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Observational Concepts and Experience

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Declaration

The thesis is my own work and has not been submitted, in whole or in part, for a degree at another university.

Abstract

The thesis is intended to contribute to the growing understanding of the indispensable role played by phenomenal consciousness in human cognition, and specifically in making our concepts of the external world available. The focus falls on so called *observational concepts*, a type of rudimentary, perceptually-based objective concepts in our repertoire—picking out manifest properties such as colors and shapes. A theory of such concepts gets provided, and, consequently, the exact role that perceptual consciousness plays in making concepts of this sort available gets settled.

In the first half of the thesis, observational concepts get construed as a special type of recognitional concepts. On an analogy with perceptual demonstratives, having such concepts would involve having non-trivial knowledge of their reference. The experiential basis of such concepts would, among other things, provide for such constitutive knowledge. The theoretical background relevant to the hypothesis gets provided in the first chapter. A defence of the hypothesis follows in the second.

In the second half of the thesis, care is taken to distinguish among two ways in which the constitutive knowledge of the reference of an observational concept could be fleshed out. In the third chapter, perceptual experience is shown to provide the basis both for knowledge of observational properties by acquaintance, and for knowledge of the essence of such properties—provided that knowledge of essence gets construed in the right, modest way.

It might be natural to take knowledge by acquaintance to be the sort relevant to observational concept possession, especially given that in the case of perceptual demonstratives this is the role likely played by experience. However, this initial impression proves to be mistaken. The constitutive knowledge of the referent of an observational concept turns out to consist in the capacity to determine *a priori* the essence of the respective property. To show this, an argument gets provided in the penultimate fourth chapter, based on the key role played by experiences of instances of observational properties in optimal viewing conditions in enabling the possession of the respective observational concept.

Terminological note

Where room was found for ambiguity, standardly capitalized terms, e.g. Red or Being Red were used to denote properties, while fully capitalized terms, e.g. RED were used to denote concepts.

Introduction

I. Concept experientialism

Perception puts us in contact with the physical world in more ways than one. Perceiving the environment is the best way to learn about its middle-size, manifest physical makeup. Perception is thus an extremely valuable source of empirical knowledge. But even more fundamental is the role perception plays in making the physical environment available as a topic of thought. Without it, our thoughts would indeed be empty, as Kant had claimed in justifying introducing two major sources of cognition: sensibility and understanding.¹

Concepts are the building blocks of thought. Our most basic and arguably indispensable empirical concepts of physical particulars (singular demonstratives), and of their properties (recognition concepts) depend for their grasp on specific perceptual input. In the absence of such input, they would not have been about anything, and their deployment would not have amounted to thinking.

Normally human perception is phenomenally conscious. There is something it is like for us to perceive. The clearest and ubiquitous aspect of the phenomenal character of perceptual episodes is their presentational aspect. In such episodes, the world seems to be present to the subject. It is as if she is immediately confronted by parts of the makeup of her immediate environment—without anything getting in the way of those parts.

However, perception is not essentially phenomenally conscious. Our perceptual system processes a lot of information that is not contained in experience. Moreover, at least

¹ See Kant (1787/1998: A 19/B 33, and A 50-2/B 74-6).

some such information directly influences reasoning and behavior. In some cases, the influence is very similar to the one exerted by conscious perception. For instance, in a phenomenon exhibited by some cortically blind patients—called *blindsight*, visual information about the spatial properties of objects can influence belief formation in a similar manner that normal perceptual experiences as of the spatial properties of objects can. It is thus at least conceivable that subjectively blank visual states would be apt to guide belief-formation, reasoning and behavior in a sufficiently similar way to the one that the experiences carrying the same information would.

Still, phenomenal consciousness seems to make a distinctive contribution to our capacity to embrace the environment in thought. One respect in which it seems to matter is epistemic. However spontaneously available, the perceptual information a blindseer would have would not provide him with the same degree of justification, if any, that a normally sighted person would have.² But again, there is a more fundamental and decisive way in which phenomenal consciousness matters to empirical thought. Our most rudimentary perceptual concepts appear to require as basis not merely spontaneously available perceptual information but the enjoyment of full-blown experiences with specific phenomenal character. Borrowing Quassim Cassam's terminology, I will call the suggested view of the ground of our most rudimentary objective concepts *experientialism*.³

² For an elaboration of this point, see Smithies (2011).

³ See Cassam's contribution in Campbell & Cassam (2014). Experientialism has been defended by John Campbell in Campbell (2002a, 2002b, 2011) and in Campbell & Cassam (2014), and by Naomi Eilan (2001, 2011, 2013, forthcoming).

II. Challenges for experientialism

The possibility of subjectively blank yet functionally analogous perception raises a challenge for those like me who take the experientialist intuition at face value. Why should perceptual experience be indispensable for making our most rudimentary empirical concepts available? In what way does being presented with the referent of a concept—rather than being in an appropriately poised perceptual state that represents it, matter to one's grasp of the concept?

There are two major obstacles in the way of providing an adequate response to the challenge. The first is due to a mistaken view of perceptual intentionality—possibly going all the way back to Kant⁴—that takes it to be fundamentally constituted by the exercise of concepts. I call that view *conceptualism*. The second is due to a mistaken view of the nature of the relevant perceptually-based concepts. I call this view of perceptual concepts and of atomic concepts in general the *tracking view* of concepts.

1. Conceptualism

The conceptualist view has been formulated and endorsed by Peter Strawson and John McDowell.⁵ Understanding the intentionality of perception in this way creates two considerable problems for proponents of experientialism.

The first problem experientialists face under conceptualism is with the prospect of securing a *genuine* explanatory role for experience in making our rudimentary empirical concepts available. One way to understand the intuitive essential role of experience is as

⁴ The debate on this issue is subtle and ongoing. For exemplary defense of the view that Kant is a conceptualist see McDowell (1994) and Ginsborg (2006). For a dissenting view, see Hanna (2005, 2008).

⁵ See Strawson (1966) and McDowell (1994). The view is also held by Sedivy (1996) and Brewer (1999).

providing the basis for the acquisition of our most rudimentary concepts. Call this thesis about the essential experiential basis of such concepts *acquisition experientialism*.

If the intentionality of perceptual experience were fundamentally constituted by the deployment of concepts, the above thesis would turn out to be false. Experiences could lead to the acquisition of more general or otherwise more sophisticated concepts via dedicated learning mechanisms, but the most rudimentary concepts would be operative in the experiences, rather than acquired on their basis.

It would be disingenuous to suggest that acquisition experientialism would be the case even if the intentionality of experience were a matter of the deployment of concepts, provided that the rudimentary concepts originated with the respective experiential episode. This would not be enough to give the episode a genuine explanatory role in the acquisition of the respective concepts. That role would be played by the preconditions of the experiential episode, rather than by the episode.

Thus the experientialist intuition must be interpreted otherwise than in terms of acquisition to be consistent with the conceptualist view of the basis of perceptual intentionality. On an alternative understanding, the thesis concerns what is essential for the possession or grasp of rudimentary empirical concepts. Call this thesis about the possession conditions of a family of concepts *grasp experientialism*.⁶ Acquisition and grasp experientialism are distinct but compatible theses. Even so, grasp experientialism is the more fundamental thesis. Acquisition experientialism lacks independent plausibility.

Precisified in terms of grasp then, the experientialist intuition states that to possess the relevant basic objective concepts, one must have enjoyed the corresponding perceptual

⁶ The distinction has been drawn by Cassam in exploring the possible interpretations of Campbell's experientialism. See Cassam (2011: 20-3), and Campbell & Cassam (2014: 119-20).

experiences. Coupled with the view that the experiences would involve the deployment of the respective concepts, the primary deployment of our rudimentary empirical concepts would be in the constitution of experiential episodes.

But the thus-formulated thesis faces a second and ultimately insurmountable challenge. To substantiate it, one must come up with a *distinctive* role for the experiential deployment of our rudimentary concepts. But no such distinctive role can be provided.

It is natural to wonder whether the experiential deployment of a concept is sufficiently distinct from the various other ways in which one may deploy it for it to be the most basic way of exercising the concept. In this vein, John Campbell has objected that deploying our rudimentary empirical concepts perceptually would not be sufficiently different from deploying them in the course of reading to count as fundamental to grasping them:

Suppose someone said: ‘Actually, reading newspapers is the fundamental way in which you understand the concepts of a mind-independent world. All your conceptual skills depend on your ability to read newspapers.’ The natural response to this would be that reading newspapers does indeed involve the exercise of conceptual skills, but it is simply one way among many of exercising those conceptual skills. Just so, if all there is to experience of objects is the grasping of demonstrative thoughts about them, then experience of objects is just one among many ways in which you can exercise your conceptual skills. At this point we do not have any way of explaining why there should be anything fundamental to our grasp of concepts about experience of objects. (Campbell 2002b: 122).

The conceptualist might try to establish the distinctiveness of experiential deployment in the following way. By contrast with their deployment in acts of reading and the like, in their experiential deployment, the concepts would be triggered passively rather than exercised actively. Such a deployment would have distinctive bearing on reasoning

and belief formation by disposing the subject to form beliefs with the corresponding content.⁷

It is not clear that those features would be distinctive of the putative experiential deployment of our basic empirical concepts. For instance, they might also be the case with their deployment in receiving testimony. But even if the conditions could be sufficiently refined to apply to perception only, one would still not have secured a distinctive role for the *experiential*, as opposed to the merely perceptual deployment of a concept. This is the second, decisive part of the challenge.

Recall that in an idealized form of blindsight, the subject would also be deploying the concepts passively in forming visually-based beliefs, and those basic beliefs would serve analogous normative role to experiences. The description of the scenario rules out any distinctive functional role for experience over the counterpart subjectively-blank perception.

To sum up, while the conceptualist would probably manage to explain why the perceptual deployment of our rudimentary concepts should be essential to their grasp, she could not explain why the distinctively experiential deployment of such concepts should be fundamental. Thus the conceptualist view of experiential intentionality lacks the resources to vindicate the intuitive essential role played by perceptual experience in making our rudimentary empirical concepts available.

⁷ Those distinctive features of perceptual deployment of a concept can be extracted from McDowell (1994) and (1998).

2. The tracking view of concepts

What I call the tracking view of concepts is an offshoot of the so called representational theory of mind.⁸ On this theory, mental processes involve the tokening of symbolic representations, individuated along a non-semantic dimension, e.g. the core functional role of the representation, its orthographic properties, or a combination thereof. The semantic properties of a representation would be determined by a further condition, normally cashed out informationally. The representation would have a determinate reference assignment in virtue of carrying information about the referent. The latter would be due to its tokening being normally caused by or otherwise nomically dependent on the referent.

I call representational capacities of this sort trackers. Trackers are especially well-suited to explain subpersonal mental processes.⁹ But the same kind of explanation has been applied to personal-level mental processes such as inference and belief-formation. The basic tenet in explanations of that sort on the personal level is that to believe or entertain a proposition is to jointly token a number of symbolic representations in a distinctive manner of combination.

Our atomic concepts would be such mental symbols, or better—labeled files with the function of accumulating information about their referents. For atomic concepts, having a concept would be exhausted by having an empty symbolic representation with specific functional and/or orthographic properties.¹⁰

⁸ See, e.g. Fodor (1975).

⁹ See e.g. David Marr's computational theory of vision in Marr (1982).

¹⁰ The tracking view of concepts bears similarity to Gareth Evans's *photograph model* of concepts (Evans 1982: Ch. 3, sect. 4) and to Burge's thoroughgoing anti-individualism about concepts (Burge 1986).

On the tracking view of concepts, our atomic empirical concepts would be such empty files. One's grasp of a rudimentary empirical concept would thus consist in having an empty file tracking it and being able to token it appropriately.

I propose that adherence to the tracking view of concepts explains why too often the experientialist intuition is met by an incredulous stare. Consider, for instance, Georges Rey's response to Campbell's avowal of the experientialist intuition, concerning visual demonstratives:

I find this claim puzzling not only in view of the fact that so much thought may occur without conscious attention, but, more importantly, because, from an explanatory point of view, we have so much a better grip on thought than on conscious attention. Thought is ascribable to a creature as a part of the best explanation of, *inter alia*, its sensitivities and behavior (hence the claims about innate ideas). But at least conscious attention is a more elusive affair, pretty much confined for the nonce to introspective testimony, notoriously not a sufficiently clear or reliable basis for serious psychology (Rey 2005: 132).

Rey claims that we have a better understanding of conceptual thought than of consciousness, presumably in light of the theoretical posits of psychology. The dominant view of the mind in psychology is representationalist.¹¹ On this view, concepts are held to be mental representations in a distinctive, domain-general and functionally integrated computational system.¹²

On the tracking view of our rudimentary objective concepts, the proposal that the conscious presence of an entity is absolutely necessary to one's grasp of a concept of it would rightly seem unintelligible. For consider what follows from a concept being understood as a tracker.

¹¹ See Pinker (1999).

¹² See Stich (1978) and Fodor (1983).

Suppose, for instance, that one is continuously exercising a demonstrative concept based on receiving visual information from the object, and is successful in acting on the object, introducing it in discourse, pointing to it when called on and so on. On the tracking account, provided that those perceptually-based capacities are in place, the concept would be grasped, regardless of whether the visual information underpinning such capacities would be in phenomenally conscious format or not.

Or consider a congenital and full form of blindsight, in which the subject would be differentially sensitive to the shapes of objects in the way analogous to someone with degraded vision. She would have the same sorting dispositions with respect to shape that her conscious counterpart would have. On the tracker view of concepts, there is no reason why she should not be granted grasp of the same recognitional shape concepts that would be ascribed to her conscious counterpart.

Some might suggest that the phenomenal format in which perceptual information normally gets presented matters to the identity of the respective concept in that it determines the mode of presentation of the referent. But even that is not right. For consider yourself attending to a moving object in your visual field. And suppose that suddenly that region of your visual field goes blank, but, consistently with this, you manage to keep track of the location and behavior of the object. Assuming that you would be immediately disposed to accumulate information from the object in the original bundle, its phenomenal presence would not be any different from other properties it could gain or lose—consistent with the capacity to keep track of it over time. As long as that capacity proved intact, on the tracking view one would have one and the same concept at play.

Some would be inclined to say that there would be something less than fully rational about your continuous deployment of the original demonstrative while no longer being conscious of the object. I am among those. But whatever your reaction to the described case, the tracking view does not have the resources to explain what could be going amiss with your recurrent deployment of the demonstrative.

III. The way forward

To vindicate the intuitive essential role of experience in making our rudimentary empirical concepts available, we need to understand atomic concepts in a different way from the current orthodoxy, and couple this alternative understanding with an adequate view of perceptual experience, on which the respective experiences would come out distinctively apt to ground concepts of this sort.

At the first stage of vindicating experientialism, one would need to envision a type of atomic concepts, for which subjectively blank perceptual contact with the referent of a concept of that type would not suffice as the basis for grasp of the concept. One must also explain how, by contrast, full blown perceptual experience in which the referent of the concept is presented could make the concept available.

At the second stage, one would need to provide compelling evidence: 1) that our rudimentary empirical concepts are concepts of that sort, and 2) that perceptual experience in our case is indeed apt to provide a basis for grasp of such concepts. To that effect, one would have to defend an account of the intentionality of experience as fundamentally distinct from the intentionality of thought.

In what follows, I will propose and defend an account of our rudimentary empirical concepts as concepts the possession of which involves having substantial knowledge of their referents. The notion of substantial knowledge of reference gets introduced ostensively, and gets explicated in the course of the argument. Perceptual experience would be uniquely apt to serve as basis for the constitutive knowledge in virtue of the presentational aspect of experiential character.

My focus in the dissertation is on general such concepts—so called observational concepts. Not only has the nature of such concepts not been explored sufficiently—by contrast with the nature of our rudimentary singular concepts—perceptual demonstratives—but, further, focusing on observational concepts helps tease out two ways in which the character of perceptual experience can bear on the possession of a concept. The first is by acquainting the subject with the referent of a concept, the second—by additionally manifesting the essence of the referent. Experience most likely plays the first role in the case of perceptual demonstratives. But in the case of observational concepts, I demonstrate that experience plays the second.

The overall message of the dissertation is that conscious experience does, as is felt by many, play an essential role in our grasp of the objective world, but that a combination of an insufficient understanding of the nature of our basic concepts, a failure to recognize the fundamentality of experiential intentionality, and an excessive focus on the putative role played by consciousness in enabling singular thought has kept us from appreciating its full and exact significance.

IV. Summary

In Chapter I, I develop an account of transparent concepts based on the notion of substantial knowledge of reference, which I derive intuitively—by examining singular perceptual demonstratives. Following this, I introduce a type of perceptual-recognitional concepts that I call *transparent recognitional concepts*, grasp of which would constitutively involve having substantial knowledge of the property picked out.

The proposal relies on the notion of a *property-demonstrative*, which I elaborate and defend against criticism. Like singular demonstratives, property-demonstratives are transparent concepts. The substantial knowledge of reference constitutive of a property-demonstrative would get retained and, through a dedicated abstraction mechanism, converted into the knowledge of reference constitutive of the grasp of a transparent recognitional concept picking out a determinable of the original property.

In the context of this proposal, I show that the phenomenology of the underlying experiences would make an essential contribution to the grasp of a transparent recognitional concept by providing for the constitutive knowledge of reference in virtue of its presentational aspect.

In closing, I offer an exhaustive classification of recognitional concepts, based on the distinctive metasemantics of each type. I distinguish transparent from what I call *fully opaque* and *partly opaque* recognitional concepts, following which I focus on some key relations and similarities amongst the three types.

In Chapter II, I apply the transparent recognitional account to observational concepts—our standard concepts of objective properties, instances of which we become

aware of in experience. Such properties have been taken by some to be grasped in a partly opaque way—that is, in relation to another type of properties, of which one is immediately aware in experience. On an alternative proposal, such properties would be grasped directly but in a fully opaque way, without any *a priori* associated conception of what the property picked out by the concept is like.

I demonstrate that neither alternative to my proposal does justice to observational concepts.

The first cannot accommodate the intuitive referential stability of our observational concepts. A partly opaque recognitional concept would have had a distinct property as referent in a relevantly different context of acquisition. But observational concepts such as our standard color and spatial concepts appear to have uniform reference in all contexts of acquisition. Furthermore, their apparent referential stability cannot be explained away, as has in effect been proposed by Chalmers (2006).

The second conflicts with the intuitive essential role experiences with specific phenomenal character play in the grasp of an observational concept. A consequence of being a fully opaque recognitional concepts is that the concept is not *necessarily* based on a specific, phenomenally-individuated perceptual perspective. On the other hand, there is conclusive evidence that observational concepts such as color and spatial concepts are so-based. Their possession has as an absolute prerequisite the enjoyment of experiences with specific phenomenal character.

By contrast with that partly and fully opaque construal, the transparent recognitional construal of an observational concepts predicts both its semantic stability and its necessary link to a specific phenomenally-individuated perceptual perspective. Coupled

with the result from last chapter that those three types exhaust the varieties of recognitional concepts, the argument establishes the conclusion that observational concepts are transparent recognitional concepts.

....

Having thus far relied on an intuitive grasp of the notion of the constitutive substantial knowledge of reference, in the second part of the dissertation I specify what having such constitutive knowledge comes down to in the case of an observational concept. To that end, in Chapter III I tease out two distinct epistemic roles perceptual experience plays with regard to observational properties in virtue of its presentational phenomenology.

The sheer presence of an apparent instance of a property enables *acquaintance* with the property. But in the optimal conditions for viewing instances of a given observational property, the instance would also be presented in a way that would *reveal the essence* of the property. For example, the characteristic way an instance of Vermillion or of Roundness would appear in optimal viewing conditions would enable an appropriately conceptually equipped and attentive subject to learn what Vermillion or Roundness is, respectively.

The latter putative epistemic role of experience is known in the literature as the thesis of Revelation.¹³ Revelation is widely taken to have been discredited in a series of papers.¹⁴ By contrast, I argue that, on the most common-sense interpretation, not only does Revelation turn out to be a fairly moderate thesis, but there is also decisive evidence for it.

The apparent contentiousness of Revelation has been a consequence of a non-obligatory and intuitively inadequate view of what is involved in knowing the essence of a

¹³ Cf. Johnston (1992) for the original formulation of Revelation.

¹⁴ Campbell (2005), Byrne & Hilbert (2007), Stoljar (2009), Allen (2011), Lihoreau (2014).

property. On the common-sense alternative, the requisite knowledge needs to range over enough rather than all of the essential aspects of a property.

The experience of an instance of an observational property in optimal viewing conditions places a conceptually well-equipped and attentive subject in position to determine, in sufficient detail and accuracy, both the ontological profile of the property and its qualitative profile. Knowing both would be sufficient for knowing the essence of the property in the modest sense noted above.

Having distinguished the role of experience in providing an epistemic basis for knowledge by acquaintance and for knowledge of essence, I explore the experiential ground of the two epistemic roles. Both would be grounded in the presentational aspect of experience. But there are two acceptable characterizations of that aspect.

According to *naïve realists*, in cases of veridical perception, the presentational aspect would be grounded in the awareness of concrete particulars and their property-instances. Cases of genuine perceptual failure, on this view, would either not deliver genuine phenomenal presence—or would deliver it on a different basis: e.g. awareness of intentional objects.

By contrast, *phenomenal intentionalists* take the presentational aspect of perceptual experiences to be a primitive. The apparent presence of an individual and its instances in experience is deemed by them to be an irreducible positive phenomenon, independent of whether one is in contact with individuals and their instances. Still, it would play the same cognitive role naïve realist awareness of actual particulars and their instances would have.

Under naïve realism, acquaintance with a property would be grounded in the awareness of instances of the property. Under phenomenal intentionalism, acquaintance

with a property would be grounded in the apparent presence of instances of it. I propose that the revelatory aspect of experience should be grounded in a similar manner under the respective theory.

Under naïve realism, the capacity to determine enough of the essential aspects of an observational property would be grounded in an awareness of instances of the property. The respective instances, when experienced in optimal viewing conditions, would look a specific general way, constituted by a number of the essential aspects of the property.

Under phenomenal intentionalism, the capacity would be grounded by the apparent presence of instances of the property. The apparent instances of the property would again look a specific general way, constituted by a number of the essential aspects of the property.

While I show that the dual epistemic role of experience can be accommodated by the two leading rival views of the metaphysics of perceptual experience, I end up tentatively favoring the naïve realist package. Intentionalism must be motivated by way of driving a wedge between the way the external world is normally presented in experience and the way the world is really like. In light of the earlier result that the majority of our rudimentary empirical concepts are experientially-based, this gap would call into doubt our ability to embrace the environment in thought.

Having distinguished and appropriately grounded the two roles played by experience with regard to observational properties, I argue in Chapter IV that it is the revelation of the nature of the respective property, rather than mere acquaintance with the property, that is relevant to our standard grasp of an observational concept.

I defend the proposal in the form of an argument to the best explanation based on the putative essential role experiences of instances of the property in optimal viewing conditions play in the grasp of the respective observational concept.

At the first stage of the argument, I identify a problem with the canonical view, put forward by John Campbell, of the role played by experience in the grasp of observational concepts. On Campbell's account, the underlying experiences would constitute sufficient perceptual basis for knowledge of the respective property by acquaintance, which is what the constitutive substantial knowledge of reference comes down to. I show that Campbell's proposal lacks the theoretical resources to either accommodate or deflate the intuitive importance of optimal viewing conditions in the grasp of an observational concept. To that effect, I argue that one can become aware of an instance of an observational property in peculiar viewing conditions very far from the optimal. Experience of instances of the property in those conditions would both afford acquaintance with the property and the acquisition of a stable recognitional concept of it. Still, that concept would be categorically distinct from the concept that would be acquired based on experiences of instances of the property in and in nearly-optimal viewing conditions. But Campbell's view cannot accommodate the categorical difference between the concepts.

At the second stage of the argument, I propose an alternative account of the role of experience in the grasp of observational concepts: in terms of providing sufficient perceptual basis for the capacity to determine the essence of the property. The alternative vindicates the distinctiveness of experiences of instances of the respective property in optimal viewing conditions straightforwardly, since only in optimal viewing conditions

would enough of the essential aspects of the property be revealed, and in sufficient determinacy—for the experience to be apt to provide such basis.

I conclude the argument by examining the robustness of my proposal. I suggest that there are good reasons to expect that any alternative view of the significance of optimal viewing conditions based on another construal of the substantial knowledge of reference involved in the grasp of an observational concept would either be too weak to be consistent with experientialism about observational concepts, or would demand too much of the underlying experiences to be plausible.

Chapter 1

Transparent recognitional concepts

In this chapter, I introduce a type of perceptually-based recognitional concepts that I call transparent recognitional concepts. Having a *recognitional* concept constitutively involves the perceptually-based capacity to recognize instances of the respective property or kind in favorable circumstances. Having a *transparent* concept constitutively involves having substantial knowledge of the referent of the concept. In the case of transparent recognitional concepts, the role of perception is not, as with other kinds of recognitional concepts, merely to fix the reference and functional profile of the concept, but also to provide a basis for substantial knowledge of the property picked out by the concept. Such basis gets provided by past experiential encounters with instances of the property on the occasions which lead to the acquisition of the concept. Selectively attending to the presented property on those occasions enables knowledge of the reference of the corresponding context-bound property-demonstrative concept. The knowledge of the encountered property can in turn be retained and form a constitutive part of one's grasp of a standing recognitional concept.

Having introduced this type of recognitional concepts, I distinguish it from two further types, based on the distinctive metasemantics of each type. Although the reference of concepts from each type would be perceptually-mediated, perception would play a distinct role in each case. While *transparent* recognitional concepts would get their reference fixed in virtue of the presence of the respective property in experience, the

reference of a *partly opaque* recognitional concept would be determined via a contingent, experientially-based mode of presentation. In the case of a *fully opaque* recognitional concept, on the other hand, perception would make it the case that the deployment of the concept would normally covary with instantiations of the respective feature.

I. Perceptual concepts

1. Concepts

As I will use the term, a *concept* is a constituent of occurrent thoughts and of standing propositional attitudes. My view of concepts has three components:

First, I take any concept to be individuated by a *way of thinking*, also known as a sense or a mode of presentation—either of a particular or of a general feature. For the purpose of this essay, I will work with a classical, Fregean view of ways of thinking.¹ Such a view has two basic tenets. The first is that the referent of a concept is at least in part determined by the constitutive way of thinking. A given way of thinking either determines or sets a specific condition on its referent. The second is that a way of thinking is individuated by the role the respective concepts play in reasoning. In many cases, subjects appear to consistently hold apparently contradictory attitudes toward the same entity. Such cases can be taken at face value if the theorist allows that the same entity can be conceived of in several distinct ways.

Secondly, I take concepts to be individuated by ways of thinking only *in part*. In my view, concepts are mental particulars: concrete representational capacities of particular

¹ The view can be traced back to Frege (1892/1993) and (1918/1977). The basics have been presented in much greater detail in Peacocke (2009).

subjects that get gained at a time and can get lost with time. Even if two distinct subjects think of an entity in the same way, each would count as possessing a distinct concept. When a subject loses and subsequently regains the same way of thinking of an entity over time, those would be two distinct concepts rather than tokens of the same concept.

Taking concepts to be mental particulars is not immediately decisive on the question of whether concepts are constituted by mental representations that take part in computations at the subpersonal level, or are merely implemented by mental representations at that level.² Relatedly, sometimes I will move freely between talking about concepts and talking about mental files,³ without meaning to imply that concepts are reducible to mental files. However, the mental file analogy is useful in that it illustrates the indexicality of perceptual concepts. In my view, perceptual concepts pick out their referents in virtue of a more basic psychological relation subjects bear to them in perception.

The third component of my view is a categorical distinction between conceptual and non-conceptual mental representational capacities. Concepts are necessarily subject to a recombinability requirement.⁴ If one possesses a concept, she must be able to freely combine it with all other logically and categorically appropriate concepts in her possession at the time. This feature of concepts is in my view due to the role that concepts play in rational inference. By contrast, the capacities involved in perception are not necessarily

² Normally the view that concepts are particulars tends to be combined with the view that they are mental representations, for instance, symbols in the language of thought—see e.g. Fodor (1975). The alternative has been put forward by Gareth Evans. See Evans (1982: 104, fn. 24).

³ The notion goes back to Perry (1980) and has recently been used by Recanati (2012) as the basis for an overall theory of concepts.

⁴ Evans calls it The Generality Constraint. The requirement is closely related to the so called systematicity of thought (see Fodor and Pylyshyn 1988), but is based on a priori considerations about the nature of rational inference rather than on empirical considerations. See Davies (1991) for a conciliatory position which sets top down a prioristic arguments for the recombinability requirement in contact with bottom-up arguments.

subject to the recombability requirement. The psychological processes involved in generating a percept are not rational processes, and although they bring into play dedicated discriminatory capacities, those capacities do not need to be widely recombinable. Thus, on my view, at least some of the classificatory capacities involved in perception would be distinct in kind from the classificatory capacities involved in having a concept.

Taking concepts to be 1) concrete representational capacities, 2) embodying ways of thinking, and 3) necessarily subject to the above recombability requirement opens up the possibility that there may be representational capacities which are not properly classified as conceptual but still involve the same or a relevantly similar way of thinking as those involved in some concepts. Specifically, despite being located at the personal level, perceptual experiences are at least *prima facie* constituted by discriminatory capacities that are non-conceptual. It should not immediately follow from this that an experiential state of a subject cannot present a property or an individual in the same way in which the subject would conceive of it.⁵ In my view, holding on to this possibility is essential if one is to secure a genuine and indispensable explanatory role for perceptual experience in concept possession and application. If experiences do not present entities in ways that are embraceable in thought, it is difficult to explain how having an experience with a certain character could be essential for having conceptual grasp of an entity and could guide conceptualization.⁶ On the other hand, if experiences are taken to present entities in intelligible ways because they are constituted by the deployment of conceptual

⁵ Disallowing this possibility is the product of conflating state *conceptualism*, the view that one needs to possess a certain concept in order to be in a perceptual state with certain content with *content conceptualism*, the view that the content of perception is of the same kind as the content of thought. The distinction was introduced in Heck (2000).

⁶ One can maintain that it does, as a matter of brute metaphysical necessity. This seems to be an upshot of Christopher Peacocke's (1992) view of perceptual concepts.

capacities, the experiences could not be deemed more basic than such capacities, and could not underwrite their acquisition or application. Whether securing such a genuine explanatory role is obligatory is a complicated issue. My take on it is that the opposite view, on which perception does not play an explanatory role in the acquisition and application of our rudimentary concepts, leads to a dilemma. Either it commits one to a thoroughgoing nativism about the concepts deployed in perception or to the generation of all such concepts *ex nihilo* on the occasions at which a percept is formed: neither of which strikes me as an apt position. To sum up, my view is that the vital role perceptual experience plays in the grasp of some concepts in our repertoire can be made intelligible provided that the content of experience and of perceptually-based thought is deemed commensurable.⁷

2. Possession conditions

The key concern of the dissertation are the *possession conditions* of our most rudimentary objective categories. As I understand the notion, a possession condition is a specific requirement not merely on the actual possession of a given concept, but on the possession of the concept *tout court*. The claims that some concepts are perceptually-based, and that a subclass of those are experientially-based should be taken with the stronger modal force.

On this understanding of possession conditions, it is a substantial claim that any perceptually-based capacities figure among the possession conditions of a concept.

⁷ Here *content* is meant to be used fairly loosely. For instance, it could be that the content of an experience is a complex of the perceived object and some of the properties it instantiates—qualified by a specific perspective—as has been held by some naïve realists (e.g. Campbell 2002, Brewer 2011). Such content would also be the content of the demonstrative thoughts one can entertain on encountering the object.

Concepts of this sort would not be made available to us by perception merely as a matter of fact—rather, having them would necessarily require having some perceptually-based capacities. In Gareth Evans' words, they would be *information-based* concepts.⁸ An implication of this view is that a finite creature relying on perception to gain access to an environmental feature and a creature who does not need the mediation of perception to conceive of those would be conceiving of the same entity in distinct ways. This is the intuitive verdict, at least with singular perceptual demonstratives. Such concepts could not be grasped absent an appropriate perceptual link to the referent.⁹

Establishing that a concept is information-based would require that the relevant perceptual-based capacities be shown to bear on the identity of the respective concept. For example, in the case of a concept partly individuated by its referent, if being in a perceptual state of a certain sort could be shown to be essential for the concept's having the referent it does provided its distinctive role in reasoning, being in such state would figure among the possession conditions of the concept.

Additionally, the requirements for having any epistemic capacity constitutively involved in having a concept would also be conditions on the possession of the concept. In this vein, Evans also argued that since having a demonstrative concept of an object involves having the capacity to locate the object in objective space, which in turn requires that perception provides sufficiently accurate information about the egocentric location of the object to underwrite that capacity, a *bona fide* perceptual demonstrative would be made

⁸ See Evans (1982: Ch. 5).

⁹ Presumably a creator being could pick out such entities in virtue of willing them into existence. But the creator would need to have imaginative access to those entities in a way that projects them in egocentric space.

available to one only if the underlying perception contained largely accurate information about the location of the object.¹⁰

3. Perceptual concepts

I am now able to define the key notion of perceptual concept and distinguish between two general sorts of perceptual concepts: demonstrative and recognitional concepts.

A *perceptual concept* is a concept among the possession conditions of which is having some perceptually-based capacities. Such capacities can be forward-looking, backward-looking, or online. An example of the first is the capacity to recognize an individual or a feature; an example of the second is the capacity to remember one; an example of the third is the capacity to selectively attend to or track one. Backward-looking and online capacities are clearly based on the occurrence of perceptual states. In order to be able to remember an object, one must have perceived it previously; in order to be able to attend to or track an object one must be perceiving it. Less obviously, forward-looking capacities may also require past perception of individuals or features, or so I will argue shortly—regarding recognitional capacities.

A *perceptual demonstrative* is a singular concept based on having and using one's spontaneous access to information from a currently perceived particular by selectively attending to the particular.¹¹ The relevant perceptual-based states and capacities are required for the possession of the concept insofar as they determine the referent of the concept and the manner of presentation of the referent.

¹⁰ Ibid., Ch. 6.

¹¹ My formulation is broadly in line with Evans' (1982), Peacocke's (1983) and Campbell's (2002) formulations, without committing to any specifics proposed by either.

A *recognitional concept* is a standing concept of an individual or a general feature, the possession of which requires the capacity to recognize instances of the feature or re-identify the individual—upon perceiving either. There has been a considerable controversy over the coherence of the notion of a recognitional concept¹² and over whether any of our concepts are recognitional, given that most of our concepts are not.¹³ I take it that the main difficulty with admitting the notion is that recognition of an instance of a concept must involve the deployment of the concept. It seems then that one's grasp of the respective concept would be more fundamental than—perhaps even nomologically independent of having such capacity. However, the objection misses the possibility that possession of the concept can be coeval with possession of the capacity. It follows from the view of the nature of recognitional concepts that I espouse that the acquisition of a recognitional concept coincides with the acquisition of the recognitional capacity, and the possession of the concept is maintained through the retention of the capacity. Those peculiarities are due to the *indexicality* of the mental representation which constitutes the recognitional concept: it lacks reference independently of being connected to perception, and retains that reference only to the extent that the corresponding recognitional capacity remains intact.¹⁴

In many cases the possessor of a recognitional concept would end up getting related to the same referent by virtue of a further, independently obtaining contextual relation: for example, a causal-historical chain through one's deferential use of a name. This brings in the issue of whether the original contextual relation is essential to one's grasp of the concept. For instance, once one learns the kind name “tomato”, she can integrate

¹² See Dahlgrün (2010).

¹³ See Fodor (1998) and Weiskopf (2015).

¹⁴ A view of this sort about demonstrative and recognitional concepts has been developed at length in Recanati (2012: Ch.6 and 7).

information about tomatoes accumulated in virtue of her recognitional capacity with information about tomatoes dissemination of the proper name makes available in her community. In such cases the recognitional capacity could get lost with the reference of the original indexical mental representation getting retained.

In the context of the Fregean view of concepts, having the corresponding recognitional capacity intact would be essential to the identity of the concept even in cases of this sort. For despite making use of the same mental representation, each contextual relation would determine a distinct way of thinking of tomatoes. The way one would conceive of the kind on the basis of knowing a name for it would not be the same as the way one would conceive of the kind on the basis of the capacity to re-identify a tomato when presented with one, despite the fact that normally there would be seamless transitions from one to the other. Since concepts, on the Fregean view, are individuated by ways of thinking, the distinct contextual relations would determine distinct concepts for the same kind.^{15,16}

¹⁵ The proposed distinction between survival of a concept and survival of the body of information accumulated through exercises of the concept provides a response to Dahlgrün's (2010) and Weiskopf's (2015) rejection of properly recognitional concepts, based on the claim that perceptually-integrated concepts can survive having their links with perception severed. My response is to deny the assumption that the concepts survive severing the link. What survives is the mental representation along with the accumulated body of information, but it gets to constitute a different concept in virtue of coming to constitute a distinct way of thinking of the referent.

¹⁶ Compare Recanati (2012: 82): "At *t* the subject sees the object, and can store information derived from the perceptual episode; the function of the perceptual buffer is to store that information. As the episode comes to an end, the subject stays, through memory, in contact with the object, but the relation to the object is different. Since the relation changes, I said that the perceptual file is replaced by a memory file, but the word 'replacement' hides the continuity between the memory file and the initial perceptual file: in a certain sense, it is the same file—the same body of information—that changes its status as the ER relation on which it is based changes. It is that continuity which the notion of conversion highlights. But this is compatible with the indexical model, according to which demonstrative files, memory files, and recognitional files are (in a different sense) distinct files. Files are supposed to fill the mode of presentation role, and there is no doubt that an object is *not* thought of under the same mode of presentation when one sees it for the first time, and when it is a familiar object one immediately recognizes."

4. Transparent concepts

As mentioned above, not only did Evans highlight the essential role perception plays in making available demonstrative and recognitional concepts, but also argued that in such cases perception plays a dual role in making such concepts available. In the case of a demonstrative concept, for example, Evans took the perception of a particular not only to enable the subject to single it out and establish an evolving informational link with it, but also to enable the subject to keep track of the location of the particular in objective space. Evans took grasp of recognitional concepts of particulars and kinds to involve an analogous capacity to locate the individual or kind in objective space.

This further requirement on having a perceptual concept follows from Evans' general thesis that having a concept requires having substantial knowledge of the referent of the concept. The requisite knowledge of reference gets cashed out by Evans as the capacity to distinguish the referent from everything else via its fundamental ground of difference. With concrete particulars, the fundamental ground of difference is partly determined by the location of the object at a time. Consequently, the role of perception in making available concepts of particulars is not exhausted by fixing reference on the basis of an evolving informational link with the referent—in the case of demonstratives; or in fixing reference and enabling the capacity to re-identify the referent on subsequent occasions—in the case of recognitional concepts. Over and above those roles, Evans took perception to make such concepts available by enabling substantial knowledge of their reference—cashed out as absolute discriminatory knowledge. On this view of what is involved in having a concept, *bona fide* demonstrative and recognitional identification

would require perception to provide the basis for such discriminating knowledge.¹⁷

The proposed epistemic requirement for demonstrative reference has been widely contested, as it seems to result in “proliferating modes of presentation beyond necessity.”¹⁸ But even if Evans' specific proposal is implausible, it may well be that having a grasp of some concepts involves epistemic capacities which constitute what I call substantial knowledge of the reference of the concept. Such concepts would, in my terminology, be *transparent concepts*.

In this introductory chapter, I have chosen to leave the notion of substantial knowledge of reference imprecise and introduce it using paradigms and counter-paradigms. The whole aim of the dissertation is to specify whether such epistemic capacity may be involved in the grasp of some predicative concepts and exactly what it would amount to. But there are cases which exhibit the relevant kind of capacity and support the view that it is constitutive of one's grasp of the respective concepts. For example, John Campbell has shown that having a grasp of standard perceptual demonstratives requires substantial knowledge of reference.¹⁹

As I understand Campbell's argument in the relevant part of *Reference and Consciousness*,²⁰ the argument has two parts. In the first part, Campbell shows that in the case of visual demonstratives, a distinctive and substantial sort of knowledge of the referent of the concept is made available by conscious attention to the object picked out by the concept, and that such knowledge would be lacking in the case of a subjectively blank

¹⁷ For an extended presentation of Evans' understanding of the epistemic requirement for concept possession, see Evans (1982: Ch. 4).

¹⁸ Cf. Peacocke (1991: 124). For an extended criticism, of Evans' view, see Hawthorne and Manley (2012: Ch. 3).

¹⁹ Thus Evans was not wrong in that regard, but his theoretical characterization of what is involved in having such knowledge was faulty.

²⁰ See Campbell (2002b: 8-9).

perception of the object. The knowledge Campbell has in mind is to be distinguished from the sort a subject would be credited merely due to having a way of referring to the entity, and even from the kind credited in virtue of having full competence with the respective concept. An idealized blindseer,²¹ for whom there would be nothing corresponding to the way an object is reflected in the character of visual experience should not be credited with knowledge of the referent of her concepts in the latter sense. She might be reliably successful in tracking the object, acting on it and pointing it out. But there would be a sense in which she would still have no idea what she is tracking, acting on or pointing at. I will call the sort of knowledge of reference that, with regard to visual demonstratives, conscious vision provides and blindsight does not *substantial knowledge of reference*.

The second part of Campbell's argument is to highlight the relevance that a difference in the above epistemic standing has on the capacity to grasp standard visual demonstratives. Intuitively, the blindseer would be unable to grasp the standard perceptual demonstratives conscious vision makes available to her conscious counterpart. No form of blindsight, however idealized, would be apt to make available the distinctive way of thinking about particulars that conscious vision does in the normal case. But the most plausible explanation of the distinctive possession conditions of standard visual demonstratives is in terms of the difference in epistemic status conscious vision makes.

Thus standard visual demonstratives, by contrast with the counterpart singular concepts one might ascribe to a blindseer, would constitutively involve substantial knowledge of reference, and should be counted as transparent concepts in my terminology.

²¹ The condition of blindsight has been detailed by Weiskrantz (1986). A famous hypothetical case of blindsight functionally comparable to conscious human vision was introduced in Block (1995). For the purposes of the dissertation, I will assume that the latter case is genuinely conceivable.

In the first half of my thesis, I will show that some general perceptually-based concepts in our repertoire also turn out to be transparent. In this chapter, I introduce a type of recognitional concepts that are transparent. In the next, I show that our observational concepts, concepts of manifest properties such as colors and shapes, are best construed as being of this type.

5. Experientially-based concepts

We saw that the putative transparency of perceptual demonstratives would constitutively tie them to perceptual experience. They would not just be *information-based* concepts—rather, they would be *experientially-based* concepts. The key role played by the character of conscious vision in the grasp of visual demonstratives would be exhausted not merely by fixing the reference of the concept or the distinctive functional role the concept—presumably both could be due to a perceptual state with no distinctive presentational phenomenology. The sheer phenomenal presence of the object would play a further, essential role in one’s visual demonstrative grasp of it—by enabling substantial knowledge of reference. As will become clear, some general perceptual concepts in our repertoire also turn out to be experientially-based for the same reason.

6. Transparent recognitional concepts

Having defined perceptual, transparent and experientially-based concepts, I am now in position to introduce a special type of standing recognitional concepts that would be analogous to standard visual demonstratives. Recognitional concepts of this sort would be *transparent*: that is, they would constitutively involve substantial knowledge of the

features they pick out.

I have argued that recognitional concepts are a type of perceptual concepts. They get their reference fixed by virtue of their relation to past perceptions and the capacity to re-identify instances falling under the concept. However, with transparent recognitional concepts, perception would play a further role in the case of some recognitional concepts: not merely to fix and sustain reference and functional profile, but also to provide a basis for knowledge of the referent of the concept.

Based on this further role, and getting a cue from standard singular perceptual demonstratives, one would expect transparent recognitional concepts to be experientially-based rather than merely informationally-based. The constitutive substantial knowledge of reference would be made available by the phenomenal character of the perceptual experiences, which lead to the acquisition of the respective concept. There are other ways in which the phenomenal character of perception could be constitutive of one's recognitional grasp of a general feature. But the above proposed role of experience would be distinctive, and, I will argue shortly, basic. If conscious experiences with specific character play an essential role in the grasp of any recognitional concepts, it is because a subset of those concepts are transparent.

In the following two sections, I will develop a proposal about the way in which having some standing recognitional concepts would be essentially tied to the enjoyment of experiences with specific character. In the final section, I distinguish this type of recognitional concepts from two further types of recognitional concepts, based on their distinctive metasemantics.

II. Demonstrative grasp of properties

1. The property-demonstrative proposal

The first ingredient in my account is the notion of a *property-demonstrative*. A *property-demonstrative* is a concept which picks out a general feature by an analogous mechanism to the one based on which a singular demonstrative concept gets to pick out a concrete particular.

Perceptual experience of particulars presents them as bearing some qualities. For convenience, I will take those to be ordinary qualities such as an object's color, shape, location, and so on.²²

Along with the particularistic aspect, the repeatable or general aspect of those qualities is normally also present in the experience. Based on the presence of this general aspect, one can attend to an apparent property-instance in two ways: one by focusing on its particularity, the other, by focusing on its generality. The concepts resulting from each way of attending to the quality would be distinct. In the former case, we would have what I call an instance-demonstrative. In the latter case, we would have a property-demonstrative.

There is evidence that we do grasp property-demonstratives regularly. Specifically, there are cases in which, in virtue of having a perceptual experience of an instance of a property and exercising attention, the subject comes to conceive of the property-type of the instance perceived, without having any prior grasp of it. Joseph Levine has described an

²² I will substantiate this claim in the second chapter. Strictly speaking, all that is needed for the property-demonstrative account to go through is that perceptual experiences would at least in part consist in the appearance of a number of particulars as each bearing a number of specific properties. Even some qualia theorists take qualia to be (falsely) attributed to the perceived objects (see e.g. Boghossian and Velleman 1989). The alternatives inhospitable to the view are 1) a purely sensational view of experience, on which the character of experience fully consists in some sort of non-intentional glow (see Block 1996, Burge 1997) or 2) a view on which its character consists in a referentially-indeterminate mode of presentation (Loar 2003, Thompson 2009, Kriegel 2007, 2011). I will set aside those views. They strike me as phenomenologically implausible.

example in a related discussion:

Suppose I'm in the midst of deciding what color to paint my house. I'm driving along and idly looking at houses to get ideas and pass one that strikes me as just what I want. I think to myself, looking at the house, [that's the color I want for my house]. Obviously I'm not interested in literally taking the paint off that house and putting it on mine. Rather, I want to put a token of that very same type on my house (Levine 2010: 18).

A natural description of the case is the following: the house is presented in the subject's experience as being a specific general way that he can in turn embrace in thought. Cashing out the color concept deployed in virtue of experiencing the house as a property-demonstrative is quite natural. After all, the experience seems to be doing the same kind of work as it would in the case of a singular perceptual demonstrative. The subject in the scenario would be focused on the color of the house, in a similar manner in which he would have to focus on the house if he is to think of it demonstratively.

Moreover, the concept of the specific general shade is not entertainable except in the context of enjoying the experience. This dependence could not be rightly predicted by a view on which the subject would be conceiving of the shade as the color of the particular house. The entertained content is distinct from the one which can be expressed with "the color of this [house]," where what is properly demonstrated is a particular. Contents of this sort could be entertained on a wider range of occasions than the case in point. One can entertain the above content on occasions when one does not perceive the color of the house—for instance, in the dark, when only the outline of the house is visible.

We need an account that accommodates the context-dependence of the concepts made available on such occasion. The property-demonstrative account has the right predictions in that regard. On it, the concept would be unavailable to one unless she is

experiencing and attending to the property.^{23,24}

Assuming that on some privileged occasions perception makes available genuine property-demonstratives, one can inquire about the role perception—and specifically the character of perception, plays in their possession. As with singular demonstratives, the role of perception would not be exhausted by fixing reference and contributing toward the functional profile of the concept, but would also involve providing a basis for knowledge of the referent of the concept. Like singular demonstratives, property-demonstratives would also be transparent, experientially-based concepts. A given property-demonstrative would be available only when the subject is presented with the property, not merely when one’s perceptual system is representing the property without making a difference to the phenomenology.

I will defend this proposal as to the nature of the concepts we grasp on occasions such as those highlighted by Levine in two steps. First, I show that no alternative account of the concepts made available on occasions of the sort described in Levine’s vignette fares as well as the current proposal. Secondly, I disarm a number of concerns with the property-demonstrative account.

²³ Strictly speaking, there could be other contexts in which one would be able to entertain the concept than through consciously perceiving an instance of the property. Perhaps one could acquire the same fine-grained concept of e.g. Crimson by recalling the Crimson-presenting aspect of her experience that she did not pay attention to at the time. In that case she would form a kind of memory-based property-demonstrative. Or perhaps someone could visualize a crimson object without ever having experienced one. In that case, she would be using imagery in the place of perceptual experience as a basis for demonstrative grasp of the property. In each of those cases, there would be a phenomenal episode, in which an apparent instance of the respective property would be present to one.

²⁴ A related issue that I aim to remain neutral on is whether a hallucinatory experience indistinguishable from veridical perception of an instance of Crimson would be apt to provide the right basis for grasping the same property-demonstrative that a veridical perception does. Although I am not fully convinced, I do not intend to rule this out.

2. Ruling out alternatives

On the first alternative proposal, rather than implicating a constitutive demonstration of the respective shade, “this color” would merely express a fine-grained shade concept which gets deployed on the occasion. As Christopher Peacocke has pointed out in the course of examining a suggestion of this sort, in that case the respective concept would neither involve a more general component corresponding to “color” nor a demonstrative component corresponding to “this.” The concept would be better expressed with “that way,” whereby, rather than picking out the shade experienced, the demonstrative phrase expresses the fine-grained content of a non-demonstrative, stimulus-independent concept deployed by the subject in classifying the shade.²⁵

The proposal that the concept expressed by “thus” or “that shade” is relatively stimulus-independent can be developed into the view that in such cases subjects form and deploy fine-grained recognitional concepts. John McDowell has given the most explicit statement of the proposal:

What is in play here is a recognitional capacity, possibly quite short-lived, that sets in with the experience. It is the conceptual content of such a recognitional capacity that can be made explicit with the help of a sample, something that is guaranteed to be available at the time of the experience with which the capacity sets in. Later in the life of the capacity it can be given linguistic expression again, if the course of experience is favorable; that is, if experience again, or still, presents one with a suitable sample. But even in the absence of a sample, the capacity goes on being exploitable as long as it lasts, in thoughts based on memory; thoughts that are not necessarily capable of receiving an overt expression that fully determines their content (McDowell 1994: 57-8).

In my view, such concepts are not properly called demonstratives, despite the fact

²⁵ See Peacocke (2001: 130-131).

that McDowell moves freely between “recognitional” and “demonstrative.” Although, as is the case with every recognitional concept, there is a kind of indexicality or context-dependence involved, since the original context of acquisition determines reference, this kind of context-dependence is weaker from that of a genuine demonstrative—which, unlike a recognitional concept, is not a standing concept that can be redeployed outside the reference-fixing context. It may in some cases be converted into a memory demonstrative or a recognitional concept, but even in such cases the capacities that constitute the respective standing concept would be distinct from the capacities that sustain the original concept.²⁶

By contrast, on the recognitional proposal, the capacities that are needed to subserve a standing recognitional concept would have to be in the background in the original deployment of the concept and necessarily so, since they would constitute the concept. The recognitional proposal has customarily been employed not merely to account for the content of the perceptual judgements experience rings from subjects, but also for the character of experience on such occasions. On the proposals put forward by McDowell (1994) and Sedivy (1996), experiences are constituted by the deployment of very specific recognitional concepts. If a proposal of this sort were true, perceptual experience could not play a genuine explanatory role in the grasp of recognitional concepts, since enjoying an experiential episode would presuppose having such a grasp.

However, the proposal that the relevant perceptual judgements on such occasions involve recognitional concepts is a non-starter. As several critics²⁷ have emphasized, we

²⁶ On the distinction and relation between the capacities for demonstrative and recognitional identification of individuals, see Evans (1982: 276-7).

²⁷ Raffman (1995), Dokic and Pacherie (2001), Kelly (2001), and Chuard (2006).

happen to discriminate shades more finely when we experience them at the same time than when we experience them in succession—even in very close succession, when the recall would involve short-term memory capacities. It follows from this that subjects are unable to recognize instances of the determinate shade they were able to identify originally. This finding shows that there is a distinction between standing, albeit relatively short-lived, general concepts and context-bound concepts of the sort that Levine’s example brings out.

At this point, one may try to account for the context-boundedness of the concepts otherwise than *qua* demonstratives. This alternative explanation would be obligatory for those who may think that the deployment of the concepts is constitutive of experiential episodes rather than is merely enabled by such episodes, as they could not then be rightly thinking of the concepts as demonstratives. I take demonstrative concepts to be a type of indexical concept which get its reference fixed in virtue of bearing a special relation (the mental equivalent of a demonstration) to a distinct mental state.²⁸ Demonstrative concepts are not intrinsically contentful; nor do they—like purely indexical concepts, get determinate reference purely in virtue of the role they play in reasoning and control of behavior. Rather, a perceptual demonstrative would have to inherit its reference from the subject matter of perceptual experience.

By contrast with demonstrative concepts, perceptual experiences do not rely in the same way on other mental states for having determinate subject matter.²⁹ So if context-bound concepts were constitutive of perceptual experience, those would not be properly

²⁸ In the terminology from Levine (2010), this corresponds to the claim that mental demonstratives have a dedicated *intentionally-mediated mechanism* rather than a *direct mechanism* for fixing reference. By contrast mental indexicals have their reference not by virtue of any other more basic state, but in virtue of the role they play in reasoning. Tracking would be another direct mechanisms for fixing reference.

²⁹ On some views (Martin 2002, Campbell 2002b, Horgan and Tienson 2002, Pautz 2009) perceptual experiences have determinate subject matter intrinsically); on others (Dretske 1995, Tye 1992 and 1995) they get it in virtue of causal relations to the environment).

described as demonstrative concepts in the above sense. Some might disagree with the argument and propose that the demonstrative concepts involved in having perceptual experience would inherit their reference from the reference of subpersonal states in the perceptual system to which they are appropriately related. But while this view about the subject-matter of experience might be defended with regard to particulars, it is quite implausible with regard to properties. Perhaps which particular an experience is of depends on which particular is represented by the respective subpersonal perceptual state the experience is related to. One might reasonably take it that the same experience could have presented a distinct particular. By contrast, it is very likely that my crimson-presenting experience is so necessarily, that is, it could not have presented a distinct property. The corresponding shade concept, if deemed constitutive of the experience, could not also be counted as demonstrative.

The above point would count against a proposal, on which perceptual experiences would be constituted by the deployment of purely indexical concepts.³⁰ Assuming the Self concept is the mental equivalent of a pure indexical, the way in which I would be conceiving of myself by virtue of deploying it would not be distinct from the way you would be presented to yourself in thought. By contrast, your experience of a determinate shade of Red presents it in a way that it could not have presented any other shade.³¹

Thus if the deployment of concepts were constitutive of having an experience, those concepts would be neither demonstrative nor purely indexical. But this point already shows why perceptual experience probably does not fundamentally involve the deployment of

³⁰ If there are such concepts, paradigms would be the ones expressed by token-reflexive terms such as “I”, “now” and “here.” See Perry (1979), Evans (1982: Ch. 7).

³¹ I make this point based on the convenient assumption that colors are primary qualities, but the point could also be made using determinate shapes and experiences of shape.

concepts. We saw above that if concepts are involved in experience, they must be context-bound—that is entertainable only on very select occasions. But the normal explanation of the context-boundedness of some concepts is in terms of their indexicality. However, since the qualitative subject-matter of experience does not vary with context, it could not be accounted for in terms of the deployment of indexical concepts, be it pure indexicals or demonstratives. If one is to hold on to the view that experiences are constituted by concepts, one would need to postulate a new kind of concept: referentially stable, like standing concepts, but context-bound, like indexical concepts. The proposal would be *ad hoc*. The much simpler explanation of what is involved in such perceptual episodes is not in terms of the deployment of such short-lived concepts, but in terms of the activation of long-term non-conceptual discriminatory capacities.³²

I have argued that it is unlikely that perceptual experiences are constituted by the deployment of concepts. Still, nothing as strong as the claim that experiences are constituted by the exercise of non-conceptual capacities is needed for the property-demonstrative account to get going. Since the account assigns genuine explanatory role to experience in the grasp of the concepts they make available, all that is strictly needed is the non-identity of the general concepts involved in context-bound property-identification and those constitutively deployed in the underlying experiences. But I have already established that the cognitive capacities involved in an experience of a property and the identification of the property are distinct: indexical concepts are referentially-variable, while the capacity underlying one's experience of a property has uniform subject matter

³² Such capacities would most likely be biologically determined, rather than learnt. Importantly, this does not entail that there is a naturalistic explanation of the capacity to discriminate the corresponding property, but merely that the capacity is advantageous for the organism.

across contexts. Even if it were deemed a conceptual capacity, it would still be fully kosher to propose that its deployment is required for grasp of the concepts involved in online property-identification.

3. Disarming objections

I will now briefly consider the most pressing objections to the proposal that the concepts involved in online perceptual judgements are property-demonstratives.

First, one may be sceptical of the existence of context-bound concepts, or at least of context-bound general concepts, in which case my proposal would be objectionable in principle.

Second, consistent with what I have said above, one could propose an alternative view of the concepts involved in such judgements as the mental equivalents of pure indexicals rather than as demonstratives. The issue is whether my view has an advantage over the alternative.

Third, one may have misgivings about the sheer possibility that the reference of a general concept could get fixed by a mental demonstration. An act of demonstration is normally targeted at particulars. In the case Levine discusses, one could make sense of a demonstration of the house, and perhaps of the concrete quality—the particular aspect of the front of the house. The hypothesis that experience also enables demonstration of a shade type is more difficult to make sense of and for some would be overextending the notion of demonstration.

Fourth, even if the opponent could grant that demonstrating a type is in principle possible, since each quality belongs to multiple property-types, there needs to be a non-

arbitrary way to determine which of the respective types gets demonstrated on the basis of experiencing a given quality.

Despite the seriousness of the objections, tackling them together actually builds the credibility of my proposal. We do have a distinctive context-bound sort of concepts, since online discriminations and comparisons deserve the name of judgements as much as memory-based discriminations and comparisons. So pace the first objection, the issue is not whether those are concepts or not, but rather, what makes them count as concepts. The flawed proposal that such concepts are relatively short-lived recognitional concepts stems from a mistaken requirement on a classificatory capacity to be counted as a general concept. Underlying it is the assumption that general concepts are essentially designed for re-identification over time. In this vein, Pierre Jacob and Marc Jeannerod have attacked the demonstrative version of conceptualism:

Color concepts and shape concepts stored in a creature's memory must allow recognition and re-identification of colors and shapes over long periods of time. Although pure demonstrative color concepts may allow comparison of simultaneously presented samples of color, it is unlikely that they can be used to reliably reidentify one and the same sample over time... Now, if the conceptualist was tempted to turn the tables around and argue that demonstrative concepts (of shapes or colors) are precisely well-suited to capture the fine-grainedness of perceptual experiences on the ground that they are not designed to achieve recognitional tasks, we would really ask in what sense they would still deserve to be called concepts (2003: 25).

Since Jacob and Jeannerod do not intend the argument to generalize to demonstrative concepts of particulars, their objection must be based on an assumption about an essential role that general concepts must play.³³ But it is not obvious why such a

³³ The same assumption seems to be at play in Dahlgrün's attack on the prospects of deriving recognitionality from indexicality:

role should be deemed essential rather than merely characteristic of general concepts. Discriminations and comparisons at a time are similar to discriminations and comparisons over time. Moreover, as I will argue briefly, even if the extremely short-lived concepts may not be designed to perform long-term recognitional tasks, consistent with this they could still have significant bearing on capacities to perform such tasks. Thus such concepts would perform analogous functions—when characterized at the right level of abstraction—and on my view would be functionally-integrated with standing general concepts, which is why the assumption underlying Jacob and Jeannerod's objection strikes me as unwarranted.

That said, rejecting the assumption is not an option for a view on which the same general concepts deployed in online perceptual judgements are also constitutive of perceptual experience. This is, I contend, why proponents of state conceptualism have been compelled to appeal to recognitional concepts in the place of strictly context-bound concepts. Consider, for instance, McDowell's argument against a context-bound treatment of the concepts involved in perceptual judgement:

We need to be careful what sort of conceptual capacity this is. We had better not think it can be exercised only when the instance that it is supposed to enable its possessor to embrace in thought is available for use as a sample in giving linguistic expression to it. That would cast doubt on its being recognizable as a conceptual capacity at all. Consider undertaking to give an expression to a thought in a way that exploits the availability of a sample by saying (possibly to oneself) something like “My visual experience represents something as being of *that* shade.” Suppose we try to hold that

“An allegedly stimulus-dependent indexical concept like THAT would seem to be a mechanism for singling something out in perception. Instead of being anything like a predicative concept, it would rather seem akin to a mechanism of attentional highlighting. To lump such different psychological kinds together under the label ‘concept’ is highly misleading. Contrast this with the practice of concept theorists in psychology, who take for granted from the outset that concepts are mental representations used in categorizing, in other words: that they are predicative concepts” (Dahlgrün 2010: 151, fn. 11). As the last bit of the passage suggests, the assumption may be due to taking explanatory conventions in psychology as a guide for which representational capacities should be counted as concepts.

this attempted expression of a thought contains an expression of a colour concept that is restricted to this occasion of utterance. This looks like Wittgenstein's case of the person who says "I know how tall I am" putting his hand on top of his head to prove it. The putative thought—"I am *this* tall", "It looks to me as if something is of *that* shade"—is being construed so as to lack the distance from what would determine it to be true that would be necessary for it to be recognizable as a thought at all (McDowell 1994: 57).

The argument in the passage relies on the assumption that the only way to have the mental analog of "that" in "that shade" constitute a *bona fide* concept is by adding the capacity to redeploy it on subsequent occasions. Presumably the comparison with Wittgenstein's example is supposed to elicit the intuition that this is the only possible way to have a non-discursive general concept.

However, the comparison is clearly inapt, as noted by Peacocke:

[T]he person in Wittgenstein's example does not, by saying or thinking 'this tall' come to know of a height in metres or any other unit, which is what knowing how tall one is requires on the usual understanding. It is not even clear that such a person thereby (I emphasize thereby) comes to know how tall he is, in the sense that he could indicate which of the markings on a wall on the opposite side of the room is roughly his height. By contrast, a perceptual-demonstrative thought latches on to a magnitude, or shade, or colour, only if that magnitude, or shade, or colour, is itself given in the experience which makes the perceptual-demonstrative concept available. There is no possibility of making perceptual-demonstrative reference to a magnitude, or shade, or colour, and not knowing what magnitude, or shade, or colour it is one is thinking about (Peacocke 2001: 249).

In the case of the attempted demonstration of one's height, the subject would not have knowledge of the property the demonstrative picks out. By contrast, in the case of the attempted demonstration of a shade on the basis of experiencing an instance of it, the subject would know which property is picked out by the demonstrative. For Peacocke, it is

the perceptual experience on which the demonstrative judgement is based on that enables knowledge of the reference of a property-demonstrative.

This is a very plausible story of what role experience plays on such occasions. It is puzzling that McDowell does not even so much as consider it. The reason is that a conceptualist about perceptual experience does not have the resources to vindicate the putative role of experience in providing for knowledge of the reference of a demonstrative. This is what compels McDowell to go for a counterintuitive alternative on which the knowledge of which property one has in mind on perceiving an instance of one is underwritten by the capacity for re-identify instances of the property.

If experience were constituted by the deployment of the same concepts one deploys in perceptual judgements, the way a property would be given in experience would be the same as the way in which the property would be conceived in a perceptual judgement. In the absence of a capacity for re-identification, all that could subjectively distinguish the property from others would be the syntactic and orthographical properties of the mental analogue of a token of “this”—which would indeed be an inapt basis for knowledge of which property is picked out by the token.

On the conceptualist account, the only way to flesh out context-bound concepts would be as pure indexicals, such as those commonly expressed by “I”, “now”, and “here.” That mental representations of this sort may need to meet a certain kind of further constraint to qualify as *bona fide* concepts has been suggested by Evans³⁴ and may be deemed reasonable given that, for example, a subject does not have non-trivial knowledge of which moment she means by “now” without retaining some grasp of the moment's order in time.

³⁴ For Evans' treatment of the first-person, see Evans (1982: Ch. 7). For temporal indexicals, see Evans (1981).

In the case of a general concept based on a purely indexical mental representation, the distinctiveness of the concept would similarly need to be secured by virtue of the capacity to re-identify instances of the same type. One would then have a dedicated indexical representation for a specific property in virtue of the role it plays in re-identification and compiling information about the property.

Once the blindspot in McDowell's argument becomes evident and its cause gets diagnosed, one can go back to the natural construal of the relevant perceptual concepts as property-demonstratives. The problem is not with the original construal—but with conceptualism about perceptual experience.

If conceptualism is the only framework within which the presumption that general concepts must enable re-identification can be defended, the claim is shaky at best. This takes care of the first, most general objection to the view. As long as one is committed to a non-conceptual (or at least to a non-indexical) account of the capacities at work in experience, the natural understanding of how online perceptual judgement works can be vindicated.

Furthermore, once one has given up on the idea that perceptual experiences consist in the deployment of such indexical-like elements, there is no further motivation to endorse an analogous view for the concepts that figure in online experientially enabled judgements of sameness and distinctness in property-type. Even though the concepts involved in such judgements would not have determinate reference intrinsically, since the underlying experiences would present specific properties, the mental analog of demonstration constitutively involved in the deployment of a concept of this sort would both fix its reference and provide for knowledge of the reference. Accounting for the concepts

involved in online property identification as pure indexicals would be unmotivated when there is a more fitting alternative. This takes care of the second objection.

If the demonstrative account is the only plausible account of the general concepts involved in online property-identification—and it is, since neither the recognitional, nor the purely indexical account have proven adequate—then it must be the true account. This does not make the notion of demonstration or attending to a property crystal-clear, but should make it a bit less obscure and a lot more plausible when set against the alternative explanations which reject that notion. If we did not attend to property-types, we should be unable to knowingly identify them independently of our capacity to re-identify them, but we do. It is a further issue exactly which properties we identify in this direct fashion: whether what we demonstratively grasp are ordinary observational properties of objects such as their actual colors, shapes, texture, smell, etc. (and perhaps some further complex gestalt features such as a cat's look or a bear's smell), or whether we demonstratively grasp some *recherché* properties associated with those, for instance, sensational properties of the phenomenal field,³⁵ or appearance properties of objects,³⁶ or uninstantiated counterparts to the ordinary properties.³⁷

This issue will be decided in the next chapter. The immediate concern is casting light on the mechanism of demonstration, given that, as I have shown, the property-demonstrative account is the most plausible explanation of our capacity to form short-term concepts on the basis of perceptual episodes. The third objection targets the very idea of a demonstration of a type. But at the current dialectical juncture, this scepticism is

³⁵ See Peacocke (1983).

³⁶ See Shoemaker (1994).

³⁷ See Chalmers (2006).

counterbalanced by the plausibility of the overall account which relies on that notion. More concessively, the mere presence of a concrete quality in experience may in the abstract appear to be insufficient to enable the demonstration of its type. But the actual phenomenology of perceptual experience already tells against the view that experience only presents us with particulars. Two distinct particulars can manifestly match in color or shape. On the most straightforward and arguably most fundamental explanation of such cases, the matching aspect of the two experiences would be due to each appearing the same general way. So there is phenomenological evidence that property types, in addition to property-instances, get presented in experience, specifically that any apparent property-instance gets presented as being of a specific type in any experience in which it is present.

We are thus left with the last and most substantial objection. It is true that any concrete quality will fall under multiple types. The view is thus faced with a genuine challenge to provide a reason to favor one of those as the way picked out by the property-demonstrative. But while it is true that a particular instance falls under many types, many of them would be gerrymandered types such as Grue. We can safely bracket such gerrymandered type and focus on the natural types. There would still be multiple such types, however. The key to settling on one of them is to recall that they stand amongst each other as determinables to determinates, e.g. Red to Crimson. From this hierarchy, we can then take the most determinate type as the one manifest in an experience of the respective quality. Selective attention to that type would in turn fix the reference of the property-

demonstrative.³⁸ The rest of the types will be product of selective abstraction from the most determinate type. I will say more about how this process would work in the next section.

This concludes my theoretical defense of the notion of a property-demonstrative. The next step in the argument is making a case for a constitutive connection between property-demonstratives and a type of recognitional concepts.

III. From demonstrative to recognitional grasp of properties

1. Transparent recognitional concepts and Mary's epistemic advance

As with singular demonstratives, property-demonstratives are context-bound and relatively short-lived concepts. By contrast, recognitional concepts are standing concepts. In the previous section, I drew a sharp line between those two kinds of general concepts. In the present section, however, I will propose a link between property-demonstratives and a type of recognitional concepts. The dependence I have in mind is metaphysical. Having recognitional concepts of that type would require having had prior grasp of the corresponding type-demonstratives. The reason for this is that such recognitional concepts would be transparent, that is they would constitutively involve substantial knowledge of the features they pick out. Such knowledge would get inherited from the knowledge involved in having prior demonstrative grasp of the feature. Since, as I have shown, having an experience of the property would be essential for grasp of the property-demonstrative, it would also be essential for one's grasp of the respective recognitional concept

³⁸ Another possible way to go at this juncture is hold that types of different grain would get experienced when perceiving instances of the same property in distinct circumstances. As will become clear in Chapter IV, I have principled reasons against that view, based on the phenomenon of perceptual constancy.

I have argued that recognitional concepts are acquired rather than innate. From this it follows that the substantial knowledge of reference which by hypothesis would be involved in having some recognitional concepts would also have to be acquired. As it is constitutive of one's grasp of the respective concept, it would have to be acquired in the same circumstances in which the concept gets acquired.

Furthermore, the constitutive knowledge acquired in those circumstances would have to be 1) actual, 2) and partly propositional. I will make both points using a familiar example.

First, for the sake of simplicity, let us suppose that our *capacity to identify colors* were innate—that is, that we merely need to be presented with an instance of a shade to be able to identify it. Still, this would not entail that the corresponding *color concept* was innate. Consider Frank Jackson's Mary.³⁹ Intuitively, she would not possess the recognitional concept RED in her black-and-white room before encountering her first tomato, even if experiencing the redness of the tomato would merely activate rather than calibrate or shape in any way a pre-existing classificatory capacity.

What experiencing a red object for the first time would still bring about in such case would be a change in the subject's epistemic status. Mary would learn what Red is like.⁴⁰ This would be a categorical change in epistemic status. Mary had the capacity to know what Red is like before the encounter. But being able to learn what Red is like intuitively does not suffice for possession of the recognitional concept RED. Instead, what is required for grasp of the concept is having actual knowledge of what Red is like.

³⁹ The example was initially presented in Jackson (1982).

⁴⁰ In this characterization of the case—taking Mary's fundamental epistemic advance to consist in knowledge of what Red is like rather than on what the experience of Red is like, I follow Crane (2000), Raffman (2005), Graham and Horgan (2005) and Tye (2009).

Experiencing an instance of Red is necessary but not on its own sufficient for having knowledge of what Red is like. Mary would also need to focus her attention on the apparent instance of Red and to conceive it demonstratively in order to learn what Red is like. If she were too preoccupied by another aspect of her conscious life to focus on the property given in experience, the experience would not have provided her with knowledge of what Red is like. Correspondingly, she would not have acquired the concept RED.

To sum up, having the recognitional concept RED requires having demonstrative knowledge of what the property picked out by the concept is like. In the case described, it would require supplementing one's pre-existing classificatory capacity with the knowledge the subject obtains by deploying a property-demonstrative based on experiencing an instance of Red. This should make it clear that having a demonstrative grasp of a property, even if it has no bearing on the capacity to re-identify the property, would confer the right kind of epistemic standing on that capacity, absent which it would not amount to the ordinary way we have of recognizing red things.

2. An alternative construal of Mary's advance

Several authors have proposed to explain away Mary's epistemic advance as the onset of certain non-propositional epistemic capacities,⁴¹ for instance, one or a number from among the capacities to recall, imagine, and recognize red things. However, such capacities can be conceived in a thin or a thick way. On the thin understanding, they would indeed come out as wholly non-propositional but also would turn out to not essentially depend on the enjoyment of Red-presenting experiences. In the above case, it was argued

⁴¹ This approach to the case has come to be known as The Ability Hypothesis. See Lewis (1990), Nemirow (1990), and Tye (2000).

that Mary has the capacity to recognize red objects prior to her experience of Red without knowing what Red is like. The same is the case with regard to her capacity to recall and imagine red things. Being a brilliant but absent-minded scientist, Mary might be so absorbed contemplating the details of psychophysics that her Red-classificatory capacity would get activated by her experience of red objects behind her back, so to speak. Mary would be able to re-identify red things consistently with having no idea what Red is like—besides that it is the same property as the one encountered on such and such an occasion. Perhaps such deviant exercises of her capacity would be sufficient for her to also have the capacity to recall instances of Red, and possibly even to imagine, in some etiolated sense, instances of Red.

By contrast, on the non-deviant use of the recognitional capacity, grouping red objects together would be guided by propositional, specifically demonstrative knowledge of what Red is like. Similarly for the capacity to recall or imagine an instance of red. In the ordinary case, recalling an instance of Red would be recalling the way an instance was presented in experience and imagining an instance of Red would be recalling the way an arbitrary red object would be presented in experience. Such capacities would rely on the activation of experientially-based propositional knowledge: one's retained demonstrative knowledge of what Red is like resulting from experiential encounters with instances of it.

Additionally, having the phenomenally-involving capacities to recognize, recall and visualize instances of the property is essential for retaining possession of the concept, since such capacities embody one's knowledge of the property picked out by the concept. Suppose that Mary learnt what Red is like and as a result acquired a transparent recognitional concept of Red. But also, suppose that, shortly after, Mary went color-blind

and gradually lost the capacity to visualize red things. Still, suppose that she retained the capacity to identify red objects on seeing them. This would be a sort of color blindsight. Moreover, she retained propositional knowledge of former encounters with red objects before her condition set in. For instance, she could recall that her mother's scarf was red—despite being unable to recall how it looked in respect of color. In the thus described predicament, Mary would no longer have her original recognitional concept for Red intact but would have instead reverted to a distinct concept. This is because she would no longer know what Red is like, which is constitutive of having a transparent recognitional concept for redness.

3. An objection from distinct grain

Although I have argued that Mary's case provides genuine intuitive support for a constitutive connection between recognitional and demonstrative color concepts, there is a slight but not insuperable difficulty with the application of the view to actual cases. Context-bound identification is finer-grained than standing identification due to the limitations of long-term memory. This means that in actual cases, one's original property-demonstrative would have a distinct property as referent from the corresponding standing recognitional concept that the subject would subsequently acquire. Furthermore, even if we were subject to no memory limitations, our ordinary recognitional color concepts are fairly coarse-grained. We tend to categorize shades along their determinable types. In fact, few of us have a standing grasp of the fine-grained distinctions between shades of Red. In the order of acquisition Red comes before Crimson, Vermillion and so on.

One might take the difference in the grain of demonstrative and recognitional

concepts to preclude the inheritance of the requisite knowledge of the reference of Red from one's original experiential encounter of a determinate shade of Red to one's recognitional grasp of Red, with the implication that the recognitional concept does not constitutively involve knowledge of what Red is like, or that the knowledge is not experientially-based. If either were the case, the role of experiences of shades of Red in the acquisition of the recognitional concept would turn out to be merely causal, rather than constitutive.⁴²

But although Mary's original property-demonstrative and the corresponding recognitional concept would have distinct properties as referents, the properties would be related in an intimate manner. The property picked out by the recognitional concept would be a determinable of the property picked out by the demonstrative. The fact that we can identify determinate property-types online without having the capacity to re-identify those exact types over time does not establish that the less determinate types we can re-identify are not a function of the types we have encountered originally. Similarly, it does not show that one's occurrent knowledge of what determinate shades of Red are like does not get converted into standing knowledge of what Red is like. Mary's recognitional capacities may be of lower grain than her online discriminatory capacities, but her knowledge of what Red is like would still depend on having experienced determinate shades. Despite being knowledge of a less determinate type, this knowledge would still be inherited from the original occurrent knowledge of the type experienced.

⁴² An objection of this sort has been put forward by Livingston (2013) against Chalmers' (2003) notion of a standing pure phenomenal concept: a standing phenomenal concept constitutively linked to a distinctive, context-bound phenomenal concept. Chalmers' pure phenomenal concepts would be counted as property-demonstratives in my framework, while standing phenomenal concepts would be counted as transparent recognitional concepts.

In defense of the proposed link between the demonstrative and recognitional color concepts in our repertoire, I argue that, first, we know what Red is like, and secondly, that such knowledge could not be attained without having experienced determinates of Red. To explain how such knowledge gets generated, one must further postulate a mechanism of selective abstraction, which derives knowledge of determinables from knowledge of determinates. Based on it, one can explain how experiences of determinates of Red can give us not just knowledge of what the determinates are like, but also knowledge of what Red is like. This process is experientially-based and guided. On my view, the properties presented in experience are presented as complex magnitudes,⁴³ with the abstraction process selecting the manifest commonalities among them, e.g. kind of hue.⁴⁴

4. Provisional results

I have proposed that Mary's cognitive advance is best explained in terms of the acquisition of a special type of recognitional concept for Red, which constitutively involves experientially-based knowledge of Red. Grasp of the concept depends on the prior grasp of demonstrative concepts of determinate shades of Red. Since the property-demonstratives would be experiential concepts, having the corresponding transparent recognitional concept requires that one has attentively experienced, recalled or successfully visualized instances of the property picked out by the concept, and, moreover, that the thus generated experientially-based knowledge of reference gets retained.

The particular case illustrates a general feature of transparent recognitional

⁴³ I substantiate this claim in Chapter III.

⁴⁴ The same process would explain the possibility of acquiring a concept of Hume's missing shade of blue merely by experiencing the surrounding shades.

concepts. Such concepts would be experientially-based concepts. Having had experiences with specific phenomenal character and exploiting them in the right way would be essential for grasp of concepts of this sort.

We can expect that the nature of transparent recognitional concepts will have distinctive implications for their possession conditions. In that case, the possession conditions of a recognitional concept would provide a clue as to whether it is transparent or not. But before getting to the issue of the existence and extent of transparent recognitional concepts, I must first undertake a taxonomy of recognitional concepts. The overall commonality allows for theoretically significant differences among types of recognitional concepts. I distinguish between three types, based on their distinct metasemantics, that is, the mechanism by which the reference of concepts of the respective type gets determined. To foresee some of the argument in the following chapter, it turns out that the distinct metasemantics provides a distinguishing mark for each type.

IV. The varieties of recognitional concepts

1. Metasemantics

The distinction between semantic and metasemantic questions in the theory of content was first made explicit by Kaplan (1989: 573-6). Specifying the exact content of a representation is one issue, specifying the way it gets to have the content it does often is a further issue. The distinction is especially clear with putatively directly referential expressions such as proper names. According to direct reference theorists, the meaning of a proper name is exhausted by the referent of the name. The way the name gets to have that

meaning is through the term bearing a causal-historical relation to the referent. The causal-historical relation is not part of the meaning of the term.

The distinction between semantic and metasemantic questions can also be applied to mental representations and specifically to concepts. The content of a concept is one thing; the mechanism by which the concept gets its content is a further matter. In the case of recognitional concepts, perception will have an essential role to play in fixing the reference of the concept. I will argue that there are three distinct types of mechanism by which the reference of a recognitional concept could be fixed

2. Transparent recognitional concepts

I have already introduced the first type of recognitional concepts. This type has thus far been neglected, although some phenomenal concept theorists (e.g. Chalmers 2003 and Nida-Rumelin 2006) seem to be working with something akin to transparent recognitional concepts. I have shown that the phenomenal character of the experience on the basis of which concepts of this sort would be acquired would play an essential metasemantic role in at once fixing and providing the basis for substantial knowledge of the reference constitutive of having the concept.

Normally recognitional concepts have been invoked as concepts the possession of which involves no substantial knowledge of the referent of the concept—but merely a capacity to recognize instances of it when perceived on some occasion. This is the type of recognitional concepts I turn to. I distinguish two distinct types within it.

3. Opaque recognitional concepts

By contrast with transparent recognitional concepts, opaque recognitional concepts involve no substantial knowledge of the features they pick out. One kind, *mildly opaque concepts*, pick out their referents contingently through a perceptually-based mode of presentation. Depending on the context in which the concept gets acquired, the mode of presentation determines which general feature is picked out by the concept. Another kind—*fully opaque concepts*, pick out their referents directly by tracking them. According to their proponents they have no mode of presentation, although perhaps a better way to put it is that the mode of presentation does not factor into the determination of the reference of the concept, but reflects the contingent psychological limitations of the constitutive recognitional capacity.

Direct reference theorists have appealed to fully opaque recognitional concepts to produce adequate account of the introduction of natural kind terms, since recognitional capacities for natural kinds do better than reference-fixing descriptions.⁴⁵ The specific natural kind, rather than any other closely related alternative kind instantiated by the paradigmatic samples of the kind would be the one meant by the subject not in virtue of satisfying any detailed descriptive specification formulable by him, but in virtue of the subject's having the capacity to recognize instances of the kind when perceiving them. Additionally, many physicalists about consciousness have appealed to opaque recognitional concepts to explain the peculiar access we have to our phenomenal states.⁴⁶ More generally, opaque recognitional concepts sit well with information-semantics, on

⁴⁵ The proposal have been presented with slight variation by Sterelny (1983), Miller (1992), and Brown (1998).

⁴⁶ For example, Loar (1990), Tye (2003), Levin (2007).

which our basic concepts pick out the features, instantiations of which determines the normal deployment of the concepts.⁴⁷

On the other hand, mildly opaque recognitional concepts have been used to salvage a broadly descriptivist view of reference (mental reference, at least) in light of the necessary *a posteriori*.⁴⁸ More broadly, they fit in an overall view on which having a concept would involve having grasp of its application conditions, which would guide the rational application of the concept.

4. Comparisons

Recognitional concepts fall in three fundamental distinct types, but the types also exhibit commonalities and connections—which can help in their identification. I will focus on commonalities and differences in the semantic stability of the concepts and in the metasemantic role played by the mode of presentation of the concepts.

a). Semantic stability

Both *fully opaque* and *transparent concepts* are referentially-stable concepts: they have uniform reference across worlds. By contrast, the reference of a *mildly opaque concept* is a function of the mode of presentation and the context of acquisition of the concept. While having the concept requires having been in the original context, one should make a distinction between the aspect of the context relevant to the possession of the concept and the aspects of the concepts relevant to the reference of the concepts. Some aspects of the original context are indeed essential for possession of a partly opaque

⁴⁷ See Fodor (1990), and (1998).

⁴⁸ See Jackson (1998), Chalmers (2002).

concept—they determine the mode of presentation—hence the identity—of the concept. Others, although relevant, are contingent. The reference of a mildly opaque concept would be among such aspects. To illustrate, suppose that we possess a mildly opaque recognitional concept picking out the biological kind Tomato. That concept would be acquired on the basis of occasions on which the subject perceives certain bundles of superficial features which tomatoes normally have. Call such a bundle a tomato's characteristic appearance. The bundle would be *a priori* connoted by the recognitional concept, and through it the concept would pick out the biological kind which underlies the characteristic appearance in the context of acquisition.

Since the connection between the underlying kind and its characteristic appearance is contingent, the recognitional concept would be picking out the kind Tomato contingently. Had another distinct kind underlied the same bundle of features, that kind would have been picked out by the concept. By contrast, with a fully opaque recognitional concept, the aspect of the original context essential for possession of the concept also determines the reference of the concept, with the consequence that a given opaque recognitional concept could not have picked out a distinct feature.

b). Sense and reference

By contrast with *fully opaque* recognitional concepts, both *transparent* and *mildly opaque* recognitional concepts represent general features in virtue of their mode of presentation. This similarity suggests an overlap in their metasemantic mechanisms. The mode of presentation would in both cases be the characteristic appearance of the respective feature. The difference is that, in the one case, the mode of presentation of the referent

would be contingent, while, in the other, it would be necessary. This is because, in the first case, the characteristic appearance of the feature would be a distinct property contingently associated with the underlying feature, while in the other it would be the feature itself.

This commonality suggests the following intimate connection between transparent and mildly opaque recognitional concepts: a mildly opaque recognitional concept would be a concept with transparent reference-fixing component. Consider TOMATO again. Presumably if it were mildly opaque, the concept would connote superficial features of tomato such as its shape and color. Those features would in turn be either grasped in a mildly opaque manner or not. If they were, grasping them would involve having a grasp of a distinct associated cluster of features in terms of which the former are conceived. Such regress cannot continue infinitely or even indefinitely. Therefore the concept would have to have a basic component that is not mildly opaque. On one such prominent view, the regress would terminate with the grasp of appearance properties of objects or of qualia.

Furthermore, the basic component of TOMATO could not be fully opaque. For, as noted above, mildly opaque recognitional concepts fit in a conception on which the rational application of the process must be guided by grasp of its application conditions. On this view, one must have a relational conception of the referent of a mildly recognitional concept in terms of its characteristic appearance, in virtue of which one would apply the concept rational when presented with the characteristic appearance. But if one had no understanding of the basic features in relation to which the referent of a mildly opaque recognitional concept would be conceived, the application of that basic conceptual component would not come out as rational. The respective concept would be better modeled as an unstructured, fully opaque recognitional concept.

5. The way forward

I have accentuated the key differences and commonalities between transparent, fully opaque and partly opaque recognitional concepts. Since I have shown that mildly opaque recognitional concepts must have transparent reference-fixing components, one way to ascertain that there are transparent recognitional concepts in our repertoire would be to show that at least some of our recognitional concepts are mildly opaque. This could be done by establishing the specific overall account of the rationality of concept application mentioned above, or else by proceeding less ambitiously—on a case-by-case basis, and showing that some of our rudimentary kind concepts are mildly opaque. Regarding the success of this latter strategy, I am in agreement with Frank Jackson when he claims: “typically we know something useful and non-grue-like, and are giving voice to this knowledge when we classify happenings as examples of grooming behaviour, pain, rational inference, and so on” (Jackson 2002: 65). Treating all of our recognitional kind concepts as fully opaque seems unwarranted to me.

However, my case for the existence and extent of transparent recognitional concepts neither verges on the prospect of establishing a general condition on concept application, nor on a piecemeal investigation of the kind concepts in our repertoire. The first strategy strikes me as overly ambitious, while the second strikes me as inelegant. My tentative view of the recognitional concepts in our possession is pluralist. In the next chapter, I explore a peculiar recognitional capacity: chicken-sexing and argue that it is based on the possession of fully opaque recognitional concepts. Still, keeping in mind the distinctive metasemantics of fully opaque recognitional concepts, examining this capacity will help get clear on the possession conditions of concepts of this sort. The experience-related possession

conditions of *fully opaque* recognitional concepts will turn out to be more promiscuous than the intuitive experience-related possession conditions of our standard observational concepts. Following this, I will also show that those are better modeled as *transparent* rather than as *partly opaque* recognitional concepts—due to their semantic stability.

Chapter 2

Observational concepts as transparent recognitional concepts

I have introduced a special type of recognitional concepts and set it alongside two further types—based on their distinctive metasemantics. In this chapter, I will explore the extent of transparent recognitional concepts in the repertoire of mature human beings. I will argue that our most basic perceptually-based objective categories—so called observational concepts, are concepts of that sort.

The argument will proceed by eliminating alternative construals of observational concepts. Observational concepts are recognitional concepts. As I have shown in the previous chapter, recognitional concepts come in three varieties: transparent, partly opaque or fully opaque. But observational concepts could neither be fully nor partly opaque. Therefore, they must be transparent.

The key step in the argument is showing that observational concepts are poorly modelled as either partly or as fully opaque recognitional concepts. To that end, I first uncover a key difference between the possession conditions of fully opaque recognitional concepts and those of the other two types. Briefly, transparent and partly opaque recognitional concepts are experientially-based concepts, while opaque concepts are not. I then show that observational concepts are experientially-based, and consequently could not be fully opaque. At the next stage, I rely on the difference in the referential behaviour of transparent and of partly opaque concepts accentuated in the last chapter. Transparent concepts are referentially stable, while partly opaque concepts are referentially variable. I show that observational concepts are referentially stable, and therefore must be transparent.

I. The extent of transparent recognitional concepts

In this preliminary section, I explore the commonest candidates for transparent recognitional concepts. I first focus on phenomenal concepts and tentatively conclude that those are poorly modelled as such. I then focus on concepts of bodily sensations and suggest a reason to treat them as transparent recognitional concepts. Exploring the two types of subjective concepts helps get clear on the connection between transparent recognitional concepts and the subjective domain, which in turn opens up the possibility that some of our objective concepts may also be of that type.

1. Phenomenal concepts

If there is any domain of entities our grasp of which appears outrightly to be in terms of transparent recognitional concepts, it is the phenomenal domain. Some phenomenal concept theorists (Chalmers 2003, Nida-Rumelin 2006, Levine 2006) have explicitly appealed to an analog of transparent recognitional concepts to give an account of phenomenal concepts. However, they put forward a controversial theoretical spin on the constitutive substantial knowledge of reference involved in having a transparent recognitional concept, while at this initial stage I prefer to work with an intuitive grasp of the notion-derived from paradigms and counter-paradigms.

Furthermore, by contrast with the above authors, I am sceptical that phenomenal concepts are of the above type. Recall that having a transparent recognitional concept has as prerequisite the capacity to form a demonstrative concept of the property picked out by the concept. But the requisite view that we can conceive of the character of our experiences demonstratively is considerably more controversial than the proposal that we can conceive

of the manifest properties of the objects of experience in that way. Although we may commonly talk about our focusing on or attending to the character of an experience, such talk may well be loose.¹ If there is anything like a genuine mechanism of attention involved in phenomenal knowledge, it would work quite differently from attention to the objects of experience. Experiences are essentially presentational or *diaphanous*.² We cannot focus on the character of our experiences independently of focusing on the objects of experience. If the character of an experience is exhausted by its presentational aspect, it is unlikely that we focus on that aspect in the same way as we focus on the items we appear to be presented with in having the experience. But even if there is anything additional to the character of the experience beyond its presentational aspect, it would be elusive to introspection. So even if we were implicitly aware of it, our incapacity to attend to it in any straightforward manner would preclude us from being able to grasp it demonstratively. Our grasp of it would be theoretical.

Thus, no matter if some of the intrinsic properties of one's experience are present to the subject of experience or not, it is difficult to explain how her introspective grasp of the character of her experience could be demonstrative.

2. Sensational concepts

I have argued that, despite appearances, phenomenal concepts are poorly-modelled as transparent recognitional concepts. Still, there is something right with linking transparent recognitional concepts to phenomenal consciousness. But it is with our grasp

¹ There are alternative models of phenomenal knowledge that do not involve anything like demonstration. See Evans (1982: 226-8), Tye (2003a, 2014), and Stoljar (2004).

² The diaphanousness of experience was originally highlighted out by Moore (1922/2000), and has recently been rediscovered by Harman (1990) and Tye (1992).

of bodily sensations rather than with phenomenal states more generally, where the link most clearly presents itself.

Intuitively, we grasp types of sensation, such as pain, by virtue of having undergone tokens of them, which convey the respective type. As was originally pointed out by Kripke, pain is subjectively identified by its “immediate phenomenological quality,” an essential aspect of pain itself.³ In having a token pain, the subject is presented with a property, which according to Kripke is just the property Pain.

That our standing concept PAIN is constitutively linked to such experiences by way of constitutively involving knowledge of Pain is again suggested by the role the concept plays in Kripke’s modal argument against the type-version of the identity theory. For any neuronal firing type, one can rationally doubt that Pain is identical with that type. I want to suggest that it is precisely because we take ourselves to know what Pain is like that we can rationally doubt that it could be a type of neuron-firing.

Taking our concept of Pain to be transparent recognitional concept does not fully vindicate the Modal Argument, but would explain why the identification of sensations with brain states faces a distinctive challenge that is absent in other kinds of identification in which indexical concepts are involved. I can have doubts about whether Now is one time rather than another. But it is less clear that I could rationally doubt that Now picks out a time. Thus the indexicality that would be carried over to our recognitional grasp of Pain

³ “Pain...is not picked out by one of its accidental properties; rather its picked out by the property of being pain itself, by its immediate phenomenological quality” (Kripke 1981: 152).

would not be sufficient to vindicate the apparent rationality of calling the general hypothesis that pain is a type of neural firing into doubt.⁴

To put it another way, if one knew nothing substantial about the property she labels as “pain” in virtue of her introspective grasp of it, her reservations about the claim that pain is identical with a type of neural firing which has been discovered to be co-instantiated with pain occurrences would be baseless.

In summary, taking one’s standing grasp of pain and other sensations to be transparent would explain how based on one’s introspective grasp of it, a subject could come up with a substantial constraint on what pain could be identified with. By contrast, if one’s grasp of pain were fully or partly opaque, it could provide no basis for deriving any significant constraint on the theoretical identification of pain.

3. Moving beyond the subjective domain

The subject matter of transparent recognitional concepts might initially seem to be confined to the subjective domain: to bodily sensations and phenomenal states more generally. But from the discussion above, it has emerged that the link between transparent recognitional concepts and consciousness is not due to consciousness being the subject matter of such concepts. Rather, it is due to the fact that transparent recognitional concepts

⁴ Compare Chalmers: “In the indexical case, any epistemic gaps disappear from an objective perspective... In all these cases, the ignorance disappears from the objective viewpoint: an objectively omniscient observer can know everything there is to know about my situation and there will be no doubts for them to settle... Now consider Mary’s ignorance... In this case a physically omniscient observer may have precisely analogous ignorance: even given his complete physical knowledge, he may have no idea what it will be like for Mary to see red for the first time. So this ignorance does not evaporate from the objective viewpoint. The same goes even more strongly for knowledge of what it is like for others to see red. For any observer, regardless of their viewpoint, there will be an epistemic gap between complete physical knowledge and this sort of phenomenal knowledge. This suggests very strongly that phenomenal knowledge is not a variety of indexical or demonstrative knowledge at all. Rather, it is a sort of objective knowledge of the world, not essentially tied to any viewpoint” (Chalmers 2004a: 186-7).

conceive of the properties instance of which would be manifest to the subject in phenomenally conscious episodes—pain being a case in point. This insight opens up the possibility that the subject matter of transparent recognitional concepts extends beyond subjective matters. From an untutored perspective, many of the qualities we encounter in having conscious experiences appear to be objective: they are presented in experience as being instantiated by mind-independent particulars. Provided that such properties were indeed objective, and that nothing prevents us from being able to gain substantial knowledge of them, many of our rudimentary objective concepts might well be transparent recognitional concepts.

This is the view that I will defend. I take it that our most basic perceptually-based concepts of the intrinsic properties of macrophysical objects are in fact transparent recognitional concepts. I have in mind so called *observational concepts*. Such concepts are normally introduced in the form of an apparently arbitrary and open-ended list: e.g. concepts of sensible properties such as colors, tastes, smells, sound properties, but also of spatial properties such as shape, size, distance and orientation.

There is a fine line to be drawn between observational concepts and theoretical concepts which can be applied on the basis of observation, for example X-RAY.⁵ And even when the line is thus drawn, observational concepts appear to be an exclusive subset of our recognitional concepts.⁶ This is a good place to give a theoretical explication of the notion.

⁵ See Peacocke (1983: Ch. 4), Fodor (1984), Weiskopf (2015).

⁶ Peacocke (ibid.) has argued that recognitional concepts for kinds are not observational concepts in this strong sense.

An observational concept is the standard, perceptually-based way normal mature human subjects have of conceiving of a specific *basic* objective property, instances of which get presented to the subject in virtue of having a perceptual experience with specific character.

By *basic* property, I mean property the awareness of which is not reducible to the awareness of a cluster of distinct properties. Basic properties in this sense can have and also can be experienced as having constituents. The characteristic appearance of a tomato clearly has distinct properties as constituents (shape, color, texture, and so on) that one must be aware of if one is aware of the appearance. This does not rule out that the characteristic appearance of a tomato could be a basic property. It would be basic if awareness of it were not reducible to the awareness of those properties, that is, if there were an irreducible, gestalt unity exhibited by the collection.⁷ While the jury is out on the characteristic appearance of a tomato, I take some complex spatial properties to be basic in this sense. Normally the awareness of the sides of a polygon is not more basic than the awareness of the polygon. This, I maintain is the case with spatial properties in general. This way of defining basicness would explain why both manifestly simple colors and manifestly complex spatial properties are both rightly grouped as observational properties.

I have left it open in the definition of an observational concept whether one must become aware of an observational property directly or not. *Indirect awareness* of an entity is awareness of it in virtue of being aware of another entity. For instance, intuitively we are visually aware of objects by being visually aware of their facing parts. Direct awareness of

⁷ On the idea and varieties of visual gestalts, see Kohler (1929) and Koffka (1935). A rough outline: '[i]n most visual fields the contents of certain areas "belong together", so that we have circumscribed, or bounded, units before us, from which the surroundings are excluded' (Kohler 1929, 149).

an entity is not based on the awareness of another entity. My definition thus leaves it open whether one normally becomes aware of a given observational property in virtue of becoming aware of another property or not. In my understanding, Christopher Peacocke's (1983) view is that observational concepts pick out objective properties of which human subjects become aware in virtue of being aware of corresponding properties of the phenomenal field. On a related view (Shoemaker 1994), we become aware of observational properties in virtue of becoming aware of distinct, perceiver-relative properties.⁸

I do not intend to rule out such views of observational property-awareness by fiat.⁹ Still, my view is that we are directly aware of instances of observational properties in experience, and for that reason there is no obstacle to treating observational concepts as transparent recognitional concepts. If we were aware of observational properties indirectly, our experiences could not provide a basis for substantial knowledge of the reference of observational concepts. But they do, so there is no obvious reason to treat them as distinct in type from our concepts of sensations.

⁸ More recently Shoemaker (2006) has proposed that we become aware of colors by becoming aware of aspects of them that he calls qualitative characters. Whatever the advantages of the newer view, on it color awareness would still be indirect.

⁹ My definition of an observational concept comes close to Mike Martin's fairly ecumenical formulation in Martin (1997/2009):

“there are observational concepts and...the phenomenal content of perceptual experience is properly expressed only by such concepts. On an intentional theory of perception, we can take this talk of content in the technical sense of observational content; but that will not apply to naïve realism or subjectivism. The intuitive idea here does not need to be restricted to the intentional theory, and we can talk more broadly in the sense of the content of consciousness: the thought is that the phenomenal character of experience is constrained by the discriminatory powers a subject has in virtue of their powers of perception” (Martin: 2009, 99).

To reformulate my definition in Martin's vocabulary, an observational concept properly expresses *part* of the content of perceptual experience with specific phenomenal character: the *qualitative, objective, phenomenally-conveyed* content of perceptual experience. The formulation allows: 1) that experience may put one in contact with particulars, not just properties, 2) that one can be an intentionalist or a naïve realist consistently with allowing that experiences have content, as content as used here is meant to be roughly synonymous with (possibly perspectively qualified) subject matter; and 3) that one can be a subjectivist consistently with allowing that a perceptual experience with a specific objective qualitative content conveys the content to the subject in virtue of its specific phenomenal character.

The above is merely a toy argument. But there is a decisive argument for the hypothesis in the vicinity. Observational concepts are a subset of our recognitional concepts. Intuitively, they are experientially-based. But fully opaque recognitional concepts turn out not to be experientially-based. Thus observational concepts could not be fully opaque recognitional concepts. Moreover, unlike mildly opaque recognitional concepts—and like transparent recognitional concepts, observational concepts are referentially stable. Thus not only might they be, but it turns out that they have to be transparent recognitional concepts.

II. Fully opaque recognitional concepts and experience

An *experientially-based concept* in my terminology is a concept with highly specific experience-related possession conditions. In order to possess the concept, the subject must have not just had any bunch of experiences, and also be able to experientially recall or visualize just any experience. Rather, the subject must have had experiences with specific phenomenal character and be able to bring up and recall such experiences.

We can easily make sense of why transparent and partly opaque recognitional concepts are experientially-based in the above sense. The related episodes must manifest an instance of the property, which would enter into the mode of presentation of the concept. If our visually-based way of thinking of tomatoes were mildly opaque, then it would be unavailable to one without having a grasp of the characteristic appearance of a tomato. That grasp would in turn be based on the presence of the characteristic appearance in the related perceptual, mnemonic, and imagistic experiences. In the case of our concept of

pain, which, I have argued, is a transparent recognitional concept, Pain is not just the reference but also figures in the mode of presentation of the concept. For that reason, one must have felt pain to be able to grasp the concept.

I will now make a case that fully opaque recognitional concepts have looser experientially-related possession conditions than transparent and partly opaque recognitional concepts. Put more concisely, my claim is that fully opaque recognitional concepts are not experientially-based concepts in the above sense. The experiences tied to having a grasp of a given such concept do not as a matter of absolute necessity have to manifest an instance of a specific or even a closely related property. Perceptual experiences and imagery with relevantly distinct phenomenal character or even with no relevant phenomenal aspects could have played the same role that experiences and imagery happen to play in the possession of the concept.

To establish this claim, I will first show that whatever role the character of the experiences underlying a given fully opaque recognitional concept might play in fixing the reference of the concept could also be played by experiences with distinct character, or even by a state that is subjectively blank in the relevant respect. Secondly, I will show that in some such cases, the coreferential opaque recognitional concept should be counted as identical with the actual concept despite being based on experiences with wholly distinct or no relevant phenomenal features. This is due to the fact that an opaque recognitional concept would have its specific mode of presentation contingently.

1. Non-experiential reference fixing

Going back to a point I made in the previous chapter,¹⁰ preferring a mildly or a fully opaque construal of a recognitional concept is largely going to be a consequence of one's take on whether the concept is rationally linked to perception. In the case of a mildly opaque recognitional concept, understanding the relation between the feature picked out and its characteristic appearance would enable one to apply the concept rationally on the basis of perceptual evidence. On the alternative view, one need not possess a relational conception of a feature to possess a recognitional concept of the feature, because the application of the concept would not be a rational, evidence-based process. Understanding how the kind picked out is related to its characteristic appearance may be useful in making sense of one's recognitional capacity, but is not essential to having and exercising it. To illustrate the most rudimentary form recognitional capacities of this sort take, I will briefly consider the art of chicken-sexing.¹¹

Chicken-sexers can tell the sex of a young chicken on the basis of very subtle visual cues without taking those cues to be in any way relevant to their recognitional capacity. For all they know, they can just tell that an observed chicken is of one kind or of another. There may be nothing noticeably different about a pair of chickens, or the noticeable visual differences may be insignificant. Still, the visual cues serve as the basis of chicken-sexers' capacity to tell the sex of chickens, insofar as they activate the respective recognitional capacity.

Thus chicken-sexers do not even have a relational grasp of the features they pick out—of the sort that normal human subjects may have of gold, water or dogs. How do

¹⁰ See Section IV.3.

¹¹ See Biederman & Shiffrar (1987) for an account of the cognitive mechanisms employed in chicken sexing.

chicken sexers conceive of such features then—merely insofar as they possess the respective concepts? Surely not, as Frank Jackson, advocating a mildly opaque recognitional account of the respective concepts, has suggested—as “being disposed to be recognized by a subject as such-and-such,”¹² for this formulation of one's conception involves the more basic conception “as such-and-such.” But “such-and-such” or “that sort” express the concept, so there is nothing more basic subjectively on which the application of the concept gets a grip. The distinction between one's grasp of “this kind” and “that kind” of chicken is not due to having a relational conception of the sex of the chicken, but merely due to the distinct functional roles of the two concepts. Pace Jackson, the concepts clearly are fully rather than partly opaque.

What a given concept of this sort picks out would be the general feature instances of which are present in the environment on occasions which lead to the acquisition of the concept. The pair of concepts a chicken sexer would possess would bear a perceptually-mediated, broadly causal relation¹³ to the respective sex. Perceptual experiences of chickens would help fix the reference of the concept by virtue of tracking the sex of the chicken. The normal deployment of the concepts based on the perceptual registration of a cue correlated with the respective sex-type would plausibly be mediated by perceptual attention to specific parts of the chicken and perhaps to specific properties of those parts.

With each of the pair of concepts, it is extremely plausible that the relevant perceptual cues which carry information about a chicken's sex would not be reflected in the experiential phenomenology. The distinct fine-grained perceptual cues which trigger

¹² Jackson (1998: 66).

¹³ There are several ways of specifying the relation: as purely causal—Dretske (1981), as involving a teleological constraint—Milikan (1984), Papineau (1984), or as a matter of some more complex asymmetric nomic dependence—Fodor (1987), (1990).

each concept, and which would play an essential part in the reference-fixing mechanism of the respective concept are normally subjectively indistinguishable. For all intents and purposes, a male and a female chicken would look the same way to the subject. He might well have to know some procedure, such as looking at the vent of a chicken, but evidently there would be nothing sufficiently distinctive about the vent of a male chicken, by contrast with that of a female chicken. Nevertheless, a chicken sexer would be able to reliably tell the sex of the chicken.

The role of unconscious cues in the activation of the concepts suggests that the phenomenal aspects of the respective perceptual states are either irrelevant or play a dispensable role in the reference-fixing mechanism of the concepts. True, aspects of experiential character might play some role in the deployment of such concepts by facilitating access to the right perceptual cues, but that role would not be distinctive and in any case is not essential.¹⁴ We can coherently conceive of a case in which a subject would have needed to do no more than attend consciously to a chicken, from which point everything leading to the application of the recognitional concept is taken up by mechanisms remote from consciousness.

I have shown that the character of the perceptual experiences based on which chicken-sexer concepts get acquired and deployed plays a generic and in principle dispensable role in the mechanism which fixes their reference. But the point generalizes. For every fully opaque concept in which the perceptual cues are phenomenally conscious

¹⁴ Here I appeal to an intuitive distinction between enabling conditions and constitutive conditions for possession of a concept. Fodor (1998) draws a similar distinction but uses it to argue that any perceptual state and mechanism relevant to determining the reference of a concept would merely be an enabling condition. Pace Fodor, once one admits the existence of perceptual concepts, one can apply the distinction more discriminately.

or accessed by way of phenomenal aspects, we can conceive of a non-experientially based coreferential counterpart, since it is not necessary that the perceptual cues be phenomenally conscious or be accessed in that way for them to normally cause the deployment of the concept.

I will now argue further that whatever role some aspects of the character of the underlying experiences might be deemed to play in determining the functional profile of a given fully opaque recognitional concept, that the underlying experiences instantiate such aspects is inessential to one's grasp of that concept, as the functional profile is fluid and ultimately contingent.

2. Functional fluidity

There is nothing in the reference-fixing mechanism of an opaque recognitional concept that requires a given concept to be based on experiences with specific phenomenal character. What is required is that the underlying experience carries information about the corresponding feature and that the activation of the concept is normally due to the registration of that information. But the perceptual cues which carry the information need not be phenomenally conscious to play that role.

Despite referring directly, opaque recognitional concepts are still perspectival concepts—that is, any such concept is “partly individuated by its constitutive perspective.”¹⁵ One can possess distinct recognitional concepts picking out the same feature due to the fact that each picks it out from a distinct perspective. Thus we can still speak of modes of presentation even with fully opaque recognitional concepts. So even

¹⁵ Loar (1997).

though I have shown that the phenomenal aspects of the underlying experience may be inessential to the reference-fixing mechanism of the concept, there is still the further issue of whether they might not be relevant to the identity of the concept in virtue of determining the mode of presentation of the concept. And on the face of it, it is unlikely that the concept could have the same functional role if it were based on experiences with relevantly distinct phenomenal character.

I admit that in most cases, the phenomenal aspects of the underlying experiences would determine the functional role of a fully opaque recognitional concept. But I will now show that the point is moot, as the functional profile of an opaque recognitional concept is fluid and inessential to one's grasp of the concept. For any fully opaque recognitional concept in our possession, there is 1) a counterpart coreferential recognitional concept of the same type, 2) based on perceptual states sharing no relevant phenomenal properties with the perceptual states the actual concept is based on, 3) tokens of which could have been sufficiently functionally integrated with tokens of the actual concept so as to count as deployment of one and the same conceptual capacity. Consequently, any opaque recognitional concept could have been anchored in a sufficiently distinct experiential perspective from the actual and for that reason would not count as an experientially-based concept.

As part of my defense of the functional fluidity of fully opaque recognitional concepts, I presume the possibility of multi-modal recognitional capacities. I take as uncontroversial that the existence of recognitional capacities integrating information from more than one sense modality is at least possible.

What would make it the case that a subject possesses a recognitional capacity spanning

modalities rather than two distinct recognitional capacities for the same feature? My claim is that in some cases mere functional integration of information from the two modalities would be sufficient for the identity of the capacity.¹⁶ For example, suppose that we discovered that some chicken-sexers could also tell the sex of a newly hatched chicken by rubbing the chicken's vent, and that in both cases the perceptual cue is the shape of the vent. Furthermore, suppose that such chicken-sexers would be able to judge reliably and non-inferentially that a chicken they are attending to is the same sex as another chicken that they explore merely by touch. In this case there would be sufficient evidence that the visual and the tactual-based classification make use of the same recognitional capacity. Assuming that sameness of the recognitional capacity determines sameness of the recognitional concept deployed from each perspective, the chicken-sexer would have a multi-modal recognitional concept.

I have intentionally appealed to chicken sexing, as from what I have argued about the role of unconscious cues, it should be clear that the functional integration determining the sameness of the concept would not rely on any phenomenal commonalities in phenomenal character between the visual and tactile perspective. One could demur and put forward the hypothesis that in the described case the subject would have to consciously attend to the shape of the vent of a chicken in both the visual and the tactile deployment of the concept—so the psychological mechanism would rely on an awareness of sameness of shape. The putative reason why both vision and touch can ground the same recognitional capacity would be that the experience of shape is cross-modal.

This explanation would be plausible if chicken-sexers conceived of the respective

¹⁶ In some cases, mere functional integration seems insufficient. The distinction is to be explained in terms of the distinction between the involvement of different kinds of recognitional concepts.

sex in terms of the determinate shape of the chicken's vent, but it is not clear why conscious attention to the shape would be required when the concept involved in the recognitional capacity is opaque. Male and female chickens look roughly the same in shape, and yet the subject is able to tell them apart. Similarly, the hypothetical subject should be able to tell that the seen and the felt chickens are the same sex despite being unsure whether they are the same shape.

We can also stipulate that the subject's tactual experiences would be too phenomenally impoverished to constitute experiences of shape. Perceiving a shape tactually would itself involve the exercise of an opaque recognitional capacity. Or else suppose it were the case (a la Berkeley 1709) that the sameness of the shape of an object were not normally manifest in experiencing an object visually and tactually. Consistent with this, it is still clearly possible that the chicken-sexer would be disposed to judge without inference that the chicken seen is of the same kind as the chicken felt. Moreover, suppose that in both the visual and the tactual case it turns out that the subject exploits fine-grained perceptual information about the shape of the chicken's vent. The multimodality of the chicken-sexing recognitional capacity in the described scenario would not be based on the subject's having a multimodal experience of shape. The thus described possibility is evidence that the putative cross-modality of shape experience is irrelevant to the possession of the multimodal chicken sexing recognitional capacity.

The general point the appeal to the hypothetical scenario was meant to bring out is that the senses can be functionally integrated without being phenomenally integrated. And while mere functional integration would not have been sufficient for the recognitional deployment of a transparent or a mildly opaque concept outside of its constitutive

perspective, it would be enough for the redeployment of an opaque concept.¹⁷

Since there is no dependence of the visually-based part of the recognitional capacity on the tactually-based part, or vice versa, each part could have existed on its own. It follows that the same concept could have been realized by either a unimodal visually-based recognitional capacity or a unimodal tactually-based recognitional capacity. But the underlying visual and tactual perspectives would share no relevant qualitative aspects. Thus having had experiences with distinctive qualitative aspects would not be required for having the same fully opaque recognitional concept.

The hypothetical example I used helps illustrate the irrelevance of the phenomenal aspects of the anchoring perspective of a fully opaque recognitional concept to the individuation of the concept. The fluidity of the functional profile of a concept of this sort makes it possible for it to be anchored in multiple, wholly phenomenally distinct perspectives.

III. Observational concepts and experience

In the previous section, I argued that the aspects of the phenomenal character of the underlying experiences which contribute to the anchoring perspective of a fully opaque recognitional concept play a dispensable role in the grasp of the concept, as the concept could have been anchored in a distinct perceptual perspective which does not share those phenomenal aspects.

¹⁷ A similar-style explanation, in terms of fully opaque recognitional concepts, has been offered by Janet Levin (2008) concerning the multi-modality of our capacities to identify shapes. However, her argument is premised on the mistaken view that our rudimentary shape concepts are fully opaque rather than transparent. See section III below.

In principle, the relevant aspects of the underlying perceptions could have been merely access-conscious and phenomenally blank. The latter is an interesting consequence. Consider an idealized analog of cortical color blindness, on which visual perception would provide sufficient and reliable basis for the capacity to identify the colors of objects, with no chromatic differences being reflected in the character of the subject's visual experiences.¹⁸ If our standard recognitional color concepts were fully opaque, there would be no reason why they could not be grasped based on such form of blindsight.

This brings up the issue of the nature of our observational concepts. For any such concept in our possession, we can ask: could it have been acquired on the basis of perceptual states that would in the relevant respects be phenomenally blank? I will propose that the answer is negative for all concepts on the list. This shows that observational concepts could not be fully opaque.

I will confine my discussion to color and shape concepts, but the remarks on color concepts apply to our standard observational concepts of the rest of the proper sensibles, while the remarks on our observational concepts of shape can be applied to our observational concepts of spatial properties more generally. Furthermore, I will only consider strictly observational concepts. The exact nature of recognitional kind concepts falls out of the scope of this discussion. It may be that most such concepts are experientially-based as well, although it seems to me that our intuitions about their possession conditions are not as straightforward in those cases. But even if they were, the intuitive distinction between strictly observational and recognitional concepts more

¹⁸ For a discussion of an actual case of cerebral achromatopsia that may initially be described as color blindsight, but is likely to be based on highly impoverished residual conscious awareness of chromatic edges: see Cowey and Heywood (1997), and Heywood, Kentridge, and Cowey (1998).

generally can still be vindicated, as I show in the next section. Briefly, even if most of the recognitional concepts in our possession might turn out to be experientially-based, only observational concepts would be transparent.

1. Concepts of the proper sensibles

The case for our standard perceptually-based color concepts being experientially-based is straightforward. First, as can be gathered from Jackson's thought experiment, Mary's demonstrative concept for the shade of red could not have been acquired on the basis of being in perceptual state with relevantly distinct phenomenal character from the actual. Furthermore, I have argued that Mary's grasp of the standing recognitional concept RED, which she acquires as a result of encountering red objects, could not be sustained in the absence of experientially-based knowledge of what Red is like. This contrasts with the above described case of idealized achromatopsia— intuitively the achromat would not be conceiving of the chromatic colors she discriminates and reidentifies in the way that we normally do. Her chromatic color concepts would not embody any grasp of what the colors are like: intrinsic or relational. By contrast, ours have experientially-based modes of presentation essentially. So they must either be mildly opaque or transparent.

This argument generalizes to concepts of the other proper sensibles. Our concepts of tastes, smells, textures, and sound properties also turn out to involve experientially-based modes of presentation essentially.

2. Spatial concepts

Spatial concepts prove a bit trickier. Some have outrightly taken our rudimentary spatial concepts to be fully opaque recognitional concepts. For instance, according to Janet Levin, our ordinary spatial concepts are “concepts with non-discursive elements, and which pick out items solely by means of one’s dispositions to classify objects as ‘another one of those’” (2008, 11). While Levin omits to draw a distinction between the various types of recognitional concepts, her proposal is clearly in terms of the fully opaque type. Moreover, Levin puts forward some considerations, which, if true, would count in favor of a construal of spatial concepts as recognitional concepts of that sort.

The first consideration offered by Levin in favor of the view consists in the combination of the non-discursivity and amodality of spatial concepts. First, according to Levin, our rudimentary spatial concepts are not even partly descriptive. SQUARE is not equivalent in content with the description “such-and-such four-sided figure,” not even to “four-sided figure of this type.” This seems right to me—descriptive information of that sort accrues to one’s conception of the property subsequent to the possession of the concept.

Secondly, Levin takes shape concepts to be amodal: that is, a given spatial concept could at least in principle have been anchored in a distinct modality from the actual or anchored in more than one modality. Again, I agree. Since Molyneux’s question is to be settled empirically, it may be the case and is at least conceivable that the same shape concepts could be deployed on the basis of visual and tactile experience. This may initially seem like a significant disanalogy with our rudimentary color concepts, which could not have been anchored in another modality.

As Levin herself acknowledges, the multimodality of spatial concepts is not conclusive evidence in favor of her favored construal of such concepts. For in effect, her argument presumes that there are no relevant phenomenal commonalities between tactile and visual experiences of shape. But there is an alternative explanation, on which the *a priority* of the transfer of such concepts across modalities would be due to fact that the two anchoring perspectives are relevantly phenomenally alike in that, despite otherwise significant differences, both would make one recognizably aware of the same spatial property. This is the explanation I favor, and which was originally proposed by Campbell (1996). On this alternative view, spatial concepts would be transparent.¹⁹

Levin raises three objections against a different construal of spatial concepts than as fully opaque.

The first objection is that the special treatment of spatial concepts would be arbitrary, since there is no reason to privilege recognitional concepts of shape over recognitional concepts of other properties (e.g. rottenness), which could also in principle be multimodal while clearly not being transparent.

The second objection is that an explanation of the rationality of transfer of spatial concepts between touch and sight must inevitably draw on a Revelation thesis about experiences of shape. According to Levin, a proponent of a transparent construal like Campbell's must hold that shape experiences present their subject with the full nature of

¹⁹ Strictly speaking, the concepts could also be partly opaque. This alternative has been overlooked by Levin, though, as I will show briefly, it has little going for it. As Campbell himself has noted, the proposal that there is a more basic property present in visual and tactile experience in terms of which shape is conceived is more difficult to flesh out than the proposal that the same shape can be presented in a visual and in a tactile experience.

the respective shape property if they are to be the basis for acquiring and deploying shape concepts that transfer *a priori* across modalities.

The third objection is that, since creatures whose touch-based spatial concepts do not transfer to their visual experiences are clearly possible, vision- and touch-based spatial concepts must pick out distinct properties if they were transparent. According to Levin, the proponents of transparent spatial concepts will be forced to conclude, as did Berkeley, that tactile and visual shapes are distinct properties.

I will now argue that none of those objections against the transparent recognitional construal of shape concepts are successful. All of them, along with the positive argument for a fully opaque view of our basic spatial concepts evinces ignorance of the shape and motivations of alternative construals of spatial concepts. For instance, assuming for the time being that a mildly opaque construal of spatial concepts is a non-starter, so the only alternative would be in the ballpark of the transparent recognitional construal, the distinctive treatment of spatial concepts from other perceptually-based concepts would be based on the theoretical distinction between fully opaque and transparent recognitional concepts. I have argued that not all recognitional concepts we possess need be of the same sort. Moreover, *prima facie* there is an intuitive distinction between our perceptual grasp of low-level properties and of high-level properties. While shape counts as low-level property, rottenness would be counted as a high-level property.

My response to the second objection will anticipate some of the argument in the second part of the dissertation. It is true that taking our basic spatial concepts to be transparent commits one to a substantive view of the epistemic role played by the character of the anchoring perceptual states, but the view is not necessarily Revelation. A transparent

recognitional concept must involve substantial experientially-based knowledge of the reference of the concept. The view would be committed to Revelation provided that the constitutive knowledge were cashed out as knowledge of the essence or nature of the property. However, there are more modest alternative construals of the constitutive knowledge. Campbell's view is that it is knowledge by acquaintance, and that such knowledge does not require anything in the ballpark of Revelation.²⁰ By contrast with Campbell, as will become clear in the second part of the dissertation, I espouse a stronger construal of the substantial knowledge of reference, which would require a modest form of Revelation. Still, I disagree with Levin that Revelation is implied by the transparent construal. In my view, appeal to the revelatory aspect of experience is the best but not the only available way of accounting for the essential role that experiences with specific character play in the grasp of a transparent recognitional concept.²¹

Levin's last objection appears to be the most troublesome for the proponent of transparent recognitional concepts—but her argument is unsound. Suppose that the same transparent shape concept had visually and tactually-based tokens. It would follow that those tokens must be *a priori* co-inferable. Would that rule out the possibility suggested by Levin? No; rather, it shows that the possibility has been misdescribed by Levin. The hypothetical subject would have shape concepts of a distinct kind from the ones we have. So the conceived scenario would not have any bearing on the issue of the nature of our shape concepts.

²⁰ See Campbell (2005c).

²¹ Levin is suspicious of Revelation mainly because, in her view, admitting it with respect to any property would have radical anti-physicalist implications for the respective property. But as will also become clear in the following chapter, the modified form of Revelation I favor is consistent with physicalism.

But isn't it possible that *our* shape concepts also didn't transfer—Levin might perhaps refine her objection in this way. It is certainly a genuine epistemic possibility that none of our recognitional spatial concepts transfer *a priori* across modalities—hence the open-endedness of Molyneaux's question. Still, even if this were the case, it would be consistent with at least some of our spatial concepts being transparent, the lack of transfer being due to bringing the same property under an opaque concept in the other modality. Personally, I go back and forth on whether touch-based spatial concepts are transparent or opaque. This fact does not undermine my confidence in the thesis that the corresponding property is grasped transparently based on one's visual experience.

To summarize, Levin's considerations in favor of a fully opaque construal of spatial concepts do not favor her construal uniquely, and the objections she levies against a transparent construal of spatial concepts all fail.

So far, I have defended the transparent construal of spatial concepts as equally plausible to Levin's fully opaque construal. But now I will go on the offensive. The limited sort of amodality spatial concepts exhibit suggests that the opaque construal is inapt. Intuitively, our spatial concepts are not fully amodal—it is implausible that the shape concepts we have on the basis of vision and touch could have been anchored in audition, olfaction or gustation. But why would that be if such concepts were opaque? Audition and olfaction have some spatial content. That content is much richer with other species. Perhaps audition and olfaction could represent determinate shapes without drastic changes in phenomenal character. Still, in such cases hearing and smell would not appear to be an apt basis for the acquisition and deployment of the observational spatial concepts that we possess. Thus spatial concepts appear to have a much more intimate relation to the

character of the anchoring experiences than we would expect if they were fully opaque. As with concepts of the proper sensibles, then, spatial concepts turn out to be experientially-based concepts, and therefore could not be fully opaque.

IV. Semantically stable or variable?

I have established that observational concepts are experientially-based recognitional concepts. This leaves the mildly opaque and transparent construal of such concepts in the run. In the second stage of the argument, I will reject the hypothesis that our observational concepts are mildly opaque.

I have proposed a view of mildly opaque concepts as having transparent reference-fixing components. On the view that at least some of our observational concepts are mildly opaque, those would be picking out their referents through modes of presentation that connote a distinct property. It seems to me that most of our recognitional kind concepts are best construed in this way.²² So one can define a looser notion of observability, on which I would grant that many of our observational concepts would turn out to be mildly opaque. But there is a stricter notion of observability, on which it is an open question whether observational concepts are not distinct from mildly opaque concepts.

In effect, the issue is simple: it is about which properties we ultimately grasp in a distinctive manner: a subclass of objective properties, or some distinct, *recherché* type of properties. On the first view, spatial and proper sensible properties would be grasped directly, while on the second, they would be grasped in relation to some distinct set of

²² For such views of natural kind concepts, see Peacocke (1982), Jackson (1998), and Chalmers (2002).

properties. My argument is that the first view is considerably more plausible. There is no reason to take our cognitive access to observational properties to be indirect.

1. Against the partly-opaque construal

The further, *recherché* type of qualities would be individuated in terms of the character of the subject's perceptual experience. One would become indirectly aware of the objective properties by becoming aware of them. On a sensationist construal, those would be qualities of one's phenomenal field. On an appearance property construal, the properties would supervene or be identical with powers of objects to produce certain responses in us. On an irrealist construal, they would be uninstantiated objective properties experience presents.²³

A proponent of the mildly opaque construal of a given observational concept would adopt one of those views and take a property of the respective type to be the one picked out by the transparent recognitional component of observational concepts. Whether an observational concept is mildly opaque or not does not have direct implications for the metaphysics of the corresponding observational property, although normally it has been combined with the simplest view of such properties. For instance, in the case of color, mildly opaque concepts have been a way to secure a physicalist account of colors as types of surface reflectances.²⁴

But despite the potential this view of observational concepts has to vindicate a simple, realist account of observational properties, there is little evidence for it. The main

²³ Peacocke (1982), Block (1996), and Burge (1997) are classical sensationists. McGinn (1996) and Shoemaker (1994, 2006) are classical appearance property theorists. Boghossian and Velleman (1989), Thau (2002) and Chalmers (2006) are irrealists.

²⁴ See for instance, Jackson (1998: Ch. 4).

reason to be skeptical is the *prima facie* possibility of having observational concepts without having concepts for any of those *recherché* properties. The point is not that the presence of such properties in perceptual experience is doubtful—although reasons to doubt the existence of such properties would also be reasons to undermine the mildly opaque construal—but that those are concepts theorists introduce, rather than concepts which are part of our rudimentary relational grasp of observational properties. It is unlikely that they could be grasped merely by introspecting the relevant experiences. So even if such properties were somehow implicitly present in them, it is unlike that one's rudimentary grasp of observational properties would be in terms of such properties.

If the above claim were true, the intuitive essential role that phenomenal character plays in the grasp of an observational concept would also rule out the possibility that the awareness of observational properties is mediated by the awareness of such properties. Assume for reduction that our awareness of observational properties were indirect—by way of such *recherché* properties. It would follow from this that our experiences could not provide a basis for substantial knowledge of observational properties. But from the point in the above paragraph, it follows that experience could not provide a basis for substantial knowledge of the mediating properties, either. Consequently, experience could not make transparent recognitional concepts of either type of property available. But I have just shown that since having experiences with specific character is essential for grasp of observational concepts, they must either be transparent or mildly opaque. So it turns out that our awareness of observational properties must be direct.

Thus even if one of those *recherché* types were normally present perceptual experiences, they could not mediate our awareness of observational properties. Out

awareness of observational properties would be direct and normally at least serve as adequate basis for transparent grasp of the properties.

2. The implicit grasp response

Several proponents of the mildly opaque view of observational concepts have independently proposed that in determining whether a concept has *a priori* associated reference-fixing component or not, we need to take into account the implicit inferential role of the concept.²⁵ So their response to the above objection would be that, despite the fact that our observational concepts seem to be unstructured, the implicit inferential role of recognitional concepts such as RED or ROUND may reveal our relational grasp of the properties.

David Chalmers has elaborated on this proposal in greatest detail. According to him, some of the content of perceptual experience is reflected in the inferential role of experience, which would manifest in the subject's take on the veridicality of a given experience in different circumstances:

When a subject has a perceptual experience, the subject is usually capable of judging whether the experience is veridical or not, depending on further information about the state of the world. For example, if a rational subject discovers that there is no object causing the experience, the subject will conclude that the experience is nonveridical. Speaking broadly, one might think of this pattern of judgments as part of the *inferential role* of the experience. The Fregean content of an experience reflects this sort of inferential role directly. And it is plausible that the (rational) inferential role of an experience is grounded in some fashion in the representational content of the experience. So there is good reason to think that Fregean representational properties play an important psychological role (Chalmers 2004b: 177).

²⁵ Peacocke (1982), Jackson (2000, Ch. 2), and Chalmers (2004b, 2006).

Beliefs are not the only mental states that have inferential roles. Perceptual experiences also have an inferential role, broadly understood. Just as one belief can serve as grounds for accepting or rejecting another belief, a perceptual experience can likewise serve as grounds for accepting or rejecting beliefs, and more generally for guiding our knowledge about the world. Most obviously, one can *endorse* a perceptual experience, yielding a perceptual belief about the character of one's environment, and that belief can be used to accept or reject other beliefs in turn. For example, when one has a phenomenally red experience as of an object in one's environment, this can be used as grounds for accepting a belief that there is a red object in front of one. One would not normally call this relation between experience and belief an "inference," but it can be seen as a sort of quasi-inferential relation (Chalmers 2006: 98).

In those passages Chalmers is discussing a way to determine the content of an experience as of an instance of an observational property. On the mildly opaque construal of observational concepts, the experiential manner of presentation of the property would be converted into the mode of presentation of the respective concept, so one could use the same procedure to derive the content of the respective observational concept.

Chalmers claims that the pattern of judgements of a normal subject in idealized circumstances regarding the veridicality of their Red-presenting experiences is evidence for the variability of the subject matter of those experiences in different circumstances. Roughly, the experience would allegedly be deemed accurate in circumstances when it is caused by an object with the physical property that, in that scenario, normally causes experiences of that sort:

If one takes an example, such as a subject having a phenomenally red experience as of an object in front of them, one finds a specific pattern of judgments. If the subject discovers that there is really is no object in front of her, she will reject the experience: things are not as they seem. If she discovers that there is an object in front of her but it has the sort of physical makeup that usually causes phenomenally green experiences (only causing phenomenally red experiences this time due to

unusual lighting), then she will reject the experience: again, things are not as they seem. But if she discovers that the object in front of her has the sort of makeup that usually causes phenomenally red experiences, then she will accept the experience: at least in the relevant respect, things are as they seem. (Chalmers 2006: 99).

The experience type could get analyzed along the three lines proposed above: 1) in terms of the instantiation of an intrinsic, non-representational property in the subject's phenomenal field, 2) of the experience of a subject-relative appearance property of the perceived object, or 3) in terms of the apparent instantiation by the object of an intrinsic property distinct from Red. The same procedure could be used by the proponent of the mildly opaque view to uncover the reference-fixing component of the respective observational concept RED.

3. Rejecting the implicit grasp response

Against this response, I will show that the suggested liberal pattern of judgements concerning the veridicality of Red-presenting experiences cannot be right. It conflicts with another more basic pattern of veridicality concerning the same experiences. That pattern is robust and cannot be harmonized with the pattern proposed by Chalmers. The more basic pattern supports the uniformity of subject matter of Red-presenting experiences and, correspondingly, the referential stability of the observational concept RED.

Chalmers himself acknowledges that there is a persistent tendency to treat Red-presenting experiences as veridical in considerably more restricted circumstances than the ones in which the cause of the experience is its normal cause. Prima facie, this tendency tells against the claim that the conditions of veridicality proposed by Chalmers would be confirmed by the pattern of our veridicality judgements. The above tendency is based on

the presentational phenomenology of the respective type of experience. Intuitively, a color experience with the type of character Red-presenting experiences have would invariably be about or present an apparent instance of a particular external property. This is because reflection on the character of the experience suggests that it partly consists in the presence of a specific, non-relational property, apparently instantiated by objects in the environment—rather than in the apparent presence of a subjective or a perceiver-relative quality or in something even weaker: a character-like mode of presentation dedicated to picking out properties.

While Chalmers' initial sympathies were with the last view, he has more recently fully acknowledged the presentational phenomenology of color experiences. Still, according to him, the property presented in color experiences is not an ordinary color property, but a distinct external property, which is not instantiated by the objects that normally cause such experiences. He calls the uninstantiated property Edenic Redness. Still, according to Chalmers, our color experiences are not rightly counted as illusory. For while—in virtue of the presentational character of the experiences—our judgements of their veridicality are sensitive to whether Edenic Red is instantiated by the perceived object, allegedly we also have a distinct and compatible tendency to judge the experiences to be veridical in circumstances that meet a distinct and less demanding condition, namely that the experience be caused by its customary cause.

Chalmers aims to harmonize the two seemingly incompatible and unrelated inferential tendencies by means of a distinction he draws between the explicit and implicit content of color experiences—the former being phenomenally reflected while the latter

being reflected merely in the inferential role of the experience but also determined by the phenomenology:

The presentational phenomenology of an experience immediately grounds an Edenic content. The Fregean content is grounded in the Edenic content by virtue of inferential role. The subject is immediately presented, in visual phenomenology, with an Edenic world. But a rational subject need not hold the world to an Edenic standard. In effect, a rational subject will use the Edenic phenomenology of a phenomenally red experience to ground the claim that the object in front of them is *red*, but she need not make strong claims about the intrinsic nature of redness. That is left open: if the subject discovers that objects with property P typically cause red experiences, then she will decide that those objects are red, and that if the original object has property P, then the original experience was veridical. In effect, the presentational phenomenology of the experience serves as direct ground for the first stage of the two-stage view (the Edenic content), and as indirect ground for the second stage (matching the Edenic content) by virtue of inferential role (2006, 73).

In this passage, Chalmers is not content to merely assign several kinds of content to experience, but rightly attempts an explanation of how the ordinary color content of Red-presenting experiences could be determined by their Edenic content. It is unclear, however, what the crux of the hypothesis is. How might being presented with an apparent instance of one property determine the implicit representation of another?

Chalmers' appeal to the notion of imperfect veridicality seems to be key to the attempted explanation. But what could imperfect veridicality consist in? On the only view that I can think of, imperfect veridicality would be the same thing as partial veridicality. In that case, the implicit content of the experience would be part of its explicit content. On this view, the relation between the two veridicality conditions would be the following: Edenic Red gets stripped of most of its apparent aspects until all that remains is its apparent

causal relation to the experience, which in turn gets to determine an aspect of the imperfect veridicality condition of the experience.

If this is what Chalmers had in mind, I have considerable reservations about the prospect of harmonization between the two patterns of veridicality conditions. First, it is not clear that a Red-presenting experience would come out even minimally partially veridical in the circumstances specified by Chalmers. To that effect, apparent instances of Edenic Red must be presented as causing the respective experiences. But it is not clear that an apparent Edenic Red instance is presented as causing the corresponding experience—as opposed to as merely being a constituent of the experience. If it were not, there would be absolutely nothing in common between Edenic Red and its physical surrogates. But if imperfect veridicality is not a matter of partial veridicality, then I have no idea what it is.²⁶

Now suppose that apparent Edenic Red instances were in fact presented by the respective experiences as causing them. This might initially seem to be all that is needed for the Red-presenting experience to derivatively be about the property that normally causes it, but, on reflection, proves insufficient. For why should any property matching solely that aspect of Edenic Red be what the experience were in any way, even derivatively, about? If the experience were derivatively about a property distinct from Edenic Red, wouldn't that property need to share enough, and moreover—enough key aspects with Edenic Red? Here I can just offer my view: it seems to me implausible that the corresponding disjunctive reflectance type would share enough with Edenic Red to count as the subject matter of the red-presenting experience even derivatively. In a similar vein, Mark Johnston has argued that color dispositionalism is preferable over color physicalism,

²⁶ Perhaps Chalmers would claim that customary causation comes close enough to constitution. See below for why, in my view, it does not come close enough.

since the disposition to look red shares more crucial aspects with the property present in one's experience.²⁷

I have argued that imperfect veridicality would have to be a matter of more than partial veridicality. But now I will show that there is no such middle ground between perfect veridicality and mere partial veridicality in the case of color experiences. This is because it turns out that the key aspects of Edenic Red could not be shared by another property. Here is why. Suppose that you are moved by Johnston's argument that dispositionalism accommodates the qualitative aspect of Edenic Red better than physicalism. For instance, you might think that on dispositionalism Purple would truly come up as a mix of Red and Blue, while on physicalism it would not. Perhaps one would be tempted to embrace dispositionalism in the place of physicalism. That would be too quick. Both views turn out to be deficient to the same degree.

First, against the dispositionalist, it could be said that dispositions lack the right causal power to be what the experiences are about. How should one go about deciding between the significance of having causal power versus the significance of having the right qualitative profile? Both are equally significant, it seems to me. But rather than showing that either the categorical ground or the disposition would do, what this shows is that either falls short of approximating Edenic Red. The notion of the phenomenal presence of a quality seems to involve both a causal and a revelatory aspect. Neither merely causal connection, nor the sort of connection between a disposition and its manifestation would be of the right kind to serve as replacement. Something can be the cause of your experience without its character being at all reflected in your experience. On the other hand, the

²⁷ See Johnston (1992: 254-9).

underlying disposition would not be reflected in the right way in the experience: the experience could indicate but could not present the disposition. Thus the fact that there may be two equally eligible candidates for being derivatively represented by an experience of Edenic Red does not make Chalmers' job easier. Rather it reveals the inadequacy of either of those to serve as Edenic Red's actual surrogate.

Thus, contra Chalmers, it seems to me that there is no way of fleshing out the proposal that the putative implicit content of color experience could be harmonized with its explicit content. This calls into doubt the proposal that color experiences have dual subject matter.

Assuming that the recognitional concept RED picks out the subject matter of the underlying experience, it follows that RED could only pick what Chalmers calls Edenic Redness. Any liberal pattern in our veridicality judgements could be explained not in terms of the content of the experience but in terms of a general adherence to a principle of charity regarding content attributions.

The argument counts against any view on which colors would be presented indirectly on the basis of the awareness of another type of property. The point is simple. The concept RED picks out the subject matter of a type of experience. There is only one property eligible to the subject matter of experiences of that type. So the concept RED must pick out that property.

Ironically, the proposal that the implicit liberal pattern of use of RED reveals the content of the corresponding recognitional concept would work much better when coupled with an account of the corresponding experiences as experiences instantiating an intrinsic sensational aspect or a character-like mode of presentation. This way it becomes easier to

allow that the experience could have presented color properties by way of such aspects. But those views of what the character of a red experience consists in are the least plausible phenomenologically.

To summarize, on the phenomenologically-sound view of color experiences as each being intrinsically as of an instance of a given property, it is implausible that the experience could genuinely come out accurate in a scenario in which the property were not instantiated by the perceived object. Therefore, the proposal that the reference of the observational concept based on the experience varies across worlds in line with the liberal pattern of veridicality is only plausible when tied to an inadequate account of the phenomenal character of the experience.

Consequently, it turns out that our recognitional concept RED is not a mildly opaque concept. It is a referentially stable concept, picking out the objective property presented in the underlying experience.

The argument given for colors generalizes to concepts of other proper sensibles. But the same point applies even stronger to spatial concepts. Taking the presentational phenomenology of spatial experiences at face value is incompatible with taking such concepts to have variable reference.²⁸ Keeping in mind the argument in the previous section, spatial concepts must also be transparent.

²⁸ Brad Thompson (2010) has defended a view on which experiences with the same character would have distinct spatial contents in distinct circumstances. But the same considerations that rule out such proposal in the case of color experience would come into play here. Recently Chalmers (forthcoming) has defended such a view of the content of spatial experience on abductive considerations, to rule out the possibility of massive error about space. The proposal would face the same problem of harmonization that confronts such a view of the subject matter of color experiences. Moreover, massive error about space might be ruled out in another way: by an appeal to a principle of charity in belief attribution.

V. Conclusion

I have argued that our basic observational concepts are of the same type as our concepts of bodily sensations. This is because, first, in both cases the concepts must be based on the presence of instances of a specific property in the respective underlying experiences, and, secondly, the best candidate for the property the presence of whose instances in experience underlies a given observational concept is the respective observational property.

It would be a mistake to draw the implication that observational properties are in some sense subjective. Qualities such as colors and shapes are presented as instantiated by the objects of awareness—unlike sensations, which qualify the subject. Taking colors and shapes to be properties of subjects or experiences is thus inadequate in light of the character of the respective aspects of experience. In my view, there is also phenomenological evidence that observational concepts are intrinsic rather than dispositional properties of objects. Finally, whether all such properties are normally instantiated or not is an open question. Chalmers thinks not. Others (me among those) think otherwise.²⁹

I have said little about the exact nature of perceptual experience. True, I have appealed to the presence or awareness of instances of properties in experience, but that phenomenon can be accommodated by fundamentally distinct views of the nature of experience. I will focus on this issue in the next chapter.

So far I have spoken often but imprecisely of the substantial knowledge of reference that would be constitutive of one's grasp of a transparent recognitional concept. In the

²⁹ See Campbell (1993), Kalderon (2007).

second half of the dissertation, I will undertake to get clear on that notion. In the next chapter, I will distinguish between two epistemic roles played by experience with respect to observational properties. In the penultimate chapter, I will select the more eligible role from among those, and thus settle the question of what the substantial knowledge of reference constitutive of one's grasp of a recognitional concept would exactly amount to.

Chapter 3:

Diaphanousness and Revelation in the perception of observational properties

In the two preceding chapters, I introduced a distinctive type of recognitional concepts, following which I argued that the combination of the referential stability of our observational concepts and the indispensable role that specific phenomenal aspects of perceptual experience play in their grasp is best explained on a construal of observational concepts as concepts of that type.

A significant consequence of the proposed view of observational concepts is that the character of the experiences which make our standard observational concepts available is presentational or *diaphanous*.¹ The experiences underlying the possession of a given observational concept would present the subject with apparent instances of the property picked out by the concept. This requirement has implications for how we should conceive of the nature of perceptual experience. It rules out fully non-relational accounts of the character of such experiences—in terms of qualia or adverbial modifications, as well as views on which all the properties manifest to the subject in having a perceptual experience would be exotic properties distinct from ordinary observational properties.

In this chapter, I will specify the nature of the perceptual experiences underlying our grasp of observational concepts further. First, I will outline the two views of character consistent with the Diaphanousness of experience: *naïve realism* and *phenomenal*

¹ I will talk throughout of the *Diaphanousness* of experience in the place of the recent more common used term: the *Transparency* of experience. This is meant to avoid potential confusions between a feature of concepts and a feature of perceptual experience.

intentionalism. Secondly, I will show that experiences as of instances of observational properties in the respective optimal viewing conditions meet a distinct condition known as *Revelation*—that having a given such experience puts one in position to come to know the essence of the respective property without any further empirical investigation. Following this, I will show how the Revelation condition would be grounded in the character of experience on each of the two views of the nature of perceptual experience, consistent with the Diaphanousness condition. Finally, I offer some meta-theoretical considerations for preferring the naïve realist over phenomenal intentionalist construal of perceptual experience. Briefly, intentionalism must earn its keep—but the most decisive arguments for adopting intentionalism in the place of naïve realism would, if successful, also establish that our observational concepts do not pick out any features instantiated in our environment. This result would in turn call in doubt our capacity to represent the environment in thought.

Whether perceptual experiences meet Revelation is an independently interesting and controversial issue. Revelation has been taken by some to be incompatible with the claim that perceptual experience is diaphanous. I will show that, on the most plausible construal of Revelation, the two conditions are: 1) compatible and 2) related, in that Revelation presupposes Diaphanousness. Finally, I will argue that in optimal conditions for perceiving instances of an observational property, the experience meets Revelation with respect to the property.

Besides the intrinsic significance of the issue, the Revelation condition will prove significant in the context of the overall inquiry into the nature of observational concepts. To anticipate some of the argument, whether the experiences an observational concept is

based on must merely acquaint one with instances of the respective property based on their sheer presence in experience or must further place the subject in position to learn *a priori* what the property is will be settled in the next chapter. Going all the way back to Russell,² the epistemic role of consciousness in enabling concept possession has been taken to consist in providing a basis for acquaintance with the referent of the concept. By contrast, I will show that in the case of our observational concepts, consciousness plays the distinct role of providing the basis for understanding, i.e. knowing the essence of the referent of the concept.

I. The Diaphanousness of Experience

1. Formulation

With respect to a type of conscious episodes individuated in terms of a commonality in their phenomenal character, *Diaphanousness* is the thesis that the commonality consists in the apparent *presence* of an instance of a specific, mind-independent property to the subject. Here *presence* is a primitive notion synonymous with *awareness*, *acquaintance* and *manifestation*.

Although being present to a subject is not further analyzable, it is a relation that we seem able to easily get a grip on by introspecting our perceptual experiences. For instance, my experience of a red ball in normal conditions seems to present me with the ball and, among other qualities, its specific redness and its spherical shape. Based on my

² See Russell (1910).

introspective access to experiences of such sort, I can learn what is meant by “presence” and its synonyms.

This way of introducing the notion of presence goes back to G. E. Moore’s original discussion of the Diaphanousness of experience. According to Moore, introspecting our perceptual experiences, or, as he calls them in the passage—*sensations*, reveals their irreducibly relational, presentational nature:

A sensation is, in reality, a case of 'knowing' or 'being aware of' or 'experiencing' something. When we know that the sensation of blue exists, the fact we know is that there exists an awareness of blue. And this awareness is not merely, as we have hitherto seen it must be, itself something distinct and unique, utterly different from blue: it also has a perfectly distinct and unique relation to blue, a relation which is not that of thing or substance to content, nor of one part of content to another part of content. This relation is just that which we mean in every case by 'knowing'. To have in your mind 'knowledge' of blue, is not to have in your mind a 'thing' or 'image' of which blue is the content. To be aware of the sensation of blue is not to be aware of a mental image - of a 'thing', of which 'blue' and some other element are constituent parts in the same sense in which blue and glass are constituents of a blue bead. It is to be aware of an awareness of blue; awareness being used, in both cases, in exactly the same sense (Moore: 1922/2000, 40).

A second, indirect way of introducing the notion of presence makes use of the capacities normally enabled by being presented with something. If an item is present to me, then in the right circumstances I should be able to attend to it and identify it demonstratively. The presence of an item is by no means exhausted by such capacities, and perhaps can even come apart from those. The converse might also be true: one can at least conceive of a creature for whom such capacities would be grounded in something other than the presence of the respective items. But in the actual case, being able to attend and

identify an entity demonstratively is based on its being present to the subject. Those capacities can thus serve as the contingent reference-fixer of the term “presence”.

This second route of getting a rudimentary understanding of what is meant by “presence” has recently been explored by John Campbell and Michael Tye:

Suppose you say to me, ‘What is that mountain over there?’ To understand your question I have to know which mountain you are talking about. I can construct various descriptions that I might use to interpret your demonstrative, ‘that mountain’. For example, there are ‘the mountain she is looking at’, ‘the mountain she is asking me about’, and so on. But ordinarily, I do not need to construct any such description. I have a more direct way of interpreting the demonstrative, ‘that mountain’. I can interpret it simply by looking to see which thing you mean. Ordinarily, my knowledge of which thing you are talking about is provided by experience of the object (Campbell: 2002b, 7).

...

The general suggestion, then, is as follows: If a phenomenally conscious state of mine is such that at a minimum it at least enables me to ask “What is that?” with respect to some entity, and it does so directly on the basis of its phenomenal character alone, then I am conscious of that entity. But if a phenomenally conscious state of mine is not so situated, then I am not conscious of the relevant entity. (Tye: 2009, 14).

2. Diaphanousness and the nature of experience

Recently the first, introspectively-based way of introducing the Diaphanousness of experience has been put to work in an argument for *intentionalism*: the view that the character of any perceptual experience is at least in part constituted by a fragment of its representational content.³ The major proponents of the argument have been Gilbert Harman

³ In my view, and by contrast with Byrne’s (2001b) formulation, intentionalism is not a mere supervenience thesis concerning the character of experience. It is a constitutive thesis. See Pautz (2009b) for a decisive argument against the supervenience formulation. Consistent with this, intentionalism admits of an impure version, on which the same content could be represented in several distinct modes (e.g. visually, tactually, attentively, etc.). See Crane (2007).

(1990) and Michael Tye (1992). The passage below provides an iteration of the argument. In it, Tye gives a formulation of Diaphanousness that directly entails the truth of intentionalism:

Standing on the beach in Santa Barbara a couple of summers ago on a bright, sunny day, I found myself transfixed by the intense blue of the Pacific Ocean. Was I not here delighting in the phenomenal aspects of my visual experience? And if I was, doesn't this show that there are visual qualia? I am not convinced. I experienced blue as a property of the ocean not as a property of my experience. My experience itself certainly wasn't blue. Rather it was an experience that represented the ocean as blue. What I was really delighting in, then, were specific aspects of the content of my experience. It was the content, not anything else, that was immediately accessible to my consciousness and that had aspects that were so pleasing (Tye 1992: 160).

But the formulation provided by Tye relies on an illegitimate slide from apparent presence to representation: from the apparent presence of an instance of Blue to the representation of an instance of Blue. But the former does not entail the latter. There is no conceptual connection between presence and any sort of representation, as is evidenced by the conceivability of superblindsight.⁴ It is not even plausible that the former is metaphysically reducible to the latter. Reductive representationalists of the likes offered in Dretske (1995) and Tye (1995) have aspired to offer a reductive explanation of the overall presentational manner in which properties would be represented consciously. However, their views confront intuitive counterexamples such as superblindsight—which cannot, as might have been hoped, get easily dismissed as modal illusions stemming from our original ignorance of the nature of consciousness, from our incapacity to fully appreciate the implications of the reductive representationalist proposal, or from some sort

⁴ Cf. Block (1995).

of fallacious modal reasoning that we are generally prone to.⁵ For that reason, most intentionalists these days take representing in a certain sensory manner to be sufficient for apparent presence, but go on to in turn specify the manner as the one apt to deliver a sense of presence.⁶ Thus while the Diaphanousness of perceptual experience is certainly favored on introspective grounds, this is not the case with the intentionalist view of experience.

Although I take presence to be a primitive relation, neither logically nor metaphysically reducible to representation, I do not mean to rule out the possibility that the apparent presence of property-instances in perceptual experience might entail their representation. For instance, according to so called *phenomenal intentionalists*, the apparent presence of an instance of a property to a subject would involve the representation of the relevant property. Still, it would be by virtue of the phenomenal character of the experience that the experience would represent the property.⁷

The putative relation between presence and representation here would be akin to the relation between knowledge and belief in knowledge-first epistemology. On Timothy Williamson's view, propositional knowledge is irreducible to the corresponding belief and some further set of conditions. Nevertheless, even for Williamson knowing a proposition would involve believing the proposition.⁸ Similarly, according to phenomenal intentionalists, the apparent presence of an instance of a property to the subject, despite

⁵ For a state-of-the art exposition of the so called *explanatory gap*—distinctive of phenomenal consciousness, see Levine (2001).

⁶ See Chalmers (2004), Byrne (2009), Pautz (2010), and Siegel (2010).

⁷ This form of phenomenal intentionalism has been put forward in Siewert (1998), Horgan and Tienson (2002), Chalmers (2006), Frey (2013). Crane (2009) holds a similar view.

⁸ See Williamson (2000), Ch. 1.

being irreducible to the representation of the property and some further, more basic condition, would still involve the representation of the property.⁹

Similarly, so called *naïve realists* hold that whatever representational content an experience would have would be due to a more fundamental non-representational aspect of the experience. Such aspects would be analyzed disjunctively across matching experiences. In cases of veridical perception, the apparent presence of an instance of a property would be grounded in the actual presence of the instance. In delusory cases, the apparent presence of the instance would either not be deemed a positive, intrinsic aspect of the experience or would be grounded in a similar non-representational way—in terms of the actual presence of some items.

Some naïve realists are explicitly committed to views of the character of hallucinatory experiences that entail that such experiences are not intrinsically presentational.¹⁰ On that basis, they would conclude that even though the delusory experiences would also seem to present apparent instances of the same properties, this feature of the experiences should be accounted for purely relationally, in terms of their indiscriminability from fully successful perceptual experiences. Others¹¹ have argued that the matching delusory experiences would present apparent instances of the same properties intrinsically, but on a different basis than the awareness of actual instances of those

⁹ Excepting adverbial varieties of phenomenal intentionalism, on which properties an experience represents by virtue of having the phenomenal character it does is not wholly determined by the phenomenal character of the experience. See e.g. Kreigel (2011): Ch. 3. Similar views are held by Loar (2003) and Thompson (2009).

¹⁰ See Fish (2009), (2013), Campbell (2002b), (2014), and Brewer (2011), (forthcoming).

¹¹ Smith (2002), Johnston (2004).

properties: e.g. on the basis of awareness of intentional objects and their properties, or of complexes of uninstantiated properties.¹²

This divergence in the ranks of the proponents of naïve realism has obvious implications for the aptness of delusory perceptual experiences to ground the same observational concepts that the matching fully successful experiences could. But both forms of naïve realism predict that in cases of fully successful perception the subject would solely in virtue of enjoying the experience be presented with instances of the specific observational properties perceived—and on that basis would be able to grasp the corresponding observational concepts.

Naïve realism has the above in common, at least in letter, with phenomenal intentionalism. Nevertheless, there is a significant difference in how both views understand the relation between apparent and actual presence. While naïve realists take actual presence to be the more fundamental notion, phenomenal intentionalists take apparent presence to be more fundamental. On phenomenal intentionalism, the presence of an actual instance of a property in a case of veridical experience would be partly grounded in the apparent presence of an instance of the property in all experiences of that phenomenal type.

This difference has an interesting consequence. While on both views the representational content of experiences would be grounded in their phenomenal character, since on phenomenal intentionalism experiential character would be given a conjunctive characterization across the good and the bad cases, the phenomenally-based content of experiences would come out as non-disjunctive. By contrast, under naïve realism it would

¹² Mike Martin, the original proponent of so called negative disjunctivism, is more difficult to place on this issue. See Martin (2004) and (2007) for an exposition and development of negative disjunctivism; and also Pautz (2010) and Zimmerman (2012) for critical discussion.

come out as disjunctive—depending on the degree to which the phenomenal character of matching experiences gets characterized disjunctively.

I will momentarily bracket those differences and confine the discussion to cases of veridical perceptual experience, before coming back at the end of the chapter to the question of which of those two views of the nature of experience coheres best with my account of observational concepts.

The Diaphanousness of successful perceptual experiences is thus on its own compatible both with naïve realism and with the non-reductive variety of intentionalism. Furthermore, it is compatible with impure versions of those views, on which—over and above their relational, presentational properties—perceptual experiences would also have some non-relational properties.¹³ What is required for Diaphanousness to be the case is merely that whatever else is part of the character of a perceptual experience is compatible with the apparent presence of instances of observational properties. Sensational properties, qualia and exotic properties would occlude the apparent observational instances, but blurriness, for one, would not—even if it were not (despite what purists have claimed¹⁴) wholly reducible to the apparent aspects of the apparent objects.

To conclude, although the Diaphanousness condition demands a relational account of the character of perceptual experience in terms of the notion of presence, it does not demand that the character of such experiences should be analysed exclusively in terms of the apparent presence of external particulars and their properties.

¹³ See Crane (2007) for the distinction between pure and impure types of intentionalism, and French (2014) for an analogous distinction between pure and impure types of naïve realism.

¹⁴ See Tye (2003b), Brewer (forthcoming).

Accommodating the Diaphanousness of experience thus does not force one to adopt an implausible or an overly specific view of the nature of experience. While it rules out views which deny that the character of experience is normally intrinsically presentational, and views on which experiences present instances of mental or exotic properties in the place of their objective counterparts, it is compatible with the two main contending views of the nature of perceptual experience: naïve realism and intentionalism.

II. Revelation

With regard to an experience as of an instance of a property, Revelation at its barest is the thesis that the subject of the experience can learn what the respective property is solely on the basis of having the experience. The relevant sense of knowing-what is non-trivial and demanding, distinct from the anodyne sense in which one can be rightly said to know what something is merely by being able to refer to it, or, further, by knowing some contingent truth about it. Rather, the sense is the one Locke aimed to exploit when he equated the essence of an entity with the answer to the question as to what the entity is.¹⁵

One might have doubts that the intended substantial sense of knowledge-what is pre-theoretical. Relatedly, pre-theoretical discriminatory knowledge, or *knowledge-which*, has been taken to be fairly undemanding and variable with context. But I would argue that the cases are disanalogous. There is a pre-theoretical substantial sense of knowledge-what that can be expressed by qualifiers: “what something *really* is”, “what something is *in its own right*.”

¹⁵ Cf. Locke (1690/2008): III, iii, 15.

It is important to keep this naïve way of fleshing-out Revelation in mind later on, as some key aspects of it will prove to have been interpreted tendentiously in the major formulations in the philosophical literature, resulting in a very contentious—and on some extreme formulations even incoherent thesis.

The common-sense formulation of Revelation might be taken to be neutral between a specification on which an experience that satisfied Revelation would straightforwardly be telling its subject what the respective property is and one on which it would merely provide the subject with sufficient basis for learning that. It seems to me that the latter sense is actually implied. In that case, knowledge of essence would stand to Revelation as the capacity for demonstrative identification of an item would stand to Diaphanousness. In both cases, experience would provide the basis of such capacities rather than consist in their actualization.

Moreover, if the analogy holds, the experiential basis of the capacity would not guarantee the possession of the capacity. Just as property-instances can at least in principle be present to young children and animals without the corresponding capacity to demonstratively refer to them, so Revelation could be the case with an experience of a creature lacking the conceptual resources or attentional capacities to determine the essence of a property based on the experience of an instance of it.

For those who might think otherwise, an argument against the alternative specification is coming up in the course of evaluating the canonical formulations of Revelation.

1. Canonical formulations

Revelation about color was originally put forward by Mark Johnston (1993), who takes it to be part of several platitudes about the colors that their essence is revealed in experience. A similar thesis concerning the intrinsic properties of experiences was considered by David Lewis (1995) to be part of folk psychology.

Johnston illustrates Revelation about color experiences in the following passage:

The intrinsic nature of canary yellow is fully revealed by a standard visual experience as of a canary yellow thing...one naturally does take and should take one's visual experience as of, e.g. a canary yellow surface, as completely revealing the intrinsic nature of canary yellow, so that canary yellow is counted as having just those intrinsic and essential features which are evident in an experience as of canary yellow (1993, 223).

Lewis gives a similar thesis regarding the intrinsic properties of experiences:

“When I have an experience with quale Q, the knowledge I thereby gain reveals the essence of Q—in this sense: a property of Q, such that, necessarily, Q has it and nothing else does. (Lewis: 1995, 142).

In the case of perceptual experience, I take (with Johnston and against Lewis) Revelation to apply primarily to one's understanding of the objective properties, instances of which get presented in perceptual experiences and only tentatively and derivatively perhaps to the character of the experiences themselves. This is because such experiences are diaphanous, with the apparent presence of external particulars and their qualities being the most salient and perhaps only aspect of the character of an experience of this sort. Whatever additional aspects might make up the character of a given perceptual experience would be recessive and more difficult to introspect. A Revelation thesis about those would be harder to sustain, and would certainly not be part of folk psychology. Confining the subject for the time being to color experience, I thus take Revelation to be a thesis about

what they can teach us about the nature of colors rather than about the nature of the experiences.

It is not clear whether Lewis would agree with my characterization of the character of perceptual experiences or not. For one, it is not clear whether he would take the intrinsic qualities of an experience to be presented to the subject in any further sense beyond the knowledge she thereby gains (or is disposed to gain) about those qualities. If Lewis' view were the latter, then he would be guilty of illegitimately replacing the Diaphanousness of experience with a Revelation thesis about experiences. Johnston, on the other hand, draws a distinction between awareness of a color and the knowledge one gains about the essence of the color. Thus his formulation respects the Diaphanousness of experience and is phenomenologically acceptable.¹⁶

Both Johnston and Lewis take the knowledge of the property enabled by an experience of a given type to require more than the mere identification of the property, even when such identification would be *de re*.¹⁷ Rather, the experience must further allow one to identify the nature of the property, where such identification consists in knowledge of a real definition of the property, an exhaustive answer to the question of what it is fundamentally.¹⁸ It seems to me they are right on this point and that the requirement is implicit in the above naïve formulation of a Revelation as knowledge of the answer to a special what-question. An identification of the nature of a property would in that sense require more than merely identifying the property, namely characterizing it in a non-

¹⁶ John Campbell has argued in Campbell (2005) that Revelation is at odds with the Diaphanousness of experience. If I am right, there is a version of Revelation at odds with it, but there is also a version that is fully consistent with it.

¹⁷ See Lewis (1995): 143.

¹⁸ Here I have borrowed from what E.J. Lowe says about knowledge of essence (2008). However, by contrast with Lowe, I allow that there may be a more substantial, truthmaker notion of essence, on which the essence of a property is a genuine entity distinct from it: a second-order property.

tautological way. For that reason, the thesis of Revelation turns out to be stronger than a related thesis proposed by Chalmers (2003) and Nida-Rumelin (2006). On this proposal, experiences provide subjects with the capacity to grasp their type, where grasping an experience-type under a concept consists in knowing the counterfactual extension of the concept. One could grasp a property in this sense without having the capacity to spell out its real definition. Revelation, on the other hand, concerns the capacity to acquire propositional knowledge of the nature of a property on the basis of experiencing instances of it.

2. Gaps in the formulations

I have argued that on the most plausible formulation of Revelation, the condition would be distinct from and compatible with the Diaphanousness of perceptual experience, and that it concerns propositional knowledge of essence. There are two further issues, on which Lewis' and Johnston's formulations are somewhat vague. The first is whether Revelation purports actual knowledge of essence or the mere capacity for such knowledge. The second is whether Revelation concerns *de re* or *de dicto* knowledge of essence. We can resolve both questions by aiming for the most plausible formulation of Revelation.

In response to the first issue, I take it that any plausible version of Revelation must be cashed out as a thesis about the epistemic capacities enabled by experiences, rather than about such capacities being fully actualized by the experiences. As Byrne and Hilbert have argued, the thesis must come out compatible with the possibility “that the full nature of canary yellow will only be apparent after a diverse range of color experiences—including, perhaps, experiences as of transparent canary yellow volumes, canary yellow lights, and

canary yellow objects against a variety of backgrounds” (2007: 77). Otherwise merely having an experience as of canary yellow would involve propositional knowledge of the essence of canary yellow, which would make it obligatory to either grant such knowledge to animals, infants and unreflective human subjects, or deny that they can experience canary yellow.

The second issue is whether, regarding property P and its essence E, Revelation would be satisfied if experiences of instances of P merely provided a basis for knowledge that P is E or for knowledge that E is the essence of P.

The difference was originally highlighted in Byrne and Hilbert (2007). Stoljar (2008) has relied on it in an argument that Revelation would be implausible on the stronger, *de dicto* reading of knowledge of essence. Lihoreau (2014), agreeing with Stoljar's diagnosis about the implausibility of the stronger reading, has argued that having *de re* knowledge of essence entails having *de dicto* knowledge of essence—in effect aiming to show that Revelation is a wildly implausible thesis.

With Lihoreau, but for different reasons, I take it that the knowledge of essence concerned by the condition must be *de dicto*. But by contrast with him and Stoljar, I will show that there is nothing objectionable to cashing out Revelation as a thesis about *de dicto* knowledge of essence. This is because, rather than being an overintellectualization, the *de dicto* formulation is implicit in the basic construal of Revelation.

Byrne and Hilbert trace the distinction between the *de dicto* and *de re* version of Revelation back to the general distinction between *de dicto* and *de re* knowledge of essence. The distinction clearly applies to knowledge of the essence of particulars: “To borrow an example from Leibniz, suppose (no doubt contrary to fact) that it is in my nature

that I make a certain journey. It may be revealed that I make that journey, without it being revealed that this is in my nature” (2007: 76). It would also apply to our knowledge of the essence of properties in general. For instance, suppose that people were essentially animals. I may know that people are animals without knowing that they are so essentially. The former would be an instance of *de re* knowledge of the essence of a property, while the latter would be an instance of *de dicto* knowledge of the essence of a property.

The examples suggest that *de re* knowledge of essence is always easier to obtain. This creates the impression that a formulation of Revelation cashed out in terms of *de re* knowledge would be the common-sense one. The alternative construal would make it doubtful that Revelation could be part of folk psychology, and would in any case make the thesis implausible. But this impression is false. In the putative case of experientially-based knowledge of the essence of a manifest property, *de re* knowledge of the essence would not be easier to obtain than *de dicto* such knowledge. Moreover, the *de dicto* formulation is entirely plausible.

The first point to be made is that in the envisioned cases in which Revelation would hold, the subject would be in the position to know that the essential aspect he attributes to the respective property with justification is an intrinsic aspect of the property. The mechanism of learning the fact would settle this issue for the subject. For example, consider the proposition “Purple is a compound color.” If Revelation were true, the only entity one would need to attend to in order to learn that Purple is compound would be an apparent instance of Purple. As Adam Pautz has put it in related discussion, “it is introspectively

evident that my belief is entirely about *what* I experience.”¹⁹ The compound character of Purple would justifiably appear to the subject to be an intrinsic aspect of the manifest color.

The second point to be made is that all intrinsic facts about a property are necessary. In the case of intrinsic facts about particulars, there is a difference between learning that X is F intrinsically e.g. that X is a person—and learning that necessarily X is a person, this is because not all intrinsic facts about individuals are necessary facts. For example, X may intrinsically be 6 ft tall—without being necessarily so. By contrast, if Being Composed by Carbon Atoms is an intrinsic aspect of Being Acetone, it is a metaphysically necessary aspect. Thus settling on the intrinsicality of a known fact about a property would also be settling on the necessity of that fact.

Assuming that Revelation were true in cases like the described, even if the facts about a given property that one learns on the basis of experiences of instances of the property were not explicitly modally framed, the mechanism by which the subject would acquire them would make evident the intrinsicality of those facts, hence also their necessity.²⁰

So it turns out that Byrne and Hilbert are wrong about the *de dicto* and *de re* reading of Revelation being on a par. But the fact that Revelation should be given the more robust *de dicto* reading does not make the thesis implausible, as Stoljar and Lihoreau have argued.²¹ Revelation is best cashed out not as a thesis about what we must know in order to have an experience, nor about what we learn from an experience when we have it, but

¹⁹ Pautz (2006), 550.

²⁰ One may object that not all metaphysically necessary facts are essential facts, e.g. “Purple is binary and $2+2=4$ ”, or “Purple is binary or pigs fly.” But such facts are complex and not all of their components could be known solely on the basis of the experience.

²¹ Stoljar expresses reservations against the *de re* reading of Revelation, since, in his words, “[s]urely it is implausible that those who are itchy require the concept of essence.” Lihoreau has similar concerns.

rather—about what we can learn from an experience in ideal circumstances. Such knowledge would require the possession and exercise of concepts, attending to the apparent quality in the right way, and perhaps more. Furthermore, a naïve subject need not have a sophisticated grasp of intrinsicity or essence in order to learn facts about the nature of Purple. Something more minimal would instead be in place: an implicit understanding that the experience presents her with an answer to a distinctive sense of a what-question, e.g. “What is purple?”—to which “my granny’s favorite color” would not be an appropriate answer.

3. Perfect vs. Imperfect knowledge of essence

Apart from those preliminary and in my view largely uncontroversial issues about how the canonical formulations of Revelation are to be revised and specified further, I will now propose and motivate a significant revision of the formulations, against which Lewis as well as Byrne and Hilbert have put up arguments. The point of contention concerns the issue of whether the requisite knowledge of the essence of a property must be exhaustive or what I call *perfect* knowledge of essence—or can be partial while still qualifying as knowledge of essence. The latter would be what I call *imperfect* knowledge of essence. In my view, in favorable circumstances, partial knowledge of the essence of a property would constitute genuine knowledge of the essence of the property. Moreover, a formulation of Revelation in terms of such imperfect knowledge is considerably more plausible than in terms of perfect knowledge of essence.²²

²² My formulation of Revelation comes close to what Mark Kalderon has called Manifestation (2007: 588-9). Kalderon takes care to distinguish Manifestation about color experience from Revelation about color experiences, as formulated by Johnston. However, it seems to me that calling the condition Revelation

Lewis explicitly disagrees. Here is what he says about a formulation in terms of partial knowledge of essence:

If we know exactly what the qualia of our experiences are, they can have no essential hidden structure – no ‘grain’ – of which we remain ignorant. (If we didn’t know whether their ‘grain’ ran this way or that, we wouldn’t know exactly what they were. Whatever we might know about them, we would not fully know their essence) (Lewis: 1995, 329, n.4).

Lewis' worry seems to be the following. A revelatory experience should enable identification of the respective property in a maximally demanding way. So it should consist in knowledge of exactly what the property is. Otherwise, the experience of the property would not allow one to identify it in that way. So a more robust kind of identification of the property would be possible, of which the identification based on experience of the property would fall short. A *reductio*.

But why take it that such maximally demanding sense of identification is genuinely available? First, let us dwell, with Lewis, on physical structure or grain, as he calls it. Suppose that colors were physical properties with some structure, i.e. some microphysical constitution.²³ A maximally demanding identification in Lewis' sense would involve knowledge of the microphysical structure of the colors. But the microphysical components of colors would likely also have grain. Identification of a color in the most demanding sense then would seem to presuppose having knowledge of the structure of their microphysical components. This already suggests that the maximally demanding sense of identification may turn out to be well beyond our reach. Moreover, perhaps it goes beyond

better reflects the putative substantiality of our experientially-based understanding of observational properties. Experience would not just present us with some aspects of the essence of the colors (for instance, that they are properties). Rather it would present us with enough of their essential aspects and with sufficient determinacy for us to be able to learn what they are.

²³ The same considerations would apply to spatial properties.

anybody's reach, if it turned out that nature has structure all the way down.²⁴ Thus the possibility that we or any finite being would have the capacity for such maximally demanding identification is suspect.

Secondly, focusing not just on the physical but on the metaphysical complexity of properties, grasping the essence of canary yellow would have to involve knowledge of the essence of properties (e.g. universals, natural classes, etc.), knowledge of the essence of the essence of properties and so on. Again, either at some point one would reach an entity with no essence, or an entity that is its own essence, or an infinite chain of essences runs upward. The only option consistent with the possibility of maximally robust identification of the property is the second option. But again, it seems that even in that case there would still be a sufficient number of links in the chain to preclude us from having the capacity to identify a property in this maximally demanding sense. So even if colors had no grain, most likely we would still be unable to identify colors in the maximally demanding sense.

So let us suppose that the maximally robust way of identifying the colors if they were properties with grain would either be impossible or beyond our reach. Would it follow that Revelation for colors could not be the case with us or even in general? Not at all. This would only be so provided that the knowledge at stake in Revelation got cashed out, as Lewis would have it, in terms of a maximally robust identification of the property. But why think that the special sense of knowing, for instance, what canary yellow is should be fleshed out as knowing the full essence of canary yellow, rather as knowing only some—sufficient—amount of that essence? In that case, the distinction in epistemic status relevant to Revelation would not be the one between knowing the full essence of, for example,

²⁴ I owe this observation to Nic Damnjanovic (2012: 85).

canary yellow—and knowing only some of it, but the one between knowing enough of the essence of canary yellow—and knowing none or not enough. On the corresponding formulation of Revelation, an experience as of an instance of canary yellow would need to enable the subject to learn *a priori* enough of the essential aspects of that shade to meet the condition.

I will now argue that the latter formulation is a better construal of the thesis, in light of the special pre-theoretical sense of knowing-what I highlighted above. In that sense, one would be rightly said to know what Socrates was if they knew he was a person, without needing to know what it is to be a person, or what it is to be a property or a kind. Similarly, to use an example of Kit Fine (1995), knowing the essence of singleton Socrates would require that one knows it is a set with Socrates as a member, without also requiring them to know the essence of Socrates. If, as Lewis has it, Revelation is a thesis embedded in folk psychology, then it must concern imperfect rather than perfect knowledge of essence.

This concludes my response to Lewis. Byrne and Hilbert may also be read as arguing against the imperfect formulation of Revelation. In their discussion, they divide Revelation into two claims, Infallibility and Self-Intimation. According to Self-Intimation, if a proposition is part of the specification of the essence of canary yellow, the subject should in ideal circumstances be able to learn it on the basis of experiences of canary yellow. Infallibility, on the other hand, is a thesis about the status of all propositions about the essence of canary yellow one is able to derive in ideal circumstances from such experiences. Infallibility appears to be a weaker thesis, logically distinct from Self-Intimation. It is a consequence of the imperfect version of Revelation I endorse. However, Byrne and Hilbert argue that if Infallibility has any bite and experience allows significant

insight into the essence of an observational property, it entails Revelation. Byrne and Hilbert focus on colors and argue that if, as many take them, the colors are presented in experience as simple, non-structural properties whose nature is exhausted by their location in color space, Infallibility about color experiences would entail Self-Intimation about color experiences and thus the stronger version of Revelation.

Whether Infallibility would entail Self-Intimation depends on what gets genuinely revealed by color experiences about the essence of the colors. But if anything about the colors is uncontroversially made evident by color experiences, besides their location in color space, it is not their structural simplicity but their intrinsicality. Absent some argument that ideal reflection on color experience tells in favor of the structural simplicity of the colors, Infallibility with a bite would be consistent with the colors being structural properties. Such properties would have to be intrinsic properties of the surfaces of objects, and of the volumes of liquids and gases, but they could in principle be structural properties. The real problem for the prospect of identifying some structural microphysical properties with the colors is not that the colors are presented in experience as non-structural, but that it is not clear that the family of physical properties which are the best candidates for identification with the colors have the right features and stand in the right relations to sufficiently approximate color space.²⁵

Furthermore, even if the colors were presented in experience as non-structural properties whose nature gets exhausted by their position in color space, this fact, combined with Infallibility, would still not entail Self-Intimation—for two reasons. The first is that physically simple properties can still have metaphysical structure. Second, even if the

²⁵ For exemplary arguments that they don't, see Hardin (1993), and Pautz (2006).

essence of the colors were exhausted by their position in color space, that space might itself be something we are not in position to fully grasp. For instance, if the colors we sense could only be maximally discriminated by a creature with finer visual processing system than ours, the exact state of color space would be unknowable by us. Our understanding of it would be like that of a red-green colorblind subject's understanding of redness. The colorblind subject would not fully grasp the essence of Red. Similarly, maybe the most precise chromatic joints are beyond our grasp. In that case, we would have no full knowledge of the essence of the colors. Consistent with this, in some conditions, we might still count as having imperfect knowledge of the essence of the colors based on our color experiences.²⁶

Thus, contra Lewis and Byrne and Hilbert, a weaker formulation of Revelation, consistent with the possibility that colors are structurally complex physical properties, is available.²⁷ Such formulation, I have argued, is the one that should be at stake for the proponent of Revelation, since knowledge of what an entity is is cashed out most naturally as partial rather than as exhaustive knowledge of the essence of the entity.

4. Objections to the Imperfect formulation

a). Revelation and identification

²⁶ See the forthcoming discussion of twin properties.

²⁷ In the vein of Lewis' argument, Allen (2015) has argued that Revelation is incompatible with realist forms of color primitivism, since on such views colors would most likely get assigned essential aspects that go beyond what experience can teach about the colors. Again, this is a problem only for the perfect version of Revelation.

I have formulated a version of Revelation about color, according to which experiences as of a given shade, e.g. canary yellow, enable, upon reflection in ideal circumstances the acquisition of *a priori, de dicto* knowledge of sufficient number of aspects of the essence of the shade and in sufficient specificity for the subject to learn what the shade is. Before going on to argue that this modified version of Revelation is met by our normal color experiences, I want to briefly consider an objection proponents of the original version might express at this point. The objection concerns the significance of Revelation. Along with Lewis, many would take it to lie in grounding the capacity for identification of the property in a distinctive experientially-based way.²⁸ But such identification would seem to require Revelation on the strong reading. For suppose that the weak reading were true for colors, and experiences of the colors put one in position to learn only part of the essence of each color. A certain type of skeptical scenario would then appear to undermine the subject's ability to successfully identify colors.

While no two properties could share all of their nature, it is certainly possible for two or more properties to share aspects of their nature. Call such properties *twins*. Now suppose there were another property, distinct from canary yellow, which shared all of the aspects of the nature of canary yellow which experience puts us in position to grasp. Perhaps both canary yellow and canary yellow's twin happen to be complex properties with distinct microphysical structure. Perhaps canary yellow is a simple intrinsic property whose nature is entirely exhausted by its position in color space while the twin is a complex intrinsic physical property. Or perhaps both are structural properties that happen to behave differently under non-standard illumination conditions. For example, if colors were

²⁸ Naomi Eilan and Mike Martin raised this concern in conversation.

identical to determinate spectral reflectances or to their categorical bases, metameric reflectances would either constitute or determine distinct properties.

In any of those scenarios, the issue of whether the experience of an instance of a given color allows one to identify the respective color would arise. What one is in position to get about canary yellow on the basis of experiencing canary yellow would also be true of canary yellow's twin. So one would be unable to uniquely identify canary yellow based on experiencing instances of canary yellow unless one identified it in the maximally demanding sense.

In response, it is important to emphasize that the existence of canary yellow's twin does not on its own call in question one's capacity to uniquely identify canary yellow. It would only do so if the twin were instantiated nearby enough. So let us suppose that the counterpart property were instantiated in one's environment in such way that it could easily have been accessed by the subject in the place of canary yellow. In such case, canary yellow could not be uniquely identified on the basis of the qualitative information one can gather on the basis of having an experience of it.

Perhaps the metamer-based illustration of the problem would then be most threatening. Dialectically, the discovery of color metamerism has led color physicalists to identify colors with sets of spectral reflectances or with higher-order properties realized by such sets—rather than with determinate reflectances. But let us momentarily suppose that the way to go for a color physicalist would be to identify canary yellow with a non-disjunctive reflectance type, with the consequence that the metamers of that type would be distinct properties. With this stipulation, it would follow that in the actual circumstances, we would be unable to uniquely identify canary yellow purely qualitatively. Since the

imperfect form of Revelation leaves open the possibility that colors are microphysical properties, this version leaves open the possibility that we do not identify canary yellow uniquely.

However, even this case would present a problem for my version of Revelation only on the assumption that our identification of the colors is purely qualitative, based on partial knowledge of their essential features. On the contrary, my view is that we should distinguish very carefully between the experiential basis for identifying an observational property and the experiential basis for knowing its essence. I have argued that conscious perceptual experiences are individuated by the apparent presence of instances of specific observational properties. An experience of an instance of canary yellow's twin would thus be distinct from an experience of an instance of canary yellow. That I could have experienced a distinct property in the same way as I would have experienced canary yellow would not make a difference to the fact that my actual experience is as of canary yellow. And just as one could retain the ability to identify a particular based on being presented with it—despite qualitative indistinguishable duplicates in one's environment, I suggest that one could similarly identify a property on the basis of an experience presenting it, despite its twin being easily accessible.

To sum up, my response to the objection is that one should separate the role experience plays in one's identification and in one's knowledge of the essence of a property. It is quite plausible, irrespectively of which version of Revelation one prefers, that one's identification of the colors is not purely qualitative. The objection helps highlight a division of labor between the Diaphanousness and Revelation conditions, which gets muddled when the two conditions get conflated.

b). Skeptical doubts about Imperfect knowledge of essence

Perhaps the above objection could be refashioned and brought to bear on the putative experientially-based capacity for knowing the essence of observational properties rather than on the mere capacity to identify an observational property. In order to know what something is, it may seem obligatory that the subject is able to distinguish the entity qualitatively from the twin properties that are easily accessible by them. Having partial knowledge of the essence of a property would not meet this requirement, so it could not constitute genuine knowledge of what the property is.

I am not fully sold on the requirement in the first place. Suppose I know that elms are trees but am unable to tell them apart from beeches. Still, I am able to identify each kind in thought by help of the terms in my community for each kind—which originate from experts. It seems to me that in that case I would count as knowing what a beech is (a tree), despite neither knowing the full essence of a beech, nor being able to tell a beech from an elm.

Independently of this issue, my proposal would be endangered only if it is a live possibility that the colors have easily accessible twins. But, first, the modest form of Revelation is on its own fully consistent with observational properties lacking easily accessible twins. That is, it can be that even though we have access only to some of the essence of any such property, no other property easily accessible around here would share those aspects. If this were the case, despite the existence of a twin, the latter would not be relevant to the capacity to distinguish the property from the relevant range of properties by its essential aspects. But this is actually the case. I will illustrate using colors, but the same argument could be run with shapes and other proper sensible such as odor, taste, etc.

On no theory of color is there a live possibility that colors have easily accessible twins:

1. Physicalists tend to identify colors with disjunctive reflectance types or with their categorical bases, rather than with specific reflectances. One of the main rationales for adopting such view is that no other property of objects in the environment could be accessible in the specific circumstances in which we have color experiences. So even if there were color twins (call them ghost colors), which for a color physicalist would be extremely implausible anyway, they would be epiphenomenal and inaccessible by us.
2. Primitivists postulate colors over and above physical properties because they take the physical properties instantiated in the environment to lack the same essential aspects the colors have. But even if they dropped this point, they would most likely take physical properties such as spectral reflectance types and the like to be inaccessible by the ordinary means we access the colors. So spectral reflectances would either not be color twins or would not be experientially accessible. On this view, the above mentioned ghost colors would either come out as identical with their ordinary counterparts (assuming causal powers are inessential to the identity of a property) or (assuming the contrary) would turn out to be distinct but inaccessible properties.
3. Eliminativists deem colors uninstantiated precisely because they take nothing color-like in one's environment to be accessible in the respective circumstances.

Therefore, on no theory of color would color twins be relevant to our putative experientially-based capacity to learn the essence of the colors.²⁹

III. Revelation in color perception

I have argued that on its most plausible formulation Revelation amounts to a considerably more moderate thesis than has been widely considered to be—distinct from the Diaphanousness of experience, but also dependent on it. But while Revelation is not outrightly implausible, it is a substantial thesis about the epistemic role of perceptual experiences with significant implications for their metaphysics.

I will now argue that Revelation in its imperfect version is the case with successful perceptions of instances of observational properties in the respective optimal viewing conditions. The mention of optimal conditions is meant to indicate the possibility that instances of the same observational property could be experienced in less than optimal conditions. The formulation in principle allows for cases in which an instance of an observational property would be presented in experience without enough of its essential aspects also being presented for Revelation to be the case. Still, the claim would be that in the most favorable circumstances for the perception of the instances of a given observational property, enough of its essential aspects would be manifested in the

²⁹ I have bracketed color dispositionalism. The view is ruled out by what can be gathered about the colors from experience. Briefly, colors are presented as non-relational properties of surfaces and volumes. See Boghossian and Velleman (1989), Johnston (1992), and McGinn (1993). The only possible defense of dispositionalism against this objection would either have to establish that colors are presented in experience as relational properties, or are presented as neither relational nor non-relational. On the first view, the nature of colors would be fully revealed in experience and consequently they would have no twins. The second view is incompatible with either version of Revelation. For those (in my view unsuccessful) responses, see Langsam (2000) and Byrne (2001), respectively.

experience. I will first focus on the case of color and then suggest how the argument could be extended to the rest of observational properties.

1. Folk color theory and Revelation

My argument appeals to our basic implicit commitments about the colors as folk theorists. I will show that rejecting imperfect Revelation is incompatible with keeping those commitments, and, moreover, that the commitments cannot be easily given up or reinterpreted. Thus, as Lewis and Johnston thought, Revelation turns out to be part of folk theory.

Our basic commitments as color theorists can be determined by considering what color theorists agree on about the colors. In connection with Revelation, the majority of color theorists regard color experiences as at least *seeming* to provide an authoritative, even if partial, guide to the nature of the colors. Reflection on color experience has been widely acknowledged to appear to impose constraints on theories of color. The putative constraints fall in two categories. The first is the ontological classification of the colors. For example, many have taken color experience to provide constraint on the adicity of the colors. The second is color structure, the position occupied by a particular shade in color space. Even those who ultimately deny that colors occupy positions in color space essentially do not deny the apparent constraint provided by color experience—as much as try to reinterpret its subject matter.

Thus the near-unanimous view is that color experiences appear to provide substantial insight into the colors. The disagreement is about whether the appearance is genuine or not, and about what exactly can be determined about the essence of the colors

based on one's color experiences alone. For example, there have been disputes about whether color experiences really present the colors as monadic properties of surfaces and volumes,³⁰ as having causal power,³¹ as constant under different illuminants,³² and so on. Similarly, there have been issues about exactly how color structure is to be understood,³³ and whether or not it is essential to the colors.³⁴

If color experience turns out to provide a genuine insight both into the categorical classification of the colors, and into enough of their essential structural properties, then color experience would provide enough information about the essence of the colors for us to be able to learn what they are merely by appropriately examining our color experiences. Thus the apparent categorical and qualitative specificity of the colors, if genuine and true, would entail imperfect Revelation about color perception. Therefore, imperfect Revelation follows from the default, common-sense characterization of the role color experience plays in providing us with understanding of the colors.

In order to reject Revelation about our color experiences, one would have to discredit either the apparent categorical specificity or the apparent qualitative specificity of the colors. This could be done either: 1) by arguing that what color experiences tell us about the ontological classification or the structure of the colors is false, or 2) by arguing that color experiences on their own do not provide substantial information about the ontological classification or about the qualitative nature of the colors.

³⁰ See Boghossian and Velleman (1991), Johnston (1992), McGinn (1996), Langsam (2000), Byrne (2001) and Cohen (2010).

³¹ See Locke (1690), Campbell (2006).

³² See Kalderon (2006).

³³ See Hardin (1988), Tye (1995), and Byrne (2003).

³⁴ See Ross (1999), Cohen (2003), and Pautz (2006)

I take the first way of denying Revelation to be considerably less plausible than the second. It seems incredible that color experiences would genuinely present the colors as standing in some essential relations amongst themselves or as being of certain fundamental ontological type—without the colors being so. The much more viable option would be to deny that we can gather anything substantial enough about the nature of the colors from reflection on color experience alone, despite initial appearance to the contrary.

2. Can we explain away the evidence for Revelation?

The opponent of Revelation needs to redescribe the experientially-based apparent categorical and qualitative specificity of the colors. One option is to focus on denying that the impression of categorical or qualitative specificity is genuine. An example of someone who takes the first horn, Byrne (2001a) argues that colors are not presented by color experiences as non-relational properties. Rather, according to him, colors are presented by experience as neither relational nor non-relational properties of surfaces and volumes. This might create the mistaken impression that colors are presented as non-relational properties by experience. Ross (1999) and Cohen (2003) focus on the second horn and argue that the distinctive structural characteristics of a color such as whether it is unitary or compound are not essential to it but are an artifact of the idiosyncratic way, in which we experience the color.

I do not have enough space to evaluate those proposals in depth, and have little to add to existing criticisms, which strike me as decisive.³⁵ It turns out that on neither front is the attempted redescription successful. Rather than merely not looking like dispositions,

³⁵ See Pautz (2007) for an especially insightful discussion of both.

colors genuinely appear to be non-relational properties of surfaces and volumes. Moreover semantic and phenomenological considerations suggests that their distinctive qualitative characteristics are essential rather than accidental. Not just our experience of Purple, but Purple itself, and on its own, is presented in experience as a compound property.

The second way of explaining away the putative evidence for Revelation is by denying that the apparent categorical and qualitative specificity of colors is fully experientially-based. I will focus on the latter. It strikes me that if it is part of our folk theory that the colors are non-relational properties, it must be because they are presented in experience as such. I will show that the same must be the case with color structure.

In distinguishing between the role color experiences play in presenting the colors, and their putative role in presenting one with their essence, John Campbell has suggested that experience may not play the second role:

On this view, color experience is providing us with knowledge of things (the colors) not knowledge of truths. And there may be something atomistic about it: how the relations between those individually given qualitative characters are specified is a further question, and there may be no implicit claim that they exhaust color space (2005, 16).

More committally, Keith Allen (2011) has denied that color experiences on their own reveal anything substantial about the structure of color space. Learning such facts was a genuine empirical discovery about the colors, just like any other empirical discovery about a property or a kind:

[J]udgements about the structural properties of the colours do not depend solely on what is delivered in colour experience. First, these judgements involve comparing and contrasting colour experiences with experiences of other kinds: for instance, with experiences of mixtures of peas and beans or musical chords, in which the constituent elements are still distinguishable. Second, these judgements draw on theoretical concepts pertaining to phenomenal appearance and phenomenal composition,

as distinct from concepts pertaining to causal production, literal mixture involving separable components, and brute similarity relations. Third, these judgements also depend on philosophical argument and scientific knowledge. To the extent that these issues have been resolved...it was not by careful reflection on colour experience. These issues were resolved by the discovery of neural mechanisms that implement the opponent-process pathways which predict two sets of opponently organised hues: red/green and yellow/blue... Far from being revealed by colour experience, the elemental-compound distinction was a discovery (Allen: 2011, 167).

What should be said in response to Allen's alternative proposal? Is it superior to the one available to the proponent of Revelation? If it were better than, or at least on equal footing, taking the apparent qualitative specificity of colors at face value could be done without commitment to Revelation.

The first thing to be said is that none of the considerations put forward by Allen in the passage save the last one favor his proposal uniquely and are in any way incompatible with the imperfect version of Revelation. This is because Revelation is not the thesis that someone conceptually and otherwise unequipped would be able to learn about the nature of the colors from color experience. Presumably Revelation could be true of the experiences of animals without putting them in position to learn about the qualities they experience—if only a bat had concepts! In order for a subject to be in the position to adequately reflect on her color experiences, she would need to possess the requisite concepts (e.g. MIXTURE, COMPOSITION, SIMILARITY, EXCLUSION, etc.) and such concepts would most likely need to be obtained on the basis of perceiving other things than colors.

Secondly, while having concepts such as MIXTURE and SIMILARITY would clearly be required in order to learn something about the colors, the concepts would need to be applied imaginatively and with care, as they would paradigmatically apply to spatially

complex particulars rather than to aspectually complex properties. So perhaps the pea and pod mix may indeed need to serve as a counter-paradigm for the appropriate sense of mixture, so as to prevent conceptual confusion. But again, this would be part of what it takes to zone in on the right sense of mixture. On the common sense, green would be counted as a mixture of blue and yellow, while, on the relevant one, it would not.

Third, even if imperfect Revelation about color were the case, disagreement about the nature of the colors upon careful reflection should be expected. There would be two sorts of causes of such disagreements. First, for the above reasons and beyond, we should expect that even sufficiently reflective and appropriately conceptually equipped subjects will tend to fall short of the ideal conditions which would guarantee fully and accurately obtaining the information contained in color experiences. Secondly, there would likely be illusions of necessity, with the consequence that the essential aspects of colors to which we have experiential access may be fewer than they appear.³⁶ The possibility of illusions of necessity is much easier to combine with the imperfect version of Revelation, since on it not everything about the nature of a color could in principle be gathered from color experience. By contrast with perfect Revelation, the proponent of imperfect Revelation would only need to explain an apparent such necessity away without also needing to establish that the converse claim is recoverable from experience in ideal circumstances.

Preliminaries aside, the real bite in Allen's argument is the claim that some aspects of color structure were decisively established not in virtue of phenomenological evidence

³⁶ For instance, perhaps color experience gives us access to the structural complexity of the colors (e.g. the binarity of purple and simplicity of yellow) while merely seeming to give us access to hue opposition (since there may be no such thing—there may be reddish greens as implications of Crane and Piantanida's (1983) findings. As Nida-Rumelin and Suarez (2009) have argued, claims to hue opposition and claims to hue complexity are justified in different ways.

alone, but also, and predominantly, in virtue of scientific (I reckon here Allen means psychophysical and neuroscientific) findings. Specifically, Allen claims that the corroboration of opponent process theory was what settled the issue of whether and how many primary hues there are. The problem with this claim is that as it turns out there is no neat psychophysical or neuroscientific evidence for opponent-processing channels in the visual system which map neatly on to the hues. As Saunders and van Brakel have recently summarized the current standing of the theory: “Psychophysically distinct channels might well emerge in particular types of well-determined experimental conditions, but these channels do not necessarily exist outside those conditions. Psychophysically speaking, there might be many opponent channels while neurophysiologically speaking there are none” (1997: 172). Taking their findings in reverse order, first, no neuronal pathways that line up with the hypothesized psychophysical pathways have been discovered. Furthermore, the conditions in the experiments aimed to test for opponent processing are set in such a way that the number and kind of unique hues is fixed in advance. So the experiments are designed in such a way that they cannot be used to disconfirm the core of the original theory.

Contrary to what Allen claims, there has not been anything like a pure bottom-up corroboration of opponent-processing theory. The evidence for which hues are unique must come from somewhere else than neuroscience or psychophysics. As Justin Broackes has suggested in response to Saunders and van Brakel's challenge, the status of opponent-processing theory depends on whether there is any phenomenological evidence for the special treatment of the chosen hues: “Is the choice of red, green, yellow, and blue as unique and basic terms of classification an arbitrary one? Could we have done just as well,

for example, with lime, purple, orange, and teal” (Broackes 1997: 183). But that question must be settled otherwise than through the results of color cancellation experiments.

To sum up, my argument against revisionary views of the source of justification of color structure claims like Allen's is this: all things considered, there could be no other source of justification of claims about color structure than careful and conceptually sophisticated phenomenological reflection on color experience. The distinction between unique and compound hues, and, along with it, a realist understanding of the dimensions of color space more generally requires that color space can be reconstructed on the basis of introspective reflection on our experience of color. Proposals about a modest epistemic role for color experience in our understanding of color structure—such as Allen's and Campbell's, are thus faced with a dilemma: either give up on realism about the distinctive aspects of color space, such as the distinction between unique and compound hues, or assign special epistemic role to experience in providing us with insight into color structure.

Giving up on the experiential basis of the apparent qualitative nature of the colors would be giving up on it *tout court*. For example, Vivian Mizrahi has offered very similar arguments to Allen's for the view that color structure has no experiential basis, but, in light of the state of the empirical literature on color, takes the arguments to establish that the seemingly metaphysical distinctive aspects of color space are a mere projection of our customary ways of identifying the colors:

[M]ost philosophical or scientific theories suppose that colour composition judgments refer to the way colours appear to us. The dominant view is that colour composition is phenomenally given to all “normal” human observers. To judge for example if orange is binary or unitary or to evaluate its reddishness, we must turn to our colour experiences. As I will try to show, there is little evidence for the “phenomenalist” view of colour composition. Unlike the dominant phenomenalist view,

which relies solely on individuals' colour experience, I will defend the idea that judgments about colour composition and the distinction between unitary and binary colours are essentially cultural and originate from communicational needs and constraints. (Mizrahi: 2009, 185).

Taking such position is not absurd, but is tendentious, in my view. In effect, the dialectic has brought us back to the first way of explaining away apparent color structure. Mizrahi's conventionalism is one such attempt. For her, whether Green is a compound color or not ends up being a matter of the conventions we use to identify it. In principle, Mizrahi suggests that Green could be identified both as a unique and as a mixed hue, based on which convention we use. But aspects of color space such as the uniqueness of Green are not just a matter of convention. The sense in which Green counts as an elementary hue is distinct and more fundamental than the sense in which it could be counted as a compound hue. Mizrahi tries to show that there is no such special sense of the elementary/compound distinction, but nothing that she says strikes me as convincing.

To sum up, neither the apparent categorical specificity of the colors nor their apparent qualitative specificity can be explained away or explained otherwise than in terms of the way the colors are given to us in color experience. The apparent categorical and qualitative specificity of the colors turns out to be genuine and fully experientially-based. I have also suggested that there is little reason to take either appearance as misleading as to the essence of the colors. Thus we have good reason to hold that imperfect Revelation is satisfied by color experience in optimal conditions.

I will conclude this section by considering ways in which the argument for Revelation could be extended to other observational properties.

3. Generalizing the argument

The argument presented above can easily be extended to any family of properties which form a quality space,³⁷ and whose distinctive characteristics must be recovered on the basis of introspective reports rather than through bottom-up reconstruction based on neuroscientific findings. All so called proper sensibles would plausibly fit in this category. Sounds, tastes, and smells stand in qualitative relations that do not match the relations between the respective customary stimuli, nor are they easily reconstructible from below.³⁸

The argument does not generalize to spatial properties, whose nature is specifiable independently through measurement. But the idea that experience leaves the nature of spatial properties up for grabs is quite implausible. First, the shapes of objects have characteristically been regarded as paradigms of intrinsicity. For instance, in the context of his argument from temporary intrinsics, Lewis writes: “If we know what shape is, we know that it is a property, not a relation” (Lewis: 1986, 204). Additionally, shapes as seen and felt exhibit complexity. One not only experiences a triangular shape but also its points, sides and the space enclosed by it. The symmetries of figures are also normally recoverable from experience and must be implicitly presented in experience along with the figure. For instance, the points of a round object must be presented as equidistant from the center. The use of imagistic proofs in basic geometry suggests that some of the nature of the figures represented by drawings and images is recoverable from one's experience of them.

One could object that Revelation about spatial properties must be false since experiences of spatial properties would either turn out to misrepresent their essence or must

³⁷ For one way of developing the notion, see Clark (2000): Ch. 1.

³⁸ See Pautz (2013) for discussion of the physical basis of sensible qualities in other modalities.

be silent about it. After all, physical space is non-Euclidean. The customary response³⁹ has been to distinguish between the geometry of visual or phenomenal space and of physical space. Another response has been to deny that anything substantial about the properties of spatial figures can be gathered solely from experience.⁴⁰ My novel response is by appeal to the moderate form of Revelation. Perhaps visual experiences contain information about the essence of figures with determinate magnitude (e.g. Being Triangle-sized-thus) rather than of their determinables (Being Triangle). In that case, the postulates of Euclidean geometry would be based on illegitimate generalization from otherwise true but restricted laws.

IV. Back to the nature of experience

1. Grounding Revelation

I have argued that Revelation is the case with our experiences of instances of observational properties in optimal viewing conditions. But Revelation is primarily an epistemological thesis. One may still wonder in virtue of what aspect of the character of perceptual experience it is the case.

I have shown that for Revelation to be the case with an experience, the experience would need to be diaphanous to an apparent instance of the respective quality. Thus the place to look is the presentational aspect of perceptual experience. Earlier in the chapter, I showed that that aspect can be accommodated under both *naive realism* and *phenomenal*

³⁹ See Strawson (1996): Part V.

⁴⁰ This might be one way of understanding Hopkins' (1973) proposal that one's visual geometry is neither Euclidian or non-Euclidian but indeterminate.

intentionalism. Now I want to explore exactly how the Revelation condition would be grounded in the presentational aspect of experience on each view.

The issue is about the exact way the essence of an observational property would get revealed in an experience presenting an instance of the property in optimal viewing conditions. My proposal is that the essence would get revealed on the basis of the distinctive way that the instance would appear in such circumstances. Suppose, for instance, that one is looking at a round coin head-on. In those circumstances, the coin would have a distinctive look: call it the distinctive look of Roundness.

I cannot do full justice to the look of Roundness in a brief description. Among other things, round things in those circumstances would exhibit specific symmetries, which hold essentially and distinctively of them *qua* round. Those symmetries would not be exhibited with the same determinacy and accuracy in an experience of a round object from any viewing angle. But in the right circumstances, being presented with an instance of Roundness would involve being presented with such characteristic and essential symmetries.

Thus the Revelation condition would be grounded in the specific way in which an instance of an observational property appears in experience on the select occasion. To those ways would no doubt correspond extremely complex representational contents⁴¹—but the ways themselves would be a phenomenal matter, more fundamental than the corresponding contents.

Under naïve realism, the distinctive look exhibited by round things in optimal viewing conditions would just be their actual character *qua* round. Under phenomenal

⁴¹ Peacocke's (1992) notion of *protopositional content* could be used to capture this kind of experiential content.

intentionalism, by contrast, the look of roundness would be a feature of apparent rather than of actual property-instances. But the apparent presence of such instances and the way they appear would be deemed apt to play the same role that the actual presence of the instances and their manifest character would. The apparent character of an apparent instance of Roundness would ground the capacity to learn the essence of Roundness.

2. Breaking the tie

The Diaphanousness condition can be accommodated by naïve realists and phenomenal intentionalists alike. Similarly, the Revelation condition can be appropriately grounded in the character of experience under either view. That said, I will now argue that any role observational concepts might play in making it possible for us to conceive of the environment could be secured under naïve realism only. Briefly, naïve realism is the default view of the nature of perceptual experience.⁴² Intentionalism must be motivated. But I will show that the only potentially successful argument for it would also establish wholesale eliminativism about observational properties. In that case, either our conception of what the environment is like would be massively erroneous, or our thoughts must achieve objective import wholly otherwise than on the basis of perceptual experience.

I will proceed somewhat schematically, but the argument does not hinge on specifics. To anticipate, two types of argument could potentially establish intentionalism as the best overall account of the nature of perceptual experience. The first argument proves ineffective. The second either is also ineffective, or ends up generalizing in a way that results in wholesale eliminativism about observational properties.

⁴² See Martin (2002), Hellie (2007), Fish (2009), Kennedy (2009), and Pautz (2010).

a.) The argument from matching delusory experience

The first argument revolves around the explanation of delusory perceptual experiences. The claim would be that naïve realists lack the resources to explain some aspects such delusory experiences would share in common with the respective veridical experiences, as they would also have to be committed to a negative, purely relational characterization of those cases.

The problem with this kind of argument is that the negative account of delusory experience turns out to be able to explain most of those aspects.⁴³ And to the extent that it cannot explain others, it is open to the naïve realist to deny that such aspects are genuinely instanced in the bad cases.

If one finds the latter, bullet-biting response unsatisfactory, there are available positive characterizations of delusory experiences that would be similar enough to the characterization of a matching good case to account for all the putative shared aspects. Such views were originally thought to be implausible due to screening-off worries,⁴⁴ but the more minimal the positive account of delusory experience provided, the greater the chance that it would be integrated into rather than get in the way of a naïve realist account of the veridical counterpart.⁴⁵

⁴³ See Pautz (2011).

⁴⁴ Cf. Martin (2004).

⁴⁵ In this vein, Mark Johnston has argued that the awareness of uninstantiated properties in bad cases would not screen off the awareness of instantiations of the properties in the matching good cases. Cf. Johnston (2004).

b). The argument from eliminativism

The argument for intentionalism from delusory perceptual experience proves ineffective. Another way to motivate intentionalism is by focusing directly on an aspect of perceptual experience in the good cases and show that one must appeal to merely apparent in the place of actual presence to account for that aspect. Apparent sensory qualities such as colors, tastes and smells have traditionally provided such an opportunity. For instance, assuming that a solid case could be made that the objects we perceive are not colored, the color-presenting aspects of experience would never be grounded in the awareness of the color of anything actual. One would have to explain the apparent presence of colors in our experience otherwise or take it as primitive. Supposing, further, that the alternative explanations (for instance, in terms of the awareness of colored sense-data or intentional objects, or of uninstantiated colors) turned out to be problematic, an intentionalist view of the color-presenting aspect of perceptual experience would be the only option left.

Let us suppose that this stage in the dialectic has been reached. Intentionalism would still not have been established wholesale. A mixed naïve realist/intentionalist account of the distinct aspects of the character of veridical experience (e.g. their color-presenting and shape-presenting aspects, respectively) would still be available and likelier.⁴⁶ It would need to be ruled out by proponents of intentionalism.

To this effect, the naïve realist could be presented with a Berkeley-style inseparability challenge with respect to the putative awareness of spatial qualities and their bearers. The relevant inseparability thesis has been spelled out by Mark Johnston:

⁴⁶ Such account has been proposed by Heather Logue (2012).

“If we do not see color, we do not see color difference, and if we do not see color difference, we see neither edges nor colored areas, we do not see the surfaces and if we do not see the surfaces, we do not see anything in the material world.” (Johnston 1996: 191).

In this passage, Johnston is using a naïve realist notion of seeing an item—as the presence of the respective item in experience. The claim then is that one cannot become visually aware of a shaped object without also being visually aware of its color.

If the claim were right, the partial naïve realist account of the good cases would turn out to be unavailable, and intentionalism would be adopted across the board. But to the extent that the above inseparability claim can be resisted—and it can,⁴⁷ the partial naïve realist account of successful experiences might well be secured. In that case, the argument for a fully intentionalist treatment of the good cases would be unsuccessful. To that effect, one would need to provide a further argument that spatial properties are also uninstantiated.

Thus wholesale intentionalism might well have to be motivated by way of wholesale eliminativism about observational properties. But if intentionalism could only be successfully defended on the basis of such wholesale eliminativism, our observational judgements would be massively erroneous across the board.⁴⁸ We might still somehow be latching on to the underlying environmental joints through our kind concepts,⁴⁹ but perceptual experience would on its own provide us with a thoroughly misleading and

⁴⁷ Fiona MacPherson (2015) has recently argued that the Inseparability claim is false by appeal to anomalous shape perception in the case of sensory substitution, cerebral achromatopsia, amodal completion and phantom contours.

⁴⁸ Going back to the discussion of Chalmers’ (2006) view in the last chapter, the putative standard veridicality of perceptual experiences with regard to the observational properties attributed by the experience has no experiential basis whatsoever. Since the reference of our observational concepts is fixed experientially, the concepts would pick out uninstantiated properties and, as a result, our observational judgements would be massively false.

⁴⁹ Even that capacity would be difficult to vindicate, as our understanding of natural kinds most likely contains causal notions, which have their basis in the behavior of manifest middle-sized individuals and their manifest qualities.

ultimately irrelevant conception of what the environment is like. This would be a counterintuitive and unwelcome consequence of the adoption of intentionalism.⁵⁰

Now suppose that the inseparability claim got established convincingly. In that case, the naïve realist proposal would be outrightly refuted. But whatever the presumed nature of the connection between naïve realist awareness of colors and shapes, an analogous connection would be expected on that basis between the sensory representation of colors and of shapes on an intentionalist account. And since colors would not be instantiated, it is unlikely that shapes would be.

First, the argument for color eliminativism generalizes easily. Arguments of this type have appealed to the merely conceptual or the nomological possibility of spectrum inversion due to distinct internal processing of the same stimulus. But similar cases have been formulated with regard to experiences of shape.⁵¹ Those cases could in turn be mobilized in an argument analogous to the one for color eliminativism.

To prevent the argument from generalizing, one would need to provide a reason why we should take the spatial content of experience, by contrast with its color content, to be normally accurate. To that effect, intentionalists have tended to appeal to the distinctive causal powers of shapes in the context of a causal account of representation. But the inseparability claim would prevent one from securing the accuracy of sensory representation of spatial properties in normal conditions in this way. The causal account would not be the case with the representation of colors, and assuming that experiential representation of shapes and colors were explanatorily linked, the account could not be

⁵⁰ At this stage perhaps something could be made of Chalmers' conjecture that such individuals and their features and behavior may serve as a Kantian regulative ideal.

⁵¹ See Thompson (2010).

selectively applied to the experiential representation of shapes. Thus no guarantee could be provided that normally things are shaped the ways they are presented as being in experience. The more plausible option at this point would be to go eliminativist wholesale—with the respective dire consequences for our experientially-based understanding of the environment.

To sum up, intentionalism must earn its keep. The argument from perceptual illusions and hallucinations does not succeed in this regard. The argument from eliminativism might succeed but is not subtle enough to preserve, even in part, the intuitive role that the entities presented in experience play in our understanding of the environment.⁵² Thus not only is naïve realism the default view of the ground of the character of perception, but there is a further holistic argument in its favour—based on the intuitive crucial role that perceptual phenomenology plays in providing us with our rudimentary conception of the environment.

⁵² A related discussion of the shortcomings of phenomenal intentionalism has been provided by Naomi Eilan. See Eilan (2015), section 7.2.

Chapter 4:

Revelation and Observational Concept Possession

In the first part of the dissertation, I argued that observational concepts are transparent recognitional concepts. Recognitional concepts of this sort are experientially-based. To come to possess the substantial knowledge of reference constitutive of having a given such concept, the subject must exploit experiential encounters with apparent instances of the property picked out by the concept. The knowledge of the referent of the concept, made available by experiences of instances of the property, would play an essential guiding role in subsequent acts of re-identification of instances of the property.

This construal of observational concepts is not sufficiently precise yet, as it relies on the ostensibly-defined notion of substantial knowledge of reference. For the account to be completed, the notion needs to be made precise—and specifically with regard to observational concepts.

I will complete the proposal in this penultimate chapter. Recall that the putative view of observational concepts was originally intended to reflect the intuitive possession conditions of observational concepts. Here I will again draw on those to settle the issue of the exact nature of the constitutive substantial knowledge of reference. Use will be made of the distinction highlighted in the last chapter between the two distinct epistemic roles played by experience with regard to observational properties.

Taking cue from singular perceptual demonstratives, it would be natural for the concept experientialist to take the role of experience in making observational concepts available to consist in providing knowledge of the respective property by acquaintance. In

that case, the sheer Diaphanousness of the underlying experiences to instances of the respective property would be sufficient experiential basis for the possession of the respective observational concept.

Such view has been developed in a series of papers by the current leading experientialist—John Campbell. It is fair to say that this is also the predominant view among experientialists.¹ However, there is a major difficulty with it. On this understanding of the constitutive knowledge of reference, the resulting view of observational concepts ends up flouting their intuitive possession conditions. *Prima facie* there seem to be cases in which instances of a given observational property would be present in experience and the experience would provide the subject with knowledge of the respective property by acquaintance, while simultaneously failing to constitute an adequate basis for the possession of the respective observational concept. The intuitive experientially-related possession conditions of the observational concept appear to be more stringent than the ones predicted as a consequence of Campbell's account, and appear to require the enjoyment of experiences of instances of the property in optimal viewing conditions with regard to the instances.

To address this problem, proponents of the above way of understanding the constitutive epistemic capacity would need to either 1) deny that the above cases provide genuine counterexamples to the proposal, or 2) explain away the intuitive possession conditions of our observational concepts. I will show that neither response would be successful, and propose an alternative understanding of the role played by experience in

¹ Very similar views of the role of experience in providing for grasp of observational concepts have been developed by Naomi Eilan (2011, 2013, and forthcoming) and Bill Brewer (in preparation). I will focus on Campbell's, which is the most fully articulated proposal.

observational concept possession, which brings in the formerly discussed Revelatory aspect of experience.

Recall that I argued in the last chapter that when a subject encounters an instance of an observational property in optimal viewing conditions, the experience constitutes sufficient basis for the subject to learn enough of the essential characteristics of the observational property to come to know what the property is. On my related alternative proposal, the revelatory aspect of those experiences would be directly relevant to the possession of observational concepts. Unlike experiences of instances of a given observational property in suboptimal conditions, experiences of the former sort would not just present the property to the subject—they would present it in the right way for one to be able to learn the essence of the property on the basis of the experience. This experientially-based capacity makes up the substantial knowledge of reference constitutive of having the corresponding observational concept—with the consequence that the mere presence of instances of the property would not suffice as an experiential basis for one's grasp of the concept.

I. Campbell's view of observational concepts

1. Knowledge of Reference

Campbell focused originally on our rudimentary perceptually-based grasp of shape concepts (1996, 2005a, 2005b), but has subsequently extended the view to color concepts (2011). The view can be generalized further, in which case we would have a unified account of the nature of observational concepts.

The account must be set in the context of what Campbell calls *the classical view* of knowledge of meaning. On it, understanding a term consists of knowledge of its reference. Such knowledge is deemed by Campbell not only to be irreducible to the ability to verify and find the implications of statements involving the term, but is supposed to normally guide exercises of that ability—in the sense of playing both a causal and a justificatory role in the normal exercise of the ability.

Campbell illustrates his demanding understanding of knowledge of reference using demonstrative concepts:

Suppose you and I are standing side by side on an observation platform high in the sky. I am gripping the railing tightly and staring at my hands. You make a series of remarks about a building visible in the distance. Since I am listening, I can formulate a number of descriptions: ‘the building you are looking at’, ‘the building with the gold-domed roof’, and so on. But I do not understand your use of the demonstrative, ‘that building’, until I finally stop focusing on my hands and look. G. E. Moore put the point succinctly when he said: ‘the prop. is not understood until the thing in question is *seen*’ (Campbell 2002b: 25).

In this passage, the author makes a substantial and controversial claim having to do with the epistemic capacities constitutive of having a grasp of demonstrative concepts. Everybody would grant that there is some psychological difference between the producer and consumer of the demonstrative token expression “that building,” but many would deem this point to be consistent with both subjects' having the same concept of the building. This is because, in their view,² having the concept does not require having knowledge of its reference in any further sense beyond that in which the consumer of “that building” would know that it refers to the referent of the inherited demonstrative token.

² For the classical argument that conceptual grasp does not require full or even largely accurate understanding of the referent of the concept see Burge (1979).

By contrast, Campbell's view is that the consumer of the demonstrative token does not know what it refers to—and for that reason could not be thinking of the building in the same way as the producer of the token. To grasp the concept expressed by “that building,” the consumer must not just rely on the producer, but must herself be attending to the building, for only then would she know what the producer intends to pick out by the token demonstrative expression. The example shows Campbell to be committed to the general view that minimal understanding of a proposition requires substantial knowledge of its truth conditions, based on substantial knowledge of the reference of its constituents.

The constitutive knowledge of reference involved in having a concept would normally be perspectival. To illustrate this feature (again by appeal to singular perceptual demonstratives), knowing the reference of a given demonstrative token would justify trading on the identity of its referent only in some circumstances in which the referent is perceived by the subject. One may be able to track an object from two perspectives at the same time or at two different occasions and would thus be justified in trading on the identity of the object within those perspectives or periods, without being justified in trading on its identity across those perspectives or periods. The point extends to standing concepts like the individual concepts HESPERUS and PHOSPHORUS. We will explore its potential implications for observational concepts subsequently.

2. Campbell's experientialism

In the context of the *classical view* espoused by Campbell, having an observational concept would involve having substantial knowledge of the property it picks out. The constitutive knowledge would normally guide the deployment of such concepts in

perceptually-based acts of categorization. As with perceptually-based singular demonstratives, Campbell takes awareness of, and, specifically, conscious attention to qualities to underwrite knowledge of the reference of observational concepts. The most clear and concise elaboration of this idea—applied to spatial concepts, appears in a recent paper:

I want to propose that we can think of knowledge of which property a shape concept stands for as being provided by a particular kind of conscious attention to the shapes of things...if there is at work a single capacity for conscious attention to a particular aspect of the world, then it must be apparent to the subject that it is a single aspect of the world that is in question. (Campbell 2005b: 137).

The experiential presence of a shape property would provide one with knowledge of the reference of the corresponding observational concept, which would guide re-identification of instances of the property.

Campbell takes this view of what is required to possess an observational concept to be the one that would best make sense of the capacity to trade on the identity of represented shape in the case of vision-and touch-based shape concepts (Campbell 1996a, 2005a, 2005b). The experiential presence of the same shape property in both vision and in touch would explain why it would be rational to treat the shape of a seen object as identical with the shape of another, merely felt object, and would have as consequence the sameness of the shape concepts employed on each occasion:

[O]n the face of it, we would expect that an account of the basis of conceptual content should yield the result that sameness of content will be transparent to the subject. This is indeed implicit in the above argument, when it is assumed that sameness of the shape concepts applied on the basis of sight and of touch should mean that the subject realizes that it is the same shapes being perceived by sight as by touch. And we would ordinarily assume that sameness of phenomenal content should

be apparent to the subject. *If two aspects of your experience have the same phenomenal content, it should seem to you that they do.* (2005a: 197, my emphasis).

The principle articulated in the last sentence explains why experience should be assigned an indispensable explanatory role in observational concept possession. By contrast with other kinds of non-conceptual content, experiential content, at least according to Campbell, is transparent. To put it slightly less committedly to the nature of perceptual experience, if in having experiences on two occasions the subject were presented on each with an apparent instance of the same property, the subject should be able to determine that the apparent instances are of the same property.³ Endorsement of this principle would explain Campbell's early concern with making room for a view on which apparent instances of some simple shape properties would be directly presented in both tactile and visual experiences.

To recap, according to Campbell the role of perceptual experience in making available an observational concept consists in presenting or acquainting the subject with apparent instances of the respective property. This putative role of experience suggests a way of cashing out the substantial knowledge of the reference taken by Campbell to be involved in the possession of observational concepts. The knowledge of the property would amount to knowledge by acquaintance: primitive *sui generis* knowledge of things rather than of truths.⁴ This proposal may appear quite plausible, since it is clear that we have such distinctive knowledge for some entities (among those being physical particulars but also observational properties) and that the latter would be unavailable to us unless the entities were given to us in experience.

³ To what extent this slogan needs to be qualified will be made clear in the following section.

⁴ See Russell (1912): Ch. V.

We are well-positioned to put the parts of Campbell's experientialism about observational concepts together:

I. Having an observational concept involves having substantial knowledge of the property it picks out.

II. Such knowledge is knowledge by acquaintance.

III. Experience plays an essential role in providing a basis for knowledge of observational properties by acquaintance.

The first aspect of the view is a consequence of Campbell's general commitment to *the classical view* of knowledge of meaning. The third aspect is highly plausible. The second amounts to Campbell's construal of the substantial knowledge of reference involved in having an observational concept. It is a non-trivial and non-analytic constitution or realization claim, and, as such, requires support. As I understand Campbell, he takes the claim to be supported by an argument to the best explanation based on the intuitive essential role played by experience in the grasp of observational concepts and the plausibility of the third claim.

It is important to emphasize at this point that arguments to the best explanation are fairly fragile. They can be resisted by formulating alternative explanations that do equally well or better. Taking into account that there would be alternative construals of the substantial knowledge of reference involved in having a concept,⁵ provided that one can come up with an equally good or better understanding of the role of experience in the grasp of observational concepts in terms of one of those alternatives Campbell's proposal would

⁵ For one such view, see Evans (1982): Ch. 3.

turn out to be minimally non-obligatory. Briefly, I will show that the alternative view of observational concepts which I favor does better than Campbell's in this regard.

II. The problem with Campbell-style experientialism

I have addressed some of the objections to Campbell's experientialism about observational concepts in Chapter II—in the course of highlighting the distinctiveness of observational concepts. Briefly, such concepts must be treated as distinct in kind from our recognitional concepts of so called high-level properties such as Being Rotten or Being an Elm. Relatedly, the crossmodal deployment of observational concepts and of recognitional concepts of other types would have to be subject to distinct norms of rationality.

Campbell's major critics have focused almost exclusively on whether Campbell has characterized our basic recognitional capacities correctly.⁶ But their objections rest on an insufficient appreciation of the possibility that fundamental distinctions may exist between the various types of recognitional concepts we have in our repertoire. In light of the theoretical distinction I have drawn between transparent, partly opaque and fully opaque recognitional concepts, the apparent distinction between observational concepts and other simple recognitional concepts in our repertoire gives us reason to construe both types differently.

The major existing objections to Campbell's experientialism have thus missed the point. But there is a deeper and in my view decisive objection, based on the intuitive possession conditions of observational concepts. Campbell's experientialism stands and

⁶ See Loar (1996): 321-4, and Levin (2008): 9-18.

falls with the successful vindication of a distinctive role for the experiences which intuitively underlie the grasp of a given observational concept. But I will now argue that it cannot secure them such special role, as a much broader range of experiences would be apt to play the same putative explanatory role.

1. Property-awareness and the individuation of observational concepts

Campbell's proposal faces the following dilemma. Either the conscious attention to an instance of an observational property presented in experience suffices for acquaintance with the property—and therefore makes up sufficient experiential contribution for one's grasp of the corresponding observational concept in our possession, or it does not. If it is deemed sufficient, the result is implausible predictions concerning the conditions under which one would come to possess the observational concept. *Prima facie*, there are cases in which a subject would be presented with an instance of an observational property, consciously attend to it, and on that basis acquire a recognitional concept of the property, and yet that concept would be distinct in kind from the standard observational concept of the property.

If, alternately, conscious attention to an instance of a property presented in experience is only sometimes deemed sufficient for acquaintance with the property, the notion of knowledge by acquaintance ends up losing explanatory power needed to help make sense of the intuitive involvement of experience in the grasp of observational concepts.

On the former horn, Campbell's explanation of the involvement of experience in making our observational concepts available would end up with the wrong predictions, and on the latter it would end up being viciously circular.

The problem has been sensed by one of Campbell's critics: Brian Loar—but Loar has failed to separate it from other issues he has with Campbell's view. Specifically, he has conflated it with the issue of Campbell's grounds for a distinctive treatment of observational concepts.

On the original version of Campbell's experientialism, the sheer presence of an instance of an observational property, e.g. a determinate shape, in a pair of experience was deemed sufficient to explain the rationality of trading on the identity of the property. Loar has objected that the proposal is inadequate, since there are clear cases in which one and the same quality would be perceived on two occasions without it being rational for the subject to trade on the identity of the property on that basis.

Loar's first example uses natural kinds, so it can be safely dismissed by appeal to the already substantiated theoretical distinction between observational concepts and recognitional concepts for kinds. Campbell could insist that only instances of observational properties are properly presented in perceptual experience, and therefore only they are apt candidates for being grasped under transparent recognitional concepts. But Loar also has suggested that Campbell would probably encounter the same problem with observational properties. For instance, the same complex spatial gestalt, e.g. "things the shape, size and texture of siamese cats" may be presented to a subject both visually and tactually without it being transparent to the subject that through touch she is aware of the same spatial

property that she is visually aware of.⁷ Thus, the presence of an instance of the same property on two occasions would not justify the subject in trading on the identity of the property across those occasions. In the context of the Fregean view of concepts, this would entail that the concepts tokened on each occasion would be distinct. Consequently, consciously attending to an instance of an observational property in experience would not suffice to make available the standard observational concept of the property, which *prima facie* conflicts with the implication Campbell's proposal has concerning the possession conditions of our observational concepts.

2. Campbell's two responses

Campbell has provided two distinct responses to this challenge to his view.

Campbell's original response was to restrict the proposed view of observational spatial concepts to concepts of simple spatial properties (e.g. simple shapes) that would be fully experienced on the occasions grounding conceptual transfer. In his response to Loar, he proposes that when an instance of the same simple property, e.g. a given shape is experienced on any two occasions in such cases, the identity of the shape would be recognizable by the subject:

Is it really coherent to say that shape perception is amodal but to acknowledge that it can be informative to be told that it is the very same shape that one is seeing and touching? The quickest way to see that it is coherent is to remark that there can be informative identities involving shape properties within a single sense modality. In vision, perhaps the simplest and most familiar example is the square and the diamond (Palmer 1983). It can be informative to be told that the square is the diamond. Or again, consider a cube lying flat on a table, and a cube balanced on one of its corners.

⁷ Loar (1996): 323.

It can again be informative to be told that it is one and the same shape that one is seeing both times. In these cases, of course, it is true that the subject could typically spot the identity a priori, but it is also the case that the subject has to do some cognitive work to spot the a priori identity. I am here setting aside cases such as that in which one has an unfamiliar view of a familiar object, where the informativeness of the identity is owed to the fact that one's different sightings of an object both give only incomplete information about its shape, and cases in which the doubt about identity of shape arose only because one did not trust one's senses (Campbell 1996b: 359-60).

The response presses on the possibility that deriving an *a priori* justified proposition may require significant cognitive work. In the case of experientially-based inferences about the identity of shape properties, Campbell suggests that a dedicated experientially-based capacity for mental rotation of figures would need to be exercised to make the sameness of shape experienced in distinct circumstances or modalities apparent to the subject.

Thus Campbell's completed early view is that with concepts of simple shapes, the sheer presence of a determinate shape in experience would in ideal circumstances justify subjects in trading on the identity of the shape across any occasion in which an instance of the shape would be presented in experience. Consequently, any occasion on which a relatively simple shape would be presented in experience could in principle serve as the basis for one's grasp of the standard observational concept of the shape.

More recently, Campbell has offered a different response to the same problem. It makes use of the notion of *viewpoint* or *perspective* that was originally introduced by Campbell in the context of precisifying his *naïve realism*.⁸ According to Campbell, the character of successful perceptual experiences consists in the presence of the perceived

⁸ See Campbell (2002b), (2011), and Campbell & Cassam (2014): Ch. 2.

object and a number of its properties. But consistently with this claim, Campbell wants to allow that the same quality can be presented in experience on two occasions, and yet the corresponding aspect of the character of the experience would be different. To that effect, he takes the character of successful perceptual experience to be constituted by a triadic rather than a dyadic relation, taking place between the subject, the items perceived, and the viewpoint the subject occupies with respect to the perceived items. Viewpoints are in turn individuated both in terms of the perceiver's location with respect to the items and in terms of which information-processing mechanisms of one's perceptual system are involved in the perception of those items. Abstracting from the particular details, it is a consequence of the inclusion of viewpoints as a third-relatum constitutive of the character of experience that in many ordinary cases, subjects would be presented with the same instance in experience but due to the involvement of distinct viewpoints, the experiences would have distinct character.

This implication of Campbell's relational view of experience for the fine-grained individuation of observational shape concepts has recently been explicitly acknowledged by Campbell:

To experience the shape of a solid object you must have some capacity to recognize manifest sameness of shape across movements by you or by the object. Otherwise it is hard to see how you could be said to be encountering the property of three-dimensional shape at all. *But this capacity has its limits.* Particularly, if you consider a large object with a complex shape, it seems entirely possible that you could encounter the shape in one way from one angle, and then, coming upon the object from a quite different direction, be unable to recognize the sameness of shape. *You have some ability to keep track of sameness of shape across variation in perceptual presentation, but it has its limits.* And this variation in your experience of the property matters, in that it will affect the inferential behaviour of the shape concepts you use to report the situation observed on the two

encounters. It will affect, for example, whether you can immediately draw conclusions about whether the object has changed shape (2011: 654-5, my emphasis).

Unlike in the earlier passage, the appeal to complex shapes here is meant to provide an illustration of the overall perspectival character of awareness of shapes, rather than to contrast the character of awareness of simple with that of complex shapes. On Campbell's later view then, the awareness of instances of any spatial property would be perspectival. Also, as stated in the recent passage, one's capacity to recognize the sameness of the shape one is presented with on a pair of occasions would be a function of the perspectives or viewpoints from which one experiences the shape. Although not strictly a logical consequence, it would be natural for Campbell to allow that even for simple shapes, the sameness of property would not be *a priori* recognizable across any pair of such perspectives on an instance of the property. Consequently, the presence of instances of the same shape in experience would underwrite the capacity to trade on the identity of the shape only from within a limited range of viewpoints.

The early and late response generalize easily to observational concepts in general, so from now on I will talk about observational concepts, rather than about spatial concepts. Each response has different implications for the possession conditions of observational concepts.

3. Evaluating the responses

On Campbell's early response, any occasion on which an instance of a sufficiently simple observational property would be presented in experience would constitute sufficient basis for grasp of the standard observational concept of the property.

On the more recent response, observational concepts would be individuated more finely, with the implication that having the observational concepts we do would require being aware of instances of the respective property falling within a given range of viewpoints. However, there would be other ranges of viewpoints from within which one could also acquire concepts of the same property. Those concepts, albeit distinct, would, on Campbell's view, be on a par with our regular observational concept. In either case, by virtue of experiencing an instance of the property from viewpoints that fall within the respective range, the identity of the property would be recognizable by the subject. The corresponding recognitional capacities would be distinct but on a par.

However, neither Campbell's early nor Campbell's later view of the individuation of observational concepts fully coheres with the intuitive possession conditions of such concepts.

The earlier response has as consequence the possibility that at least some of our observational concepts can be acquired on the basis of any sort of experience which would present an instance of the respective property. But it is implausible that *any* observational concept in our repertoire could become available on the basis of just any occasion on which one would encounter an instance of the respective property in experience. Even concepts of the simplest observational properties intuitively become available in select conditions, specifically in optimal conditions for viewing instances of the respective property.

Suppose that one aims to make someone acquire the observational concept ROUND by exhibiting a series of round objects. She would make sure that the subject views the

objects straight on rather than at an angle.⁹ Or suppose that one wants to help someone acquire the concept of a specific shade of Red, e.g. Vermillion. He would make sure that the lighting is of the sort that allows a good view of that shade: neutral and neither brighter nor darker than is needed. But if Campbell's initial response were right, and assuming for the time being that an instance of exactly the same property would be present in experience in the suboptimal viewing conditions, viewing the shape at an angle or the shade in poor lighting should be sufficient for acquiring the standard concept of it. This consequence runs counter to the intuitive possession conditions of the concept.

On Campbell's more recent proposal, fine-tuning the viewing conditions would indeed turn out to be necessary for possessing any of our standard observational concepts. The subject would have to occupy the right viewpoint range to learn the standard observational concept of the property. But the problem with this response is that the concepts made available in alternative viewpoint ranges (assuming, again, that the same property could be encountered from other viewpoints) would have the same status as our standard observational concepts.

⁹ An even more telling example is the observational concept SQUARE. To acquire it, one must focus on the right axes of symmetry of the apprehended figure. Otherwise the figure would have a distinct diamond-like appearance. Moreover, pace what Campbell claims about squares and diamonds, no act of mental rotation would make the identity of shape recognizable. If anything, one would judge the shapes encountered in the distinct conditions to be distinct. Campbell has referenced Palmer (1983) to support the claim that the shape would be ideally recognizable, but here is Palmer's summary of the psychological evidence on this issue: "when a square is rotated 45 degrees, it is generally perceived as an upright diamond rather than as a tilted square. Now, if shape constancy were perfect, as presumably it would be were only invariant features detected, these two figures would be seen as rotational variants of the same shape. Their shapes are often not seen as the same, however, at least not in the same sense that, say, upright and 45-degree 'A's are seen as the same shape in different orientations" (Palmer 1983, 292).

The reason I'm avoiding pitching the discussion in terms of the respective pair of shape concepts based on experience of square shapes in distinct viewing conditions is that to many it would be natural to describe this case as one in which on the odd occasion the subject would, strictly speaking, not be presented with a square shape in experience—but with an irregular diamond shape. My view is that what should instead be said is that one is in fact presented with the square shape—but on the second occasion the square shape has an indistinct—diamondish look. I do not have the space to establish the superiority of my view here.

This again strikes me as an unacceptable consequence. Let me explain. Recall that originally we picked up on the distinctiveness of observational concepts from other recognitional concepts in our repertoire by the constitutive substantial knowledge of their referents. In the original example I gave, based on Jackson's Mary, encountering a red object helps the subject acquire a new, distinctive concept of Red, because, based on the encounter, she learns what Red is like, and such knowledge is intuitively a constitutive part of having an observational grasp of Redness. The kind of knowledge of reference involved in having the observational concept RED is intuitively distinct from the knowledge one could be ascribed merely due to being able to reliably categorize red objects or the knowledge that one has of a property in virtue of merely associating a priori a characteristic appearance with the property, as might be the case with our recognitional grasp of rottenness. But now suppose that we ask, regarding Marieta, who encounters some vermilion objects in poor lighting; or regarding Jimmy, who encounters a number of round objects sideways, could they on that basis alone come to know what Vermillion and Roundness, respectively, are like? In my view, the answer is negative. Marieta and Jimmy would have needed to encounter instances of the respective property from viewpoints that are optimal to learn what the property is like—in the sense which goes beyond that in which one could know through experience what rottenness or saltiness are like.

To recap, on the second way of refining Campbell's experientialism about observational concepts, one would not be able to sustain the intuition that an observational concept obtained on the basis of experiences of instances of the property in optimal viewing conditions would be distinct in kind from one obtained on the basis of experiences of instances of the property in suboptimal conditions. This result would in turn call in doubt

the distinction between our observational concepts and other recognitional concepts in our repertoire.

4. The argument against Campbell-style experientialism

I will now provide an explicit formulation of the argument I have put forward against Campbell's and similar experientialist views of observational concepts:

1. The identity of an observational property is not recognizable across any pair of occasions on which instances of it would be experienced in distinct ways. [**Perspectival Opacity**]

Corollary. Instances of any observational property can be experienced in multiple ways. [**Perspectivalness**]

2. One can acquire a concept of an observational property based on experiencing instances of the property in an idiosyncratic way. [**Non-standard acquisition**]

C1. The concepts of the same observational property acquired standardly and non-standardly, respectively, would be distinct. [From 1 and 2, and a **Fregean view of concept individuation**]

3. One could acquire knowledge of an observational property by acquaintance based on experiencing instances of it in an idiosyncratic way. [**Non-standard acquaintance**]

C2. Non-standardly and standardly acquired concepts of the same property would be concepts of the same fundamental explanatory category. [From C1, 3 and **Campbell's Experientialism**]

But

4. Non-standardly and standardly acquired concepts of the same property are not concepts of the same fundamental explanatory category. [**Categorical distinctness**]

Therefore,

C3 Campbell's Experientialism is false.

III. Salvaging Campbell-style experientialism

In my view, each of premises 1-3 can be called into question, but can also be successfully defended. I take premise 4 to be *prima facie* justified, but will examine a possible dismissal of it in the context of one way of responding to my argument. There are two overall ways in which a defender of Campbell's experientialism could resist the argument. The first is by allowing that our standard observational concepts are categorically distinct and cannot be acquired otherwise than in optimal viewing condition, but showing that this is consistent with Campbell's experientialism. This could be accomplished by either holding that instances of the specific property picked out by an observational concept could not be presented in viewing conditions other than the optimal (contra *Perspectivalness*), or that a concept picking out the specific property could not be acquired in suboptimal viewing conditions (contra *Non-Standard Acquisition*)—or, finally, that the non-standard viewing conditions would not provide an adequate experiential basis for knowledge of the respective property by acquaintance (contra *Non-Standard Acquaintance*).

The second way of defending Campbell's experientialism against my argument goes by denying the categorical distinctness of the standardly and non-standardly acquired concepts of the same property. To that end, one would need to provide some reason for debunking the intuition for *Categorical Distinctness*. In my view, the best way of debunking it is by providing countervailing evidence for conceptual identity. This could either be done by showing that the identity of at least the simplest observational properties is *a priori* recognizable across any pair of ways in which the property could be experienced

(contra *Perspectival Opacity*), or else by rejecting or fine-tuning the Fregean view of individuation of concepts.

I will address the premises and transitions in my argument which could be targeted within the context of each of those two styles of response.

1. Rejecting *Perspectivalness*

There may exist qualities which could only be encountered in from a single viewpoint. Perhaps bodily sensations are like that. The question is whether any observational properties are of that sort. On the view that would have this implication, properly speaking an instance of a given determinate observational property would be presented in one's experience only when one encounters it in optimal viewing circumstances. If the conditions were not optimal, contrary to the vulgar opinion, the subject would be presented with an apparent instance of a distinct property: a distinct determinate property, or a determinable of the original property. Consequently, one would not be able to acquire a concept of the specific determinate property in suboptimal viewing conditions, since one would be presented with a distinct property in those conditions. This would explain why occupying optimal viewing conditions vis-a-vis instances of the property should be necessary for the possession of the corresponding observational concept.

Rejecting *Perspectivalness*, however, is a big price to pay for Campbell. It would force him to make substantial revisions to his overall view, as it is incompatible with his naïve realist view of experience. Campbell's naïve realism involves an explicit commitment to *Perspectivalness*. The response is also unavailable to proponents of naïve realism, more

generally. Naïve realists aim to account for our successful perceptual experiences in terms of the awareness of environmental concreta.¹⁰ But environmental qualities are determinates. It is true that the perceived objects would also be rightly characterized in less specific ways, but I take it that such statements would be made true by the respective determinate instances. With that reasonable assumption at play, if it turned out that those specific qualities would be present in experience only in highly select viewing conditions, the naïve realist account of the character of successful perceptual experiences would, against the aspirations of proponents of the view, apply to considerable fewer cases than was originally thought. In that case, naïve realism would lose plausibility.

Rejecting *Perspectivalness* regarding the experience of instances of at least some observational properties would seem to be easier to square with intentionalism, on which instances of which properties would be presented to the subject in having a perceptual experience is a matter of the intentional content of the experience, rather than of the properties instantiated by the items perceived. Campbell is uncongenial to intentionalism, but I do not see any obvious problem in combining Campbell's experientialism with intentionalism.¹¹ Still, denying *Perspectivalness* is generally implausible, not merely in the context of a naïve realist view of the character of perceptual experience. The perspectival character of our experience of even the simplest observational properties is evidenced by the phenomenon of *perceptual constancy*.

Perceptual constancy is understood by psychologists to be the capacity of the perceptual system to extract and retain information about invariances in the environment—

¹⁰ Some, e.g. Brewer (2006), go so far as treat illusory experiences in the same way as veridical perceptual experiences.

¹¹ In fact, in his recent exchange with Campbell, Quassim Cassam has recently argued that intentionalism would offer a better view of experience for concept experientialists. See Campbell & Cassam (2014): Ch. 8.

despite the considerable variation in the character of sensory input. The dominant view is that the system manages to sustain stability of response on its own, without top-down influence from beliefs, despite vast differences in the character of the proximal stimulation the respective feature in the world is causally responsible for. I will focus here on experientially reflected constancies, for example, confining myself to the visual case, the customary ways in which the colors and shapes of objects appear constant across a range of circumstances, such as variations in distance, orientation and illumination of the stimulus.¹²

I will give two examples to illustrate cases of this sort. Consider a uniformly-colored sphere viewed straight on whilst being illuminated from the right. There is a sense in which the sphere is presented as uniform in color, and that the way it appears visually supports the uniformity. This is a case of color constancy. Here is a case of shape constancy. A round coin viewed straight on and then when slightly tilted appears uniform in shape.

Describing the common element in the experiences over which constancy gets sustained, such as the comonality in how the part of the facing surface of the sphere appears when partly and when fully illuminated, or in how the coin appears viewed full on and tilted, has remained a persistent challenge. On the one hand, there is the natural tendency to describe the character of such experiences as relevantly the same or at least as sufficiently similar. The straightforward way to specify this comonality in character would be in terms of the presence of the same observational property. On the other hand, the character of such experiences also exhibits clear variation. Adopting a more fine-grained

¹² The extension to other modalities is a substantial project beyond the scope of the dissertation.

attitude reveals subtle differences in character among the experiences, which appears to contradict the thesis that the relevant aspect of one's experiences remains identical and consists in the presence of the same property. The uniformly colored sphere does not appear exactly the same way in the illuminated and the shaded areas, or illuminated at noon and before sunset. Similarly, the coin looked at straight on and at an angle does not give the same appearance.

A crude way to accommodate the seemingly conflicting data is to tie only one aspect to the character of the experiences, while taking the other to be a matter of belief or inference. The traditional view, going back to Berkeley (1709) and Helmholtz (1924), has been that in such cases the appearance of constancy is a matter of inference, while the appearance of change is a matter of slight variations in the character of experience.

On one version of the view, a distinct type of properties would be present in experience on those occasions from the one represented as constant in the perceptual belief. On another, the same type of properties would be presented in experience and attributed by the perceptual belief. The manifest property would vary subtly across the range of circumstances, but by normally unnoticeable magnitudes. The constancy would then be akin to a cognitive illusion, resulting from the distinct grain of perception and cognition.¹³ On the distinct property view, the slight variations would still be causally sufficient for the representation of one and the same observational property in the content of the perceptual belief.

The overall problem with this family of views is that they are self-undermining. Properly construing the aspects of character that undergo variation requires appealing to

¹³ This view appears in Russell (1912): 8-10.

the presence of the observational property which was originally meant to be carved off from experience.

First, the change in one's experience is a change in the way the particular object—the coin or the sphere appears, rather than merely in an aspect of one's phenomenal field. Second, the changing aspect appears to be intimately connected to the relevant intrinsic property that was supposed to be absent from the phenomenology. Thus in order to characterize the experiential change adequately one has to mention the presence of an instance of the observational property.

David Hilbert illustrates the need for bringing in observational properties in one's account of the character of the experiences by focusing on changes in the visual appearance of objects induced by a difference in illumination:

The change in appearance of the printed page when carried outdoors strikes us as a change in something related to the stable whiteness and blackness, perhaps an intensifying. Analyzing the change of appearance in terms of the difference between a property of a sensation and an object property or a color appearance an a counterfactual concerning color appearance does not get this aspect of the phenomenology correct (Hilbert: 2005, 147).

I take Hilbert's thesis to be that the experiential change is a change in the way the color of the letters appears to the subject. Intensifying is not meant to imply that the subject is presented with distinct shades on each occasion—say dark grey and black, but rather that the subject is presented with the same shade—black but in distinct ways more and less vibrant. To sum up, accurately characterizing the relevant change in the character of experiences in perceptual constancy reveals a complexity in the character of such experiences—both variation and stability.

The last, subtle detail is that the changing aspect, despite external, appears insubstantial. The changes would be poorly described as changes in the object. Again, the argument for this can be found in Hilbert:

Helmholtz itself uses the word “color” to characterize both premise and conclusion which suggests that just a single property is involved. Here a different problem would arise in that objects would appear to have multiple colors at any given point in time, some of which change with the illumination and others which generally don't. This also seems unfair to the phenomenology (Ibid., 148-9).

The proposal that the object appears to have two colors can be developed in two ways, each with implausible consequences. On the first horn, objects would appear to have contradictory properties, in the way the lines in the Muller-Lyer illusion: in one sense unequal, while in another, cognitive sense, still looking equal. But the cases intuitively are different. Perceptual constancy should not be treated as a perceptual illusion. On the second horn, one would open up the possibility that objects could truly appear as having multiple colors, provided that one allowed that objects can be multiply colored. But this provision is equally implausible.

There have been recent, seemingly more plausible views of trying to account for perceptual constancy in similar manner: this time in terms of attributing two distinct types of external properties to the object (see Noë 2005, Schellenberg 2008). But such views also come out phenomenologically implausible for the reason Hilbert uncovered. For the basic problem Hilbert is getting at is not that objects do not normally appear in experience as having conflicting colors, but that what is presented along with the color of an object, e.g. a highlight, is manifestly distinct sort of thing from the color. The highlight does not appear to be a property of the experienced object at all. If it were a property, which could be

disputed, it would have to be a type of light, or a type of illumination. There is some evidence that the highlight, unlike the color it would occlude, would not be attributed to the object. As Mohan Matthen has proposed, the action-guiding role of such experiences is evidence for which properties get attributed to which objects in the scene:

To what does the visual system attribute the pinkness that it detects in the vicinity of a white wall awash with the slightly pink light of the late afternoon? I am suggesting that one way into answering this question is to ask: what stimuli are implicated in the actions of that the sensed pinkness triggers...To me it seems unlikely that the sensed pinkness influences our propensities concerning the wall...Clearly it does not influence the formation or application of expectations concerning this material object—this is what the constancy experiments on animals demonstrate...On the other hand the sensed pinkness does make other tasks possible. It helps us if we are asked to adjust the illumination in such a way as to make the wall look as if it is being viewed at noon-time. It helps painters depict how the wall is illuminated. These tasks are directed toward the wall-as-is-illuminated, or perhaps the light that is reflected off it (Matthen 2010: 248).

Going one step beyond Hilbert and Matthen, Sean Kelly has argued that the experiential change notable throughout color constancy is not a change in any property attributed to the wall, but in the way in which the color is presented. The changing aspect is again essentially externally directed and individuated by the property:

Imagine a situation in which a reasonably light shadow in the shape of a solid square is cast upon a white wall. Now, it is obvious that the shadowy part of the wall looks different from the lighted part; if it did not, the square would not be visually identifiable. But it seems odd to say that this difference is a difference of color. It does not after all look like a different colour paint was used for the square part of the wall than for the rest. Is there a sharp lack of continuity between the square part of the wall and the rest, like there would be if the two had actually been different colors? No. Isn't it rather that the same wall, covered with the same paint, and therefore having the same color, looks in one place shadowy, and in another place lit? The best way to describe what we see seems to be to say that the shadowy part is not seen as a different color; it is seen as the same color but

with a different look, a different, as we might say, qualitative appearance. And this difference in qualitative appearance is the contribution of the lighting context (Kelly 2007: 30).

Whether we go with Kelly and take the change to consist in a distinct way the color appears on each occasion, determined by the lighting context, or, with Hilbert and Matthen, we take it to be a direct representation of the lighting context, the variation in the character of experience would not be rightly described in terms of change in the properties the object looks to have on each occasion.

The same considerations carry over to shape constancy. The change in one's experience when one perceives the coin facing it and at an angle is 1) specifically a change in the way the coin appears 2) is a change in the way the coin appears despite its shape being presented by the experience as uniform, 3) is not a change in any property *the coin* appears to instantiate. Again, the change should instead be explained either in terms of the way in which the roundness of the coin appears, or in terms of the representation of some further aspect of the perceptual context, e.g. visual angle, egocentric location, etc.¹⁴

What is common to this family of plausible explanations of perceptual constancy then is that on them the constancy would be a matter of an instance of one and the same observational property being present in experience on each occasion, rather than of the persistence of perceptual belief or some more rudimentary, non-experiential seeming. The uniformly colored red sphere illuminated from one side and shaded on the other would look the same shade of red throughout, and the coin would look round both when viewed head on and from an angle.

¹⁴ One reason to go with Kelly's view is that there is no linear correlation between the relevant aspect of phenomenology and the causally relevant aspects of the perceptual context. See Millar (2010), also Masrouf (forthcoming).

I find this overall type of explanation of perceptual constancy to be on the right track. On the face of it, it also favors *Perspectivalness*. However, one could dispute the connection by accusing me of interpreting the explanation overly literally. On the alleged alternative interpretation, what would strictly speaking be present in each circumstance would be instances of distinct but related properties. The natural way to cash out the relation would be in terms of the determinable-determinate distinction. Two properties stand as determinable to determinate if the first subsumes the second, along with others. For instance, Being Red is a determinate of Being Colored. In the color constancy example, then, what would be presented (or represented) in normal illumination would be an instance of Bright Red, while an instance corresponding determinable property, say Red, would be presented in dim lighting. Similarly, in the case of the round coin viewed from an angle, rather than roundness one would be experiencing ovalness—a determinable subsuming roundness but also ellipticality.

Which one is the better characterization of the uniform aspect of one's experience: the one according to which the uniformity is due to an instance of the same determinate property being manifest throughout—or the one on which distinct but related properties would be presented as instantiated in each case? I argue that we have reason to keep the first view.

If the relevant parameters of the perceptual context got varied slightly, e.g. illumination in the case of color, it would be apparent to the subject that she was experiencing exactly the same determinate property throughout the variation. The perceived object would recognizably appear to be the same shade as it did under the optimal illumination for viewing its color.

The above seems to me to be a purely perceptual phenomenon, not a matter of inference. The endurance of the color of the object would be manifest to the subject merely by virtue of having the experience.

But on the alternative proposal the phenomenon could not be treated as purely perceptual. For according to it, when the light gets slightly dimmed, the object would appear to instantiate a slightly less determinate color property. From this, it would follow that the perception, at least its phenomenally conscious presentational aspect, would leave it an open possibility that the object has changed with regard to determinate color (e.g., has become an unnoticeably darker shade of red). But if the phenomenal aspect of perception leaves that possibility open, the sense that the determinate property endures would either be subjectively no different from a hunch or would have to be based on some implicit understanding of the effects that illumination has on the colors of objects.

The case could also be made on the basis of variation in contextual parameters in the other direction—from worse to better illumination. If one gradually improves the illumination conditions on an object with regard to its color, the persistence of the determinate shade seems to me to be manifest experientially. That is, it would become evident that the determinate shade had been present even in suboptimal conditions. What changes with the variation is the ability to precisely identify it and discriminate it from nearby shades, but this ability must neither be constitutive of nor required for the presence of the shade in experience, as, intuitively, I was able to pay attention to it prior to being able to identify or discriminate it perfectly.

The case of shape constancy is analogous. If one changed one's position from a straight-on to a sideways view of the coin, or if the coin got rotated, it would still appear

uniform in determinate shape. The experience would not leave it open that the coin might have got slightly squished during the change in viewing position. Similarly, if one looked at a tilted coin and gradually changed one's position, or the coin got rotated until it afforded the subject a full-on view, it would not appear to be stretching upward while getting squished sideways.

To sum up, I have argued, based on the epistemic role the relevant experiences play in warranting one's sense that the object remains unchanged in the respective dimension across experiences in which the contextual parameters get varied slightly, that the character of perceptual experiences exhibiting constancy is a matter of experiencing an instance of the same determinate property in distinct ways, rather than experiencing instances of distinct but related properties.

The above result is independent of whatever view of the character of perceptual experience one holds. Moreover, as the examples used illustrate, *Perspectivalness* is the case even with the simplest observational properties such as colors and two-dimensional shapes.

2. Rejecting *Non-standard Acquisition*

Consistent with accepting *Perspectivalness* and thus allowing that instances of the same determinate property picked out by a given observational concept could be experienced in distinct, more or less informative ways, one could hold that only in optimal viewing conditions could one come to possess a concept of the respective property. Otherwise, it might be argued, one would acquire a concept of a distinct property or a defective concept, picking out no property at all.

In order to evaluate this proposal, it is useful to envision some hypothetical cases.

Case 1. The next world war has left the planet in nuclear winter. The soot debris in the atmosphere have spread uniformly and shroud the planet in permanent dusk. In those conditions, no color would naturally look like it normally does. New members of the decimated and scattered human communities would acquire color categories based on the customary ways objects tend to appear in those circumstances. But those customary ways the colors of objects would appear would not be the truest ways.

Suppose that Bruno, a subject of that community, is shown a number of vermilion objects and as a result appears to have acquired a color concept. Which color property could be picked out by the concept? The *Non-standard Acquisition* premise would be entailed if the answer were: the determinate shade Vermillion. My opponent must thus argue that the concept would pick out a distinct property from Vermillion or no property at all.

Case 2. In the Earth's far future, the sun is on its way to turning into a red giant, emitting a light considerably brighter than is currently. Objects directly reflecting such light would have devastating effect on the eyes. One could not look at them straight on without suffering considerable retinal damage. On the other hand, looking at some of them obliquely would be tolerable. As a result, suppose that the survived human communities have adapted in the following way: their eyelids shut automatically when the eyes register light above a certain critical threshold of luminosity. Such subjects could not even will themselves to look at any object facing them, as their eyelids would be firmly shut before they adopt the

*right position. They can only look at some—sufficiently dark—objects, and always obliquely.*¹⁵

Now suppose that one tried to teach Uma, a member of that community, a visual shape concept by using round things as paradigms. The concept would be based exclusively on viewing round objects from oblique angles. Which property would the newly acquired concept pick out? *Non-standard acquisition* would follow if it were Roundness, so my opponent would have to argue that the concept picks out another property or no property at all.

I take the answers entailing *Non-standard Acquisition* to be the default. After all, I showed in the previous section that those instances of those exact properties would be experienced on the respective occasion. I will consider the most plausible alternative candidates and will show that they are less eligible to serve as referents. Although understandable, those alternative construals of the reference of the concepts turn out to be poorly motivated.

At this point, one might object that I have not entitled myself to the assumption that Bruno and Uma acquire concepts at all—or at least concepts of mind-independent, observational properties. Having such concepts would allegedly require having the capacity to keep track of instances of the property despite variations in the perceptual context. But consistent with the work I aim to put the cases to, I could not afford to grant our subjects the ability to keep track of instances of Roundness and Vermillion in the idiosyncratic circumstances. Otherwise they should ideally be able to recognize the idiosyncratically perceived instances to be of the same kind as the ones encountered in

¹⁵ A more refined but also more fantastic scenario would plunge the human community in an environment made up of intensely radiant substances. This would help get around the issue of shading.

optimal viewing conditions, which would be evidence for the identity of the oddly acquired and our standardly acquired observational concepts. Thus even if the odd experiences in some sense presented our subjects with instances of the respective observational properties, since I must hold that they would not be able to track instances of those properties on that basis, our subjects could not acquire concepts of them on that basis.¹⁶

The tracking requirement is part of Campbell's view of observational concepts—and is also independently plausible. In the passage quoted above, Campbell states:

To experience the shape of a solid object you must have some capacity to recognize manifest sameness of shape across movements by you or by the object. Otherwise it is hard to see how you could be said to be encountering the property of three-dimensional shape at all (Campbell 2011: 654).

Presumably this point would generalize to all observational concepts. To have an observational concept, one would need to be able to track instances of the property across viewing conditions. I grant that condition, but the point made is moot. It is true that I would not grant our subjects the ability to recognize that the shape or color as would be idiosyncratically perceived is identical with the shape or color as would be normally perceived. What I need—and I think is quite uncontroversial, is that our subjects would be able to track instances of roundness and Vermillion, respectively, in distinct but sufficiently similar viewing circumstances to the abnormal ones described. For instance, even in the nuclear winter objects would tend to remain uniform in apparent color throughout the day despite the change in the quality of light. And on Bright Earth, objects would still retain

¹⁶ Thanks to Naomi Eilan for pressing this objection.

their apparent shape despite variations in slant.¹⁷ Thus nothing in the way I have described cases outrightly rules out crediting our subjects with recognitional concepts of the respective observational properties.

Still, my opponents could suggest other alternative reference assignments for those concepts, which in their view would be more eligible.

On the first alternative, Bruno and Uma would acquire, respectively, a concept of a darker shade of Red, and a concept of ellipticality. Since the experiences would be sufficiently similar to the ones normally had when perceiving objects that are a darker shade of Red and elliptical, respectively—to mislead one, one could deem them apt to make concepts of those properties available. Although this proposal may initially sound more plausible than mine, it is difficult to sustain in light of the contents of the underlying experiences. According to the considerations about perceptual constancy laid out in the previous section, it is Vermillion and roundness, rather than, say Burgundy and ellipticality, that get experienced. It is strange that a subject should acquire a concept of a property on the basis of an experience presenting an instance of a distinct property. Furthermore, if the conditions miraculously and gradually changed back to normal—if the skies cleared—and consequently, the paradigm objects recognizably appearing the same color as before, Bruno would take himself to have been right about the color he had attributed previously to the paradigms, rather than taking himself to have wrongly attributed a distinct property to them. He would take himself to have been formerly confused about the exact extension of the concept, rather than take himself to have applied it incorrectly to

¹⁷ The square/diamond case could be used to bring the point across even better. Due to the stable diamond-like appearance of the figure, one can recognize the identity of the figure over changes in its position or orientation.

the paradigms.¹⁸ Assuming it best if subjects get accorded some authority about the extension of their concepts, we should prefer a view which does not contradict Bruno's considered understanding of what falls in the extension of his color concept.

Thus both from the perspective of the subject and from the perspective of a theorist, there is evidence telling against the proposal that Bruno's original concept would pick out a distinct determinate shade from the one that is experienced. The same goes for Uma's shape concept. The above considerations also knock out a view on which Bruno's and Uma's concepts fail to refer to any property, since again this would imply that their considered view of the correctness of their classificatory acts would be radically mistaken.

To raise the plausibility of the alternative view, one might appeal to putative examples in which the subject would acquire a concept of an observational property based on her experience, without needing to perceive an instance of the property: say, of Supersaturated Red on the basis of an afterimage looking a distinctive way when overlaying a red patch.¹⁹ However, it is not clear, for one, that the distinctive way should be analyzed in terms of a distinctive color property the afterimage appears to instantiate or as the way the color of the afterimage appears when overlaying a red object.²⁰ On the latter horn, the subject would not rightly be said to acquire a color concept on the basis of the experience, either because she would acquire no concept, or because she would instead acquire a concept of an appearance property: a distinctive way of looking. See below for my reservations as to whether a naïve subject could acquire a concept of a way of looking

¹⁸ This is well-known with perceptual demonstratives, in which case the distinct ways of perceiving an object explains the possibility of believing that this is different from that despite being coreferential. Similarly the different ways of perceiving a color would explain the possibility of taking one to have in mind distinct colors, when one is in fact having the same color in mind on each occasion.

¹⁹ Cf. Johnston (2004).

²⁰ See Kalderon (2011).

on the basis of an experience exhibiting such way. So on that latter horn, the best thing to say, in my view, is that the subject would fail to grasp any property on the basis of having the experience. On the former horn, the afterimage overlaying the patch would genuinely, albeit delusively, look to be a novel shade of Red. So the subject would be presented with a novel shade of Red, which would be an apt basis for acquiring the corresponding color concept. By contrast, in cases of perceptual constancy, we saw that objects are not delusively presented as instantiating other observational properties than the ones they do. Assuming constancy holds in the above two cases, Bruno and Uma would not be presented with instances as of Dark Red or ellipticality, respectively, so would have no basis for acquiring the corresponding concepts.

Thus the first alternative proposal, although straightforward, is clearly less plausible than mine. On the second alternative proposal, the concepts Bruno and Uma would acquire in the described scenarios would allegedly pick out the distinctive ways that the respective observational properties presented in the subject's experience appear—rather than the observational properties themselves. Dark Red and Bright Red may be said to get presented in some circumstances in the same way—call this distinctive way a dark-reddish look. Similarly, Ellipticality and Roundness may be said to get presented in the same distinctive way in some circumstances—call this way an ellipticalish look. The new proposal has it that the concepts the subjects would acquire in suboptimal conditions would pick out the distinctive way the property appears: the dark-reddish and the ellipticalish look, respectively.

This proposal may initially seem to fare better than the first one. I have argued that the character of perceptual experiences exhibiting constancy is complex, and is partly

constituted by the presence of such ways of appearing, in addition to the observational properties. So the experience would provide a basis for picking out the respective way. Moreover, in contrast to the first proposal it turns out that the paradigm objects would have been adequately classified on that basis, consistent with the subject's considered judgement.

However, it strikes me that making use of this experiential basis would have to draw on sophisticated background theory and involve background concepts. For instance, attending to the ellipticalish look of the coin would require having an observational grasp of ellipticality and some implicit understanding of how viewing conditions affect the ways properties appear. The distinctive ellipticalish look, although it might genuinely be part of the experience, is not something Uma could identify as facilely as she can do with presented shapes. That such ways would be part of one's experience is not sufficient for their being apt to be grasped by a naïve subject on the basis of enjoying the experience.

I have argued that it is unlikely that naïve subjects could classify the objects they view along the ways in which their qualities appear in experience. Even if what causes the classification were the respective appearances, the intended classification would be along observational properties. As a consequence, the basis of classification in those cases would be faulty, as the subjects' attempt to refer would have failed-the concept would not pick out any observational property. This leads, as on the first proposal, to the counterintuitive prediction that Bruno and Uma had wrongly sorted the paradigms together in suboptimal conditions on the basis of how they appear in those circumstances. Thus the second proposal turns out to be no better than the first one.

On the third proposal, although the experiences would present subjects with instances of determinate properties, they would not constitute an apt basis for acquiring concepts of exactly those properties, but rather, concepts of related determinables: e.g. Being Oval and Being Red, for experiences presenting objects as Being Round and Being Vermillion, respectively. Again, the main motivation for the proposal is to accommodate the subject's disposition to group, respectively, elliptical objects with the round objects viewed askew, and dark red objects with the shaded bright red objects. All proposals so far have taken the tendency to be well-founded and on that basis have deemed it relevant to determining the reference of the concept. This assumption, however, is unreasonable.

To see why, we need to proceed slowly. Suppose that, based on viewing some shaded bright red paradigms, Bruno acquired a concept C, which picks out a color property. If he suddenly found himself in normal conditions for viewing the colors of objects would take the dark red objects he encounter to fall under C. Still, Bruno could be wrong to sort them in this way, in which case dark red objects would not be in the extension of C despite his disposition to apply the concept to them.

With recognitional concepts, the extension of a concept is reflected in one's *well-grounded* recognitional dispositions. But Bruno's disposition to apply C to dark red objects would not be well-grounded. The classification of dark red objects as falling under C would presumably be due to the common way that elliptical and dark red and bright objects appear in the respective viewing conditions. But in the described conditions, that way would covary reliably with the presence of instances of Bright Red only. Thus there are good reasons to count the tendency to sort dark red with the bright red objects as poorly grounded in the first place. But if the tendency to classify dark red objects under the concept is faulty,

it should not be considered when assigning reference to the concept. There is thus no reason to prefer the determinable in place of the determinate when specifying the right reference assignment of the concepts Bruno and Uma possess.

I have argued that in the described idiosyncratic cases our subjects would acquire recognitional concepts, and further shown that there is no reason to adopt an alternative view of the reference of Bruno's and Uma's concepts than the default one—on which the concepts would pick out the observational properties instances of which would be presented in the corresponding experience. Thus the described cases unequivocally support *Non-standard Acquisition*.

3. Rejecting *Non-standard Acquaintance*

As a last resort to preserving the intuitive possession conditions of observational concepts while allowing that instances of the same determinate observational properties could be presented in non-standard circumstances, and that recognitional concepts of the properties could be acquired in those circumstances, the proponent of a Campbell-style view of observational concepts could argue that in the described odd cases our subjects would lack knowledge of the respective observational properties by acquaintance. Recall that on Campbell's view, such knowledge would be a constitutive part of having the corresponding observational concept. Absence of it would entail that the non-standardly acquired concepts would be distinct in kind from our standard observational concepts, as *Categorical Distinctness* would have it.

One needs to proceed with caution if she is to offer such a response, since the notion of knowledge by acquaintance is already obscure enough. She cannot wander too far from

the common-sense understanding of the notion. But based on the common-sense understanding, nothing would seem to be missing in the odd cases for the subjects to be acquainted with the properties. Bruno and Uma would be consciously attending to the respective instance and, on that basis would be disposed to classify the perceived object under a recognitional concept of the property. Their classificatory capacities would be imperfect, but it is not clear why one should be able to apply the concept correctly in every case, as opposed to in most, to be acquainted with the respective property. Compare our intuitive understanding of acquaintance with particulars. Intuitively, one could be acquainted with a physical object while being disposed to confuse it with another object in odd circumstances. To require something further for acquaintance with the object would in my view amount to giving up rather than refining the common-sense notion of acquaintance.

Similarly, insisting that acquaintance with a property requires more than consciously attending to instances of the property in a way that adequately regulates one's classificatory behaviour leaves us with a vague and unsubstantiated epistemic notion. The rationale for introducing such notion would solely be the intuitive categorical distinctness of our standard observational concepts from the oddly acquired concepts—so could not help make sense of it. Thus going beyond the common-sense understanding of what would be sufficient for knowledge of a property by acquaintance would prevent one from being able to provide an illuminating account of observational concepts based on that notion.

I conclude that the first way of responding to the argument on behalf of Campbell is unsuccessful. The same properties we grasp observationally based on experiencing instances of them in optimal viewing conditions could also be presented and grasped in

suboptimal conditions. Moreover, on the common-sense understanding of knowledge of an item by acquaintance, the subjects in the described cases would have knowledge of the respective properties by acquaintance. Campbell-style experientialism about observational concepts thus lacks resources to vindicate the intuitive distinctiveness of our standard observational concepts by specifying their nature.

4. Rejecting *Perspectival Opacity*

Non-standardly acquired concepts of an observational property appear to be categorically distinct from the respective observational concepts. Even if one could acquire a concept of Vermillion in suboptimal viewing conditions, one could not learn what Vermillion is like in such conditions—and having such knowledge seems to matter for having an observational grasp of the property. To illustrate, suppose that Bruno might acquire another recognitional concept for Vermillion, based on experiencing vermillion objects in distinct but still suboptimal viewing conditions. Perhaps a layer of otherwise transparent nuclear dust would be scattered uniformly on the ground and give pinkish phosphorescence at night, affecting the appearance of the underlying objects. In that case Bruno would have distinct daytime and nighttime concepts for Vermillion. But the concept made available by experiences of vermillion objects in optimal viewing conditions does not appear to be just another concept of that sort. It appears to be special—a concept whose possession, unlike the rest, would be based around having knowledge of what Vermillion is really like.

Sympathizers with Campbell's experientialism may choose to dismiss the intuition for categorical distinctness. They might argue that knowledge of what Vermillion is really

like does not play a constitutive part in the grasp of the standard observational concept, despite appearing to. One way of motivating such dismissal would be by providing evidence that the oddly acquired concept of the property would be identical with the corresponding standard observational concept. If sufficient evidence for that claim were produced, the intuition for categorical distinctness would not carry as much weight.

In my view the best way to defend the claim that in the described suboptimal cases we would have the same concept at play is to exploit the fact that not all propositions knowable *a priori* must be self-evident, and may in fact require significant cognitive effort to derive. Going back to the proposal which was part of Campbell's earlier view, some non-trivial but plausibly *a priori* knowable propositions would be derived by means of imagistic reasoning. For instance, in some cases mentally rotating two figures experienced at distinct egocentric orientations would make it manifest to one that they instantiate the same shape. The proposition expressed by “This shape is that shape” would in this case turn out to be *a priori* knowable without being obvious. This result would also entail that in both cases the same shape concept would be deployed.

In this vein, one might propose a more general type of imagistic reasoning subsuming mental rotation—call it varying the way a property would appear. Suppose that one could vary the way Vermillion would appear similarly to mentally rotating a triangle—starting from the way it appears in daylight until it matches the way it would appear in the post-nuclear dusk. Based on employing this method, the identity of instantiated shade picked out on each occasion could become manifest to a subject.

If determining sameness of shape via mental rotation qualified as a piece of *a priori* reasoning about the referent of the corresponding concept, then the shape concepts

deployed on the two occasions would turn out to be identical—despite the identity not being immediately obvious. But similarly, if one could determine the sameness of the experienced shade *a priori*, this may be evidence that Vermillion gets picked out under the same concept on the two occasions, without it being immediately obvious to Bruno that it is the same concept.

To flesh out the proposal, suppose that Bruno's community located in where now is California use the general term “burge” to express their recognitional concept for Vermillion. One day the skies miraculously clear, and Bruno notices some unfamiliar vermilion objects. Based on the distinctive way their color appears in the new conditions, he is able to group the vermilion objects together. He introduces the general term “superburge” for the color of such objects. Now suppose that the miracle lasts only for a day, and as soon as the next morning comes, the sky is contaminated again. When viewing an unfamiliar vermilion object in the dusk, Bruno could both accept the sentence “This is burge”, while remaining neutral or outrightly denying the sentence “This is superburge” seemingly without contradicting himself. On the present proposal, however, in ideal circumstances Bruno would be able to determine *a priori* that he is picking out the same property on both occasion. This would in turn entail that he would conceive of it in the same way on both occasions.

Since Bruno is actually unable to determine the identity of shade *a priori*, he must be less than perfectly rational in the described circumstances. His imperfect rationality could be explained in terms of his epistemic situation falling far short of the ideal. His knowledge of the way Vermillion appears in daylight might well be faint and hard to access, his ability to vary the distinct ways in which a color may appear would be even

worse than his ability to vary the ways a figure would appear based on its orientation. Still, were his memory more precise—and imaginative capacities apt, according to the proposal he should be able to determine *a priori* that the shade experienced on each occasion is the same.

The proposal aims to undercut the Categorical Distinctness Intuition by rejecting the *Perspectival Opacity* premise. According to it, for experienced instances of at least some observational properties the identity of the property would be recognizable *a priori* from within any two ways in which it is experienced.

There are three ways to respond to this interesting proposal. I will opt for the last one, even though the first two are worth exploring further than I have space here. On the first response, the argument gets nipped in the bud, since mental rotation, the paradigmatic type of variation of the way a property can appear would allegedly not be a source of *a priori* knowledge. This would have the consequence that the spatial concepts, which based on that method can be determined to be coreferential would not come out as transparent. On a Fregean view of concepts, in such case we would have two distinct ways of thinking of the same shape property. Even if there were an analogous imagistic mechanism in the color case, by means of which Bruno's two concepts could be shown to have the same property as referent, we should similarly treat it as generating knowledge that is *a posteriori*, in which case Bruno's concepts "burge" and "superburge" would express distinct concepts.

On the second approach, the argument would be undercut by taking the knowledge generated by mental rotation and similar imagistic methods to be *a priori*, but *synthetic* rather than *analytic*. The knowledge of the identity of shape generated through mental

rotation would not be based merely on one's conceptual grasp of the shape, but on additional cognitive contact with it via a direct intuition of the shape. Analogously, it might be that Bruno could derive the identity of the color on both occasions not because he would be employing the same color concept twice over, but because his sensory imagination can acquaint him with the property through a range of ways of appearing in a manner that makes its identity recognizable.

On the third approach, the argument would be undercut at the point of analogy. One could allow that some cases of mental rotation constitute genuine *a priori* analysis, while denying that the relevant cases for shape do, and relatedly that in the case of color the relevant forms of look variation would. Rather, they would allegedly constitute a form of either *a priori* or *a posteriori* synthesis.

I will focus least on the first response. It is a live issue whether mental imagery is a source of *a priori* or *a posteriori* knowledge. If operations like imagistic mental rotation are cases of simulated perception, then it seems that through mental rotation one would be doing the same thing as when one is turning an object around. Apprehending the new appearance of the object when rotated in one's mind would be a genuine empirical discovery. Personally, I am skeptical that all imagistic operations are of that sort, but I have no knockdown argument against this view.

But suppose I am right and at least some imagistic operations can deliver *a priori* knowledge. This brings me to the second response. Whether such knowledge is analytic or synthetic would depend on whether having the respective imagistic capacity would be constitutive of having the respective concept. Kant famously argued that some imagistically-based geometrical proofs, for instance, that a straight line is the shortest

distance between two points are not instances of conceptual analysis. According to him, they should not be thought of as cases in which the content making up a geometrical proposition gets analysed by exemplifying the concepts involved.

On the other hand, Kant's examples are more complex than the cases of ascertaining sameness of shape on the basis of the mental rotation and comparison of figures. It is much more plausible that the sameness of a simple shape experienced at distinct orientations might be derived from the way the shape is conceived on those occasions, than that being the shortest distance between two points can be derived merely from the way the straightness of a line is primitively conceived. But then at least some *a priori* knowledge concerning geometrical shape is likely to be synthetic. Thus even if in some cases mental rotation would count as a form of *a priori* reasoning, it is open to argue that not all imagistic methods of generating *a priori* knowledge would count as one.

This brings me to the last response, which grants the existence of imagistically-based *a priori* reasoning in some cases, such as in some cases of mental rotation, while denying that all such cases, and analogous cases of perspectival variation would be of that sort. To clarify, here are several points on which I can afford to be concessive. It may well be that our normally acquired observational concepts involve the capacity to imagine how the respective property would appear in slightly different conditions within the range of the normal. Mental rotation in the case of shape could be an instance of such constitutive capacity.

Consistently with the above, it is unlikely that someone having the concept Round should anticipate the exact effect of tilt on the way the shape of a round object would appear, or that someone having an observational concept for Vermillion should be able to

imagine the exact way a vermillion object would look when the illumination is very different from the standard.

Furthermore, even if having a mere grasp of a standard observational concept might somehow involve the above ability, it is really unlikely that having a mere grasp of a concept of the property acquired in suboptimal viewing conditions would endow the subject with the ability to imagine exactly how the shade would appear in normal circumstances. The subject might ultimately acquire such an ability, but it would not be constitutive of her original grasp of the respective property. Thus, even if observational concepts were partly constituted by such capacities, they would be distinct from the concepts grasped in suboptimal conditions, which do not involve those capacities.

To sum up, either a given observational concept would be distinct from the counterpart concept obtained in non-standard conditions in virtue of being partly constituted by the relevant capacity for imagistic reasoning—with the counterpart concept not being so; or neither would constitutively involve the relevant capacity, so the determination of sameness of reference would not be an instance of *a priori* reasoning. Whichever way we go, we would have a case for conceptual distinctness. The proposal that the concept of a property that could be acquired in non-standard viewing conditions would be identical with the standard observational concept of the property is thus completely unsubstantiated, and does not carry any weight against the Categorical Distinctness Intuition.

5. Tinkering with the Fregean view

I have so far worked within a Fregean view of concepts. On the Fregean view, conceptual content is transparent. If a subject is redeploying the same concept on two separate occasions she should ideally be able to determine that she is deploying the same concept twice. If she could not do this, she would be using distinct concepts.

Within the confines of a Fregean view of concepts, there is no evidence for the claim that non-standardly acquired recognitional concepts of observational properties are identical with the corresponding standard observational concepts. At this point, one might consider tinkering with or even outrightly rejecting the Fregean view, within which as I have established one would have to countenance a plurality of perceptual concepts for the same observational property.

One way of tinkering with the view is by appeal to the notion of an incomplete grasp or mastery of a concept. Originally it was meant to explain the subject's possession of concepts based on the division of linguistic labor. Putnam (1975) and Burge (1979) argued that subjects could acquire a concept by inheriting a linguistic term introduced by experts to express a concept which they fully grasp. The naive subject need not have the same or even partially overlapping conception of the referent of the concept to share it with the experts. They merely have to defer in their use of the term to the experts.

In the case at hand, the concepts would be recognitional rather than discursive. Still, the idea would be similar. The subject would not need to have full grasp of the concept to possess the concept, and partial grasp would be compatible with significant misunderstanding of the extension and application conditions of the concept. This view opens up the possibility that Bruno originally had a grasp of the standard observational

concept for Vermillion, rather than of a distinct recognitional concept, without knowing fully and exactly the cases in which he may apply the observational concept.

Notice, however, that in ordinary cases of incomplete grasp, attaining a full grasp of the concept would make a situation of the following sort a case of irrationality: a subject fully grasps a concept but subsequently incorrectly applies it. But if Bruno's advance amounted to coming to a full grasp of the same observational shade concept, he would have attained complete knowledge of the application conditions of the concept. He would therefore be exhibiting irrationality in subsequently allowing that a vermilion object viewed in non-standard conditions may not be superburge.

Thus the appeal to the distinction between partial and complete understanding of a concept does not help. A related but more radical proposal would be to allow that Bruno's re-acquaintance with vermilion objects in normal viewing conditions helps him get a distinct—but still imperfect—grasp of the same concept. Taking the case to be explained in terms of distinct imperfect ways of grasping the same concept would indeed be natural on a non-Fregean view of individuation of concepts.²¹ However, fully giving up on the Fregean view would constitute an outright rejection of the *Categorical Distinctness intuition* without any countervailing evidence. Moreover, non-Fregean views are also difficult to square with the fine-grained distinctions between perceptual and discursive concepts, or between demonstrative and recognitional concepts—that are central to the experientialist account. A response of this form would then be both question-begging and unavailable to an experientialist.

²¹ This is how Kripke's (1979) Paderewski cases get treated on coarse-grained views of concepts. See, e.g. Sainsbury & Tye (2012).

6. Rejecting *Categorical Distinctness* outrightly

All told, a defender of Campbell's experientialism might hope that the intuition in favor of *Categorical Distinctness* could be outrightly dismissed without needing to give up on the Fregean view, and consequently consistent with experientialism. The non-standardly acquired concepts would still need to be deemed distinct from the corresponding observational concepts but would on this proposal still be concepts of the same fundamental kind as the former. Following this, one might try to explain away the intuition of distinctiveness by suggesting that the epistemic capacity enabled in optimal conditions is merely characteristic rather than constitutive of the possession of the respective observational concept.

This brash response would probably be the way Campbell himself would go in responding to the intuition. However, I will now argue that this way of defending Campbell's experientialism would end up undermining the evidential basis for the view.

It is essential to keep in mind that Campbell's view is based on a similar distinctiveness intuition—that having an observational concept amounts to having a way of identifying a property, distinct from the ones due to merely being perceptually or discursively *en rapport* with the property. Campbell would find himself in the tenuous position of arguing that the intuition put forward by me should not be taken seriously while maintaining that the one put forward by him should. But the consistent skeptical response would be to reject both and thus dismiss experientialism wholesale.

Experientialists thus have a reason to take seriously the intuitive categorical distinction I have emphasized. Moreover, although it might seem that Campbell and I are sensitive to distinct putative differences between kinds of concepts, in my view this is not

an accurate characterization of our disagreement. I take it that I have been articulating the same distinction between types of concepts to which Campbell is also sensitive—but am doing it more accurately than him. In my view, knowledge by acquaintance is the wrong basis on which to account for the conceptual distinction Campbell is sensitive to. What is intuitively distinctive about an observational concept as opposed to a merely recognitional or a discursive concept of the same property is that having it involves having substantial knowledge of the property it picks out. In the case of a recognitional concept of a natural kind, one may still associate *a priori* a specific appearance with the respective underlying kind, but that would not amount to substantial knowledge of the kind of the sort that we have of observational properties.

But Campbell cannot avail himself of the above distinction. On his view of understanding the import of experience in the grasp of observational concepts, observational concepts and recognitional concepts for kinds would turn out not to be fundamentally different. What could the relevant difference be between conceiving of, e.g., rottenness—based on its characteristic odor, and conceiving of Vermillion in terms of its characteristic appearance in the nuclear winter—that would be reason to attribute to the subject the intended knowledge of reference only in the second case? By contrast, there is a clear difference between having a grasp of Vermillion in terms of its characteristic appearance in optimal and suboptimal conditions, respectively. In the former case, Vermillion would appear exactly the way it is, so on that basis, the subject could learn what it is. This significant difference in epistemic import would also help vindicate the intuitive categorical difference between one's standard observational grasp of Vermillion and of rottenness, and the intuitive distinctiveness of observational concepts in general.

To sum up, the mere presence of an instance of a property in experience does not have the right kind of epistemic significance to justify providing a different treatment of observational concepts from that of other kinds of recognitional concepts in our repertoire. But experientialism depends on substantiating the special status of our observational concepts. Thus experientialists about observational concepts would need to reconsider their allegiance to Campbell's view.

This ends my examination of the available responses to the argument. I take myself to have exposed a fundamental flaw in Campbell's view of observational concepts, which cannot be corrected within his framework, that is—without reverting to an alternative understanding of the epistemic contribution of experience in the grasp of our basic observational concepts.

IV. Observational concepts and Revelation

1. An alternative experientialist proposal

In the previous chapter, I showed that our standard perceptual experiences meet two conditions which tend to get conflated. According to Diaphanousness, an experience with the same character as the one had when perceiving an instances of a number of observational properties (e.g. Being Round and Being Crimson) constitutively involves the apparent presence of instances of those properties. According to Revelation, an experience with the same character as the one had when perceiving an instance of an observational property in optimal viewing conditions puts the subject in the position to learn what the respective observational property is.

Campbell's experientialism has relied exclusively on the Diaphanousness of experience. The presence of an instance of a property in experience was meant to exhaust the experiential contribution to the grasp of the respective observational concept. My alternative proposal brings in the further revelatory aspect of standard perceptual experiences in vindicating the special status of observational concepts.

On the proposed alternative, the knowledge of the observational property constitutive of one's grasp of the corresponding observational concept would consist in the capacity to determine enough of the essence of the property picked out by the concept, and in sufficient accuracy—for learning what the property is. Experiences of instances of the property in optimal viewing conditions can ground this capacity. By contrast, the experiences of the same property in suboptimal conditions would constitute an inapt experiential basis for that capacity. This would explain why the latter sort of experiences would not be an apt basis for one's grasp of the respective observational concept.

Here is a brief summary of the main aspects of my version of experientialism:²²

I. Having an observational concept involves having substantial knowledge of the property picked out.

II. Such knowledge consists in the capacity to come to know what the property is without further empirical investigation.

III. Experience of instances of the observational property in optimal viewing conditions play an essential role in providing the basis for the capacity to come to know what the property is without further empirical investigation.

²² Compare with the aspects of Campbell's experientialism in section I.2 above.

I have defended the first claim in the first two chapters of the dissertation. Briefly, the constitutive substantial knowledge of reference explains the special status of observational concepts in the family of recognitional concepts.

I have defended the third claim in the previous chapter. Briefly, not only does the experience of an instance of observational property in optimal conditions reveal the essence of the observational property, but, furthermore, one cannot learn the essence in another way.

The second claim, is again based on an argument to the best explanation from the intuitive experientially-related possession conditions of observational concepts and the truth of the third claim.

2. Comparisons

The alternative experientialist proposal bears similarity to Campbell's earlier restriction of his experientialism to cases in which the instances of the respective observational property would be experienced in full, rather than merely in part. Campbell's thought must have been that the restriction would guarantee that the presence of the same property on any two occasions would make it recognizable to the subject that she is presented with one and the same property. But I have argued that even for the simplest observational properties, the sameness of property is not recognizable across all ways in which an instance of the property might be presented in experience. This is not because only parts of the instances would be genuinely presented on the odd occasions.

Still, while in my view instances of the same properties would be fully present in the odd cases, their appearance would be indistinct in the following sense: the essential

aspects of the respective property would be presented in insufficient detail and accuracy. Thus the special status of experiences of instances of a property in optimal conditions stems not from presenting the property in full but from presenting enough of its essence.

The distinction between the two proposals might initially appear overdrawn, since the essence of a property is an aspect of the property, and one may argue that if I do not experience the essential aspects of a property with sufficient accuracy and in sufficient detail, I would not perceive the property in full. However, the two proposals operate with different conceptions of parthood. Campbell is operating with a spatial conception of parthood, while I am operating with a broader, aspectual conception of parthood. One can see all of the shape of an object on Campbell's view insofar as no part are occluded. Consistent with this, there would be (non-spatial) parts of the shape that would be absent from the experience.

3. Strength

As with Campbell's, my version of experientialism stands and falls with the absence of equally plausible alternatives. I cannot rule those out with certainty. Still, I have a general reason for optimism.

Alternative experientialist views must also rely on the notion of substantial knowledge of reference, as this is the only aspect of the grasp of an observational concept, by which it could be distinguished from recognitional concepts more generally. For an alternative type of experientialism, this epistemic capacity would have to be cashed out differently than in terms of knowledge of the essence of the referent. But while I cannot survey all the possible candidates for that capacity, I have reason to think they would fall

into two camps. I will use a proposal from within each camp to illustrate what I take to be a general problem that besets any view in the camp.

Consider, first, the proposal that the constitutive knowledge of the reference of an observational concept consists in the capacity to distinguish the respective property from any other property. On this proposal, the intuitive essential role for experience in the grasp of observational concepts could not be vindicated. A color blindseer or a color invert would in principle be able to tell vermilion from any other shade.

Now consider the proposal that the constitutive knowledge of reference consists in the capacity to determine the way the respective property would appear in all or at least in a sufficiently broad range of circumstances. This would provide a way to distinguish the standard observational concept of e.g. Vermillion from the concepts obtained in non-standard circumstances, which, I have argued could not possibly involve the capacity to determine how vermilion objects look in most circumstances. But it seems to me that such capacity is unlikely to be involved even in the case of the standard, observational grasp of Vermillion. Furthermore, it is not clear how such capacity could be provided by the underlying experience. It is not as if the experience implicitly contains or suggests all those ways.²³

Those are just two rough proposals, but they suggest two ways in which alternative explanations could fall up short. Either the explanation would appeal to an epistemic capacity for which having experiences with the actual specific phenomenal character would

²³ It is true, in my view, that having an observational concept and some theory would make it not just recognizable when the same property is present in suboptimal conditions, but further it would enable one to anticipate the way it would appear. But this would be based on one's understanding of the property. In effect, one would be able to predict the extent of accuracy and detail in which the essential aspects of the property would be presented in those conditions.

not be essential, or the explanation would appeal to an epistemic capacity which appears unrelated to the specific phenomenal character of the basic experiences. Neither sort of proposal would thus amount to a viable experientialist alternative.

I expect that any alternative proposal would fall into either camp—with the implication that it would fall prey to either problem. On that basis, I conclude that my experientialist view of observational concepts not only constitutes an advance over Campbell's but is also very robust.

Conclusion

I have offered an account of observational concepts as a distinctive type of recognitional concepts. Having a recognitional concept of this sort involves having substantial knowledge of the referent of the concept, grounded in the phenomenal character of the underlying perceptual states. I have specified the latter type of knowledge and shown what the character of the underlying experiences must be like in order to serve as an apt basis for grasp of the respective observational concept. While initially it might seem like one can appeal to the old Russellian notion of knowledge by acquaintance to flesh out the constitutive knowledge, I have shown that the indispensable role played by experiences of instances of an observational concept in optimal viewing conditions in the grasp of the concept is best explained by reverting to a distinct and more demanding construal of the epistemic capacity—in terms of knowledge of essence. Having an observational concept thus involves having the experientially-based capacity to determine, without further empirical investigation, what the property picked out by the concept is. Having that capacity in the background rationalizes the normal deployment of the concept.

The above capacity is what the constitutive substantial knowledge of reference comes down to in the case of observational concepts. In my concluding remarks, I will focus on three issues my view of observational concepts raises with regard to transparent concepts more generally. Those issues concern, respectively: 1) the univocity, 2) the significance, and 3) the sources of conceptual transparency.

I. The univocity of transparent concepts

The hypothesis that our rudimentary general concepts are essentially rooted in the character of perception took a cue from the intuitive status of singular perceptual demonstratives as essentially experientially-based concepts involving substantial knowledge of reference. However, on the most plausible view of the role of experience in the grasp of singular demonstratives, it is likely that the underlying experiences merely serve to acquaint one with the respective object, rather than to put her in position to determine the essence of the object. This calls into question the *univocity* of transparent concepts, namely whether we are actually dealing with a theoretically significant kind when we classify a concept as transparent.

On the most modest response, transparent concepts would be deemed a merely disjunctive kind, with the consequence that singular demonstratives, on the one hand, and property-demonstratives and observational concepts, on the other, share nothing theoretically significant in common in virtue of both counting as transparent. The cue taken from singular demonstratives would merely suggest the possibility that the phenomenal character of experience may matter when having a concept constitutively involves meeting some kind of demanding epistemic condition.

On the other extreme is the view that transparent concepts are indeed univocal since, despite appearances, exactly the same epistemic capacity is constitutive both of singular demonstratives and of observational concepts. It is widely implausible that one can find out that a coin is a collection of Au molecules merely by observing it, but one should take care to distinguish knowledge of the essence of general features and of

particulars. Knowing what the coin is in the case of a spatio-temporal particular might instead consist in knowing the identity of the coin, i.e. knowing its spatiotemporal position, along with having a general grasp of the kind of thing it is, e.g. a material object.

The experience of an object is apt to provide a sufficient basis for the latter kind of knowledge in many cases. The problem is that the intuitive distinction between *bona fide* demonstrative identification and an otherwise indexical or a descriptive identification of an object does not line up with the distinction between being in the position to determine the identity of the object based on experiencing it—and not being so. *Prima facie*, there are many occasions on which we would manage to identify a particular demonstratively without being able to determine even its approximate location—or despite having a radical misconception of the kind of thing it is. By contrast, in the case of observational concepts, having grasp of the concept intuitively lines up with the capacity to determine the essence of what is picked out by the concept.

Perhaps if the conditions for knowledge of the identity of a particular got loosened, a unified account of knowledge of the reference of a concept would become more plausible. But one need not go that route to secure a genuine explanatory role for the notion of conceptual transparency.

One sort of middle-ground response to the apparent disjunctiveness of transparent concepts is to suggest that the epistemic capacities involved in having, respectively, a *bona fide* singular demonstrative, and an observational concept are analogous. According to Kris McDaniel, analogous properties such as “being healthy” or “having parts” can be genuinely

explanatory while being less fundamental than their disjuncts.¹ On a proposal of this sort, while the constitutive epistemic capacities in having a singular perceptual demonstrative and an observational concept would be fundamentally distinct, they would still form a theoretically-significant kind by virtue of being analogous.

Yet another middle-ground view—the one I ultimately favor, would be to regard the substantial knowledge of reference constitutive of having a transparent concept as genuinely univocal—but multiply realizable. Torin Alter has suggested that having a grasp of the meaning of a general term requires more than having a grasp of the meaning of a singular term.² If Alter is right about the different conditions required for understanding singular and general terms, the distinction could be applied to the requirements for grasping transparent singular and general concepts, respectively. The same epistemic capacity would be involved in both cases, but it would be implemented in different ways due to the different standards for having knowledge of the reference of a concept of each sort.

II. The significance of transparent concepts

¹ “Mere disjunctions and analogous properties are always less natural than their disjuncts or analogue-instances. But disjunctive properties are far less natural than their disjuncts, whereas analogous properties can be almost as natural as their analogue-instances. This gives some content to the idea that some properties are “unified by analogy” whereas others are unified by nothing more than a mere list of the actual or possible things that have them” (McDaniel 2010: 696).

² “If we ask what is required to grasp the proposition expressed by the sentence ‘Aristotle is fat’, and we focus on the name ‘Aristotle’, it seems that there is not much to understand. About the best one can do is to know which object that name refers to, and probably not even this is required for understanding the sentence ‘Aristotle was fat’. That, however, is not so for the predicate ‘was fat’ – or ‘is finitely axiomatizable’ or ‘is phenomenally red’. Understanding these predicate expressions and the sentences we construct out of them seems to require having some minimal understanding of the properties expressed by the predicates. It is doubtful that merely acquiring words – even words that, as Kaplan says, come pre-packaged with the appropriate meanings – could impart such understanding (Alter 1998: 48).

I have highlighted transparent perceptual concepts by distinguishing them from the mental representations involved in perceptually-based tracking and classification that is not underpinned by any understanding of what is being tracked or grouped together. I have allowed that such tracking and classificatory capacities are conceptual capacities, and have called the concepts at play fully opaque perceptual concepts.

In view of the distinction between transparent and fully opaque concepts, one can ask about the significance of conceptual transparency. Is it a mere oddity of some concepts—or are such concepts an essential part of a network of concepts? One's take on this issue will be related to one's take on the former, univocity issue. For example, someone who aims to demonstrate the significance of transparent concepts must hold that they make up a genuinely explanatory kind.

Another way to frame the issue of significance is ask—could a complete zombie have concepts? A negative answer to the latter question would be given by those who deny that tracking and recognitional capacities that are not underlied by an understanding of the basis of tracking and classification should not be counted as conceptual capacities. On their view, all concepts would either be transparent or have transparent reference-fixing components. As a consequence, transparency would be a guide to *bona fide* concept possession.

On the other extreme lies a view that denies significance to conceptual transparency. Perhaps some concepts are transparent—but since, according to proponents of the view, the majority of our atomic concepts (e.g. logical, mathematical, natural kind, deferential concepts) are fully opaque, there is in principle no problem with a thinker who has only fully opaque concepts in his repertoire.

Again, my preference is for a middle-ground proposal that retains significance for transparent concepts while allowing that not all our concepts are transparent. The view I am sympathetic to is that transparent concepts play a scaffolding role in our conceptual framework. Not only do they enable grasp of partly opaque concepts by serving as their reference fixing components, but also enable grasp of fully opaque concepts by being functionally integrated with them.

One way in which having transparent concepts seems to be required for having fully opaque concepts can be highlighted by considering the essential role concepts play in judgement—and the conditions for successful predicative judgement. My tentative hypothesis is that one needs to have substantial understanding of either the subject or the predicate of a statement in order to perform an act of predication. In the case of chicken sexing, the novice sexer arguably needs to know which particular she is classifying under an opaque recognitional concept picking out male sex. In making the predication “This is thus [Male],” she needs to be consciously attending and on that basis having knowledge of the subject of predication—the chicken. Conversely, in the case of a predicative judgement in which an opaque singular concept would be involved—based, say, on a minimal competence with a proper name or a pronoun, the subject would need to have substantial understanding of the predicate to express a judgement. Otherwise you would have Jabberwocky-style blabber like “’twas brillig” in the place of genuine predication.

Thus even if the capacity for predicative judgement does not require that all concepts in one’s repertoire are transparent, it appears to require that enough of them are, and that fully opaque concepts be appropriately integrated with them.³

³ A fascinating question at this juncture in elaborating the proposal is whether a creature could in principle have either only singular, or only general transparent concepts in its repertoire or must have both.

III. The sources of transparent concepts

The last issue I want to highlight are the sources of transparent concepts, specifically the sources of knowledge of reference constitutive of such concepts. I have shown that perceptual, and more broadly—sensory experience is one of them. But perhaps it is not the only source.

David Lewis has suggested the possibility that we may have the same substantial understanding of parthood that I have shown we have of colors and of shapes.⁴ So our grasp of parthood might also be transparent. Whether parthood is grasped by us in a substantial way and what this means exactly is an issue beyond the reach of the present discussion. Other abstract concepts which to my mind also deserve special attention are categoricity, intrinsicity and causation.

Suppose for the moment that our grasp of parthood were transparent. What could the source of the constitutive understanding of parthood be?

One option is to trace the source back to perceptual or sensory experience. Another is to suggest that we have a non-sensory intellectual faculty that acquaints us with the essences of abstract entities. A third is to argue that such substantial understanding is somehow grounded in the functional role of the concept.

To the extent that the first and third approaches may prove deficient with at least some such abstract transparent concepts, we would have some evidence for the existence of a genuine faculty of intellectual intuition. Thus the discovery of such concepts might well steer us back in the direction of classical rationalism.

⁴ Lewis (1997: 353, 21fn.)

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