DOES PERCEPTION OUTSTRIP OUR CONCEPTS IN FINENESS OF GRAIN?

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Abstract
We seem perfectly able to perceive fine-grained shades of colour even without possessing precise concepts for them. The same might be said of shapes. I argue that this is in fact not the case. A subject can perceive a colour or shape only if she possesses a concept of that type of colour or shape. I provide new justification for this thesis, and do not rely on demonstrative concepts such as THIS SHADE or THAT SHAPE, a move first suggested by John McDowell, but rejected by Christopher Peacocke and Richard Heck among others.[1]

1. Introduction

My claim is that a subject can have a perception of a colour or shape only if she possesses a concept of that type of colour or shape. This thesis, which I call *Colour and Shape Conceptualism*, may seem counter-intuitive. It seems that we can perceive some colours and shapes perfectly well even though we lack precise concepts for them. It seems that in such cases our perceptions outstrip our concepts in terms of their fineness of grain. I think that this is incorrect, and I try to show how we possess precise colour and shape concepts for every shade and shape that we can perceive. I do so without appealing to demonstrative concepts such as THIS SHADE or THAT SHAPE, a solution first suggested by John McDowell,[2] but rejected by Christopher Peacocke,[3] Richard Heck,[4] Jerome Dokic and Elizabeth Pacherie,[5] and Sean Kelly.[6]

I call *Nonconceptualism* the view that a subject can have a perception of some property even if she lacks a concept of that type of property. This version of Nonconceptualism is a kind of 'State Nonconceptualism,' a view recently endorsed and defended by Tim Crane.[7] On this view, for instance, one can have a perception that the ball is shiny even if one lacks the concept SHINY.

I call *Conceptualism* the view that a subject can have a perception of some property only if she possesses a concept of that type of property. In order to have a perception that the ball is shiny, for example, one has to have the concept SHINY.

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[1] Special thanks to Paul Franks, Diana Raffman, and especially Mohan Matthen out of whose 2005 book and article many of the views in this paper are developed. I am also thankful to audiences at the 2010 American Philosophical Association Eastern Division Meeting, Brown University, Northwestern University, and the University of Toronto, and especially to Matthew Fulkerson, Aaron Griffith, Eric Liu, Franklin Scott, Jeff Snapper, and Steven Yamamoto.

[2] John McDowell, *Mind and World* (Cambridge: Harvard University Press, 1994).

[3] Christopher Peacocke, 'Does Perception Have a Nonconceptual Content?', *Journal of Philosophy* 98 (5) (2001), 239-64; 'Nonconceptual Content Defended', *Philosophy and Phenomenological Research* 58 (1998), 381-8; 'Phenomenology and Nonconceptual Content', *Philosophy and Phenomenological Research* 62 (2001), 609-17.

[4] R. G. Heck, 'Nonconceptual Content and the "Space of Reasons"', *The Philosophical Review* 109 (4) (Oct. 2000), 483-523.

[5] Jerome Dokic and Elizabeth Pacherie, 'Shades and Concepts', *Analysis* 61 (2001), 193-202.

[6] S. D. Kelly, 'Demonstrative Concepts and Experience', *The Philosophical Review* 110 (3) (2001), 397-420; 'The Nonconceptual Content of Perceptual Experience: Situation Dependence and Fineness of Grain', in *Essays on Nonconceptual Content*, York Gunther, (ed.), (Cambridge: MIT Press, 2003).

[7] Tim Crane, 'Is Perception a Propositional Attitude?', *Philosophical Quarterly* 59 (236) (2009), 452-69.

Conceptualism entails Colour and Shape Conceptualism: if a perception of some property requires the possession of a concept of that property, then, since colours and shapes are properties, a perception of a colour and shape requires the possession of a concept of that type of colour and shape.

Very plausibly,[8] one can have a *belief* that the ball is shiny only if one possesses the concept SHINY. Conceptualism is the view that one can have a *perception* that the ball is shiny only if one possesses the concept SHINY. According to Conceptualism, perceptions and beliefs have the same structure. Both are concept-dependent, and this fact creates an easy transition between them. It simplifies the justificatory process.

2. Preliminaries

2.1 The Argument from Fineness of Grain

The argument from fineness of grain[9] is one motivation for Nonconceptualism.[10] It runs as follows. We possess general colour concepts such as BROWN and LIGHT BLUE. However, there are much finer-grained shades, which we seem perfectly able to perceive even if we do not possess general colour concepts for them.[11] For example, it seems that we can perceive sepia things even without the concept SEPIA. Nonconceptualists argue that in such cases we do not need to possess a colour concept of a shade in order to experience that shade. The same line of reasoning holds *mutatis mutandis* for shapes.

Nonconceptualists can grant that there are non-specific ways of articulating one's perception, but deny that such articulations are sufficient. A lazy or inarticulate speaker, for instance, might say while looking at his messy desk that he perceives *that there are lots of things*. Nonconceptualists can argue that such an articulation is insufficient given that it does not adequately reflect the detail of what he experiences. Similarly, they can argue that it is unacceptable to say that one has a perception *that the ball is red* when one has a perception of a maroon ball. Such a general description does not adequately reflect the detail that one perceives.

2.2 Concepts Defined

According to the thesis I am arguing for, a subject can have a perception of a colour or shape only if she *possesses a concept* of that type of colour or shape. What is a concept, and what does it mean to possess one? Starting with the former question, are concepts abstract objects or mental objects? For this paper, my assumption will be that concepts can be treated like numbers in the following respect. We can answer most questions about numbers without having to answer whether they are abstract objects or not. An engineer can use numbers to construct a bridge without ever having to worry about their ontological status. In what follows, I assume that

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[8] But see Robert Stalnaker, 'What Might Nonconceptual Content Be?', in *Essays on Nonconceptual Content*.

[9] See Gareth Evans, *The Varieties of Reference*, John McDowell, (ed.), (Oxford: Clarenden Press, 1982), p. 229. See also Heck, 'Nonconceptual Content and the "Space of Reasons"', pp. 489-90.

[10] Jeff Speaks concludes that the argument from fineness of grain does not entail state nonconceptualism ('Is There a Problem About Nonconceptual Content?', Philosophical Review 114 (2005), pp. 379-82), but his argument relies on McDowell's demonstrative solution. In section 4.2, I argue we have good reason to reject the demonstrative solution.

[11] Diana Raffman, 'On the Persistence of Phenomenology', in *Conscious Experience*, Thomas Metzinger, (ed.), (Paderborn: Schöningh Verlag, 1995), pp. 294-7.

concepts can be treated similarly (with an important modification shortly). I acknowledge that these ontological questions are important, but the main question that I am concerned with is what it means to possess a concept. My assumption is that I can answer this question without delving into the ontological ones.

I will argue that there are several ways to possess a concept, but that they have a common core. Simply put, to possess the concept of a *B* is to have the ability to consistently type-identify *B*s in ideal contexts. What does it mean to type-identify a *B*? It means to classify, or categorize that *B* as a *B*. To possess the concept of an ostrich, for example, is to have the ability to consistently type-identify ostriches in ideal contexts, that is, to be able to consistently classify a given ostrich as an ostrich. I will say much more throughout the paper about how exactly this type-identification occurs. Later in the paper, I also give an argument for why we should hold this notion of concept possession.

Even though I hope to remain neutral on whether concepts are abstract or mental objects, let me note an argument in support of holding that concepts are abstract objects. Concept possession is the ability to consistently type-identify *B*s. However, some machines have such an ability. They can classify square things as square or red things as red. So, by my definition, machines can possess concepts.

I admit that it is counter-intuitive to think that machines have concepts. However, I think that the counter-intuitiveness is due to thinking about concepts in one particular way, which we can avoid. If we assume that concepts are mental objects, then it seems absurd that robots have concepts, since machines do not have mental representations. Still, there is another sense of concepts in which concepts seem to exist even if there is no one around to have mental representations. The idea is that even if everything capable of a mental representation were to die, concepts would still exist. On this view, concepts are abstract objects, not mental representations. Since the case of classifying-machines gives us pause to hold that concepts are mental representations, we therefore have one reason to hold that concepts are abstract objects instead.

2.3 Possession Conditions for Concepts Defined

My concern in this paper is not so much with concepts themselves, but with what it means to possess a concept. Christopher Peacocke holds that possession conditions for concepts 'state what is required for *full mastery* of a particular concept.'[12] I think this misstates the role of possession conditions. For one, it makes the notion of a concept inconsistent with how we ordinarily talk about concepts. We attribute concepts for much less than full mastery, and Peacocke admits as much. But what he fails to admit is that when we attribute a concept, it is because we take the subject to possess that concept. This is not to say we think she has full mastery of that concept. It is rather that we think that the right kind of partial mastery is sufficient for concept possession.[13] Of course, we might sometimes wrongly attribute a concept to someone who lacks even partial mastery. But if Peacocke is right, then our attributions are systematically wrong. We are wrong every single time we attribute a concept to someone who

[12] Christopher Peacocke, *A Study of Concepts* (Cambridge, MA: MIT Press, 1992), p. 29. My emphasis.

[13] Compare George Bealer, 'Modal Epistemology and the Rationalist Renaissance', in *Conceivability and Possibility*, Gendler and Hawthorne, (eds.), (Oxford: Oxford University Press, 2002), p. 102.

falls short of full mastery. We are wrong because we are attributing to them a concept that, according to Peacocke, they do not in fact possess.

Suppose a subject is unable to reliably discriminate green things from orange things. Yet, suppose she can reliably discriminate green things from things of other colours. Furthermore, by reading books and asking others, she knows which things are typically green, and she is able to make inferences about green things. Now, presumably she lacks full mastery of the concept GREEN. People with full mastery are able to reliably discriminate green things from orange things, and she cannot. Yet, if we were to witness the subject's near perfect competence, we would likely attribute to her the concept GREEN, and I take it that Peacocke would agree. When we attribute a concept to her, though, we are not attributing to her a concept that she lacks. Sure she lacks full mastery. She cannot discriminate green and orange. Still, she can see green, and she knows which things are actually green, and she can use the concept in inferences. We would attribute to her the concept GREEN because she has the right kind of partial mastery, and the right kind of partial mastery is sufficient for concept possession. Full mastery is not required.

3. The Argument for *Colour and Shape Conceptualism*

3.1 The Argument for Pre-Conscious Classification

We often classify the objects that we perceive according to the colours and shapes under which we perceive them. We say or think that a house is cape cod blue, or that a particular soccer ball is strangely ellipsoidal. In this section, I offer evidence that this is simply the end stage of the classificatory process. Consider the fact that the image on your retina is in two dimensions and upside down. That information gets identified and reconstructed as your visual image. Subpersonal classification is taking place, that is, classification done by your sensory system prior to when you get that perceptual image.

My claim is that prior to consciousness (not just conscious awareness, but also conscious accessibility) the sensory system has already classified something as red. Traditionally, it was held that something appears to be red and then gets classified as red, by the subject. The argument in this section is that something appears to be red only *after* it has been classified as red by the sensory system.[14]

One piece of evidence for pre-conscious classification is the case of hemifield neglect. Patients with hemifield neglect have brain damage in the right side of their brain, causing them to neglect the left side of their visual field. In one case, a patient was presented with green line drawings of two houses, identical in all respects, except that one was on fire and the other was not. The bright red flames of the fire were placed in the blind portion of the subject's visual field. The subject claimed that the houses were the same, yet when asked which one she would like to live in, she reliably chose the one not on fire.[15]

In this case of hemifield neglect, the subject could deploy information received through the blind portion of her visual field. Although the image of the flames never makes it into her conscious appearance, she is able to use that information when asked which house she would like to live in. One explanation for this is that the information is being classified prior to that information making it into her conscious appearance.

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[14] See Mohan Matthen, *Seeing, Doing, Knowing: A Philosophical Theory of Sense Perception*, (Oxford: Clarendon Press, 2005), p. 30.

[15] J. Marshall and P. Halligan, 'Blindsight and Insight in Visuo-Spatial Neglect', *Nature* 336 (1993), p. 766.

A second piece of evidence for pre-conscious classification is the case of blind sight. Blindsighted patients have a neurological condition such that they are blind in part of their visual field. Yet, they are able to use information received through that blind portion. Lawrence Weiskrantz, one of the original researchers into blindsight, describes one case where a subject was presented with a black and white striped circle.[16] The circle was placed in his blind field. Sometimes the stripes were oriented horizontally, and other times they were not. The subject was then asked to guess whether the circle in his blind field was oriented horizontally or not. He guessed correctly at well above chance, and for some cases, he guessed nearly perfectly. He was nearly perfect at determining that the horizontally-oriented circle was horizontal, and was also nearly perfect at determining that an obviously non-horizontally-oriented circle was non-horizontal. A second study conducted by Weiskrantz tested shape identification. A blindsighted subject was asked to guess whether the stimulus placed in the blind portion of his visual field was an 'X' or 'O.' As in the orientation case, the subject guessed at well above chance levels.[17]

The blindsight studies I have described so far were originally conducted by Weiskrantz in the 1970's. They were designed to make broad determinations (for instance, about whether blindsighted patients detected orientation and shape). Since Weiskrantz's pioneering work, however, other cases of blindsight have provided evidence that the processing occurs at a fine-grained level and includes information about shape, size, and orientation, as well as letters and words,[18] and also colour.[19]

Let me be clear that I am pushing a certain interpretation of blindsight. My claim is that although blindsight is a cognitive deficit, it is indicative not only of visual processing in blindsight cases, but also of visual processing in normal sighted patients. There is evidence for this claim. For one, blindsight can be induced in normal sighted patients. A 2005 study used magnetic stimulation to induce temporary blindsight in normal sighted patients.[20] In one trial, subjects were presented with bars oriented in a certain way. In a second trial, they were presented with patches of a certain colour. Even when the subjects said that they had seen nothing, when asked to guess the orientation or the colour, they guessed correctly at a rate better than chance.[21]

In blindsight, colour and shape information is classified, even without it appearing to the subject. So blindsight is one piece of evidence that pre-conscious classification occurs, but there is other evidence as well.[22]

In studies of *metacontrast*, a target stimulus is presented very briefly, followed by a brief masking stimulus.[23] The masking stimulus surrounds, but does not overlap spatially with the

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[16] Lawrence Weiskrantz, *Consciousness Lost and Found* (Oxford: Oxford University Press, 1997), p. 18.

[17] Lawrence Weiskrantz, *Blindsight: a Case Study Spanning 35 Years and New Developments* (New York City: Oxford University Press, 2009), p. 91.

[18] Anthony J. Marcel, 'Blindsight and Shape Perception: Deficit of Visual Consciousness or of Visual Function?' *Brain*, 121 (1998), 1565-88.

[19] J. Danckert, P. Maruff, G. Kinsella, S. de Graaff and J. Currie, 'Investigating Form and Colour Perception in Blindsight Using an Interference Task,' *Neuroreport* 14 (1998), pp. 2919–25.

[20] Jennifer L. Boyer, Stephenie Harrison, and Tony Ro, 'Unconscious Processing of Orientation and Color Without Primary Visual Cortex', *Proceedings of the National Academy of Sciences U.S.A.* 102 (2005), 16875–79.

[21] For a summary, see Victor A. F. Lamme, 'Zap! Magnetic Tricks on Conscious and Unconscious Vision', *Trends in Cognitive Science*, 10 (2006), 193–95.

[22] See Matthen, *Seeing, Doing, Knowing: A Philosophical Theory of Sense Perception*, pp. 25-6.

[23] Bruno Breitmeyer and Haluk Ögmen, *Visual Masking* (Oxford: Oxford University Press, 2006), p. 5.

target. For example, if the target is a disc, then the masking stimulus is a non-overlapping ring surrounding the disc. The fascinating thing about metacontrast is that subjects are unable to report properties of the target because the mask blocks their recall of it. If the target is a disc, then the surrounding ring blocks their recall of the disc. Yet studies have repeatedly shown that information about the target influences the subject's cognitive processes.[24] In cases of metacontrast, information from the target seems to be classified, even though it is unavailable to the conscious subject.

3.2 Subpersonal Possession of a Concept Defined

The cases of hemifield neglect, blindsight, and metacontrast provide evidence for a distinction between classification and consciousness. They show us that information is classified even if the subject is not conscious of that information. This motivates the view that classification occurs prior to consciousness.

Suppose we hold that to possess the concept of a *B* is to have the ability to consistently categorize *B*s as *B*s, that is, to be able to type-identify them. This is precisely what is occurring prior to when you entertain a visual image. Classification occurs subpersonally, and given that subpersonal classification occurs, consider the following possession condition for a concept:

> **Subpersonal Possession of a Concept:** An organism subpersonally possesses a concept *C* of a colour or shape *F* if and only if the organism is able to type-identify *F*-things prior to consciousness.

According to this condition, if an organism is able to categorize decagonal things as such prior to consciousness, then the organism possesses a concept of a decagon in the subpersonal sense. The same holds true about colours. If the organism is able to categorize sepia things as such prior to consciousness, then the organism possesses the concept of sepia in the subpersonal sense.

3.3 The Core Argument for Colour and Shape Conceptualism

If we take the blindsight and metacontrast studies as indicative of sensory processing, then for every colour or shape in visual consciousness, one has subpersonal possession of a concept of that colour and shape.[25] The fact that these colours and shapes are in consciousness in the first place shows that one already possesses a concept for these colours and shapes. It's just that one possesses them in the subpersonal sense. Subpersonal possession is defined as being able to type-identify *F*-things subpersonally. For every colour or shape *F* in one's consciousness, one *is* able to type-identify *F*-things subpersonally. A colour or shape cannot make it into consciousness without first being categorized as that type of colour or shape.

Recall my thesis: a subject can have a perception of a colour or shape only if she possesses a concept of that type of colour or shape. If possession means subpersonal possession, then this thesis is true. A subject can have a perception of a colour or shape only if she possesses a concept of that type of colour or shape in the subpersonal sense, that is, only if she can type-identify that colour or shape prior to consciousness.

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[24] Breitmeyer and Ögmen, *Visual Masking*, p. 37.

[25] Following McDowell and Brewer, I hold that given a colour sample *x*, a colour falls under the concept SHADE X if and only if it is indiscriminable from *x*. The same holds, *mutatis mutandis*, for shapes. To see how this formulation avoids problems with the intransitivity of perceptual indiscriminability, see McDowell (1994, 170-1) and Brewer (1999, 174-5).

3.4 A Reply to the Objection of Triviality

There are *high* theories of concept possession and *low* theories of concept possession.[26] A high theory holds a high threshold for concept possession, while a low theory holds a low threshold. Suppose a theory holds that possessing a word for *sepia* is a necessary condition for possessing the concept SEPIA. That would be a high theory. Suppose a theory holds that the mere ability to discriminate sepia things from non-sepia things is sufficient for possessing the concept SEPIA. That would be a low theory.

Subpersonal concept possession certainly falls somewhere on the low end of the spectrum. However, the debate between conceptualists and nonconceptualists assumes a high theory of concept possession.[27] The worry is that by assuming a low theory of concept possession, Conceptualism will be true by stipulation. By holding such a low bar for what counts as a concept, perception will qualify as conceptual too easily. I will have rendered the debate trivial.[28]

Michael Ayers, Hannah Ginsborg, A. D. Smith and Josefa Toribio all object to the same low theory of concept possession, the view that concept possession is a mere discriminative ability. But I agree with them on this. If concept possession is just the ability to discriminate *F*s from non-*Fs*, then the debate would be trivial. On my view, though, to possess the concept of an *F* is more than this. It is to have the ability to type-identify *F*-things, that is, to categorize that thing as *F*. This definition meets Smith's criterion for making the debate between conceptualists and nonconceptualists interesting. According to his criterion, to make the debate interesting, one needs to hold that 'to possess a concept is to be in a position to *classify* objects,'[29] and I am proposing exactly that sort of notion.

There is a clear difference between discrimination and type-identification. One might be able to discriminate a colour or shape from others, yet not be able to identify it.[30] For instance, one might be able to discriminate a sepia shade from non-sepia shades, yet not be able to identify the shade as sepia when presented with that shade by itself. Type-identification is a higher standard than mere discrimination, since classifying something as sepia requires more than just a discriminative ability.

I want to be clear about what I mean by 'type-identification,' and what I do not mean. Suppose that you take all of the objects on your desk and sort them into piles. This might not qualify as type-identification. To type-identify one of those objects is to categorize it according to some criterion. To type-identify an ostrich, for instance, is to categorize it as an ostrich. Yet,

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[26] See A. D. Smith, *The Problem of Perception* (Cambridge, MA: Harvard University Press, 2002), p. 110.

[27] But see Alva Noë, *Action in Perception* (Cambridge, MA: MIT Press, 2004).

[28] See Michael Ayers, *Locke* (New York: Routledge, 1991), pp. 176-9. See Hannah Ginsborg, 'Empirical Concepts and the Content of Experience', *European Journal of Philosophy* 14 (3) (Dec. 2006), p. 359. See Adina L. Roskies, 'A New Argument for Nonconceptual Content', *Philosophy and Phenomenological Research* 76 (3) (May 2008), p. 649. See Smith, *The Problem of Perception*, pp. 110-1. See Josefa Toribio, 'State Versus Content: The Unfair Trial of Perceptual Nonconceptualism', *Erkenntnis*, 69 (3) (2008), p. 353.

[29] Smith, *The Problem of Perception*, p. 111. But cf. Roskies, 'A New Argument for Nonconceptual Content', p. 649.

[30] See Raffman, 'On the Persistence of Phenomenology', pp. 294-5.

just because you sort the objects on your desk into piles, it does not follow that they are categorized according to some criterion. There may be no criterion that you are employing when you are sorting those objects. In other words, you may be sorting *F*s, but it does not follow that you are categorizing *F*s as *F*s.

Suppose that you are discriminating colour *x* from colour *y*. What kind of categorizing is occurring? If discriminating two colours is categorizing at all, at best it is categorizing colour *x* as different from colour *y*. But this is not to say that you are classifying either of those colours as the type of colour that it is. Analogously, I might be able to discriminate ostriches from a background. But if this act involves categorization at all, it does not involve categorizing ostriches as ostriches. You can discriminate two colours without categorizing them as the type of colour that they are. So from your mere discriminative ability alone, it does not follow that you have a concept of that type of colour.

The concern of this section is that by holding such a low bar for concept possession, perception will easily qualify as conceptual. I admit that I hold a low bar for concept possession, and also that other participants in the debate (with the exception of Noë) hold a high bar. However, I do not hold the particular low theory to which these high theorists object. My theory holds higher standards. It may not be a high theory, and I acknowledge that. However, high theories can be problematic as well. As I will argue shortly, we have reason to reject at least one popular high theory of concept possession.

3.5 Personal Possession of a Concept Defined

When we credit someone with the possession of a concept, it is likely that they are able to do much more than just subpersonal type-identification. If someone possesses a concept of sepia, for instance, they are probably able to make logical inferences about sepia. Possession conditions (*pace* Peacocke) are not necessary conditions for concept possession. They do not state what is required for *full* mastery. So we need not conclude that the subpersonal possession condition is insufficient for concept possession. We can conclude instead that there is a personal-level possession condition in addition to a subpersonal one:

> **Personal Possession of a Concept**: An organism personally possesses a concept *C* of a colour or shape *F* if and only if the organism is able to type-identify *F*-things *posterior to* consciousness.

According to this condition, if an organism is able to type-identify decagons posterior to consciousness, then the organism possesses the concept of a decagon in the personal sense. The same holds true *mutatis mutandis* for shades of colour.

4. Replies to Some Objections

4.1 A Reply to the Epistemic Argument

Consider the *Epistemic Argument*, a traditional motivation for Conceptualism.[31] The argument runs as follows. There is a causal relationship between perception and belief, but the relationship between the two is not solely causal. We are not simply forced into our perceptual beliefs by causal laws. Rather, a perception is also *rationally* related to a belief. We can reflect on whether a particular perception provides a good reason for a belief. We believe that the ball is shiny

[31] See McDowell, *Mind and World*, pp. 7-13. See also Bill Brewer, *Perception and Reason* (Oxford: Clarenden Press, 1999), Ch. 2 and 3.

because we see that the ball is shiny, where 'because' means 'for the *reason* that' not just 'in virtue of the cause that.' Perceptions provide reasons for beliefs.

We could always give an external account of why the subject believes what she does, the argument continues. Perhaps we could give a scientific account of her brain processes, or maybe we could just justify her beliefs through reasons that we know, but that she does not. In any case, these external reasons would not be the subject's rational grounds for her beliefs. They would not be her own reasons. If the reasons that perceptions provide are to be a subject's rational grounds for her beliefs, grounds that she can entertain, and not merely external causal grounds, then they need to be the subject's own reasons. She needs to be able to entertain the reason provided to her by her perception, namely, *that the ball is shiny*. This is the reason for her belief that the ball is shiny.

If the reasons that perceptions provide are to be the subject's own reasons, reasons that she can entertain, then she can articulate them. Unlike the scientific reasons based on her brain processes, she can say what her own reasons are. If she can articulate them, then they are composed of concepts that she possesses. So, for instance, she can have a perception that the ball is shiny only if she possesses the concept SHINY. But articulability means more than this. It also implies that she must have words for the concepts. Call this *The Articulation Constraint*.

> **The Articulation Constraint**: *S* possesses a concept of *x* only if she possesses an expression for *x*.

The articulation constraint creates a high standard for concept possession. But the constraint itself is problematic.

Imagine two children, one sitting in a classroom learning new words, the other a feral child, who can hunt, fish, and interact with the world in very complex ways, but who has no language. Suppose the first child learns the word 'fish,' but is not very good at applying it correctly. She applies it correctly sometimes and incorrectly other times. Suppose the feral child is competent at identifying fish, although he cannot learn the word 'fish.' In addition, due to his practice hunting fish, the feral child can identify which fish taste good and which fish do not, which fish are sensitive to his slight movements in the water, and which fish are not sensitive, which fish swim in shallow water and which fish do not. Many non-human animals can do just this. Why deny that a feral child can?

The feral child's competence in identifying fish is far superior to the schoolchild's, even though she possesses the word 'fish.' We should credit him with the concept FISH, even though he lacks a word for it. Yet, if this is right, the articulation constraint is false. *S* can possess a concept of *x* even without possessing a word for *x*. Possessing a word for a concept is not a necessary condition for possessing that concept, and since a popular high theory of concept possession says otherwise, that theory is false.

We now have a further argument for holding that type-identification is the mark of concept possession. Recall that a high theory of concept possession holds a high bar for what it takes to possess a concept, and a low theory holds a low bar for what it takes to possess a concept. The predominant high theory in this debate is problematic. You do not need a word for a concept. The feral child case shows this. But low theories of concept possession are problematic too. A mere discriminative ability does not suffice for concept possession. After all, you might be able discriminate one shade of colour from another, yet not be able to identify it. The fineness of grain argument has this right. There are lots of shades of colour and shapes,

which we can discriminate perfectly well, but for which we seem to lack concepts. Discrimination alone does not suffice for concept possession.

The type-identification view of concept possession falls in the middle between two extremes. The predominant high theory of concept possession holds that possessing a word is necessary for concept possession. I argued against this. The predominant low theory of concept possession holds that a mere discriminative ability is sufficient for concept possession. I argued against this. We are left with a middle position, one that denies the necessity of word possession as well as the sufficiency of a mere discriminative ability. The type-identification view meets these criteria.

4.2 A Reply to the Argument from Fineness of Grain

Recall the argument from fineness of grain. We possess general colour concepts such as BROWN and LIGHT BLUE. However, we can perceive much finer-grained shades, even though we do not possess colour concepts for them.[32] In such cases we do not need to possess a colour concept of a shade in order to experience that shade.[33]

In *Mind and World*, John McDowell concedes that we do not have as many general *expressions* for colour concepts as shades of colour that we can sensibly discriminate (p. 57).[34] But, he argues, even though we lack general colour expressions like *red* or *kelly green*, demonstrative expressions such as 'this shade,' 'that shade,' or 'coloured thusly' can express concepts for which we possess no general colour expressions.[35] If we lack the concept SEPIA, we can say in the presence of a sepia ball, 'The ball is that shade' even if we cannot say, 'The ball is sepia.'

McDowell's demonstrative solution has come under pressure from Peacocke,[36] Heck,[37] Dokic and Pacherie,[38] and Kelly.[39] McDowell,[40] Brewer,[41] Sedivy,[42] and Chuard[43] have attempted to respond to these criticisms. What I hope to show is that the force of the fineness of

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[32] Raffman, 'On the Persistence of Phenomenology', pp. 294-7.
[33] Evans, *The Varieties of Reference*, p. 229.
[34] McDowell, *Mind and World*, p. 57.
[35] McDowell, *Mind and World*, p. 57.
[36] Peacocke, 'Does Perception Have a Nonconceptual Content?'; 'Nonconceptual Content Defended'; 'Phenomenology and Nonconceptual Content'.
[37] Heck, 'Nonconceptual Content and the "Space of Reasons"'.
[38] Dokic and Pacherie, 'Shades and Concepts'.
[39] Kelly, 'Demonstrative Concepts and Experience'; 'The Nonconceptual Content of Perceptual Experience: Situation Dependence and Fineness of Grain'.
[40] McDowell, *Mind and World*, Appendix III; 'Reply to Commentators', *Philosophy and Phenomenological Research*, 58 (1998), 414-9.

[41] Brewer, *Perception and Reason*; 'Perceptual Experience has Conceptual Content', in *Contemporary Debates in Epistemology*, Sosa and Steup, (eds.), (Oxford: Blackwell, 2004).

[42] Sonia Sedivy, 'Nonconceptual Epicycles', *European Review of Philosophy* 6 (2006), pp. 31-64.
[43] Phillipe Chuard, 'Demonstrative Concepts Without Re-Identification,' *Philosophical Studies*, 130 (2006), pp. 153–201; 'Indiscriminable Shades and Demonstrative Concepts,' *Australasian Journal of Philosophy*, 85 (2) (2007), pp. 277-306.

grain argument has been diminished once we consider the argument for Colour and Shape Conceptualism. McDowell's reply to the fineness of grain argument then becomes unnecessary.

Evans is mistaken that we lack precise colour concepts for each and every fine-grained shade. For every colour *F* in one's consciousness, one has a concept of that colour. Concept possession is the ability to type-identify *F*-things. It's just that this classification occurs at the subpersonal level. The fact that one is able to type-identify *F*-things is demonstrated by the fact that those colours are already in one's consciousness.

McDowell is responding to cases of colour perception where a subject purportedly lacks an expression to associate with a concept. His demonstrative solution is intended to show that we do not lack expressions for fine-grained colour concepts. We have them in the form of demonstrative expressions such as 'that shade.' My reply is that even if we do lack expressions to associate with concepts, we can possess concepts in other ways. This is what the feral child case shows. The fact that we lack an expression for a concept does not imply that we lack the concept itself.

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