminatory, selective activity.

Premise III marks the transition from the thesis that perceptual states are constituted by discriminating and singling out particulars to the thesis that those perceptual states are constituted by the particulars singled out. In order to give support to this premise, we need to take a closer look at what it means to discriminate and single out particulars. We discriminate and single out particulars by employing perceptual capacities that *function* to discriminate and single out the relevant particulars: A discriminatory, selective capacity is a mental capacity that functions to differentiate, single out, and in some cases classify a particular kind, such as instances of red (Julesz 1981, Krummenacher and Grubert 2010, and To and Gilchrist 2011). Such perceptual capacities are determined by general, functional relations between the organism and its environment—for instance, global patterns of the organism's response to its environment. If we possess the perceptual capacity that functions to differentiate and single out instances of red, we are in a position to differentiate instances of red from other colors in our environment and to single out instances of red. More generally, to possess a discriminatory, selective capacity is to be in a position to differentiate and single out the type of particulars that the capacity functions to single out, were one related to such a particular.

¹⁴ On many views of reference, referring to a particular presupposes that the relevant subject is in a mental state with content. I am here, for the time being, remaining neutral on whether perceptual experience has content. So I am using the term “singling out,” since it does not already imply that perceptual experience has content.

A discriminatory, selective capacity is a repeatable capacity. In that sense, it is general. More specifically, we can say that it is semantically general.¹⁵ It can single out any particular that falls under the type of particular that the capacity functions to single out. Semantic generality should be contrasted with syntactic generality. While perceptual capacities are semantically general, they function to single out particulars in the environment—rather than general kinds or universals. In that respect, they are akin to syntactically singular terms, such as demonstratives and indexicals. However, no specific particular needs to be singled out in any single employment of a perceptual capacity. Any particular will do, as long as it falls under the type of particulars that the capacity functions to single out. So, while perceptual capacities are semantically general, the perceptual states they yield are semantically singular. Moreover, perceptual capacities are not dependent on any specific particular. While freely repeatable, perceptual capacities are, however, individuated by the particular kinds of particulars they function to single out. So, a perceptual capacity is individuated by particulars of the kind that the capacity functions to discriminate and single out.

In light of this, we can specify the support for Premise III as follows: Perceptual states are constituted by employing perceptual capacities that function to discriminate and single out particulars, and in the case of an accurate perception, they in fact discriminate and single out a particular of the right kind. Now if singling out a particular has any (semantic) significance, then the subject's perceptual state is constituted by the particular when she perceives that particular. To think otherwise would be to cut the link between the function of the capacity and the individuation of its output. After all, the mental states are outputs of employing capacities with a certain function, and these outputs are individuated by what the capacities function to do. So a perceptual state of α is constituted by α in virtue of the perceptual state being constituted by employing perceptual capacities that function to single out particulars of the type under which α falls.

Now let's consider a perceiver who is perceptually related to two qualitatively identical rubber ducks. She cannot discriminate the two rubber ducks, except by their locations. However, that does not show that she does not have the capacity to discriminate each object from its surround. In perceiving the first rubber duck, she singles out that rubber duck. Even if she cannot differentiate that rubber duck from the other rubber duck (except by their location), she is at any given moment discriminating and singling out the rubber duck she sees from its surround when perceiving that rubber duck.

How would the generalist respond to the particularity argument? The generalist could aim to reject Premise I by arguing that surely one can see a wall that is uniformly colored and that fills out one's entire field of vision. In such a case, surely one does not employ any discriminatory, selective capacities. After all there is nothing present to discriminate.¹⁶ In response, it has been studied in depth that when we stare at an undifferentiated and uniform field of color the *ganzfeld* effect sets in: one simply sees black and experiences an apparent sense of blindness due to the lack of structure in one's environ-

¹⁵ As I will argue in Sections 4 and 5, the idea that perception is a function of employing perceptual capacities entails that perception has representational content. After all, perceptual capacities are repeatable and yield mental states that are either accurate or inaccurate with regard to their environment. The notion of discriminatory perceptual capacities can be understood as a statistical notion, such that one does not count as discriminating if the false positives are too high. I am following standard usage on which one counts as discriminating if one notices a difference.

¹⁶ Thanks to an anonymous reviewer for pressing me on this point.

ment.¹⁷ So we cannot in fact see a completely uniform wall that fills out our entire field of vision. As a consequence of the lack of structure in one's environment there is nothing that the visual system can operate on, that is, there is nothing present to discriminate. The *ganzfeld* effect is one of many empirical results that support my thesis that perceptual experience is fundamentally a matter of employing discriminatory, selective capacities.

There is an alternative and very different way for the particularist to respond to this generalist objection. Let's assume for the sake of argument that the *ganzfeld* effect would not set in, were one confronted with a perfectly uniformly colored wall that fills out one's entire field of vision. The particularist could still say that the subject employs discriminatory capacities—not capacities that discriminate a particular from its surround, but rather capacities that discriminate a particular from other possible ways it could be. So if I am seeing a perfectly white wall that fills out my entire field of vision, then I discriminate white from red, blue, and the other possible ways the wall could be.

The generalist could aim to avoid the conclusion of the particularity argument by rejecting Premise II. There are at least two approaches she might take. She could argue that we do not discriminate between property-instances, but rather between properties. Properties are not particulars, but rather universals. The generalist could then contend that since we discriminate between properties, there is no need to say that perceptual states are constituted by particulars. In response, the particularist can point out that the problem with this generalist strategy is that properties are abstract entities. They are not spatio-temporally located and not causally efficacious. It is not clear what it would mean to perceptually discriminate between entities that are not spatio-temporally located and not causally efficacious. What we discriminate between are particulars, be they objects, events, or property-instances. Moreover, the particularist can respond to this generalist challenge by arguing that even if it were the case that we discriminate between general properties and not property-instances, we discriminate between objects and events—which are both particulars. All we need for the particularity argument to go through is that there is at least one particular discriminated from actual or possible alternatives.

An alternative way for the generalist to reject Premise II would be to argue that perceptual discrimination of α is matter of (i) the visual system producing a representation with a purely existential content C, (ii) α satisfying or partially satisfying C, and (iii) α causing the visual processing that results in the representation. In response, the particularist can retort that while such a notion of discrimination can be defined, it is *ad hoc* and has no bearing on the phenomenon of perceptual discrimination. After all, at the very minimum perceptual discrimination is a matter of distinguishing between things, but the generalist understanding of discrimination given by (i)–(iii) does not even capture this minimal condition on discrimination.

Finally, the generalist could aim to avoid the conclusion of the particularity argument by rejecting Premise III. On this approach, the generalist would concede that we discriminate and single out particulars, but would argue that in spite of this the perceptual state is not constituted by those particulars. There are at least two versions of this strategy.

¹⁷ For the first psychophysiological study on *ganzfelds*, see Metzger (1930). For a more recent seminal study, see Wackermaun (2008).

One is for the generalist to argue that while we are causally affected by property-instances, we perceive properties. The idea would be that it is not relevant by which property-instances we were causally affected: We are aware of properties rather than property-instances and perceptual states are constituted by properties, instances of which causally bring about our perceptual state in the good case. In response, the particularist can argue that it is unmotivated to accept that we discriminate between property-instances and so particulars, only to then deny that those particulars are what we perceive.

A second version of this strategy is to argue that all that matters for the perceptual state is which perceptual capacities were employed. To motivate this strategy, consider a factory in which boots are produced in an automated assembly line.¹⁸ The assembly line has the capacity to produce boots. While each pair of boots produced is a particular pair of boots, we need not refer to any particular pair to explain how the machine produces boots. What is relevant is just that every time a pair of boots is produced, the automated assembly line manifests a capacity to produce boots. If this is right, so the generalist objection would go, then the same holds for the perceptual case: While the input differs, the perceptual system operates the same way; it is not relevant whether we see this particular round shape or that particular round shape.

In response to this generalist strategy, the particularist can acknowledge that the particular pair of boots produced at any given moment is irrelevant to explaining how the assembly line produces boots. However, explaining how the assembly line produces boots is not the issue here. The issue is the relation between the particular materials that the assembly line operates on and the product produced by the assembly line. It is not irrelevant that a particular pair of boots is produced by the particular leather, rubber, and yarn on which the automated assembly line operated in producing those very boots. The automated assembly line always operates on particular material, thereby producing a particular pair of boots that is constituted by the very material on which the assembly line operated. Similarly, the perceptual system employs perceptual capacities that operate on particulars in the environment, thereby yielding perceptual states that are constituted by those very particulars. The employment of perceptual capacities cannot be dissociated from what the capacities function to do and in fact do in the case of perception. To discriminate α and to discriminate β , where α and β are distinct particulars, is doing different things. Insofar as those two activities differ, the perceptual states generated by employing the capacities in distinct environments will differ. We can think of this in terms of what it means for a capacity to have a function and how mental states brought about by employing such capacities should be individuated. The capacity has the function to discriminate and single out particulars. The output of a capacity with a certain function is the mental state yielded by employing the capacity. The capacity achieves its function if it singles out a particular of the type that the capacity functions to single out. The output yielded by the capacity's achieving its function is individuated by the particular that the capacity singles out. If the output yielded by the capacity is not individuated by a particular, then the capacity would not function to discriminate and single out particulars.

The particularity argument takes a stance on the first of the two questions structuring the debate on perceptual particularity. If right, it establishes that perception is constituted by particulars. It is neutral, however, on whether perception is constituted only by partic-

¹⁸ Thanks to Neil Mehta for pressing me on this point.

ulars, or whether it is constituted also by general elements. Moreover, it is neutral on the second question structuring the debate on perceptual particularity, namely, whether perceptual particularity is accounted for in an epistemic, ontological, psychologicistic, or a semantic way. In what follows, I will consider these different species of the particularity thesis and will argue that the particularity thesis is best understood in a semantic way. In showing that perceptual particularity is a matter of the singular content of perception, I will argue that perceptual states are constituted by both particular and general elements.

4. Varieties of Particularity

So far, I have clarified the particularity thesis, considered several arguments for the particularity thesis while showing how the generalist could avoid their conclusions, and offered a new argument for the particularity thesis. To recall, the particularity thesis states that a subject's perceptual state M brought about by perceiving the particular α has the property that M is constituted by α . This leaves open how α enters into the constitution conditions for M . So we can articulate a range of more specific versions of the particularity thesis that details these constitution conditions.

Is perceptual particularity best understood in terms of perceivers' having a certain epistemic relation to their environment, the ontological dependence of the perceptual state on the perceived particular, the sensory character of perceptual states, or the semantic properties of perception? We can take an epistemic approach and understand perceptual particularity in terms of a special epistemic relation to the particulars perceived. We can take an ontological approach and understand perceptual particularity in terms of the ontological dependence of the perceptual state on the particulars perceived. Alternatively, we can take a psychologicistic approach and understand perceptual particularity in terms of the sensory character of perceptual states by arguing that sensory character is constituted by the particulars perceived. Finally, we can take a semantic approach and understand perceptual particularity in terms of features of perceptual content. Corresponding to these four approaches, we can formulate the following four more specific particularity theses:

Epistemic particularity thesis: A perceptual state M brought about by perceiving the particular α has the property that M is constituted by a special epistemic relation between the perceiver and α .

Ontological dependence thesis: A perceptual state M brought about by perceiving the particular α has the property that M is constituted by being ontologically dependent on α for its existence.

Psychologicistic particularity thesis: A perceptual state M brought about by perceiving the particular α has the property that M 's sensory character is constituted by α .

Singular content thesis: A perceptual state M brought about by perceiving the particular α has the property that M 's content is constituted by α .

Each of these theses is a specification of the particularity thesis. So the relation between the particularity thesis and these more specific theses is the relation between genus and species.

Now, while one can distinguish these four specifications of the particularity thesis, they are not mutually exclusive and indeed they can be combined in various ways. One might argue, for example, that perceptual states are constituted by a special epistemic relation to the perceived particulars in virtue of their particularized sensory character (c.f. Campbell 2002, Martin 2002, Johnston 2004, Brewer 2006). Alternatively, one could combine all four theses by arguing that in virtue of being acquainted with a particular one is in a mental state with singular content, which grounds the particularized sensory character of perceptual states and is characterized by an existence-dependent condition.

While one can combine these four species of the particularity thesis in such ways, once all four are on the table, two questions arise: Which are true? Of the true ones, which is the most fundamental?¹⁹ I will argue that the epistemic particularity thesis and the ontological dependence thesis are both true but that both depend on the truth of the singular content thesis. I will argue, moreover, that there are powerful reasons to reject the psychologistic particularity thesis, (though if it were true its truth would also depend on the more fundamental truth of the singular content thesis). In a nutshell, the idea is that the epistemic, ontological, and psychologistic theses all presuppose the singular content thesis, since the relevant epistemic, ontological, and psychologistic claims (if true) should be understood to hold not brutally but rather in ways that depend on claims about the employment of perceptual discriminatory capacities, the employment of which is already constitutive of semantic content. This will lead me to an argument for the singular content thesis that develops the argument for the more general particularity thesis in light of specific considerations about the role of mental representation.

Let's start with the epistemic particularity thesis. According to the epistemic particularity thesis, an accurate perception of the particular α has the property that being in that perceptual state involves standing in a special epistemic relation to α . The special epistemic relation may be an acquaintance relation. Notoriously, there is barely any agreement on how to understand the acquaintance relation. Russell understood "acquaintance" as follows: "I say that I am *acquainted* with an object when I have a direct cognitive relation to that object, i.e. when I am directly aware of the object itself" (1911: 108).²⁰ On at least some ways of understanding "directly aware," if this is the kind of epistemic relation in play, then the epistemic approach is a version of the psychologistic approach. But we need not understand acquaintance in terms of sensory awareness. An alternative is to understand acquaintance in terms of epistemic awareness that does not amount to sensory awareness.

The epistemic particularity thesis so understood holds since there is an epistemic difference between perceiving α and perceiving β . There is such an epistemic difference since perceiving α puts one in a position to gain perceptual knowledge of α and

¹⁹ The relevant notion of fundamentality is that p is more fundamental than q , if p explains the truth of q . For present purposes this characterization will suffice. For a detailed discussion of the notion of fundamentality, see Fine (2001).

²⁰ Russell was famously restrictive about what kinds of things we could be acquainted with, arguing that those things include only universals, sense data, and (perhaps) ourselves. There is no reason on the present account to limit the scope of what we could be acquainted with in such a way.

perceiving β puts one in a position to gain perceptual knowledge of β . Given that we can gain knowledge of particulars through perception and given that there is such an epistemic difference between perceiving distinct particulars, it is plausible that the perceptual state brought about by perceiving a particular involves standing in a special epistemic relation to that particular.

But now, is the epistemic particularity thesis the most fundamental in the sense that it explains the truth of the other theses? To answer this question, let's consider what would have to be the case if the epistemic particularity thesis were the most fundamental. If the epistemic particularity thesis were the most fundamental, then it would have to be possible for one to be brutally acquainted with a particular, in the sense of being epistemically aware of the particular in a way that is not to be further explained in ontological, psychological, or semantic terms. After all, if the thesis were the most fundamental, then it would have to be possible for one to be acquainted with a particular without thereby bringing to bear any personal level representational capacities by means of which one is so acquainted. But it is not clear what it would be to be brutally acquainted with a particular in this way. Indeed, as I will argue, any acquaintance presupposes and is best explained via semantic content. First, being acquainted with a particular at minimum requires the employment of perceptual discriminatory capacities whereby one singles out the particular from its surround. Second, the employment of such perceptual discriminatory capacities generates a perceptual state that is characterized by semantic content for the following two reasons: The employment of perceptual capacities generates a perceptual state that is *repeatable* and has *accuracy conditions*. Being repeatable and having accuracy conditions are jointly key signatures of semantic content. I will give support to each claim in turn.

The very same perceptual capacity can be employed to single out particular α or to single out particular β . As argued in the last section, if one singles out α rather than β , one is in a distinct perceptual state, namely, a perceptual state that is constituted by α rather than β . This is the case even if α and β are qualitatively identical. So the same perceptual capacity can be employed in distinct environments and yield distinct perceptual states. If this is right, then there is a general, repeatable element that is constitutive of perceptual states, namely, the perceptual capacities employed. Moreover, the same perceptual capacity can be employed to single out α at time t_1 and at time t_2 and thus yield the same perceptual state at t_1 and t_2 . In this sense, employing repeatable perceptual capacities generates a perceptual state that is itself repeatable.²¹ Now, when one discriminates and singles out a particular from its surround, one may do so more or less accurately or inaccurately, and the perceptual state reached will be more or less accurate or inaccurate thereby.²² After all, a perceiver can single out an object and correctly single out only very few of its properties; or she can single out the same object and correctly

²¹ Being a repeatable capacity is of course not a sufficient condition for yielding a semantic mental state. After all, many things in the world have repeatable capacities without yielding semantic mental states. Being repeatable is however arguably a necessary condition on yielding a semantic mental state.

²² One might object here that not all discriminatory capacities yield things that have accuracy conditions. For example, thermometers discriminate temperatures, but we do not say that the state thereby produced has accuracy conditions. In response, it is apt to say that the temperature indicated by the thermometer either matches the temperature in the environment or fails to match the temperature in the environment. In this sense, the state of the thermometer in which it indicates a particular temperature has accuracy conditions. Thanks to Neil Mehta for pressing me on this point.

single out many of its properties. The first perceptual state will be less accurate with regard to the environment than the second.²³ So employing perceptual capacities yields perceptual states that exhibit key signatures of semantic content: It yields something that is repeatable and that can be accurate or inaccurate. If this is right, then employing perceptual capacities constitutes a perceptual state with content.²⁴

Now one might object that a brute acquaintance relation is just as mysterious as a brute content relation and so question whether the singular content thesis fares any better than the epistemic particularity thesis. In response: I agree that a brute content relation would be just as mysterious as a brute acquaintance relation and indeed, I argue that perceptual content should be understood in terms of something more fundamental, namely the perceptual capacities employed. So I am not arguing that there is a brute content relation. If we recognize that perception is fundamentally a matter of employing perceptual capacities, then—for the reasons given above—we should recognize that perceptual states are characterized by representational content. By arguing that there is a fundamental level of employing perceptual capacities by means of which environmental particulars are discriminated and singled out, I am giving an explanation of what it means for perceptual states to be a matter of representing one's environment.

I conclude that the epistemic particularity thesis is not the most fundamental of the four species of the particularity thesis. It is dependent on the singular content thesis, insofar as it depends on claims about the employment of perceptual discriminatory capacities, the employment of which is already constitutive of semantic content.²⁵ I will use an analogous argument against the potential fundamentality of the psychologistic particularity thesis.

But first, let's assess the ontological dependence thesis. The ontological dependence thesis has it that a perceptual state of particular α exists only in a world in which α exists. The idea that an accurate perception of particular α has the property that the existence of that perception ontologically depends upon the existence of α entails that perceptual states are modally dependent on the particulars perceived. In this sense, the thesis is metaphysically more substantial than the mere constitution thesis.

To show why the ontological dependence thesis holds, let's consider the following scenario: Let M be a perceptual state brought about by perceiving the particular α . Suppose that α does not exist. Can M still exist? It cannot, since, in the scenario where α does not exist, no perceptual state can be brought about by perceiving α . After all, α is not there to be perceived.²⁶

While true, the ontological dependence thesis is a poor candidate to be the most fundamental truth in this vicinity. Plausibly, if M is ontologically dependent on α this is

²³ For a discussion of the relationship between singling out objects and singling out the properties this object instantiates, see Pylyshyn and Storm (1988), Pylyshyn (2007), and Fodor (2008).

²⁴ For a detailed defense of the thesis that employing perceptual capacities yields perceptual states with content, see Schellenberg (2014b).

²⁵ For alternative reasons to reject acquaintance as a condition for singular mental states, see Kaplan (1989), Borg (2007), Jeshion (2002), (2010), Crane (2011), and Hawthorne and Manley (2012).

²⁶ I am presupposing a timeless sense of "exist" here. This avoids the counterexample that M is a perceptual state brought about by perceiving a distant star, even though that star no longer actually exists—it went supernova long ago, but the light from that explosion will not reach us for a while. In this case, the star exists in the relevant sense: It is to be found somewhere in the spatio-temporal manifold, even if lacks current existence.

because there is some required feature of M that involves α . Otherwise we are left with a brute and mysterious dependence claim. But what is the required feature of M that involves α ? If it is a matter of either epistemic awareness or semantic content, then the singular content thesis is the most fundamental, since (as just argued) epistemic awareness presupposes semantic content. The remaining alternative on the table would be to explain ontological dependence via psychologistic particularity, but I will now argue that there are reasons to reject the psychologistic particularity thesis, and moreover that if it were true it too would presuppose the singular content thesis. This will lead me to the conclusion that the singular content thesis is the most fundamental species of the particularity thesis.

The psychologistic particularity thesis posits that perceptual states have the property that their sensory character is at least in part constituted by the particulars perceived. The psychologistic particularity thesis is endorsed by austere relationalism, that is, the view that perception is fundamentally a matter of standing in an awareness relation to external and mind-independent particulars and lacks any significant representational component (see Martin 2002, Brewer 2006, 2011, Campbell 2002, Travis 2004, Fish 2009, Genone 2014). According to austere relationalism, the sensory character of perceptual states is best understood in terms of perceptual relations to particulars in the environment.²⁷ One central motivation for this view is to understand sensory character not in terms of awareness relations to strange entities such as qualia, phenomenal properties, universals, or intentional objects, but rather in terms of the very things we are aware of when we perceive, namely, the layout of the scene in front of us. On this approach, the distinction between phenomenological and relational particularity collapses—at least in the case of perception.²⁸

There are reasons to reject the psychologistic particularity thesis. After all, it implies that when Kim sees cup_1 at t_1 and cup_2 at t_2 , the sensory character of her perceptual state at t_1 and at t_2 will differ even though cup_1 and cup_2 are qualitatively identical. It is implausible that the sensory character of her perceptual states changes between seeing cup_1 at t_1 and cup_2 at t_2 , keeping in mind that cup_1 and cup_2 are qualitatively identical and Kim is unaware that cup_1 got switched with cup_2 . It is implausible since there is no difference in the environment other than the numerical identity of the perceived cups. It is unclear why the numerical identity of the perceived cups should affect sensory character.²⁹ Arguably sensory character is multiply realizable in that one and the same sensory

²⁷ For a critical discussion of such austere relationalist views and a discussion of the various versions of the view, see Schellenberg (2011a).

²⁸ Austere relationalists could still hold that hallucination involves phenomenological but not relational particularity. It would be an open question, however, what constitutes phenomenological particularity in the case of hallucination.

²⁹ Now, there are cases involving undetectable differences in sensory character, such as in a color sorites case when one consecutively perceives three subtly distinct shades of red: red_{47} , red_{48} , and red_{49} . In such cases, it is plausible that there is a difference in the sensory character of the perceptual state brought about by perceiving red_{47} and the sensory character of the perceptual state brought about by perceiving red_{48} even though the perceiver does not notice the difference. But this case is different in kind from the Kim case. After all, in the color sorites case, there is a qualitative difference between the shades perceived. So if one's sensory system were much more sensitive, one would be able to tell the difference between red_{47} and red_{48} . By contrast, in the Kim case, the only difference is the numerical identity of the cups. So even if Kim's sensory system were much more sensitive, she would still not be able to tell the difference between the two cups.

character could be brought about by relations to numerically distinct but qualitatively identical objects. However, accepting that sensory character is multiply realizable in this way just is to deny the psychologistic particularity thesis.³⁰

As I hope to have shown, there are good reasons to reject the psychologistic particularity thesis. Let's, however, assume for the sake of argument that the psychologistic particularity thesis were true. Even if true, the thesis could not be fundamental: If the thesis were true and fundamental, then it would presuppose a notion of brute acquaintance in the same way that the epistemic particularity thesis would presuppose a notion of brute acquaintance were it fundamental. After all, the idea is that we are in perceptual state with particularized sensory character simply in virtue of being perceptually acquainted with a particular. A view that endorses the psychologistic particularity thesis simply understands the notion of brute acquaintance in a certain way, namely, in terms of sensory awareness. So the same considerations that were brought to bear in support of the singular content thesis being more fundamental than the epistemic particularity thesis can be brought to bear in support of the singular content thesis being more fundamental than the psychologistic particularity thesis. In a nutshell, the point is that it is not clear what it would mean to be brutally acquainted with a particular. It is unclear what it would mean to perceive a particular without at the very least employing discriminatory, selective capacities. But employing discriminatory, selective capacities is to be in a perceptual state with content. The dependence of the psychologistic particularity thesis on the singular content thesis is an explanatory dependence: The singular content thesis explains why the psychologistic dependence thesis holds. Therefore, if the psychologistic particularity thesis were true, the singular content thesis would be more fundamental. However, as argued above, there are powerful reasons to reject the psychologistic particularity thesis altogether.

Finally, let's consider the singular content thesis. It posits that the particularity of an accurate perception manifests itself in perceptual content being singular content. The thesis entails that if perceptual state M is brought about by perceiving the particular α , and perceptual state M^* is brought about not by perceiving α but by perceiving a different particular β , then the content of M is not identical to the content of M^* . The antithesis of the singular content thesis is the general content thesis, according to which perceptual content is entirely general, for example, an existentially quantified content.

There are several ways of understanding the singular content thesis. The orthodox view has it that singular contents are Russellian propositions that are constituted at least

³⁰ Martin argues that sensory character is multiply realizable while nonetheless endorsing the psychologistic particularity thesis. He does so by introducing the distinction between phenomenal character and phenomenal nature: "Once we reflect on the way in which an experience has a subject matter . . . then we need a way of making room for the essentially or inherently particular aspects of this as well as the general attributes of experience. We need to contrast the unrepeatable aspect of its phenomenology, what we might call its phenomenal nature, with that it has in common with qualitatively the same experiential events, what we might call its phenomenal character" (2002: 194). So he argues that perceptions of numerically distinct but qualitatively identical objects have the same phenomenal character. Yet, despite introducing this notion of phenomenal character he maintains that there is at least some difference regarding the sensory character of perceptual states brought about by perceiving numerically distinct objects: They differ in their phenomenal nature. The notion of a phenomenal nature captures an unrepeatable aspect of sensory character that, according to Martin, cannot be specified without reference to the actual object perceived. However, in virtue of introducing an unrepeatable aspect of sensory character, Martin's proposal faces the same problems as any other view that endorses the psychologistic particularity thesis. For a discussion of this set of issues, see Schellenberg (2010).

in part by particulars. On this view, singular content is understood in terms of a constitution thesis, thereby providing a metaphysical basis for the notion of a singular content.³¹ A Fregean can equally lay claim to understanding singular content as having a metaphysical basis. The Fregean just adds some more constituents, namely, modes of presentation under which the environmental particulars are grasped. These modes of presentation will be understood as *de re* or singular modes of presentation, rather than *de dicto* modes of presentation. A *de dicto* mode of presentation lays down a condition that something must satisfy to be the object determined by the content. So a *de dicto* mode of presentation constitutes a way of thinking about objects irrespective of whether there is an object present. The relation between content and object is the semantic relation of satisfaction. By contrast, a singular mode of presentation is constituted at least in part by the particular singled out (as well as, for example, by the capacities employed by means of which the particular is singled out).³² Thus, the content covaries with the environment. So the relation between content and the relevant particulars is not simply one of satisfaction.

An advantage of the Fregean approach over the Russellian approach is that it allows for more fine-grained propositions, insofar as every particular perceived will be represented under a mode of presentation. By operating with such fine-grained propositions, the Fregean view avoids counterexamples to Russellian representational views.³³ Consider a case in which you are looking at a page of graph paper and so a page of symmetrically arranged tiles. You can see the tiles as being grouped. There are a number of ways the tiles can be grouped depending on which tiles are seen to be more prominent. Now, let's say that at time t_1 you see one set of tiles as prominent and at time t_2 you see another set of tiles as prominent *ceteris paribus*. In such a case, there is no difference in the environment: The tiles perceived are exactly the same at t_1 and t_2 . The only difference is how the mind groups the tiles.³⁴ Since there is no change in the environment to which you are perceptually related, it is not clear how a Russellian would account for the change in representational content. A Fregean has no problem dealing with such a case. A Fregean will say that we represent the drawing under different modes of presentation at t_1 and t_2 .

A more general advantage of the Fregean approach is that it does justice to the fact that perception is fundamentally perspectival. The point that perception is fundamentally perspectival is not just that we perceive from a location and so in an egocentric frame of reference.³⁵ The point is more general: We perceive particulars under specific conditions that include our location but also our specific set of perceptual capacities by means of which we navigate the world. There is always a way in which we discriminate and single out particulars in our environment. Say you are seeing a field of flowers that are shades

³¹ For an excellent, recent defense of Russellian singular propositions, see King (2014).

³² There are many possible ways of understanding *de re* modes of presentation given this constraint. It has been argued that they are radically object-dependent such that a mental state does not have content properly speaking if the subject is not related to the relevant mind-independent object. For such a view see Evans (1982) and McDowell (1984). Alternatively, one can argue that the mental state has a defective content if one fails to refer and so understand *de re* modes of presentation as constitutively related to particulars rather than ontologically dependent on the presence of the relevant particulars. For a development of such a view, see Schellenberg (2010).

³³ See for example Neander (1998), Macpherson (2006), and Nickel (2007).

³⁴ For a discussion of this case, see Nickel (2007).

³⁵ For a discussion of these features of perception, see Schellenberg (2007, 2008).

of red and yellow. You can employ your capacity to discriminate between red and yellow and thus be aware of a field of red and yellow flowers. Alternatively, you can employ your capacity to discriminate between crimson, scarlet, and vermilion, and between lemon, mustard, and chartreuse and thus be aware of the colors in front of you in a more fine-grained way. Indeed, we cannot perceive a particular in our environment without perceiving it from our location with our specific perceptual capacities.³⁶ In this sense, we cannot perceive without being constrained by our perspective.

The singular content thesis holds insofar as perception is fundamentally a matter of discriminating and singling out particulars. Discriminating and singling out particulars in turn requires employing discriminatory, selective capacities. Such capacities are repeatable: They can be employed to single out any particular that falls under the type of particular that the capacity functions to discriminate and single out. Insofar as the capacities are repeatable and yield perceptual states that are either accurate or inaccurate of their environment, they yield states with content. Those contents are singular since the capacities single out particulars. In the next section, I will present a more formal argument in support of the singular content thesis.

5. The Singular Content Argument

I have considered four specific versions of the particularity thesis and argued that the singular content thesis is the most fundamental. In light of this, we can now formulate a semantic specification of the particularity argument:

The Singular Content Argument

- V. If a subject S perceives particular α , then S discriminates and singles out α .
- VI. If S discriminates and singles out α , then S 's perceptual state M is constituted by discriminating and singling out α .
- VII. If M is constituted by discriminating and singling out α , then S represents α (under a mode of presentation).
- VIII. If S represents α (under a mode of presentation), then S 's perceptual state M is constituted by α .
- IX. If a subject S perceives particular α , then S 's perceptual state M is constituted by α .

As the singular content thesis is a semantic specification of the particularity thesis, the singular content argument is a semantic specification of the particularity argument. Insofar as it is a specification of the particularity argument, the considerations in support of the premises of the particularity argument hold equally well for the premises of the singular content argument. So if we accept the arguments in support of the premises of the particularity argument and we accept that the singular content thesis is more fundamental than the other species of the particularity thesis, then we should accept the premises of the singular content argument. I will call the view established by the singular content argument *semantic particularism*. In the rest of this paper, I will specify the commitments of this view.

³⁶ For an excellent discussion of how best to understand the mental capacities we bring to bear in perceptual experience, see Speaks (2005).

The singular content argument relinquishes neutrality on both central questions that structure the debate on perceptual particularity. It establishes that perceptual particularity is a matter of the content of experience and that perceptual states are constituted both by the perceived particulars and the general elements by means of which those particulars are singled out. After all, if perceptual states are constituted by employing perceptual capacities and the same perceptual capacity can be employed in many different environments, then perceptual states will be constituted by general elements, namely, the perceptual capacities employed. More generally, if one accepts that the same content could be true in one environment, but false in another, then arguably the content of experience is constituted by at least some general elements.

In what sense are these capacities general? The perceptual capacity *SQUARE* correctly singles out any perceivable square object. In this sense, it is semantically general in the same way that the concept **square** is semantically general. While a perceptual capacity is semantically general, it is, however, syntactically singular insofar as it functions to single out particulars in the environment. It is important to note that perceptual capacities having such a function is compatible with the fact that a perceptual capacity can be employed while failing to single out a particular. In virtue of perceptual capacities being syntactically singular, every employment of such a capacity will yield a representation that is either singular (good case) or defective (bad case). So while perceptual capacities are general, the representations yielded by employing general perceptual capacities are not only syntactically singular, in the good case, they are moreover semantically singular. If this is right, then singular contents are constituted both by the particulars singled out and by the general perceptual capacities by means of which those particulars are singled out.

By employing perceptual capacities we single out a particular in our environment *in a certain way*: When we see a triangle, we can single it out in virtue of it being three-sided or it being three-cornered. When we single out the same particular first in virtue of its three-sidedness and then in virtue of its three-corneredness, we employ different perceptual capacities. The same goes for textures, sounds, colors, objects, events, and any other perceivable particulars. When we stroke a lamb, we can single it out in virtue of it being fluffy or it being fleecy. When we hear a cello in the midst of the cacophony of an orchestra, we can single it out in virtue of its rich timbre or its reverberating sound. When we see a gemstone with a particular ruby shade of red, we can single it out in virtue of it being red or in virtue of it being ruby-red.

Insofar as we single out particulars in a certain way by employing perceptual capacities, we represent particulars under modes of presentation. It is important to distinguish this thesis from the idea that in perception we attribute features to objects or the idea that we predicate properties of objects.³⁷ The thesis I am arguing for differs from both the attribution and the predication thesis. I am not arguing that the fundamental structure of perception is attributive or predicative, but rather that the fundamental structure is a matter of employing perceptual capacities that function to single out particulars. In perception, we represent how the environment is presented to us. Property-instances, objects,

³⁷ For a defense of the idea that perception is a matter of attributing features to objects, see Burge (2010). For the idea that perception is a matter of predicating properties of objects, see Dretske (1969).

and events are all out in the world and if we notice them, we represent them by discriminating them from their surround.

Burge has forcefully defended the view that the fundamental structure of perception is a matter of attributing general features to objects, thereby guiding singular reference (see Burge 2010). According to Burge, singular context-bound perceptual representations must be guided by general attributive representational content: Perceptual content stems from attributing general features to objects. There are reasons to be suspicious of Burge's central thesis. Barcan Marcus, Donnellan, and Kripke have shown that one can refer to an object in one's environment even if the properties one attributes to it are not instantiated by the object.³⁸ The point generalizes to perception: We can successfully single out an object in perception even if we get its location, color, texture, and a whole range of other properties wrong.³⁹ Now the problem with Burge's account is not that it cannot handle the situation in which false attribution guides perceptual reference: If I know you think something is a martini—even though I know it is not—the description “martini” can guide me to the thing you are talking about. The same holds for perception. False attributions can guide perceptual representation. While cases of false attribution are compatible with Burge's view, their existence, however, suggests that what ultimately guides perceptual representation is not attribution of general features, but rather something more fundamental.

The Donnellan and Kripke cases are no problem for semantic particularism. On the view developed, singling out a particular is not in any way dependent on the attribution of general features. So the view denies the core Burgian thesis that there is a constitutive connection between perceptual reference and attribution of general features. In contrast to Burge, I am arguing that the property-instances that we perceive are particulars: The general elements in perceptual experience are the perceptual capacities employed—not attributive representational contents as Burge has it. So while Burge argues that we attribute general properties to objects and events in our environment, I am arguing that we employ general perceptual capacities by means of which we single out particulars, such as property-instances, objects, and events.

There are several further advantages of semantic particularism over Burge's attributive view of perception. An attributive view of perceptual experience is committed to saying that we always attribute fully determinate shape, size, and color properties to objects. But there are many cases in which our perceptual content is not fully determinate. For example, in peripheral vision we do not see the properties instantiated by objects in a fully determinate way. In contrast to attributive views of perceptual experience, semantic particularism has no problem dealing with such cases. On the suggested view, we do not attribute properties to objects, but rather we single out property-instances in the environment. So if there is a property-instance in my peripheral vision, I may single it out by employing a very coarse-grained perceptual capacity, such as the capacity to discriminate something largish from something smallish, or the capacity to discriminate something bluish from something reddish.

³⁸ See Barcan Marcus (1961), Donnellan (1966, 1970), and Kripke (1972). Barcan Marcus, Donnellan, and Kripke each articulate their points in terms of description, but the point easily generalizes to predicating or attributing properties of objects.

³⁹ The generalist would have to rely on a vague notion of partial satisfaction to deal with the fact that we can single out an object despite getting many of its properties wrong.

As I argued above, consecutive experiences of numerically distinct yet qualitatively identical objects should *ceteris paribus* have the same sensory character. After all, there is no qualitative difference in our environment. If, in such a case, there is indeed no difference in sensory character, then any view that accepts the singular content thesis and accepts a representationalist view of sensory character will want to accept that the content of two perceptual states can differ regarding the particulars represented without differing in sensory character. So semantic particularism is committed to weak representationalism, that is, a view on which the sensory character of experience is grounded in the representational content of experience, while rejecting any kind of identity relation between content and sensory character.⁴⁰ On a weak representational view, there can be differences in content that are not reflected in sensory character. The relevant alternative is a strong representationalist view, that is, a view on which what it is for a state to have a certain sensory character is identical to what it is for that state to have a certain representational content.⁴¹ By contrast to strong representationalism, a weak representational view makes room for the distinction between phenomenological and relational particularity, while nonetheless grounding both in the representational content of experience. According to semantic particularism, phenomenological particularity and syntactic particularity are two sides of the same coin.

In a series of papers, I have developed a semantics for both the content of perception and the content of illusion and hallucination. I argue that the content of subjectively indistinguishable perceptions, illusions, and hallucinations are a matter of employing the very same perceptual capacities. Employing such perceptual capacities yields a content type—more specifically, a potentially particularized content schema. In this sense, subjectively indistinguishable experiences share a metaphysically substantial common element. So the view developed is non-disjunctivist. In the case of a successful perception, the subject singles out the particulars she purports to single out, and as a consequence, her mental state is characterized by a singular token content. In the case of an illusion or hallucination, the token content is gappy since the subject fails to single out at least one of the mind-independent particulars she purports to single out.⁴²

The singular content thesis is neutral on whether objects are accessed via the properties they instantiate or vice versa.⁴³ The thesis is compatible with a view according to which we single out colors and shapes in our environment by tracking objects without accessing the objects in consciousness as such. Likewise, it is compatible with a view according to which we single out objects in our environment via the properties they instantiate without accessing these property-instances in consciousness as such. Moreover, the thesis is neutral on whether property-instances or objects are accessed at all in experience. The singular content thesis is committed only to there always being at least one particular represented in perception.

Now, I am not saying that when we perceive a particular, the particular is not *experienced* as a particular. In a phenomenological sense, one always experiences a particular

⁴⁰ There are many reasons to reject that there is an identity relation between perceptual content and sensory or phenomenal character. One reason is that any such identity claim would amount to a category mistake.

⁴¹ For a helpful classification of different versions of representationalism, see Chalmers (2006).

⁴² For an argument and a detailed development of this view, see my (2010), (2011a), and (2013b).

⁴³ See Burnston and Cohen (2012) for a discussion of whether we see objects in virtue of seeing properties or whether we see properties in virtue of seeing objects.

as a particular. Indeed, even in hallucination—at least a hallucination that is subjectively indistinguishable from a perception—one will experience one’s environment as containing particulars. That is what the notion of phenomenological particularity captures. While particularism allows that the numerical distinctness of particulars need not be revealed in sensory character, it is not, however, a problem for the view if a particular is experienced as a particular. There are different constraints operating on a theory of perceptual content: It should account for the accuracy conditions of perceptual experience and ground the sensory character of experience. Semantic particularism can account for there being differences in accuracy conditions when seeing α rather than seeing the numerically distinct but qualitatively identical β , while allowing that the sensory character of the two experiences are exactly the same.

6. Conclusion

Perception grounds demonstrative reference, definite descriptions, *de re* mental states such as singular thoughts, and fixes the reference of singular terms. Moreover, perception provides us with knowledge of particulars in our environment and justifies singular thoughts about particulars in our environment. I have provided an argument for the thesis that perceptual states are constituted by particulars that does not itself depend on perception playing these epistemological and cognitive roles. Thus, I have given an explanation of how it is that perception can play these roles in our epistemic and cognitive lives. More specifically, I have argued that perceptual states are constituted by the particulars perceived in virtue of their singular content.⁴⁴

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