

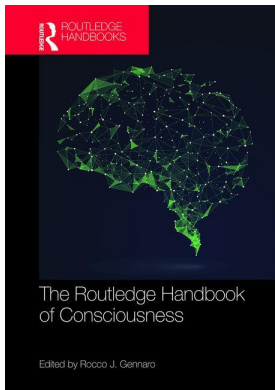
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CONSCIOUSNESS AND
CONCEPTUALISM*Philippe Chuard*

Consciousness takes many forms. There's the visual awareness of a yellow school bus, the auditory consciousness of its engine's roar, the olfactory experience of its exhaust fumes, etc. There's also the cognitive awareness of objects, facts, and states-of-affairs when thinking of Budapest or of the French elections, when endorsing the classical properties of logical consequence. Not to mention other kinds, including emotions, bodily sensations, etc. These forms of consciousness differ in a variety of respects: whether they are tied to a specific sense organ (if at all), their distinctive phenomenology (what "it is like" to be in such-and-such conscious psychological state), the sorts of things they make us aware of (colors, sounds, smells, cities, social phenomena, or logical properties, etc.), and the different functions they occupy in our psychological lives (their contribution to rational thought-processes, to the acquisition of evidence and knowledge, how they can lead to action and behavior, etc.).

One significant contrast in this regard concerns the broad divide between *sensory* forms of conscious awareness and purely *cognitive* ones—between thinking, believing, judging, supposing, on the one hand, and seeing, hearing, touching, smelling, etc., on the other. Such contrast involves differences along several dimensions too (in phenomenology, functional role, etc.). But one crucial dimension is the manner in which sensory perception and cognition make us consciously aware of objects, features, situations, facts, etc. Whereas thoughts and beliefs seem to be essentially tied with concepts, sensory consciousness may not be, one suggestion goes.¹

According to this "nonconceptualist" approach, sensory perception is separate from—and need not involve—conceptualization: the deployment of concepts marks a later stage in the cognitive process, one that causally depends on sensory consciousness rather than "permeates" or "suffuses" it entirely.² By contrast, *conceptualism* maintains that, just as thoughts and beliefs essentially depend upon the use and possession of concepts to represent what they do, perceptual experiences cannot make us aware of objects and features in our environment without conceptual identification and categorization.³ Conceptualists needn't deny there's a divide between perception and cognition: such a divide, they say, has little to do with the presence or absence of conceptualization—in fact, it is essential to the interaction between sensory consciousness and cognition that such divide be bridged by conceptualization on both sides, conceptualists argue, in what appears to be one main motivation for the view.⁴

At the heart of this disagreement lies a series of related questions about the nature of sensory perception and the distinctive kind of consciousness it constitutes. For instance:

- i Should all forms of consciousness (i.e., all types of conscious psychological states) be modelled on the specific kind of cognitive awareness underpinning conscious thoughts and beliefs?
- ii Is there a purely sensory level of consciousness and, if so, how does it differ from, and interact with, cognitive states like judgments and beliefs that typically accompany conscious perception?
- iii Does the phenomenology of conscious sensory states essentially differ with respect to how things appear to us in perception from how we think about and recognize perceived items in our environment?

Answers to such questions largely divide conceptualists and non-conceptualists, with wide-ranging implications for a host of related issues in the philosophy of mind and epistemology, many of which I'll have to ignore, unfortunately: e.g., how animals and young infants perceive and know their environments,⁵ what contribution conscious perception makes to the acquisition of concepts,⁶ and how it serves as a source of evidence and knowledge.⁷

I begin with some of the background assumptions informing the dispute (Section 1), and then review some of the considerations advanced against conceptualism (Sections 2–3). I'll limit myself to arguments that explore features specific to the distinctive kind of consciousness characteristic of sensory experiences.⁸

1 Conceptual Content?

What are concepts? And what roles do they play in our psychology? The starting point of the dispute between conceptualists and non-conceptualists resides in a number of related platitudes—largely shared on both sides⁹—about how concepts are connected with thoughts and beliefs.

First, concepts can be *possessed* (or not) by psychological subjects.¹⁰ And *which* concepts subjects do possess sets constraints on *which* beliefs and thoughts they are capable of thinking. Without the concept of an *ARMADILLO*,¹¹ Fred can't think about armadillos as such. Second, concepts seem essentially *representational*, serving to classify different *kinds* or *categories* of things. The concept *KANGAROO* allows one to think about kangaroos, just as *RED* serves to think about red things. This representational function is *compositional*: single concepts can combine into more complex strings of concepts—e.g., the concept of a *RED KANGAROO*, or the complex representation that *KANGAROOS AREN'T ARMADILLOS*—some of which are assessable for truth or falsity. And the ability to combine and recombine different concepts appears central to the ability to entertain new thoughts. Finally, concepts have an *inferential* function: at least for some inferences, how good the inference is might depend in part on some of the logical or semantic relations between the concepts used, as when one infers that *SKIPPY IS A MARSUPIAL* from the belief that *SKIPPY IS A KANGAROO*.¹²

It's quite natural, then, to view concepts and their possession as inevitably linked with distinctive *psychological and cognitive capacities* underpinning thoughts and beliefs. Concepts are crucial to the ability of *understanding* thoughts, including new thoughts a subject hasn't entertained before, as well as the ability to draw certain inferences. By representing *kinds* of things, concepts scaffold the ability to *identify* certain individuals as belonging to some category or other and to *discriminate* individuals from distinct kinds. Such capacities likely serve to determine what it takes to possess a given concept—that's not to say, note, that the lists of conceptual features and capacities just mentioned are exhaustive.

For conceptualists, the functions concepts play in our psychology aren't limited to thoughts and beliefs: the realm of the conceptual extends to perception and sensory awareness too. Conceptualism thus involves a commitment to:

c_1 : subject S is sensorily conscious of object/event/fact/property x *only if* S possesses some concept c for x .

Sensory awareness requires concept-possession, yet c_1 isn't enough: after all, S might possess more than one concept applicable to the kangaroo in front of them (e.g., the concepts *KANGAROO*, *SKIPPY'S MATE*, *SMELLY PEST*, *MACROPUS RUFUS*, etc.). That S merely possesses *some* concept leaves unspecified *how* it is exactly that S currently conceptualizes the kangaroo in front of them. What matters, then, is *which* concept S deploys in a given perceptual experience:

c_2 : S is sensorily conscious of x *only if* S applies some specific concept c to x in S 's conscious experience of x .

Where applying a concept may be tantamount, in this context, to *identifying* (correctly or not) x as falling under c . But even that may not suffice. Suppose S looks at a farmyard filled with cows, ducks, kangaroos, cats, and armadillos, and conceptually identifies each animal merely *as an ANIMAL*, nothing more, using the very same concept for all the different animals S sees. There's a sense in which the concepts deployed by S fail to capture everything S is visually aware of, including the diverse animals and their visible differences. If conceptualism aims to account for how we are sensorily aware of things and features in our environment, in the sense that conscious awareness depends for a crucial part on conceptualization, a more demanding constraint is needed:

c_3 : S is sensorily conscious of x and y and of some difference between x and y *only if* S identifies x as c and y as c^* , where c and c^* are different concepts (concepts of different objects/properties, etc.).

Otherwise, concepts deployed in experience might fail to match what one is in fact sensorily aware of. Conceptualism, so construed, amounts to the suggestion that *what* we are consciously aware of in sensory perception is a function of *which concepts* are deployed in perception. Perhaps, other conditions need to be added to this minimal set of conceptualist requirements.

Against this, the weakest form of nonconceptualism denies that conditions c_1 to c_3 apply to *everything* we perceptually experience: if, typically, we conceptually identify in experience the objects, events, and features we are sensorily aware of, it's possible to fail to do so. A more radical version rejects, not just that conceptual identification be necessary for sensory awareness, but that there's any conceptualization in sensory consciousness at all: we might of course conceptually identify most of what we perceive in beliefs and thoughts *based on* our conscious experiences, although such conceptualization occurs in a later stage, causally downstream of sensory consciousness *per se*.

In sketching the nature of the disagreement between conceptualism and nonconceptualism, note, I haven't even yet mentioned the notion of "conceptual content," let alone that of a "proposition".¹³ In part, this is because the platitudes about concepts and their connections to various capacities used in thoughts and beliefs, and whether such connections extend to sensory consciousness, is really what the dispute is mostly about, it appears. The notion of "content" is often associated with theories of propositional contents, which treat the latter as some sort of abstract objects, and disagree about the metaphysical nature of what composes these abstract contents—be it concepts considered as abstract objects themselves (Fregean contents), or physical objects and properties arranged in sets (Russellian contents), or possible worlds in sets thereof (e.g., Stalnaker 1998).¹⁴ Unless such theories can shed genuine light on the platitudes we started

with about concepts and their connections with thoughts and beliefs in our psychological lives, however, it's not all that clear why metaphysical concerns about the nature of certain abstract objects have much to contribute to issues about the place and function of sensory consciousness in our cognitive architecture.

Still, how to spell out the terms of the dispute has become a somewhat contentious issue, of late. It's now common to draw a distinction between two ways of understanding the dispute: as (i) having to do with a certain kind of content, *conceptual content*, which is composed of concepts, and whether such content can be found both in thoughts and beliefs as well as perceptual experiences—or whether the content of the latter is of a different, non-conceptual, kind—or, rather, as (ii) being about what it takes to be in certain *types* of psychological states, *conceptual states*, and whether concept-possession is as necessary for perception as it is for thoughts and beliefs.¹⁵ One concern is that many arguments take as their explicit target the view that perceptual experiences have a conceptual content (content conceptualism), but end up, if successful at all, discarding at most the view that such experiences are conceptual states (state conceptualism): there is, that is, a recurrent but illegitimate shift between content conceptualism and state conceptualism, the worry goes. Relatedly, it may seem unfortunate that, being so often cashed out in terms of content conceptualism, the disagreement remains closed to theorists who deny some of the starting assumptions, in particular, the idea that mental contents are composed of concepts at all (Stalnaker 1998).

Phrasing the dispute so as to allow diverse theorists to partake should be desirable, undoubtedly. In this light, it might seem as though the platitudes about concepts and their connections to thoughts and beliefs, which we started with, align nicely with the construal behind state conceptualism—especially the idea that one's concepts and conceptual abilities constrain which thoughts and beliefs one can entertain. However, some of these platitudes treat concepts as representations, we saw, which can combine into more complex conceptual representations: this seems to constitute a *conceptual content* of a sort which many could accept—especially if treated as a concrete psychological kind for the purpose of psychological explanation, rather than a constituent of abstract propositions.¹⁶ Why demand more, exactly?

In addition, the equivocation from content conceptualism to state conceptualism seems avoidable: if *only* conceptual psychological states *require* possession of the relevant concepts to understand, entertain, think, differentiate, and believe the contents associated with such states, it looks as though, based on the platitudes unearthed earlier, conceptual states involve, by virtue of their content, specific combinations of concepts. If a subject lacks some concept necessary for understanding the content of the psychological state they are in, it then seems legitimate to infer that such a psychological state isn't entirely conceptual. This means it doesn't come equipped with the fully conceptual representations underpinning conceptual states—a claim about the type of semantic features (at least some of them) associated with the state in question.¹⁷

So, what is it about sensory awareness that is supposed to be significantly different from the sort of conceptual awareness essentially at play in thoughts and beliefs, to the effect that the former needn't depend on the possession and deployment of concepts?

2 Fineness of Grain

Examples like the gray patches in Figure 20.1 suggest that sensory awareness can be quite fine-grained, in the sense that we can be sensorily aware of highly, if perhaps not perfectly, *determinate* properties (colors in this case) and some of the specific differences between them.¹⁸ If conceptualism is true and conditions C_1 to C_3 hold, subjects who visually discriminate all the shades in Figure 20.1 should be deploying *different* color concepts to identify each shade.¹⁹



Figure 20.1 Fineness of Grain Example

Yet, the argument goes, it seems many subjects who can visually discriminate these shades might have difficulties conceptually identifying the colors in question (Evans 1982: 229). Not just that they lack words to express such concepts, but it seems as though few subjects possess for each of the specific shades in Figure 20.1 the sort of conceptual representations typically used to think about red and yellow (say). But, if it's possible for subjects to lack the corresponding concepts even when visually discriminating the shades in question, it should follow that some of the conditions conceptualism imposes upon sensory awareness—including c_3 —don't in fact apply.

In response, conceptualists typically reject the assumption that subjects lack the relevant concepts:

There is an unacceptable assumption behind this line of argument, that concepts necessarily correspond with entirely context-independent classification of things, ... This restriction unacceptably rules out any appeal to context-dependent demonstrative concepts, though—concepts associated with expression like ‘that shade of red’, or ‘just that large in volume,’ ...

(Brewer 1999: 171)²⁰

That is, in line with c_3 , subjects could deploy different *demonstrative concepts* to discriminate conceptually the chromatic differences they are sensorily aware of—where concepts are *demonstrative* at least in that the perceptual context helps fix what the concept picks out, aided in part by the subject's ability to narrow down what is picked out in the context.

This appeal to demonstrative concepts has invited various objections. One question is how demonstrative concepts pick out the specific features they do. If a subject deploys distinct demonstrative concepts—*THIS* and *THAT*—for the two shades on the left of Figure 20.1, say, how is it that *THIS* picks out the shade on the outmost left rather than the one on its right—the “differentiation problem” (see Raffman 1995)? Relatedly, what else is needed to guarantee that *THIS* picks out a specific shade of gray rather than the shape of the patch, its location, size, the color of the background, etc.—the “supplementation problem”? Perhaps, *THIS* can be combined with some non-demonstrative concept like *SHADE* to pick out the color rather than some other property of the object. But as Peacocke (2001: 245–250) points out, this suggestion doesn't help answer the differentiation problem: why *THIS SHADE* picks out the color of the patch on the extreme left, rather than that of an adjacent patch.

Brewer proposes that perceptual attention is key: “concepts figuring in experiential contents do not simply pop up from nowhere” but “are provided directly by [the subject's] attentional relations with the particular things around him” (1999: 185). Accordingly,

... determinacy of reference is secured by the supplementation of the bare demonstrative “that”, by the subject's actual attention to the *color* of the object in question, as opposed to its shape or movement, say, where this is a neurophysiologically enabled

relation between the subject and *that property*, as opposed to any other, of the object which he is perceiving.

(Brewer 2005: 224; also 1999: 172–3, 187ff., 226)

In light of this, Adina Roskies (2010) has asked what it takes to form *new* demonstrative concepts. If demonstrative concepts “are to be understood as a mental analogue of these more familiar linguistic demonstratives” like “this” and “that” (Roskies 2010: 120) so that attention can fill the role for demonstrative concepts that demonstrative gestures play when communicating with demonstrative expressions (2010: 121), “the act of focusing attention must be intentional,” Roskies (2010: 122) argues, since demonstrations are (2010: 120). But then, any intentional shift in attention must exploit the content of the relevant conscious perceptual experience, Roskies continues: to selectively focus on some element of one’s visual field, the element in question must already be consciously available in perception. However, if such perceptual contents serve in intentionally directing attention, and the latter determines how demonstrative concepts pick out their referents, the perceptual contents in question cannot be demonstrative or conceptual, on pain of circularity, she concludes (2010: 123). That’s why conceptualist appeals to demonstrative concepts must ultimately draw upon the non-conceptual content of experience, the suggestion goes.²¹

It looks as if there’s room for conceptualists to resist Roskies’ argument. Note that, in the passage cited above, Brewer seems to hint that, on his proposal, attention operates upon sub-personal representations—I assume this is what he means by “a neurophysiologically enabled relation” (Brewer 2005: 224)—rather than conscious (hence personal) perceptual contents, in determining the semantic features of demonstrative concepts, *once attention has shifted*.²² Roskies’ argument, however, concerns the causal process leading to attentional shifts (Roskies 2010: 128). Conceptualists could retort that, before it is attended, a shade of gray might be experienced in a less fine-grained, and less determinate, manner: meaning it could be conceptualized *via* coarser-grained concepts.²³ Once such a shade is selectively attended, however, its perceptual representation is more fine-grained as a result, and so is the demonstrative concept grounded in such attentional focus. Hence, even if attentional shifts causally depend upon earlier perceptual representations of the target, the latter can still be conceptual, provided they involve different coarser-grained concepts. No circularity here, and none either in how the more fine-grained demonstrative concept is semantically determined by subpersonal processes underlying selective attention, provided the contents of earlier experiences before the shift aren’t responsible for this part of the explanation.²⁴

A different worry relates to the *possession-conditions* for demonstrative concepts. For Sean Kelly (2001b), if demonstrative concepts really *are* concepts of *kinds* like colors, they must satisfy the *re-identification constraint*: if a subject *S* possesses a concept *c*, *S* must be able to *re-identify* distinct instances of *c* as *being the same* (e.g., the same color), consistently and reliably (2001b: 406). Yet, it’s not uncommon for subjects to fail to recognize the fine-grained chromatic shades they previously discriminated (Raffinan 1995; Dokic and Pacherie 2001; Kelly 2001b). Imagine Figure 20.1 is a color chart found in a hardware store: you might have chosen one of the shades as the ideal color to repaint your wheelbarrow with. If you then accidentally drop the chart, pick it up again along with the other charts that fell, you may not quite remember which color you had just decided upon (based on the color alone, rather than its location on a chart or other). If, before dropping the chart, you were able to think demonstratively of the color you chose, you are now unable to re-identify it as such only a few seconds later. Hence, the argument goes, the demonstrative concept used earlier wasn’t really a concept for a specific kind of color, if re-identification is necessary for possessing demonstrative concepts (Kelly 2001b: 411; also Jacob and Jeannerod 2003: 25; Smith 2002: 111; and Tye 2005).

One complication owes to the different re-identification constraints available (Chuard 2006a). It's one thing to identify distinct objects—e.g., x at t and y at $t+n$ —as falling under the same concept: here, re-identification is nothing but repeated identification of instances of a concept. It's another to identify y as falling under concept c while remembering x in such a way as to identify both x and y as being relevantly the same in that both fall under c . The latter kind of re-identification is more demanding: it involves explicit memory of past encounters with other instances, together with comparative judgments based on such memories. It's not clear we always meet such a requirement, even when it comes to non-demonstrative concepts: if my memory is rather poor in recalling past encounters with a specific type (e.g., hexagon), this needn't undermine my ability to identify instances of that type. The less demanding notion of "re-identification" (as mere repeated identification) is unproblematic in this respect. Yet Kelly's argument presupposes that the subject doesn't just identify a determinate shade, but that they also recognize the color thus identified as the same as one previously identified: it appears to rest on the more demanding constraint.

Nor is it even clear, in fact, whether the less demanding re-identification constraint applies to *demonstrative concepts* (see Chuard 2006a; Coliva 2003). As Brewer suggests in the passage cited earlier, demonstrative concepts are meant to be *context-dependent* tools for categorizing objects and their properties. And part of the context involves how one perceptually attends to the relevant samples. In this sense, possession of such concepts may be quite fickle: demonstrative concepts can be thought of as *disposable classificatory devices*, to be used in a given context, but not beyond. Accordingly, if there's any change in the perceptual scene, or if the perceiver shifts the focus of their attention, etc., such contextual changes may suffice to ground *distinct* demonstrative concepts (for the same sample, even). Hence, a subject may not be able to identify a color as falling under the same demonstrative concept twice, simply because the first demonstrative concept deployed isn't available the second time around. This needn't imply that demonstrative concepts aren't concepts, or that they aren't concepts of kinds. Just like other concepts, they can serve in conceptual discriminations or inferences (within a context), etc. But there's no obvious reason to assume that re-identification ought to have a special status when it comes to the possession-conditions of different types of concepts.²⁵

Finally, a worry about the *extension* of demonstrative concepts (Dokic and Pacherie 2001; Kelly 2001a). Samples of highly similar but *distinct* colors can be arranged so as to be perceptually indiscriminable (despite their fine-grained differences): patch a 's color may be visually indiscriminable from patch b 's, which is indiscriminable from c 's, even though a and c are visually *discriminable*, owing to their greater chromatic difference—perceptual indiscriminability is non-transitive, that is.

Under the conceptualists' proposal, b 's color falls under the demonstrative concept $THIS_b$ formed when attending to b 's specific shade. And since b 's color is perceptually indiscriminable from a 's, it seems a should also fall under the demonstrative concept $THIS_b$ —being indiscriminable, they might be conceptually identified in the same way, one might think. But if a falls under $THIS_b$, c should too, since c 's color is also indiscriminable from b 's. Hence, a , b , and c , fall in the extension of $THIS_b$. However, the color of a and c are discriminable, which means that $THIS_b$ applies, not just to *distinct* colors, but to visually *discriminable* ones, even though $THIS_b$ was supposed to be a fine-grained concept of a determinate shade. Demonstrative concepts aren't fine-grained enough, after all (Dokic and Pacherie 2001: 195; see also Peacocke 1992: 83; Martin 1992: 757).

Conversely, since b is chromatically indiscriminable from both a and c , it seems it should also fall under the respective demonstrative concepts formed when attending to a , $THIS_a$, and when attending to c , $THIS_c$. Which means that b 's determinate color falls under at least three distinct demonstrative color concepts: distinct, since $THIS_a$ and $THIS_c$ pick out different, and discriminable,

colors. Demonstrative concepts are too fine-grained then (Dokic and Pacherie 2001: 195). Consequently, if more than one such demonstrative concept applies to *b*'s color, it follows that, were a perceiver to look at *b* and deploy all the relevant concepts (i.e., *THIS_a*, *THIS_b*, and *THIS*), a “uniformly colored” object like *b* might “present[...] more than one shade at a given time to a given observer” (Dokic and Pacherie 2001: 195), in a manner which does “not correspond to any phenomenological differences” (Dokic and Pacherie 2001: 197).

These concerns, however, rest largely on additional assumptions conceptualists needn't grant (Chuard 2007a; Pelling 2007). To begin with, there's the assumption that chromatic indiscriminability should suffice for two colored samples to fall under the same demonstrative color concept. True, demonstrative concepts are supposed to be concepts of highly determinate shades, so that two samples had better be perceptually indiscriminable to fall in the extension of the same concept. But a necessary condition isn't a sufficient one, especially if demonstrative concepts are indeed contextually tied to the particular samples attended when deploying such concepts.²⁶

As for the consequence that deploying different demonstrative concepts for the same shade might lead to differences in experiences that are in fact not there, it seems to involve a simple confusion regarding conceptualism itself. If *C₃* requires that differences in sensory awareness must depend upon matching conceptual differences, the converse requirement—that different concepts suffice to ground differences in sensory awareness—isn't, strictly speaking, implied by or required for conceptualism (Chuard 2007a).

In sum, demonstrative concepts have proven a useful tool for conceptualists: one which helps escape a host of related objections about fine-grained experiences, and sheds some light on what concepts might be deployed in experience and how.

3 Informational Richness

Look at a crowded city street and you become sensorily aware of a great many things: different objects interspersed through your field of vision (people, cars, street signs, buildings and trees, etc.), many of their visible properties and relative arrangement. Sensory consciousness can be a source of *rich* information about your environment.

This isn't to say all perceptual experiences, let alone all visual experiences, are like that: fixate on a blank sheet of paper close-up and, though you might be aware of quite a few things about the paper and its parts, the information you thereby access pales in comparison to that available in other situations. Nor is it to say that *every* object or perceivable feature in a perceptual scene is in fact available in your experience of that scene. Finally, the rich information conveyed in some experience may or may not be fine-grained: imagine seeing a crowded street through a very thick fog, when the shape and colors of the passers-by are all blurred in the fog (Chuard 2007b).

That sensory experiences can be informationally rich isn't really at issue between conceptualists and non-conceptualists (see Brewer 1999: 240–241; McDowell 1994: 49). What is, is whether such informational richness raises a difficulty for conceptualism about the deployment of concepts in perception: whether perceivers can simultaneously deploy sufficiently many concepts to match the amount of information conveyed through sensory awareness to ensure that such rich information is entirely conceptualized—not whether subjects *possess* the relevant concepts. The question is whether conditions *C₁* to *C₃* hold for *every* perceived object or property in a given experience, or whether, owing to capacity limitations, some object or feature amidst such rich information might be left unconceptualized.

Earlier attempts to exploit the informational richness of sensory consciousness against conceptualism (Dretske 1993; Martin 1992) relied largely on the idea that conceptualization is constrained by what perceivers *notice*. Since it seems possible that a subject fails to notice someone's

thin moustache or a pair of cufflinks in a drawer, yet it also seems possible for subjects in those situations to later remember experiencing these unnoticed elements, this suggests that, if they can be recalled in memory, what is unnoticed in a scene must in fact have been perceived. Whether these considerations really threaten conceptualism, however, hangs mostly on whether there really is no conceptualization outside of what perceivers notice, and it's not altogether clear how this question could be settled—conceptualists might well grant that not everything that is conceptualized in experience ends up being thought about, let alone believed.

Since at least Dretske (1981), much attention in this context has been devoted to Sperling's (1960) work on iconic memory.²⁷ Drawing on earlier results that, when presented with arrays of twelve letters (three rows of four letters each) for relatively short intervals (less than 15ms), subjects can correctly report the identity and location of a little more than four letters in the display. Sperling proceeded to show that performance improved when subjects were prompted to provide partial reports after being cued to attend one of the three rows of letters by a tone: importantly, the cue occurred after the stimulus offset (i.e., once the array of letters had been masked). In these partial reports, subjects were able on average to correctly report the identity and location of a little more than three letters out of four in the cued row.

The standard interpretation of Sperling's results assumes that, if subjects can access the identity and location of three of the letters in a given row when it is cued, this holds not just for the cued row but for the other two as well, suggesting that sensory consciousness is informationally rich, at least to the extent that the identity and location of about nine of the twelve letters in the display must be consciously perceived. Yet, on average, subjects can only report not more than four or five letters, because, the standard explanation goes, not more than four or five letters can be stored in short-term memory. Accordingly, sensory consciousness is informationally richer than what subjects can conceptualize and store in memory, and then verbally report. So much the worse for conceptualism.

One difficulty with this interpretation concerns the assumption that Sperling's subjects were sensorily aware of the identity and location of about nine letters out of twelve in the display. This assumption apparently relies on extrapolating how much is consciously perceived of the two uncued rows by projecting from the subjects' partial reports of the cued row, and then adding up the estimated results from such extrapolation (roughly, three letters for each of the three rows). The thought might be that, since the cue occurs *after* the display has disappeared from view, it couldn't retrospectively affect how each row is perceived (Fodor 2007; Tye 2005).²⁸

Even so, the cue serves to draw attention to the letters in the cued row, and this may affect how much information about the letters' identity and location in that row can be retrieved and become consciously available. There's no guarantee, in other words, that just as much information from the other two uncued rows is in fact made available in conscious experience. A visual experience may well carry information about the overall display, *albeit determinably*, without explicit representation of the identity or specific shape of each letter at each location (Phillips 2011: 402).²⁹

Moreover, it's unclear to what extent evidence about how many letters subjects *can report* provides evidence about how many letters are *conceptually identified* in sensory consciousness. For one thing, Sperling's results might reveal limitations on the processing mechanisms needed for *reportability*, rather than on conceptual identification (for discussion, see Pashler 1998)—even if what is reported has been conceptualized, the converse may not hold.

4 What Next?

This brief discussion concentrated on just two considerations advanced against conceptualism, and both fail: once the relevant details about concepts, their possession and deployment, are

worked out, we can see that conceptualism has the resources to deal with those features which, at first sight, appeared to separate sensory awareness from conscious thoughts and beliefs. At best, such considerations might have helped develop conceptualism, by sorting out which commitments conceptualists really need.

But note how these objections were assessed in relative isolation from one another. What would happen if we considered them jointly—after all, it seems many experiences can be both fine-grained *and* rich in information? The question is whether the commitments conceptualists take on board to address one objection cohere with those needed to address another.

The fine-grained differences between the seven shades in Figure 20.1 seem immediately available as soon as you set your eyes on the whole figure. Presumably, you must deploy seven distinct demonstrative concepts, one for each shade, *if* conceptualism is true. And for these demonstrative concepts to pick out the specific shade they do, your attention must have selected one shade when forming the concept in question. At this point, various empirical questions arise about how subjects selectively attend to each shade in such a case. Presumably, there are some constraints on selective attention—including processing and temporal constraints on the mechanisms at play, especially if the process of briefly scanning the seven shades is serial or not. But if subjects can't attend separately to each of the seven shades more or less simultaneously, they may not be able to form fine-grained demonstrative concepts for each; at least not straight away. Hence, there might well be fine-grained differences between some such shades, which subjects are sensorily aware of at a time without being able to conceptualize them at that time, even demonstratively—because their attention is currently allocated to some of the other shades in Figure 20.1.

At this point, conceptualists might well resort to the idea that attention functions like a fluid, quantities of which can be distributed across several items in a scene. That is, if attention can be *divided*, a perceiver might focus her divided attention *simultaneously* on all the gray samples in Figure 20.1: rather than process each shade serially, attentional mechanisms may be deployed in parallel for each of the seven shades. However, divided attention—and the parallel processing that seems to underlie it—is usually observed in cases where stimulus attributes involve highly salient *coarse-grained* differences (see Pashler 1998: 218 for a review). When the differences are fine-grained, there is evidence that attentional mechanisms slow down and operate separately on each stimulus, as it were.

Perhaps, conceptualists will balk at the suggestion that a conscious experience of Figure 20.1 can be so fine-grained that almost all chromatic differences between the seven shades are immediately available. Perhaps, they might borrow the suggestion (Mandik 2012; Phillips 2014) that some of the specific shades, and some of their chromatic differences, are consciously available only in a *determinable*, and coarse-grained, manner. This would mean that the impression that chromatic differences between the seven shades are immediately available when glancing at them must be illusory: even if all shades appear at the center of one's visual field, and despite the fact that subjects typically don't seem remotely aware of any shift—from determinable to determinate—in how colors appear in experience, let alone any changes in conceptualization of these shades, from coarse-grained to fine-grained demonstrative concepts. All this to suggest, in any case, that conceptualists aren't entirely out of the woods when it comes to the fineness of grain and informational richness of experience.³⁰

There's another, more general, matter: namely, how conceptualists propose to account for the distinctive phenomenology of sensory consciousness. Suppose, as intentionalists have it, that what it's like to be in a specific sensory experience, phenomenologically speaking, has a lot to do with how things appear in such an experience—as Brewer (1999: 156) seemed to allow.³¹ Presumably, the distinctive phenomenology of a visual experience of a yellow school bus differs

noticeably from that of an auditory experience of its engine, and both contrast phenomenologically from beliefs one might have about the bus in question.

But if the phenomenology of sensory experiences is essentially determined by their contents, it seems it isn't quite possible to strictly believe the exact same content one experiences, contrary to conceptualists' insistence (Brewer 1999; Speaks 2005): at least not literally, as a claim about the very contents of experiences and beliefs (rather than, say, the objects and features so represented). Given intentionalism, if their contents really are the same, why isn't their phenomenology the same too?³²

Unless, of course, the conceptual contents in question somehow lose their essential connection with some distinctive sensory phenomenology in the transition from sensory consciousness to belief—does this mean there are two kinds of conceptual contents, after all, one perceptual, the other doxastic? Either way, conceptualists here face an additional explanatory burden, in accounting for how this is preferable to the non-conceptualists' proposal that such differences in phenomenology map onto different kinds of contents.

5 Concluding Remarks

Whether sensory consciousness crucially depends or not on what subjects conceptually identify in experience remains quite open, at present. Some progress on psychological theories of concepts and how conceptual capacities are used in thought and perception could help a great deal at this juncture. On the other hand, unless there are compelling reasons for conceptualism, the development of a detailed non-conceptualist view might hold the promise of providing a more integrated explanation of some of the aspects of sensory consciousness surveyed here: even if conceptualists can address all such objections, it remains to be seen how stable the resulting conceptualist view will turn out.³³

Notes

- 1 For alternate ways the perception-cognition divide can be drawn, see, e.g., Beck (forthcoming), Crane (1992), Orlandi (2014), Smith (2002), Vision (1997).
- 2 For instance, Bermúdez (1998, 2009), Crane (1992, 2001), Dretske (1981, 1993), Evans (1982), Fodor (2007, 2008), Martin (1992), Peacocke (1986, 1989, 1992, 2001), Pylyshyn (2003), Raftopoulos (2009), Schmidt (2011), and Tye (1995, 2000, 2005).
- 3 Conceptualists include Brewer (1999, 2005), McDowell (1994, 1998), Sedivy (1996), Strawson (1992), and Gennaro (2012).
- 4 For the merits of that argument, see references in note 7. Conceptualism also aligns with higher-order thought theories of consciousness: Gennaro (2012).
- 5 Beck (2012), Bermúdez (2007b), and Peacocke (2001).
- 6 Gennaro (2012: chs. 6–7), Peacocke (2001), Roskies (2008, 2010).
- 7 See Brewer (1999, 2005), Heck (2000), McDowell (1994), Millar (1991), Peacocke (1998, 2001, 2006), Pryor (2005), Roessler (2011), Sosa (1997, 2003), Wright (1998, 2002).
- 8 I also ignore interesting issues about cognitive penetration in perception (Macpherson 2015), and whether there are relevant structural differences between perception and conceptual thought (Crane 1992; Fodor 2007, 2008; Heck 2007; Matthen 2005a; Toribio 2011). For reviews of different aspects of the dispute, see also Bermúdez and Cahen (2015), Crane (2001), Chuard (2009), Laurence and Margolis (2012), Schmidt (2011), Siegel (2016), Toribio (2007), Wright (2015).
- 9 See Laurence and Margolis (2012: 293).
- 10 Even if most concepts can be expressed linguistically, caution is due to separate concepts from their linguistic expressions.
- 11 I follow the standard convention of capitalizing names of concepts, as in my concept of *CONCEPT*.
- 12 For theories of concepts, see, e.g., Fodor (1998), Laurence and Margolis (1999, 2007), Prinz (2002).

- 13 Nor have I explicitly relied on the assumption that perceptual experiences have representational contents. In principle at least, it seems possible for those who profess to reject such an assumption (i.e., naïve realists for whom perception is only a direct relation to perceived objects) to agree that sensory awareness requires concept-possession in the way characterized by c_1 - c_3 . For useful discussion of whether experiences have representational contents, see Siegel (2012, 2016).
- 14 For how such views apply to perceptual content: Siegel (2016).
- 15 Byrne (2005), Crane (1992, 2001), Heck (2000), Speaks (2005), Stalnaker (1998).
- 16 In a different vein, Bermúdez (2007a, 2009; Bermúdez and Cahen 2015) emphasizes the difficulties in making sense of conceptual states independently of their contents being conceptual.
- 17 See also Toribio (2006) for more discussion, as well as Crowther (2006), Duhau (2011), Hanna and Chadha (2011), Laurier (2004), and Schmidt (2011).
- 18 If in doubt, imagine the patches instantiate very different shades of green—unfortunately not available here.
- 19 Compare Peacocke (1986, 1989) on fine-grained spatial perception.
- 20 Also, McDowell (1994: 56ff). Whether combinations of coarser-grained non-demonstrative concepts—involving comparative concepts such as *BRIGHTER THAN*—suffice as a response, is developed in Mandik (2012)—compare Noë (2004: ch. 6) for a different suggestion. It's not entirely obvious, however, how combinations of non-demonstrative and comparative concepts might accurately capture all relevant differences between an experience of Figure 20.1 and another (simultaneous or not) of the same colored patches but spatially arranged differently, for instance.
- 21 Compare Peacocke (1998, 2001) and Heck (2000) for similar arguments, where the latter is particularly concerned with non-veridical experiences. In response, Bengson, Grube, and Korman (2011) have suggested there is a relation of direct and non-contentful sensory awareness which could fix the referents of demonstrative concepts. For conceptualists to resort to such a relation, however, seems tantamount to acknowledging there are *two kinds* of sensory awareness, one constrained by concepts, and one which isn't. See also Brewer's (2005: 222–223) response and, for more on some of these questions, Dickie (2016).
- 22 Roskies (2010: 129) rejects this appeal to subpersonal mechanisms: this is where the *intentionality* of attentional shifts becomes relevant, requiring resources at the personal level, she insists.
- 23 See Mandik (2012).
- 24 Compare Speaks (2005: 386) on Heck's (2000: 492) version of the argument. See Gennaro (2012: chs. 6 and 7) for another response.
- 25 For alternative approaches, see Hanna and Chadha (2011); Matthen (2005b). Veillet (2014) raises the further worry that Kelly's objection, if it worked, would undermine certain assumptions about the conceptual content of *demonstrative beliefs*, which non-conceptualists typically rely upon.
- 26 Being so highly context-dependent, demonstrative concepts might be so fine-grained that differences in lighting conditions, background, etc., which affect the appearance of a chromatic shade (Kelly 2001a), suffice to give way to new demonstrative concepts. Compare Peacocke (1998, 2001).
- 27 See Coltheart (1980), Pashler (1998), and Phillips (2011) for useful surveys.
- 28 For skepticism about this point, and the suggestion that the mechanism behind Sperling's results is post-dictive, see Phillips (2011: 393–394); compare Pashler (1998).
- 29 For discussions of recent variants of Sperling's experiment, see Block (2007, 2011) and Phillips (2011, 2016).
- 30 See also Chuard (2006b) and Pelling (2008).
- 31 For instance, Byrne (2001), Chalmers (2010), Crane (2001), Dretske (1995), Harman (1990), and Tye (1995, 2000).
- 32 See Smith (2002: ch. 3), Tye (1995, 2000).
- 33 All my gratitude to Rocco Gennaro and Jennifer Matey for helpful suggestions.

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