A Role for Abstractionism in a Direct-Realist Foundationalism*

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ABSTRACT: Both traditional and naturalistic epistemologists have long assumed that the examination of human psychology has no relevance to the prescriptive goal of traditional epistemology, that of providing first-person guidance in determining the truth. Contrary to both, I apply insights about the psychology of human perception and concept-formation to a very traditional epistemological project: the foundationalist approach to the epistemic regress problem. I argue that direct realism about perception can help solve the regress problem and support a foundationalist account of justification, but only if it is supplemented by an abstractionist theory of concept-formation, the view that it is possible to abstract concepts directly from the empirically given. Critics of direct realism like Laurence BonJour are correct that an account of direct perception by itself does not provide an adequate account of justification. However a direct realist account of perception can inform the needed theory of concept-formation, and leading critics of abstractionism like McDowell and Sellars, direct realists about perception themselves, fail to appreciate the ways in which their own views about perception help fill gaps in earlier accounts of abstractionism. Recognizing this undercuts both their objections to abstractionism and (therefore) their objections to foundationalism.

1. Introduction

The epistemic regress problem challenges us to reconcile the requirement that our beliefs be justified with the widely accepted conviction that we do not have an infinite series of reasons justifying these beliefs. It is this problem that usually motivates a foundationalist account of justification, which holds that we should, in principle, expect some beliefs to be basic, in need of no justification of their own. But foundationalism's solution to the regress problem is anything but uncontroversial. In this paper I propose that a novel and compelling defense of foundationalism is possible if we draw on appropriate accounts of human perception and concept-formation which help characterize the nature of basic beliefs. This proposal is novel because most epistemologists, traditionally, do not regard psychological facts as relevant to their discipline. But I think this material is relevant, and much of this paper will be an effort to show how it is.

Fundamental to the solution I will propose is a *direct realist* account of perception. According to direct realism, perception is *direct* insofar as a) it involves no awareness of mental intermediaries, and b) it does not provide justification for our beliefs through a (conscious or subconscious) process of inference from the awareness of these intermediate objects (BonJour 2007).[1] "Indirect" accounts of perception, by

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[1]The "mental intermediaries," the primary awareness of which direct realism rejects could be sense data, or adverbial contents, or other information-theoretic representations. Note that the direct realist need not reject the *possibility* of the awareness of mental intermediaries, only the claim that awareness of them is *necessary* to perceive the external world in the ordinary way. It may be that while we require no awareness of intermediaries to be aware of the external world in

contrast, have included the classical sense data theory as well as other more recent representationalist theories. I will draw on a theory of direct perception that is *realist* insofar as the objects of perception are taken to be ordinary mind-independent physical objects, as opposed to sensory qualities or properties of objects.[2] Because direct realism describes perception as a direct form of awareness of these objects, it should be seen as an ideal source of support for a foundationalist account of basic beliefs. Direct realism can explain why basic beliefs count as basic, by reference to their relationship to perceptual states which do not themselves require inferential justification.

In combining direct realism with foundationalism, I am in something of a philosophical minority. While many epistemologists have claimed that there are sensory foundations for human knowledge, usually their accounts of the nature of sensory perception involve indirect realist positions about perception (Schlick 1959, Moser 1985, Fumerton 1995). The most prominent direct realists about perception, on the other hand, usually propose reliabilist or other non-foundationalist approaches to justification (Reid 1969/1785, McDowell 1996, Alston 1999, Schantz 2000). A few brave philosophers combine these positions in the way I propose (Huemer 2001, Porter 2006), but even in these cases, their account of direct perception will differ from mine in important ways. In particular, I argue that the most plausible case for foundationalism can be advanced by assuming that the content of perception is non-conceptual and also non-representational (which means, in this context, that it is not the kind of content that can be either true or false). Conceived in this way, direct realist foundationalism has only a few obscure allies (e.g., Kelley 1986).

Part of the reason direct realism and foundationalism are not usually seen as requiring each other is that critics argue that even if direct realism's portrait of perception is correct, it does not imply foundationalism or any other theory of justification. I will argue that direct realism about perception *does* provide auxiliary support for a foundationalist account of justification, but only in conjunction with a particular theory of how concepts can be formed from non-conceptual awareness. As critics rightly point out, an account of *perceptual* awareness alone does not imply an account of epistemic justification, because it is our *conceptual* awareness, held in propositional form, which is in need of justification. A complete account of justification must consider both the nature of perceptual awareness and of conceptual awareness, as well as their relationship to each other. As we shall also see, accounts of concept-formation are themselves inadequate to the task of providing an account of foundational justification unless they are informed by a direct realist view of perception. By providing an account that demonstrates how a theory of perception informs the requisite theory of concepts, I answer critics who say that direct realism does nothing to support a theory of justification.

In order to show how theories of perception and concepts are relevant to a theory of justification, I begin, in the section that follows, by describing the basic outlines of the epistemic regress problem, and the

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the first place, we can engage in reductive phenomenological focus and become aware of our states of consciousness only after we are first aware of the world.

[2] In this paper I will leave unexamined questions about what counts as a "physical object," and assume, for my purposes, that it includes other perceivable occurrences that fall into the same epistemic category as paradigmatic objects such as rainbows, shadows, etc.

issue at stake between foundationalist and anti-foundationalist theories concerning the regress problem. The issue is whether we can make sense of a basic form of awareness that justifies our knowledge without needing justification of its own. I then outline the anti-foundationalist's most prominent reason for thinking we cannot make sense of epistemically basic beliefs: the view that the existence of a regress-halting basic form of awareness would be incompatible with the fact that human knowledge requires a kind of reflective epistemic perspective. Subsequently, I argue that viewing justification as justifiable concept-application allows one to see how there is an epistemically basic form of awareness that can explain the justifiable origin of both the content of our beliefs and our reflective perspective on them. In my final section, I note with critics of foundationalism that this form of basic awareness makes sense as such only if it is possible to abstract basic concepts from perception, but I criticize their arguments against its possibility. In the end, I suggest that the most prominent critiques of this "abstractionist" view of concepts fail to realize how a direct realist account of perception improves the case for abstractionism, insofar as it enriches our understanding of the data from which concepts are abstracted, and helps clarify which concepts count as basic in relation to this data.

Showing how an appropriate theory of perception and of concepts underpins a foundationalist theory of justification will have the incidental effect of challenging an old shibboleth among epistemologists. Philosophers of many stripes have long maintained that facts about human psychology are largely irrelevant to traditional questions in normative epistemology about the justification of our beliefs. Traditionalists insist that facts about the causes of our beliefs are not relevant to an account of how our beliefs *ought* to be formed. Modern naturalistic epistemologists do see human psychology as relevant to their project, but they produce accounts of knowledge and justification which depart significantly from the normative epistemological tradition. Externalist reliabilists like Alvin Goldman (1979) and naturalistic pragmatists like W.V. Quine (1969a) have, in one way or another, abandoned Descartes' and Locke's original goal of presenting an account of epistemic normativity that offers the individual believer *prescriptive guidance* in the formation of beliefs.

On my account, however, a view of epistemic normativity more in keeping with the goals of Descartes and Locke ignores facts of human psychology at its peril. Attention to basic facts about the nature of our cognitive processes can indeed bear on a guidance-oriented account of epistemic norms.[3] But my point about the relationship between psychology and epistemology is not the main focus here. I am primarily interested in presenting a solution to a traditional problem about justification, the epistemic regress problem. It just so happens that my solution provides an object lesson in the relevance of psychology to epistemology.

[3] An epistemology informed by psychology is not necessarily a "naturalized" epistemology. I do think scientific insight can help dislodge long-standing philosophical prejudices that obscure our understanding of knowledge and justification, and my defense of foundationalism will sometimes refer to contemporary work in psychology (usually in the footnotes), to challenge what I take to be mistaken views of perception and concept-formation. But I do not think that a correct epistemology requires *specialized* discoveries in the rigorous empirical sciences; it requires only careful, first-person introspection of the operations of our own minds. There is room, in short, for an epistemology which draws on "folk" or "ordinary" psychology without collapsing into naturalism.

2. Direct realism and the epistemic regress problem

Andrew Cling (2007) aptly summarized the epistemic regress problem by characterizing it in terms of an inconsistent triad of propositions concerning epistemic support. (In Cling's terminology, an "S-ordered sequence" is a sequence of propositions every member of which is supported by its successor[4]):

(1) *Reasons are supported*. Only supported propositions provide support.

(2) *No Proposition is Supported only by Endless Regresses*. Propositions supported only by endless S-ordered sequences are unsupported.

(3) *Some Proposition is Supported*. At least one proposition is supported by a proposition.

According to this presentation, a proposition P_2 provides evidential support for a proposition P_1 just in case P_2 implies or stands in some epistemic relation to P_1, and P_2 is itself epistemically non-arbitrary. But if P_2 is a reason, then stating the requirement (1), that reasons be supported by other propositions, is the usual approach to explaining the non-arbitrariness of reasons: they are non-arbitrary because they themselves are supported by further reasons held in the form of propositional beliefs. So (1) implies that P_2 must be supported by P_3, which in turn requires P_4, and so on. On the assumption that reasons cannot support themselves, (1) and (3) are then jointly inconsistent with (2). If every reason requires support, and some proposition is supported, then it cannot be the case that no proposition is supported only by endless regresses. Yet for a variety of reasons, (2) still seems right. Either we abandon the conjunction of (1) and (3), or we abandon (2).

The usual foundationalist solution to the problem of this inconsistent triad is to reject (1), that reasons are supported by further propositions. According to the foundationalist, there are basic beliefs that offer support but do not themselves require support *by further beliefs*. This eliminates the problem of a regress, but does not require basic beliefs to be *entirely* unsupported, if something other than beliefs can be found to provide support. The natural candidate for an alternative source of support is sensory perception. But there are many ways of understanding *how* sensory perception provides justification for basic beliefs, each of which depends on how we understand the nature of perception itself. The traditional approach through much of the twentieth century was to understand perception as awareness of sense data or other internal mental states, but the existence of sense data is now highly controversial, if not widely discredited. Arguments for the existence of sense data (which often turn on facts about conflicting appearances,

[4] Cling states the problem in terms of support, rather than justification, because the support regress problem is the weakest version of the problem. Associated problems for both knowledge and justification arise on the assumption that knowledge requires justification, and that justification requires support. Support is distinct from justification in that justification may require some propositions must reach a particular threshold of support before they are to count as justified.

illusions, and hallucinations) are not regarded as cogent (Austin 1962, LeMorvan 2004). Making sense of the semantics of claims about sense data, let alone their metaphysics, is an even heftier challenge (Sellars 1997/1956). Even if there is an internal state we may regard as the object of awareness, there are long-standing problems about how knowledge of the external world can be inferred from awareness of such internal objects, problems concerning whether the existence of external objects is the best explanation for the character of internal experiences, and whether naïve subjects have the knowledge necessary to make these inferences.

There are, of course, many recent representationalist theories of perception which abjure any commitment to sense data. Computationalist theories like Marr's (1982), or functionalist theories like Dretske's (1995) are each "representational" in the sense that they invoke information-bearing states to explain the semantic properties of cognition. Whatever the merit of these theories, it is not obvious that they were formulated for the sake of solving any epistemological problems; mainly they aim at formulating an account of perceptual content that aids in psychological explanation. As such, these theories could be integrated into an externalist theory of epistemic justification, but are of little use in providing an account of the states of *awareness* in relation to which beliefs might count as epistemically basic and which would serve as basic standards guiding one's inquiry. Sense data theory at least afforded an account of awareness which was intended to serve this justificatory role in a foundationalist epistemology (Schlick 1959), but given the shortcomings of sense data theory, any epistemologist looking to offer a guidance-oriented, internalist account of justification must look beyond contemporary representationalism.

For this reason, direct realism is increasingly regarded as a viable alternative account of the nature of sensory perception, and I will argue that it is one which might serve robust epistemological purposes. As indicated earlier, direct realism rejects the view that the primary objects of perceptual awareness are intermediate, internal objects, and the view that knowledge of external objects derives from inferences from those intermediate objects; it reaffirms the "naïve" attitude that external objects present themselves directly to the mind.[5] Often, the direct realist's main task is simply to answer arguments purporting to establish the impossibility of this direct awareness (usually the same arguments purporting to establish the existence of sense data), but independent arguments for direct realism from its explanatory value are also offered. Recent years have seen a proliferation of such theories (Kelley 1986, Putnam 1994, Huemer 2001, Campbell 2002, Noë 2002, Travis 2004, LeMorvan 2004).

Apart from its common sense plausibility, direct realism is attractive from the perspective of psychological theory. A persuasive defense of one version of this theory was famously advanced by psychologist J.J. Gibson (1966; 1986). Gibson insisted that a theory of vision which treats two-dimensional

[5] I believe direct realism would support a theory of justification compatible with some version of internalism, but "internalism" here should not be read too literally. While internalism is often associated with the view that one counts as being justified in virtue of having access to *internal mental states* (and is hence often associated with forms of representationalism), the broadest essence of the view distinguishing it from paradigmatic forms of externalism is that one counts as being justified in virtue of having access to or awareness of the factors that contribute to this justification. This is the version of internalism targeted by prominent externalists, such as Goldman (1999). Direct realism is consistent with this kind of access internalism, provided that the objects or facts of which one is directly aware contribute to one's justification. The rest of this paper is concerned with showing that they do.

retinal images as the only source of perceptual information is an impoverished account of the biological nature of perception. Instead of the retinal image, Gibson argues that the source of perceptual information is the "ambient optic array," the totality of structured light surrounding the organism, which, he argues, uniquely specifies the layout of the organism's environment. Perception of objects in an environment works through "information pickup" from this ambient array, via the total organism's *active* interaction—involving all of its sensory modalities—with that light. Through this active interplay, the organism latches onto the "invariant" properties of the perceived world such as the regular rate of the recession of equidistant points as distance increases. The organism is not aware of the information itself, e.g. of the regular recession of equidistant points, but through a physiological process, rather than a process of conscious or subconscious inference, it *uses* information in the light to achieve awareness of its environment, e.g. of distance.[6] Gibson assembled an impressive array of further experimental evidence supporting the explanatory value of this account (1986, 147–202). His theory spawned an entire discipline, "ecological" psychology, which continues to generate active research to this day.[7]

Direct realism and Gibson's science are not entirely uncontroversial. Elsewhere I have argued that scientifically-oriented objections to Gibson (such as those registered by Fodor and Pylyshyn (1981)) rely on unwarranted philosophic assumptions or beg important questions against direct realism (Bayer 2007a, 240-50). But it is not the task of this paper to lay out a detailed defense of the direct realist view of perception. In my view, at least, the position has significant first-person plausibility. One comes to know that the objects which one perceives are mind-independent through a variety of introspective discoveries: that the world is still there even after one closes one's eyes, that there is a difference between the motion experienced by moving one's body and that which is experienced as external, etc. This ordinary evidence is undermined mainly by philosophic arguments for sense data, arguments that now seem dubious. Direct realism is not only *prima facie* plausible, but independently plausible as a solution to the regress problem. As we shall see in the next section, the most interesting objections to direct realism are not those directed against its scientific merit or even its philosophic account of the objects of perception, but those directed against its ability to counter the regress problem.

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[6] See the sixth paragraph of section four, and the second paragraph of the concluding section of this essay for interesting implications of the importance of the distinction between information used and the awareness achieved.

[7] Here it is important to emphasize, in keeping with my anti-naturalistic framing, that the proper role for a specialized psychological theory like Gibson's is not as *evidence* for direct realism. On a foundationalist account, this would be circular since it is precisely the justifiability of scientific knowledge that needs to be established. Naturalists such as Quine make free use of empirical data without worries of circularity, because they have abandoned the project of offering a foundational justification of science. But the circularity problem is very real if one does not abandon that project. I see the use of specialized empirical data as important mainly for breaking the grip of the philosophical prejudices of sense data theory and representationalism, which were themselves made plausible by *other* specialized empirical data. The claim that perception is indirect was inspired not only by arguments from illusion, but in large part by the philosophical misinterpretation of early modern discoveries in optics and physiology. Yolton (1979) presents the widely accepted view that classical empiricists' theory of experience was in large part influenced by their reading of early modern theories of optics and vision. Sense data theory and its kin are best viewed as resulting from a *reductio ad absurdum* of direct realism in conjunction with empirical facts about the physical makeup of the senses. Bringing in a wider body of empirical data can help emphasize that this *reductio* is not inevitable. The goal of making free use of this specialized empirical data is not to prove direct realism, but simply to demonstrate that if we accept it, it does not contradict other scientific data, the acceptance of which our foundationalist theory would otherwise justify.

We can find philosophic *agreement* with direct realism in especially surprising quarters. Although I present the view as a source of support for foundationalism, some of the most prominent direct realists of the past fifty years have been anti-foundationalists. Wilfrid Sellars (1997/1956), famously a critic of empirical foundationalism, was nonetheless a leading critic of the sense data theory of perception, and is properly understood as a direct realist (Levine 2007).[8] Much the same is true of John McDowell (1996), who carries on Sellars' legacy as a critic of "Myth of the Given" foundationalism. Both contend that perception is of external objects, and that it is direct, i.e., that it requires no *inference* from internal mental objects (especially since they regard talk of these internal objects as a linguistic artifact). Both differ from direct realist *foundationalists* in arguing that a non-inferential form of awareness such as perception is still a conceptual form of awareness (in virtue of its ability to be justified by further reasons) and hence not absolutely epistemically basic.[9] Sellars' and McDowell's position enables a response to the regress problem which is not foundationalist, but *contextualist*. They can reject proposition (1) of the regress problem, the premise that only supported propositions provide support, without positing basic beliefs that *never* require support. Rather than identifying an alternative form of basic support, they contend that not all support-providing propositions need to be supported *in every context*. [10]

Because the very critics of foundationalism we are about to challenge are themselves direct realists, we can simplify our defense of foundationalism by taking for granted, at least for this paper, that perception is of physical objects and that perceptual beliefs do not require previous inferential support. The interesting question then becomes whether a direct realist can still be a foundationalist. In the next section, I will examine claims that direct realism cannot solve the regress problem in foundationalism's favor. We shall see that the epistemological shortcomings of recent versions of direct realism can be supplemented by a greater appreciation of the psychology of concept-formation which I have been urging. Ironically, if we appreciate these points of psychology, we will find that Sellars' and McDowell's criticisms of foundationalism rely on assumptions at odds with their own concessions to direct realism.

3. A dilemma for contemporary direct realist foundationalism

[8] Consider Sellars' statement in *Science, Perception and Reality:* "physical objects are really and directly perceived, and that there is no more basic form of (visual) knowledge than seeing physical objects and seeing that they are, for example, red and triangular on this side" (1991, 87).

[9] Sellars may also endorse a version of adverbialism, which leaves it open that perceptual experience may exist in the absence of an object. This is at odds with the version of direct realism that I endorse, and probably at odds with seeing perception as providing a foundational role in justification. But the dispute between adverbialism and an object-dependent theory of direct perception is not at issue at present. The point is simply to emphasize that Sellars does not call into question the fact that when we perceive objects, these objects are perceived directly and as existing in the world, not inside our minds. This means that we should expect less resistance on this point when we show how conceding it ironically weakens Sellarsian objections to the epistemological role of perception.

[10] Suppose that we take as P_1 "This tie is green." According to the contextualist, P_1 does not require support by reference to any other proposition P_2 *unless* its standing as knowledge is challenged socially. To use Sellars' example, we can and must justify our claim that a tie is green, if appropriately challenged, by stating that we are perceiving it under standard conditions of perception, and claiming that perceptual reports with that content under these conditions are reliable, etc. In contexts missing such challenges, we can be said to know that the tie is green provided that we would be able to offer this support if challenged. Having *previously* inferred this belief from another belief (or having previously done anything else justificatory) is not required.

Laurence BonJour (2004, 2007) is probably the leading contemporary critic of direct realist foundationalism. Though he is a foundationalist himself, he views "pure reason" rather than perception as the source of basic beliefs. Even though BonJour's positive alternative is therefore very different from Sellars' and McDowell's positions, his reasons for rejecting direct realist foundationalism are virtually identical to theirs.[11] Especially because he presents his reasons very clearly, it is worth evaluating them as representative of the broader position targeted in this paper (and we will get back to Sellars and McDowell specifically in the next section). In essence, BonJour contends that even if direct realism is a correct theory of perception, it does not supply its own theory of epistemic justification, let alone a foundationalist version of such a theory:

> Even if the perceptual awareness of material objects is arrived at without inference, and even if the objects in question are from a phenomenological standpoint simply presented in our perceptual experience, neither of these forms of directness or immediacy seems in any very obvious way to yield a good reason or basis for thinking that the resulting claims about the physical world are true or likely to be true (BonJour 2004, 356).

BonJour goes on to examine the details of several prominent versions of direct realism, and concludes that none of these provides an adequate account of epistemic support. It is worth briefly examining each of these views and BonJour's responses to them.[12]

Michael Huemer's (2001) direct realism holds that perceptual knowledge is non-inferentially justified on the basis of perceptual experiences. Huemer maintains that perceptual experiences have propositional, representational content, which content justifies our basic beliefs in accordance with the "rule of Phenomenal Conservatism": "If it seems to S as if P, then S thereby has at least prima facie justification for believing that P." Though he takes perceptual experience to have propositional content, he also insists that it is not *conceptual* content. It is non-conceptual because it represents objects in a manner that is highly determinate and enriched compared to our conceptualization of the same objects, but it is propositional because it represents the world as being in this highly determinate way, which representation may be true or false.[13] BonJour wonders, if perceptual experience really is the basis for justified beliefs,

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[11] Though neither Sellars nor McDowell present their objections to the "myth of the given" in the form of a dilemma, I think BonJour's dilemma is implicit in their arguments. As we shall see below, the dilemma amounts to claiming that either perception is "representational" and capable of being true or false, and therefore in need of justification, or it is not representational, in which case it is incapable of providing justification. Both Sellars and McDowell agree that it is at least possible for observation reports to require justification in the correct context (see my discussion of contextualism above), challenging their status as epistemologically basic. And both emphasize that a non-inferential, merely causal connection between perception and beliefs would not count as a justificatory relationships. (As McDowell puts it, it would at best count as "exculpatory," not justificatory.) For more on the second half of the dilemma, see my discussion below of Sellars' view of epistemic perspective.

[12] Whether or not BonJour interprets these theories correctly or anticipates every possible objection they might give in response to his criticism is not so important. What emerges from his criticism is a distinctive dilemma about foundationalist justification, and examining his criticism is useful for seeing why he takes there to be such a dilemma.

[13] Like BonJour, I have serious doubts about whether it makes sense to call content both propositional and non-conceptual. On anybody's view of the nature of propositions, the possibility of truth or falsehood arises because of the possibility of misidentification of subject and predicate, where at least the predicate needs to be conceptualized. In predicate logic, the implicit subject is *x* in $\exists(x)\, Fx$, and the predicate F needs to be true of x in order for the proposition to count as true—that predicate is surely represented conceptually. In a more traditional subject-predicate logic (which

why do we have reason to think it is justified? Huemer thinks it is a mistake to suggest that perceptual experiences are either justified or unjustified, because they occur as automatic responses to stimuli. But BonJour contends that this misses the point, since by Huemer's admission, perceptual experiences are either true or false and we need a reason to believe they are true to justify anything on their basis. BonJour also contends that invoking the rule of Phenomenal Conservatism at this point adds nothing more to Huemer's case, because we still need a reason to think *it* is true. The putative fact that we invariably rely on the rule as a matter of default or presumption does not justify reliance on it or justify reliance on the perceptual experience to which it refers.

BonJour's response to Bill Brewer's version of direct realism (1999) is similar. Brewer also assumes that perceptual experience possesses some kind of propositional content. His theory focuses on how direct perception makes possible the determinate reference of perceptual beliefs. BonJour thinks this is fine as far as it goes, but wonders what questions about the reference of perceptual beliefs have to do with the *justification* of perceptual beliefs. In whatever way veridical direct perception might contribute to the reference of perceptual beliefs, our inability to distinguish between qualitatively indistinguishable veridical and non-veridical experiences (such as hallucinations) would eliminate the possibility of internalistic justification. Brewer thinks he can set this question aside by insisting that justification does not require the ability to distinguish infallibly between veridical and non-veridical cases. But BonJour thinks this is a red herring: his point is not that we lack an infallible internal criterion for distinguishing between the veridical and the non-veridical, but that we have *no criterion at all*. As in his response to Huemer, then, BonJour wants to know what reason we have to believe that our perceptual experience represents the world accurately—a point that is plausible as long as direct realists maintain that perceptual experience has something like propositional content.

Brewer himself later recognizes this difficulty, and revises his position to show how perceptual experience might count as both non-propositional and non-conceptual (Brewer 2006)—the type of revision we will have occasion to revisit. For the time being, it is useful to examine BonJour's third direct realist candidate, Steven Reynolds (1991), who initially opts for a non-propositional view of perceptual content. According to Reynolds, perceptual content (in this example, of a visual kind) consists in an arrangement of various color patches of different shapes and sizes in a subject's external visual field. There are correlations between types of arrangements and claims about external objects made by one's epistemic community.

I favor), both the subject and predicate need to be conceptualized, or, in the case of indexically-represented subject terms, at least presuppose prior conceptualization ("This (man) is F"). Later, I propose that perception is neither propositional nor conceptual, but, contra Huemer (2001, 72-4), I contend it is nonetheless a source of justification.

As a direct realist myself, I am sympathetic with Huemer's view that perceptual content has a richer content than conceptual content, but I do not think one needs to think of it as perceptual or even as *representational* in order to capture this view. It is a legitimate to loosely describe someone's perceptual experience as, for example, "representing a stick to be bent." But we can describe it this way without assuming that the experience itself is propositional or true or false. When describing it this way, we could simply mean that a perceiver's experience is such that, if we who have conceptual beliefs were to have it, we would assert on its basis the proposition that the stick is bent. Or we might only mean that a preconceptual perceiver perceives it in a way that *looks similar* to an actually bent stick. There is still room for a distinction between non-propositional experience and conceptual/propositional interpretations of that experience, even if our descriptions of experience are as Huemer suggests.

When one's own claims about material objects exhibit this correlation, Reynolds says one's claims are justified. BonJour complains that if the subject does not actually have a good reason to believe that his claims reliably match this correlation, he cannot be said to be internally epistemically justified in believing that his claims are true. At best, our beliefs are causally explained insofar as they conform to a truth-conducive rule, but this does not make them justified. BonJour's objection here is reminiscent of a standard Sellarsian objection to externalist theories of justification: that it is not enough for a subject's claims to have authority—the subject must also, in some sense, *recognize* that authority (Sellars 1997/1956, 74-5).

According to BonJour, then, direct realist foundationalism faces a dilemma. On one hand, perceptual experience might have propositional content and present something true or false, in which case its role in justifying other beliefs would be clear, but the acceptance of what it presents would itself require justification and a regress problem would remain. On the other hand, perceptual experience might have no propositional content, in which case there would be no problem of needing to justify the acceptance of a perceptual presentation (it would be neither true nor false), but there would be a new problem of explaining how our non-propositional experiences could justify our propositional beliefs. In either case, we are faced with a version of Sellars' problem about the need to recognize the authority of our evidence, what we might call the problem of *epistemic perspective*. In earlier work, BonJour claims that this is a dilemma for *any* version of foundationalism based on "the empirically given":

> [T]he proponent of the given is caught in a fundamental and inescapable dilemma: if his intuitions or direct awarenesses or immediate apprehensions are construed as cognitive, at least quasi-judgmental . . ., then they will be both capable of providing justification for other cognitive states and in need of it themselves; but if they are construed as noncognitive, nonjudgmental, then while they will not themselves need justification, they will also be incapable of giving it. In either case, such states will be incapable of serving as an adequate foundation for knowledge. This, at bottom, is why empirical givenness is a myth (BonJour 1985, 69).

My aim is to show the direct realist foundationalist a way to slip between the horns of this dilemma. To avoid the need to justify perception itself, we should, contra Huemer and the early Brewer, take its content as non-propositional and thus neither true nor false. But then we also need to find some rudimentary way in which a subject could have an epistemic perspective on the relationship between direct, non-propositional perception of objects and one's basic beliefs. To show how this could be done, we need to find some support relationship between the non-propositional and the propositional, *the grasping of which is also non-propositional* (and thus not itself in need of further meta-justification). If there is no such support relationship, the direct realist cannot avoid a regress or meta-regress problem without compromising internalism or adopting Sellarsian contextualism. But if there is such a support relationship, there can be a version of foundationalism that rivals Sellars while maintaining internalism and avoiding the inconsistent triad.

Interestingly, BonJour himself considers possible ways of escaping the dilemma in his earlier work. He considers the possibility of a "quasi-cognitive (or semi-judgmental) state, which resembles a belief in its capacity to confer justification while differing from a belief in not requiring justification itself" (1975, 77). BonJour thinks that positing such a state is "*ad hoc*," and needs to be established independently of the need to avoid the dilemma. But if the existence of this state is a genuine possibility, then the dilemma mentioned above is not "inescapable." So we need to consider whether it is a genuine, rather than *ad hoc* possibility. For his part, BonJour rules it out as genuine because he thinks the direct realist appeal to the mind's immediate confrontation with the facts is just a "metaphor" because "the mind is…not an eye, or…anything like an eye" (77). This is a curious response because the *eye* is quite a lot like an eye, and direct realists about *perception* should not be deterred from making reference to "immediate confrontation." The question is whether such confrontation is justificatory. BonJour addresses this question when he says that so long as the quasi-cognitive state "involves anything like a *representation*, the question of justification can still legitimately be raised: is there any reason to think that the representation in question is *accurate* or *correct*?" (78). Here, BonJour begs the question against the kind of direct realism we are now entertaining, which of course rejects the idea that direct awareness has content that can be true or false.[14] Granted, many philosophers, including direct realists like Huemer, have raised problems for the idea that perceptual content is neither true nor false, but this protest has been registered mainly on the grounds that non-propositional content would be incapable of justifying beliefs. In what follows, however, I contend that considering the psychology of concept-formation does help to show how non-propositional content might justify the propositional.

4. Foundational justification as justifiable concept-application

We need to find a non-propositional mode of awareness (other than the direct perception of objects) that counts as an awareness of the *relationship* between one's non-propositional perceptual awareness and one's propositional beliefs. Curiously, BonJour himself also considers the possibility of just this type of awareness in his earlier work. At one point he critiques Anthony Quinton's view (1973) that we can understand the justification of basic beliefs as closely related to our grasp of their *meaning*. According to BonJour's characterization of Quinton, if the meaning of some statements can be established *ostensively* (which seems required by a regress argument of its own), then

> . . . ostensive statements are . . . introduced into language by correlating them with external states of which one is directly aware; and a subsequent direct awareness of the same sort of external state of affairs would provide an adequate, noninferential justification for the assertion of a statement whose meaning was thus specified (BonJour 1985, 71).

[14] Above I have made some use of the fact that both Sellars and McDowell are direct realists and that we can take heart in their concession to the view that perception is both non-inferential and of external objects. For the sake of full disclosure, it is worth remembering that they reject the idea that direct realism requires the non-conceptual content of perception. We will deal with their contention of this requirement later.

If Quinton's proposal is right, one has a non-propositional grasp of epistemic perspective on one's belief as long as one has *some kind* of non-propositional grasp of the perceived objects' "sameness of sort" with objects perceived in the past, those by reference to which one ostensively established the meaning of the same belief type in the first place. This grasp would be a form of meta-awareness, an awareness of one's present perceptual awareness *in relation to* previous perceptual awareness. If it is non-propositional, then there would be no question of whether it is accurate or not, and grasping it would require no further regress-generating justification. So, can there be a non-propositional grasp of an object's being of the "same sort" as another?[15]

Whether or not Quinton's view includes this point, it *is* important that direct realist foundationalism insist on the possibility of a *non-propositional, non-conceptual* form of awareness of the something like the sameness of sort. The best candidate for this form is the grasp of *perceptual similarity relationships.* A perceived similarity is not literally an awareness of the sameness of sort: one who pre-conceptually perceives two objects as similar does not yet grasp a "sort" over and above the objects of perception. But perceived similarity, the ability to see two or more objects as resembling each other, is the preconceptual precursor of concept-formation, the explicit grasp of "sorts." In the next section, I will say much more about what perceptual similarity consists of, and how it forms the basis for concept-formation.

For now, the first point to make is that the grasp of such similarity is akin to the perceptual grasp of objects affirmed by direct realism. Without this point, my proposal would fall prey to Sellars' objection that the grasp of similarity presupposes further concepts, such as that of "similarity," and that of the respect in which things are said to be similar (Sellars 1997/1956, 63). Similarity is a relationship rather than an object, but at least in the Gibsonian direct realist tradition, one can directly perceive *particular* relationships just as well as one can perceive particular objects without the need of additional conceptualization, e.g., one can perceive a particular distance or a particular location. I think Gibson is right about this.[16] One can see

[15] I should mention that at this point BonJour makes two objections to Quinton's proposal. The first deals with whether it is even possible to grasp meaning ostensively, as through perception (1985, 71). Though I will have much to say on this topic in the next section, I will only mention that I think BonJour's specific objection here begs the question against direct realism, in that he explicitly assumes, without argument, that grasping meaning must be propositional. Also BonJour assumes that if content cannot be grasped propositionally, it cannot suffice to provide a basis for propositional content. This is a non-sequitur, since the reason non-conceptual content might not be *fully* propositionally graspable is that it is may be too rich for that: but this would mean that non-conceptual content is *more* than sufficient to provide a basis for the conceptual kind.

BonJour's second objection to Quinton (71-72) tries to separate questions about the sources of meaning and the sources of justification. Though his point is not stated clearly, BonJour seems to suggest that the source of content is irrelevant to whether its assertion is justified: one might form a concept or belief through electrode stimulation, and still eventually justify the belief. This objection is not really an objection to our particular proposal, but to any evidentialist theory claiming that justification *must* find its source in (usually perceptual) evidence. It assumes the plausibility of the pragmatist-coherentist view that only the consequences of a belief, only its eventual testing or integration into a system of beliefs, determine its justificatory status. For present purposes, I abstain from defending the view that foundational justification is *necessary*, and simply defend the view that it is *possible*. Whether it is possible is the primary question at issue in BonJour's dilemma, and related regress problems.

[16] Agreeing with Gibson on this does not imply agreeing with him about *every* relationship he thinks can be directly perceived. In particular I think most of the relationships Gibson characterizes as "affordances" are probably not directly perceived, but are the result of various kinds of post-perceptual processing, not direct perception. Arguably, the grasp of similarity itself is not the most fundamental kind of perception (perception of objects is), but it is still prior to the kinds of post-perceptual processing that Gibson mistakes for perception.

the difference in length between a pencil and a toothpick and one can see the pencil next to the toothpick, without judging *that* the pencil is longer than the toothpick, or *that* the pencil is next to the toothpick. One does not need to be aware of something *as the kind of thing it is* in order to perceive it; nor does one need to grasp something as a kind of relationship to perceive the relationship, provided that it is a sufficiently simple relationship.[17] This is so, even if the relationship in question is that of similarity, the awareness and retention of which may help one *later* develop an awareness of sameness of kind. There is no reason to deny that particular similarity relationships might be perceived in the same way as other relationships, provided that the similarity in question is sufficiently simple. One can see the similarity between the toothpick and the pencil in comparison to a ball, as well as the even greater similarity between two pencils in comparison with the toothpick—even if one cannot easily see,e.g., the similarity between whales and other mammals. Count this as the first way in which direct realism about perception informs the theory of concepts underwriting an associated theory of epistemic justification.

How then does the perception of a particular similarity relationship form a basis for the awareness of a kind *as* a kind? Probably the formation of the first concept on the basis of a perceived similarity coincides with the formation of the first justified belief on the same basis.[18] One does not use concepts except in the context of propositions, and one does not form a concept except in the process of forming—and asserting—a proposition. One forms a concept when perceived similarities become important enough in one's cognitive life that knowledge of the similarity is worth retaining. So one only comes to possess the concept TABLE, for instance, when one first becomes aware of a cognitively important similarity between two tables, using the holophrastic sentence, "Table!" (implicitly, "This is a table"). Of course one doesn't need to perceive a similarity between two *immediately present* tables in order to justifiably assert "Table!" One could perceive a single table and be aware of the similarity between it and previously perceived tables through non-propositional, episodic memory. Foundational justification, on this proposal, is justifiable concept-application in virtue of a perceived similarity—and justifiable concept-application, following Quinton's proposal, is essentially a kind of rehearsal of the same cognitive act whereby one originally formed a concept.

It is worth mentioning, briefly, that there is an important sense in which the formation of the concept itself is *justified* on the basis of the perceived similarity (Salmieri, 2007). As mentioned above, we need concepts to highlight *cognitively important* similarities, those worth retaining as enduring forms of awareness, and only the sorts reflective of this requirement count as justified. There are many cognitively unimportant similarities (e.g., that between everything that is both orange and round, or that which

[17] Confusion between universals and particulars is at the root of many errors in the theory of concepts. There seems to be a bias that any type of existent apart from entities is "abstract," that such things as properties, qualities, and relationships are by their very nature universal. I don't see any reason to believe this, though it may be true that many of the properties, qualities and relationships we know of we cannot perceive as particulars. This is also true of entities: some are too big or too small to perceive, and we would not question their status as particulars for this reason. Just as there can be particular entities and particular actions, there can be particular relationships and properties, at least some of which we can perceive. Metaphysicians sometimes call particularized properties "tropes."

[18] For intriguing developmental evidence concerning children's use of one-word utterances and how they correlate with learning of their first words (and concepts), see Bloom (1993) and especially (1973). For an important discussion of how this evidence helps undermine a variety of inscrutability of reference problems from Quine, see Modee (2000).

Goodman suggested to hold between anything that is either a bag or a naval fleet). Early in one's cognitive life, it is probably difficult to form unjustifiable concepts that highlight overly superficial, baroque similarities: the most obvious, unavoidable similarities are those that are cued toward our immediate survival needs, and we probably do not even have access to the baroque similarities. But as our knowledge grows, the choices we exercise over the process of conceptualization also grow, and more guidance is needed to navigate between justified and unjustified concepts.

What, then, makes for an important similarity, and how can one be aware of its importance nonpropositionally? One issue is the mere frequency of perceived similarities, and plausibly one could possess rough non-propositional episodic memory of relative frequency, given enough repetition. The more important issue is the *causal import* one attaches to similarities. Some similarities are merely superficial, and conceptualizing them would not generate new inferences—a point appreciated by recent cognitive and developmental psychology.[19] Real cognitive importance is attached to those similarities which are *perceived* as causally significant. For example, one perceives a human being's shape as relevant to his actions, or the shape and size of a table as relevant to its function of supporting human artifacts.[20] That these causal relationships might be perceived in addition to similarity relationships is of course controversial, especially in light of Hume's critique. But direct realist and other Gibsonian approaches to

[19] Here one is reminded of Eleanor Rosch's (1999/1978) reference to Borges' portrayal of an animal taxonomy in an ancient Chinese encyclopedia, the *Celestial Emporium of Benevolent Knowledge:* "(a) those that belong to the Emperor, (b) embalmed ones, (c) those that are trained, (d) suckling pigs, (e) mermaids, (f) fabulous ones, (g) stray dogs, (h) those that are included in this classification, (i) those that tremble as if they were mad, (j) innumerable ones, (k) those drawn with a very fine camel's hair brush, (l) others, (m) those that have just broken a flower vase, (n) those that resemble flies from a distance" (1999/1978, 189). Many of these categories comprise patently superficial similarities, such as "those that have just broken a flower vase," from which nothing of causal or cognitive significance follows. On the basis of this and other examples, Rosch formulates a principle of "cognitive economy," according to which "an organism…wishes to gain from one's categories…a great deal of information while conserving finite resources as much as possible[,]…to reduce the infinite differences among stimuli to behaviorially and cognitively usable proportions" (190).

Recent years have also shown an increased appreciation for the so-called "psychological essentialism" displayed by young children, who have a surprising ability to categorize objects on the basis of inner properties which exhibit causal significance (Medin and Ortony, 1989). Many psychologists take this psychological essentialism to be represented in "theoretical" form (Keil 1992), but others suggest that the simplest appreciation of essence is available through perceptual similarity (Gelman 2004, Namy and Gentner 2002), and that this is the initial awareness of essences that makes possible the appreciation of higher-level, theoretical essences. Part of the reason "similarity" theories are seen as being at odds with "causal" theories is the longstanding bias that causal relationships are not available, perceptually. Contra this assumption, see footnote 22.

[20] Understanding similarity in light of this requirement of the cognitive significance of causal import helps answer Quine's objection to similarity as a basis for understanding natural kinds (1969b). Quine says there is something "logically repugnant" about similarity, because of the inability to identify the properties in terms of which this similarity should be formulated. Quine repeats the familiar point that two objects are similar in any number of regards, which threatens a promiscuity of natural kinds. Quine speculates that standards of similarity are innate, determined by evolution. I agree, but the types of similarity standards he takes to be most salient primarily concern color-similarity, which is an age-old empiricist bias that has long been contradicted by developmental evidence (see the next section). Children are far more impressed by similarities in shape than they are by color, and we can now understand *this* in evolutionary terms by reference to Gibson's understanding of ecological properties as forming the basis for the information pickup of perception. And when similarity is understood first in terms of shape, similarity also becomes much more respectable, scientifically. The shapes of objects have far greater causal import, which makes concepts formed on the basis of perceptual similarity "natural kind" concepts from the beginning, not just superficially-held "nominal essences." Science itself, then, to the extent that it begins, developmentally, with similarity concepts, is not, as Quine says "rotten to the core."

perception have at least made this possibility increasingly plausible.[21] On this theory, we perceive not only entities, but some simple actions and relationships. At least on this point, I think the direct realists have convincingly shown how the content of perception is richer than many might suspect (even if their position sometimes makes it too rich). I cannot defend their view here, but as I've emphasized before, my purpose in this paper is not to defend direct realism but to show how, if it is permitted its usual resources, it can support a theory of concepts in conjunction with which it yields a theory of justification. Count this point about direct realism's resources for explaining our awareness of causality, then, as the second way in which direct realism about perception informs the theory of concepts needed for a theory of justification.

While it is true that concepts formed on the basis of perceived similarities are in need of justification—as are the basic beliefs whose formation is a kind of rehearsed concept-formation—this does not mean that perceptual similarity itself needs justification. As a form of direct, non-propositional awareness, the perception of similarity needs no justification for the same reason that direct perception of objects needs none: it is not the kind of awareness that can be *true* or *false*. This might seem perplexing at first, since it seems that our ability to identify and classify things conceptually, on the basis of perceived similarities, is by no means infallible. At a distance we might erroneously identify a mule as a horse. But notice that even in this circumstance, there *really is* a perceived similarity between the mule and other horses we have seen and conceptualized. Granted, it is not the same similarity relationship as we see among horses: this is why the belief that it is a horse is an error. But in viewing foundational justification as justifiable concept-application, we are only giving a theory of *justification*. Judging a mule as a horse is an error, but in the situation in question it is a justifiable error.[22]

The view of justification I have described above and its implications for our understanding of epistemic perspective is in some respects unique as an internalist view of justification. Both BonJour and Sellars are right that, to be justified, we need to recognize the authority of our evidence, not just have evidence—that is, we need to grasp the "epistemic perspective" on our evidence. But I believe there is potential equivocation in what it is to grasp epistemic perspective. Here it helps to distinguish between what I call "particular-particular perspective" and "particular-categorical perspective." So far the recognition of authority I have considered amounts to the grasp of "particular-particular perspective," in which the awareness of a particular object has the authority to justify a judgment about the object because through this awareness one can make a direct comparison between this object and another (e.g., a similar,

[21] See Michotte (1963) for the original psychological work, and Harre and Madden (1975) for a neo-Aristotelian theory of agent causation based in part on Michotte and Gibson. For more contemporary psychological work influenced by Michotte, see Leslie and Keeble (1987), Scholl and Tremoulet (2000), and Prinz (2002, 173-177).

[22] Conceivably under other special circumstances, a very vague similarity between horses and mules would *not* justify the judgment in question. If a subject knows that the perceptual conditions are impoverished, and if he still refuses to hedge his judgment, conceivably his judgment would count as unjustified. But this possibility presupposes that the subject knows a great deal more about conditions of perception. Of course not just any degree of similarity is sufficient to justify the application of a concept, even in the absence of knowledge of perceptual conditions and the like. At the same time, not just any degree of similarity is sufficient to generate erroneous *belief*. We make erroneous identifications when we are *taken in* by a similarity. To believe a proposition to take it for granted for the sake of practical and theoretical reasoning. If a proposition conflicts with too much of the rest of what we already know, we won't believe it.

previously observed object). But when BonJour and Sellars talk about recognizing the authority of evidence, it seems they are concerned with the grasp of what I will call "particular-categorical perspective," in which one's awareness of a particular object has the authority to justify a judgment about the object only because one subsumes this particular state of awareness under a higher category of awareness which one judges to be generally reliable, (e.g. sensory perception as such).

There is sometimes a need for particular-categorical perspective. We cannot live our cognitive lives without the need to assent to the merit of some very general methods of cognition. Reliance on testimony is a good example. We need to be able to identify rudimentary reasons for a general reliance on the words of other people. Much of this needs to be held explicitly and conceptually if we are to have justified beliefs on the basis of testimony. This kind of particular-categorical epistemic perspective is necessary because it *enables* particular-particular perspective: it helps us to see *why* the content of a given bit of testimony is relevantly similar to objects of past states of awareness—a similarity which is not perceptually available. Obviously if the only form of epistemic perspective were particular-categorical perspective, a regress would ensue. One could judge instances of testimony as reliable only by subsuming them under the general reliability of testimony, which one could judge as reliable only by subsuming under another more generally reliable category of cognition, etc. This is why it is important that the most basic form of epistemic perspective be particular-particular, both because particular-categorical perspective is a means to achieving particular-categorical perspective, and because one would come to acquire the knowledge of the reliability of a general form of cognition only through a kind of induction from particulars, made possible by particular-particular perspective. So for instance, to grasp the general reliability of (simple forms of) testimony, we would need other general knowledge that we perceive things and remember what we perceive, that we can communicate our perceptual knowledge verbally, and that other people are conscious beings like ourselves who can do the same things. [23] Ultimately each of these generalizations would need to be acquired by observing the similarities and differences among our particular conscious states as well as the perceptual similarities between ourselves and other people.[24]

However, when anti-foundationalists argue that the grasp of epistemic perspective sometimes requires a particular-categorical perspective, they assume that a faculty as basic as *perception itself* requires

[23] As critics of foundationalist approaches to testimony (such as Coady (1992)) have rightly noted, we cannot reduce our reliance on all testimony directly to our reliance on observation and judgments about it. Too much of our testimony is itself dependent on the reliability of other testimony. I do not think, however, that this implies we must be coherentists about testimony. As long as we can identify certain basic, general kinds of testimony whose reliability *can* be judged on a first-hand basis (e.g., testimony about simple observable facts that anyone would be in a position to report about accurately, and would have little reason to lie about), these kinds of testimony can then be used in bootstrapping fashion to justify less obviously reliable forms of testimony. I think an overall foundational structure of testimony can be preserved. Part of the reason that Humean reductivism about testimony fails on its own terms is that assumes that the reliability of testimony can be determined only through the observation of constant conjunctions of testimony and testified-to facts. I would suggest that it largely the Humean approach to induction that is at fault here, not a foundational approach to testimony in general (but it is beyond the scope of this article and this note to argue for this point).

[24] There is, of course, much controversy in the philosophy of psychology about whether or not we come to understand other minds through the kind of induction and analogy that I am briefly describing here. But I tend to think that the objections to this proposal from "simulation theory" cannot entirely eliminate reference to epistemological generalizations, and I have illustrated this in an unpublished paper on the subject (Bayer 2007b).

justification, that we must subsume this faculty under some generalizations that would justify our reliance on it. Note that demanding justification for reliance on testimony is relatively uncontroversial: on just about anyone's terms, it has propositional content and can be true or false. But to ask for the justification of perceptual awareness *per se* is quite a different matter, and is to beg the question against direct realism. It is only on a representationalist view that some account is needed of why internal sense data accurately represent external objects. But if perception is a direct, non-propositional awareness of objects, there is no question of justification of this kind (or of any other).[25]

Now I doubt that BonJour or Sellars would beg the question against direct realism this blatantly, especially when Sellars himself is a kind of direct realist. Indeed, skeptical worries about hallucination or dreaming do not demand a justification of perception itself. They demand a justification for the claim that one *is* perceiving (rather than hallucinating). But then the question becomes why one needs this kind of justification in order to have knowledge, why one needs to eliminate, e.g., the possibility of hallucination.[26] This approach to epistemic perspective mimics the need to justify that one is seeing a table rather than a chair (a kind of particular-particular perspective) but applies it to general sources of belief (the usual subjects of particular-categorical perspective). Whether this assimilation is justifiable or some kind of category mistake is a serious question. I will make two brief responses to suggest that it is not obviously justifiable.

First, the minimalist response: suppose that when one is hallucinating, there is no obvious way to differentiate genuine perception from hallucination. Then the kind of epistemic perspective I have described is incapable of providing the justification one needs to answer the skeptic. But I think it is important not to confuse making a case for foundationalism with making a case against skepticism. The regress arguments that motivate anti-foundationalism do not necessarily involve ruling out skeptical alternatives: they concern whether it is possible to find a type of rudimentary awareness that requires no further justification. The question of what counts as *adequate* justification is a putatively separable question. In identifying the grasp of perceptual similarity as a kind of epistemic perspective, I have at least shown where we can find the source of an important kind of justification that meets internalist criteria, even if it is not the kind of justification needed to answer the skeptical challenge, a challenge that could be posed without consideration of the regress problem.

In case this minimalist response is not fully persuasive, I would like to leave the question of answering skeptical challenges to others. But I don't think I'm taking too much for granted in doing so, because answers are available in quarters that are otherwise sympathetic to the anti-foundationalist regress arguments we've been examining. The usual social contextualist response to arguments from hallucination is the appeal to "relevant alternatives." To know that *p* is to be able to rule out alternatives to *p*. Contextualists usually specify that only a subset of alternatives to *p* are *relevant* to establishing knowledge,

[25] Huemer actually makes this point against BonJour in a later reply (Huemer 2007a, 50-54). I do think, however, that since Huemer regards perceptual experience as having a propositional content, he remains subject to BonJour's criticism, unless he can defend his rule of Phenomenal Conservatism, *and its accessibility to ordinary believers.*

[26] There is a tradition of direct realist criticism of arguments from hallucination (Ghate 1998, 76-91; LeMorvan 2004, 227-8; Johnston 2004), but these are too various to examine here.

and skeptical scenarios arise only in special philosophic contexts (Wittgenstein 1969, Williams 1996). Contextualists say that what counts as relevant is determined by context. The same approach is evident in externalist epistemology. To borrow an example from Dretske (1970), to know that animals we see in the zoo are zebras, we should know that they are not mules. But we may be unable to rule out that zebras we see in the zoo are *cleverly disguised* mules. Does it follow that to know that the animals are zebras, we must *know* they are not cleverly-disguised mules? It is not obvious that this follows, or that being a cleverly-disguised mule is a relevant alternative that must be ruled out. And relevant alternatives theories are available outside of contextualist and externalist theories of justification. Michael Huemer himself, an internalist foundationalist, has proposed a theory according to which brain-in-the-vat alternatives may be ruled out as genuine epistemic possibilities on the grounds that one's perceptual experiences offer prima facie evidence against these possibilities (Huemer 2007b). I think a more refined internalist foundationalism should also support a burden of proof requirement for claims of epistemic possibility, a burden to be shouldered by specific evidence (as proposed, most notably, by J.L. Austin (1946).[27]

I shall not say more about the kind of internalist justification my proposal would underwrite, because the leading objection to it—especially from contextualist quarters—is that it presupposes a view about concept-formation that is unacceptable: the view that we can form concepts from mere perception in the first place, the view I will call *abstractionism*. I address this objection in the next section.

5. A defense of abstractionism

Sellars and McDowell, direct realists but anti-foundationalists, are also aware of the proposal to explain epistemic perspective by appeal to abstractionism. This is no surprise, since their general approach to justification is to characterize it in terms of the justifiability of concept-application. Only, in their tradition, the justifiability of concept-application is understood as a kind of socially-conditioned language game. The idea that justifiable concept-application might be understood on the basis of first-person cognitive factors independent of social sanction is regarded as an instance of the "Myth of the Given." In a crucial and revealing passage, McDowell notes a condition under which propositional beliefs *might* count as justified on the basis of non-conceptual perception, but claims that the condition does not hold.

> We could not begin to suppose that we understand how pointing to a bit of the Given could justify the use of a concept in judgment . . . unless we took this possibility of

[27] Austin of course approaches epistemology as a social contextualist, but I think his requirement of specific evidence can be interpreted along internalist foundationalist lines. The emphasis would not be so much that entertaining possibilities not grounded on evidence would be an unjustified form of cognition, but that it would not really be cognition at all. In the same way that virtue ethicists critique consequentialism for alienation of values from the concerns of the individual valuer (someone who acts for the sake of impersonal consequences in not really acting on the basis of *his* values) I would critique the acceptance of possibilities without special evidence as the acceptance of alien "beliefs." Someone who reasons on the basis of imagined possibilities is not drawing consequences using the same device, evidence, that he would otherwise demand for the sake of the acceptance of probabilities and certainties. By introducing this dichotomy into his mental life, he develops a fractured epistemic character, and these hypotheses cannot be said to be his own beliefs, let alone justified beliefs.

> warrant to be constitutive of the concept's being what it is, and hence constitutive of its contribution to any thinkable content it figures in . . . .
>
> . . . The supposed requirement is reflected in a familiar picture of the formation of such concepts. The idea is that if concepts are to be even partly constituted by the fact that judgments in which they figure are grounded in the Given, then the associated conceptual capacities must be acquired from confrontation with suitable bits of the Given: that is, occasions when pointing to an ultimate warrant would have been feasible. But in any ordinary impingement on our sensibility, it would have to be a manifold Given that is presented to us. So in order to form an observational concept, a subject would have to abstract out the right element in the presented multiplicity (McDowell 1996, 6-7).

Here McDowell is considering our proposal in its essence: the idea that there is a strong link between understanding the justifiable application of a concept and understanding its meaning (its being "constitutive of the concept's being what it is"). And, for the *Given* to partially constitute our concepts, concepts must have been acquired from "suitable bits of the Given."

But neither McDowell nor Sellars thinks it is possible to "abstract out the right element" without presupposing other conceptual capacities. This is why they reject foundationalism while accepting the possibility of non-inferential knowledge: what non-inferential knowledge we have still presupposes other concepts and cannot result *ultimately* from a form of awareness that involves direct confrontation with the Given. In this regard, McDowell makes special reference to Peter Geach's "trenchant" Wittgensteinian critique of abstractionism in his book *Mental Acts* (1957). It is not clear whether he intends Geach's work as offering a conclusive refutation of abstractionism, but it is worth examining Geach's arguments as representative of skepticism about the view. Should they turn out to be less than trenchant, McDowell's objection to my proposal will be threatened. I will argue that Geach's objections *are* less than persuasive. Ironically, they fail to persuade precisely because they neglect the possibility of a direct realist theory of perception—the very theory that Sellars and McDowell themselves take for granted.

According to Geach, "abstractionism" is the doctrine that "a concept is acquired by a process of singling out in attention some one feature given in direct experience—…and ignoring the other features simultaneously given." On this view, "all acts of judgment are to be accounted for as exercises of concepts got by abstraction" (1957, 18). Geach acknowledges that abstractionists will not always contend that *every* concept is gotten by abstraction from perceptual awareness. Even still, Geach insists that *no* concept is acquired this way.[28] In most of the sections cited by McDowell, Geach surveys the hardest cases for

[28] Interestingly, while Geach situates his critique in the Wittgensteinian tradition, he begins with a point that might seem alien to Wittgensteinians, but useful to foundationalists. Geach rejects the contention that individual concepts have no meaning to call their own, as one might think on the grounds that meaning is use, and concepts are used only in the context of an overall sentence. He notes that sentences as a whole do not acquire meaning through use, for many sentences are entirely original. Here he is referring to what we now call "compositionality": "It is words and phrases that have an established usage; a language is mastered not by learning whole sentences out of a guidebook but by learning to make up sentences in it and to understand sentences not previously heard…The ability to express a judgment in words thus presupposes a number of capacities, previously acquired, for intelligently using the several words and phrases that make up the sentence" (Geach 1957, 12). I will assume that Geach is right about this; I have long thought that there is a tension between two related Fregean points in this regard: the emphasis on compositionality, and on the "context principle" (that words have meaning only in the context of a sentence). Obviously there are some terms in our language which are meaningful only in the context of a sentence. Logical

abstractionism: logical operator concepts, arithmetical concepts, and relational concepts. Most of the abstractionist proposals he considers for these concepts are in fact wildly implausible. But as Geach admits, it is not incumbent upon the abstractionist to account for every type of concept by direct abstraction from perceptual awareness. We might abstract some basic concepts from experience, and then widen, subdivide, or recombine them into new, more abstract concepts singling out similarities that are more distant from perception. What matters to the case for foundationalism is the *foundational*, observational concepts.

Therefore, it is not surprising that Geach says that "concepts of sensible things" are of "special interest." These, he thinks, are "formed by picking out features directly given in sense-experience" and used to form "concepts of kinds of substance, like gold and water…by piecing together …concepts of their characteristic sensible features" (19). Geach even devotes a special chapter to what he takes to be paradigm examples of concepts of sensible things: concepts of color. Presumably a refutation of abstractionism about these, allegedly the most basic of concepts, would defeat abstractionism about any concepts at all. McDowell and Sellars both rely on a similar strategy when critiquing the idea that the *exercise* of concepts might be "self-standing," when they assume that the foundationalist would privilege the position of color concepts (Sellars 1997/1956, 75-6; McDowell 1996, 12). Geach does raise thought-provoking problems for abstractionist accounts of color concepts. For example: a sensation of red could serve as data for both the concept of COLOR and of CHROMATIC COLOR (i.e., colors other than white, grey, and black). Yet a sensation of red is but one sensation, and there seems to be no way to divide its chromatic color from its color, more generically conceived. What's more, as Locke observed, there is also no way to separate RED from COLOR, as there is no differentia that can be added to something's being colored to specify what it is to be RED. In virtue of what do we grasp red *qua RED*, rather than red *qua* COLOR?

The main question to ask of Geach's critique here is if the foundationalist—especially the direct realist foundationalist—*should* assume that color concepts, or any other concepts of sensory qualities, are the most basic concepts, epistemically. Indeed Geach's contention that these concepts are concepts of "sensible things" betrays an assumption that is at odds with direct realism about perception. In fact, the version of direct realism I have been assuming should deny that the most basic concepts are concepts of sensory qualities (or qualities of any kind), because the direct realist should maintain that we are first aware of *entities*, of physical objects.

The connection between the most basic objects of perception and the most basic types of concepts can be understood better by looking back to Gibson. More obvious to us than similarities among the qualities of objects are those among the objects as object-types. Recall that central to Gibson's theory is the distinction between information that is "picked up" from the ambient optic array on the one hand, and the things or properties of the world that are actually perceived, on the other. Information about properties such as shape and resistance to deformation are picked up unconsciously, and "invariant" relationships among

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concepts like IF, THEN, NOT, AND, and OR are the most notorious examples. But the fact that some concepts have no separable meaning does not imply that none do. So Geach agrees with "the old logic-books" that judgments presuppose the exercise of concepts, though the exercise of a concept in judgment is not a "definite, uniform sort of mental act" (1957, 15).

these are extracted in a way that automatically and non-inferentially produces an awareness of the object as a whole. The awareness which this information helps produce does not at first constitute an ability to focus attentively on the attribute of shape, for example, even though some of the information unconsciously drawn upon is with regard to shape. In my view, it is natural to think that the same information with respect to which our perceptual systems detect *differences*—and hence become aware of distinct objects—should soon become the respect in which we come to be aware of *similarities*.[29] We first use perceptual similarities in three-dimensional shape, for example, to form concepts of object types, concepts like TABLE, CHAIR, and CAT, each of which we recognize especially for its distinctive shape. [30] Only once we form concepts of objects can we then attend to their qualities and attributes, and form concepts like SQUARE, RED, and FUZZY, by noting how objects of fundamentally different types can all possess the same attribute. So, some similarities are more readily available to perception than others, and concepts of object-types, not of quality-types, are the ones formed first.[31]

Recognizing that some similarities are automatically more accessible early on helps solve, in part, the problem of how we are to abstract out the "right" element: as young children, at some point we simply have no choice. This is another respect in which the perceptual awareness of similarity is neither justified nor unjustified. We cannot help but form concepts of object-types first, because salient similarities in three-dimensional shape single them out for us. And then, even though the attributes with respect to which these similarities hold are not the first things to be conceptualized, we eventually can't help but form concepts of shapes and colors themselves, because the possession of concepts of objects enables us to focus

[29] Jesse Prinz (2002) comments on how his theory of concepts (see footnote 40) predicts just what we would expect about similarity in light of Gibson's findings about perception: "The basic level generally lies at an intermediate [middle-sized] level of abstraction. . . . This suggests that shape similarity confers an advantage in learning and categorization. Proxytype theory predicts this because proxytypes are perceptually derived and shape plays a very dominant role in object perception" (163). Prinz is probably not a direct realist about perception, himself. The noteworthy lesson to take from his position here is to see the connection he notes between a point from Gibsonian direct realism and a point about basic-level concepts.

[30] Drawing in part on the work of Gibson, John Pollock and Iris Oved (2005) understand that we can recognize middle-sized objects, like cats, even when we cannot articulate a description of cats in terms of shape (or color) concepts. They speculate about how this recognition might result from a "cat detector" cognitive "module," that is acquired after seeing how the various parts of cats fit and move together in a certain uniform way, in just the same way that chicken-sexers learn their skill on the basis of an implicit learning of chicken-parts. Perhaps this results from the formation of a connectionist "neural network" that permits a sophisticated form of pattern recognition (333–8). But one does not have to accept the modularity theory of cognition or connectionism to realize that what Pollock and Oved are gesturing toward is the acknowledgement that we have something like an innate capacity to recognize perceptual similarities among objects with three-dimensional shapes.

[31] It does seem that the most salient similarities children conceptualize are those among objects (types of animal, people, food, artifacts, etc.) in regard to their shape (Anglin 1977, 71). Arguably this would be for evolutionary reasons. Differences in shape make the most difference to us *qua* animals, since these differences make the biggest difference to organisms that must locomote to obtain nutrition. The particular scientific story about how our capacity as shape detectors came about is not important. Further confirmation is found in the work of Eleanor Rosch (1999/1978), who discovered that the "basic level concepts" for adults, those concepts which designate things at the highest taxonomic level (level of generality) with maximum perceptual resemblance, are physical object concepts, are likewise the first to be categorized by children (195). For a survey of more recent work confirming Anglin and Rosch, see Sloutsky (2003). For further philosophical points about the necessary order in which types of concepts are formed, see my later discussion (using the example of blueberries and blackberries) of how a series of concepts of object-types are needed to recognize the range of variation encompassed by an attribute concept.

perceptually on these qualities and attributes (by noticing, for example, how the object type can vary while the color stays the same, or vice-versa).[32]

For all of these reasons, I maintain that the direct realist about perception should expect the most basic concepts of "sensible things" to be concepts of "middle-sized objects," of animals, of plants, of simple artifacts, etc. If this is true, a point that Geach takes to be a criticism of abstractionism actually lends further strength to the view:

> There is however no reason to think that this gives 'sensory' concepts an epistemological primacy over others; for the description of sensations is a highly sophisticated exercise of concepts, and is secondary to the application of 'sensory' concepts to the material environment. In this primary, outward-looking application, 'sensory' concepts have not in fact any privileged position; a child with only a few concepts and only a small understanding of language may easily possess concepts like *door* and *book*…before it has any colour concepts at all (41-2).

"But of course!", the direct realist should insist. The child is able to use these physical object concepts first because *they* are epistemically basic, *they* are the ones the child needs to abstract first in order to form the others. If the exercise of concepts of sensory qualities is sophisticated, it is no surprise, because this exercise will presuppose the acquisition of more basic object concepts. Curiously, earlier in his book, Geach proclaimed that he would not critique abstractionism by resorting to the findings of developmental psychology, but on the grounds that abstractionism stems from a "wrong analysis about *what is done* when the concept is exercised" (18). Yet here his critique does refer to a seemingly relevant point from a kind of common sense developmental psychology.[33]

So concepts of middle-sized object-types are much better candidates for the basic-level concepts that would feature in the foundationalist's basic beliefs, as they do not presuppose other concepts in the way that quality or attribute concepts do.[34] Direct realism's role in identifying the proper basic-level

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[32] Again, see more about this in the section eleven paragraphs from this point about blueberries and blackberries.

[33] Perhaps he regards it as too obvious even to require special scientific evidence. But that is further to my point that the kind of psychological evidence we need to develop a theory of concepts needn't be specialized or experimental. In this case, it is something any parent could observe, perhaps something any individual could remember about his own conceptual development. Certainly many of us remember learning color *words* later than words for types of middle-sized objects.

[34] Critics could object that abstractionism's allegedly basic level concepts, *physical object* concepts (like DOOR and BOOK) might still presuppose other concepts, and that for this reason, the abstraction and reapplication of said concepts could not deliver truly epistemically basic propositions (see Fumerton (1998)). In my mind, the most plausible case for this claim would be the Kantian position that physical object concepts presuppose the concepts of space and time, the principles of individuation of objects. But I also think that Gibsonian theory affords many of the resources we need for understanding, at the very least, how spatial relationships might be perceived directly (at least given the direct perception of entities). As for temporal relationships, I would argue for the relevance here of an Aristotelian perspective on time as a way of grasping motion, and motion is clearly grasped perceptually.

But Kantianism about space and time is controversial, and more plausible objections are likely to come from more standard contextualist considerations. Sellars says that a knowing subject needs to recognize the authority of his observational report by, say, recognizing that it has been made in the "standard conditions" of perception (in broad daylight rather than under artificial lighting, for instance.) Or as Sellars summarizes it, the subject recognizes that "utterances of 'This is green' are reliable indicators of the presence of green objects in standard conditions of perception." Hence in knowing "This is green," one presupposes concepts such as UTTERING 'THIS IS GREEN,' and the concept of STANDARD CONDITIONS OF PERCEPTION.

concepts is thus the third major way in which its view of perception helps support a view of epistemic justification. (The first two roles involved its support for the possibility of a non-conceptual grasp of similarity, and of causal connections.) In what remains, I will say what more besides a direct realist theory of perception is needed to inform the foundationalist's theory of concepts.

So far, I have only shown that it is more plausible that concepts are abstracted on the basis of perceived similarities than Geach thinks. I have not yet suggested how abstraction from that basis would work. To see the way to an explanation, it is useful to consult Sellars' own critique of abstractionism. Sellars sees a particular view about abstraction as fundamental to all versions of the Myth of the Given: "all have in common the idea that the awareness of certain *sorts* . . . is a primordial, non-problematic feature of 'immediate experience'" (Sellars 1997/1957, 59). He thinks this view amounts to treating sensations as involving "absolutely specific, and infinitely complicated, *thoughts*," and illustrates the view by reference to the theories of the classical British empiricists. Sellars observes that Locke takes for granted that we have awareness of "determinate sense repeatables" like particular shades of red (CRIMSON, SCARLET, etc.) and only sees a problem in explaining how we are to abstract "determinable repeatables" (like RED) from determinate ones. What is the problem with this view, and how shall we evaluate Sellars' response to it?

First, Sellars observes that Locke attempts to account for abstraction by understanding determinate concepts as conjunctions of separate properties. CRIMSON, for example, might be understood as a conjunction of (A) RED and (B) some additional characteristic distinguishing CRIMSON from SCARLET.[35] The determinable concept RED would then be formed by simplifying the conjunction of A and B, isolating A from the distinguishing characteristic B. The trouble is that there is no such characteristic B that separates CRIMSON from other shades of red. That is because there is no "pure" identical red that forms a part of shades like crimson which can be isolated from other non-red aspects of the shade. The shade is one form of red, through and through, although nothing qualitatively identical can be found in common among all shades of red, all of which differ continuously in hue. (This is the same problem as determining what distinguishes RED from COLOR, or CHROMATIC COLOR from COLOR.)

Sellars suggests that a disjunctive rather than a conjunctive approach would obviate the need to find a characteristic like B to isolate determinate concepts. One could think of RED as [CRIMSON or SCARLET or ROSE or MAROON, etc.] This would also permit an answer to the objection Berkeley posed for Locke's theory of abstraction, that there is something incoherent in an idea of TRIANGLE which is "neither oblique, nor rectangle, neither equilateral, equicrural, nor scalenon; but all and none of these at

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What concepts might be presupposed in recognizing the authority of physical object reports? That is, what concepts might be components of "X" and "Y" for the corresponding "X is a reliable symptom of Y" for physical object reports? It seems much less likely that Sellars could invoke questions about "standard conditions" for the perception of physical objects. The need to speak of standard conditions arises mainly for identifying attributes of objects, especially "secondary quality" attributes that vary more with the state of the perceiver. The only conditions that would seem to determine the reliability of the perception of *objects* would be whether or not one is hallucinating. But see my comments on skeptical alternatives in section 4 above.

[35] Both Sellars and Locke make Geach's mistake of assuming that concepts of sensible qualities like color are basic, but the point Sellars raises here, though it involves an example about color, raises a problem that is more general.

once" (Locke 1979/1690, IV, Ch. vii, §9). However, the likely response here is that no finite number of *completely* determinate concepts could possibly go to form the concept of a determinable, since something like a color continuum can be cut into an infinite number of discrete shades. Hume's "missing shade of blue" example also shows that no such disjunction of determinate concepts is necessary or sufficient to understand BLUE (or RED), since the concept might be seen as applying to the missing shade even if it doesn't make it onto the original list of disjuncts. Later Sellars comes to consider a version of "psychological nominalism" inspired by Hume, according to which red particulars fall under determinate and determinable concepts only in virtue of an association between the *word* "red" and particulars which are *in fact* similar. This association is engendered ultimately through social conditioning, rather than cognitive awareness, since Sellars assumes that grasping similarity requires conceptualizing objects *as* similar, and conceptualizing the respects in which they are similar.[36]

Is there an alternative to the Lockean view of the formation of concepts of determinables apart from Sellars' holistic "psychological nominalist" view? We have already seen a glimpse of one way in which the perceptual similarity approach bypasses Sellars' alternative. Since an enriched (Gibsonian) view of perception allows for the direct perception not just of objects, but of some basic relationships, it should allow for the perceptual grasp of basic similarity relationships, without presupposing that such a grasp requires any conceptual abilities.

Of course, simply noting how perceptual similarity is available as a *basis* for concept-formation does not give us a theory of *abstraction* from this similarity. But Sellars' criticism of the Lockean view of abstraction gives us clues about how to articulate an alternative approach to abstraction. Locke's error is to assume that the awareness of a repeatable depends on the awareness of qualitatively identical parts or aspects of entities. If there were such qualitatively identical parts, such as a "pure" red found in every shade of red, we would need no more than the comparison of two particulars possessing it to conceptualize the repeatable—but there are no such pure identities. A non-Lockean approach should embrace awareness of the variability of shades as essential to the very process of abstraction. Indeed the awareness of similarity itself is to be understood not as grasping an identity surrounded by differences, but as grasping a form of comparative difference. We grasp the similarity between a particular shade of crimson and a particular shade of scarlet—the basis for thinking of them as determinations of a repeatable—only *because* we see these two shades as different, but as less different than each is from, say another particular shade of yellow. Perception of similarity arises from active perceptual interrelation of the similars in contrast to "foils"

[36] Eventually Sellars acknowledges that this simple formula is "impossibly crude and inadequate as an account of the simplest concept." His more fully developed view explains how concepts might be acquired holistically as the result of a coalescence of non-conceptual habits, habits of reliable linguistic expression in response to sorts of physical objects. A concept is formed when enough such habits coalesce that one is able to relate one's various reliable responses, i.e. place them in a "space of reasons." As I discuss in footnote 35, he takes this to mean that concepts are formed not singly, but in holistic batteries simultaneously. Ultimately his holism stems from his demand for epistemic perspective: to have a piece of perceptual knowledge demands the conceptual recognition of its authority. As should be evident from my earlier section, the need for epistemic perspective does not entail holism, as long as nonconceptual forms of perspective are available.

which differ more from the similars than they do from each other. Without the foil, we might only see the similars as irreducibly different (Kelley 1984, 336-342).

This point addresses Huemer's concern that if perceptual content were non-propositional, it would be "intrinsically meaningless" and incapable of being the basis for concept-formation (2001, 72-4). It is correct that single, isolated percepts would indeed be conceptually meaningless on my account. So, it seems, would pairs of them. The solution is to recognize that conceptual meaning comes from the active interrelation of at least two perceived objects with a foil. The concept of TABLE does presuppose some recognition of the contrast between tables and non-tables. Contrary to Sellars, however, the only "holism" involved in this process is with regard to one's perceptual knowledge: one must *see* the difference between tables and non-tables to grasp the similarity among tables. But it is not even necessary that we form TABLE by forming some complementary concept, like CHAIR: it is enough that tables are contrasted with as yet-unconceptualized chairs and entities of many other kinds. This allows us to accept Hegel's wisdom that we form concepts through comparison and contrast, without embracing his anti-foundationalist rejection of the relevance of "sense certainty" (or Sellars' updated *"Meditations Hegeliennes*").

Understanding similarity in terms of the paradigm-foil model, which embraces similarity as a matter of comparative difference, is crucial not only to understanding similarity itself, but to understanding the process of abstraction on the basis of similarity.[37] The problem with Sellars' "disjunctive" view of concepts (the contention that a concept of RED could be equated with "either CRIMSON or SCARLET or etc…"), is that a universal concept stands for more than a finite number of relatively determinate disjuncts. How does a cognitive state capture the whole range of possibilities, the whole span of the determinable? Part of the problem, I believe, is expecting abstract conceptual awareness to be a *static* form of awareness. But we need not and should not think of concepts as mere mental states. We should approach them in the same way that the direct realist approaches perception of both objects and similarities: as a form of

[37] The paradigm-foil model of similarity helps address a problem for foundationalists originally formulated by Paul Moser (1985). If a foundationalist wishes to show how an unconceptualized perception of a cold, pink surface could support a belief about *cold*, rather than a belief about *pink*, subjects making an appeal to perception must be able to direct their attention just to the cold and not to the pink (Cling 2007, 410). Moser and Cling assume that one can simply direct one's attention to the color rather than the temperature, but it is not clear how this would work since the same surface has both properties. The problem is intensified if the two properties in question are graspable only through the same sensory modality, such as PINK and SQUARE. We cannot attend to PINK rather than SQUARE if we stare at a *single* pink, square object. We cannot do it even if we compare two square pink objects to each other, as Locke might urge. But it is more plausible to say that we can abstract PINK rather than SQUARE if we compare two square pink objects to a square white object. (To abstract SQUARE rather than PINK, we compare two square pink objects to a circular pink object.) Perceiving a similarity works something like a "method of difference" experiment: holding the color constant, we vary the shape, bringing one attribute rather than the other to the forefront of consciousness.

Cling also raises the problem of how we are to abstract WATER rather than H20 from samples of water, or any concept which nomologically or conceptually implies other concepts we do not seem to be in a position to grasp (410-11). I think this problem is much easier to solve than the attention problem, which Cling thinks is easier. Simply stated, nobody thinks that crude deductive closure is true of knowledge generally ("If person S knows p, and p entails q, S knows q." Obviously people can know scattered premises of complicated mathematical deductions without yet knowing the conclusions. A similar crude principle of closure should fail for concept-possession, as well. This is underscored by the present account of concept-formation, which reminds us that while we have automatic awareness of similarity in regards to shape and color (which enable us to form a concept of WATER), we do not have such awareness of similarity in regards to hydrogen or oxygen atom possession.

awareness enabled and even constituted by an *active process* of cognition.[38] The processing involved in the perceptual grasp of entities as such is often strictly physiological and unconscious, but even still active discrimination and attention is sometimes needed to perceive a given entity. The role of conscious activity increases as we move up the scale of cognition. We have just seen how a form of active interrelation is needed to grasp perceptual similarity, when it is understood as a form of comparative difference. This should lead us to expect *abstraction* from similarity to require even more conscious activity.

Finding the form of active conscious activity needed for abstraction will improve upon Sellars' disjunctive proposal, which could not account for how concepts integrate a potentially infinite range of referents. Consider an analogy: there is a potentially infinite number of points between one end of a room and another, and Zeno could not conceive of reaching each point along the way while still reaching the other end of the room. We know, of course, that one can make the trip in one swift, active motion. We should think of conceptual reference along the same lines. As long as a concept is understood as having to embrace each "point" of reference separately, its ability to do so for potentially infinite such points is inconceivable. But if to grasp a concept is to make an "active motion," rather than to hold a static number of representations, there is no conceptual Zeno's paradox. What is the nature of this "active motion" for concepts? Consider the pre-conceptual ability to *transform* objects in imagination. We can imagine the color crimson turning into scarlet by mere changes in degree, or even a table turning into a chair. Not every color in the universe counts as red, and not every artifact as a piece of furniture: the range is finite, even if the boundaries of the range can be vague. There is potentially infinite variability within the scope of that finite range, but we don't need to "stop" mentally at each such possibility to grasp the range. To be sure, we may never actually imagine transformations from one end of the spectrum of reference to the other along every possible dimension of variability. What is important is that we *can*, and that after perceiving similarities, we can, in virtue of this ability, identify new referents as falling inside or outside the scope of these similarities (depending on the "distance" from the paradigm or foil). Here I have by no means fully articulated or defended the proposal that imaginative transformation plays a role in abstracting from similarity, but I believe that considering it is the most promising avenue to explaining a fully direct realist version of abstractionism.[39]

It is worth mentioning that it is not enough to be able to imagine a single type of object changing from one color to the next in order to form concepts of attributes, such as color. To completely grasp color as an attribute in abstraction from objects, one must be able to comprehend that blueberries differ from blackberries in precisely the same way that bluebirds differ from blackbirds, that the referents of many

[38] For more in support of this point, and its implications for understanding the nature of a truly prescriptive conception of epistemology, see Salmieri and Bayer (2009).

[39] Prinz (2002) has formulated a new theory of "concept empiricism" that explains how concepts of middle-sized objects are abstracted from perceptual experience, which exploits mental devices he calls "proxytypes," products of "long-term memory networks" which permit the grouping together of quantitatively-varied percepts. Simple examples of these networks include "hierarchical" representations, which encode and integrate changes in experience as one "zooms" in or out on an object, "transformational" representations, which do the same for moving objects, and most importantly, "*predicative"* representations, which exploit the other types to group objects on the basis of similarity (as if a similarity range could be grasped as a transformation from one similar to another) (2002, 141–4). See also Kelley (1984, 345).

types of physical object concepts may differ in this way of being. One must be able to understand *conceptually* that the range of possible differences may apply. This is part of the reason that color concepts are not, in the end, the most basic concepts—their grasp *does* presuppose the possession of physical object concepts in terms of which the range of differences may be understood.[40] Physical object concepts can be abstracted in much the same way in which we have described color concepts being formed, but the range of possibilities to be imagined will vary along axes of three-dimensional shape and associated types of perceived motions and/or causal powers (the awareness and imagination of which can be pre-conceptual, according to direct realists).

One last point, especially important to combating Sellars' nominalism, is that the awareness of similarity on this model is not a wholly psychological, subjective phenomenon. There are objective facts that make it possible for us to see similars as falling along the same range in the first place. Recently Gregory Salmieri (2008) has argued persuasively, contrary to conventional wisdom, that Aristotle's theory of concepts explains the relationship between determinables and determinates by reference to objective facts, without falling into the trap of the Lockean view of abstraction. Color and shape are just distinct from each other in a way that red and blue are not. They are "incommensurable" and cannot be compared directly. Red and blue, on the other hand, are not merely distinct. They differ from each other in a comparable way, existing as determinates under the same determinable. As Aristotle puts it, "difference and otherness are distinct. For while the other and that which it is other than are not necessarily other in something . . . the different differs from something in something."[41] Kind members differ "in the more and the less," according to Aristotle (1055a3), in merely quantitative ways with respect to a commensurable characteristic. Salmieri offers an intriguing account of the connection between Aristotle's conception of kinds and his conception of "intelligible matter." Members of kinds which differ in the "more and the less" differ only in their potential to be transformed intellectually from one determinate member to another, and as such, their sameness of kind consists in this potential. But clearly there exist real commensurability relationships among them (relationships which do not exist between, say, colors and shapes). What's more, members of the kind must have an objective causal unity that provides explanatory connections among the defining characteristics of the concept. Rather than being arbitrary groupings, concepts formed in this way designate groups that are held together by objective relations in reality, if not by the possession of qualitatively identical characteristics (as the conventional reading of Aristotle suggests).

Even if this is not Aristotle's real position, it is a provocative proposal in its own right, and similar proposals have been advanced by a number of other contemporary neo-Aristotelian theories of concepts (Rand 1990, Kelley 1984, Gotthelf 2007). Only if Sellars could eliminate from consideration such theories would his nominalism be the only alternative to failed Lockean theories of abstraction, and only then would his contextualism be the best alternative to the foundationalist solution to the regress problem.

[40] I owe this point to Greg Salmieri (personal conversation).
[41] Salmieri translation quoted in Salmieri (2008, p. 79), of *Metaphysics* I.3-4 (1054b22-a12).

Even if I have identified a basic form of awareness that avoids various regress problems concerning our most basic concepts and beliefs, much more research is needed to show how the use of these basic concepts provides a foundation for large portions of the rest of our knowledge. Showing this requires a more in-depth and systematic survey of the range of our concepts and of how concepts of increasing abstraction derive from lower-level concepts. In particular, to account for the validity of scientific induction, we would need an explanation of the abstraction of concepts of causal relations (not just an account of how particular causal relations are perceived, as Gibson and others have given). But I think I have at least provided a compelling case to pursue this research project, because its basics fit the bill needed to avoid the most pressing philosophical problem for foundationalism: not whether basic beliefs can support *all* of our knowledge, but whether they can support *any* of it.

6. Conclusion

In closing, I need to mention that there is one last respect in which direct realism about perception helps inform not only a theory of concepts but an overall theory of *justification* built upon a theory of concepts.

One of the mistakes that direct realists cite as responsible for the popularity of representationalism is the confusion between the *form* and the *object* of cognition.[42] If, for example, one notices that the proverbial stick in water looks bent, and infers that there must be some intermediate object of awareness that is actually bent (unlike the non-bent stick), one is mistakenly conflating the *form* of awareness of the stick with the *object* of awareness. In fact, one is aware *of a stick*, not of a bent stick sense datum, even if one is aware of it in a *way* that more strongly resembles the way in which one is aware of bent sticks (and even if to some in certain contexts this may be misleading). Representationalists often seem to assume that if awareness is made possible by some process, it is only the final stage of the process that is the object of awareness, as if awareness must be an unmediated magical state. But as Huemer points out, the fact that one uses an axe to chop wood does not mean that one is only "indirectly" chopping the wood, and only directly chopping the axe (Huemer 2001, 81-2). Likewise the fact that human consciousness involves *and is constituted by* a definite process with a definite identity does not disqualify it from being conscious of an object distinct from that process.

Finally, then, I want to briefly urge a point that most direct realists do not acknowledge, that the form/object distinction applies not only to perceptual forms of awareness, but to conceptual forms, as well. Taking the distinction seriously helps address the concern that our approach to concepts is too psychological to undergird a theory of epistemic justification. This returns me to the concern I mentioned at the end of my introductory section, about the alleged dichotomy between the psychological and the epistemological. There is no *prima facie* rationale for this distinction. To propose an epistemology without a thinking, psychological subject is incoherent. One may be concerned that a theory of concept-formation

[42] See Adler invoking Aquinas (1987, 15-19) and Kelley (1986, 44-51). For more contemporary counterparts to this distinction, see Campbell's idea of the "standpoint" of perception (2002).

that stresses the psychological conditions needed to grasp similarities (e.g., foil and paradigms) might only describe human mechanisms that "filter" rather than cognize reality. But this (vaguely Kantian-sounding) position *also* conflates the form of conceptual awareness with its object.[43] Like perception, conceptual awareness is an active process, and one would expect that, as an act, it has a definite identity, operating under definite conditions. As before, we should not confuse the identity of the act, the *how* (or the form) of cognition, with its referent in the world, its *what* (the object). The fact that our cognition involves a definite process should not be seen as a barrier to cognition, but as its enabler. We achieve conceptual awareness of, say, a range of tables by perceiving a similarity made possible by the physiology and psychology of our perceptual and imaginative capacities. But it is still the range of past, present and future tables in the world that we are aware of by means of these psychological capacities.

The sum total of the above should raise questions about the longstanding assumption that the consideration of human psychology is irrelevant to the establishment of genuine epistemic norms. Though I have drawn on psychology to explain the nature of perception and concept-formation, my purpose has been to explain the nature of internalistic foundational justification—contrary to the usual naturalistic preference for externalism. I do not take the same approach to perception or abstraction championed by Descartes and Locke, but my internalistic, foundationalist approach here is firmly within the guidance conception of justification those figures long ago established as central to the Western epistemological tradition.

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[43] Most likely it was a Kantian anti-psychological view that influenced Frege to de-psychologize his distinction between *Sinn* and *Bedeutung*. Frege's concept of *Sinn* is best understood as the "mode of presentation" of an object—much like the concept of "form" I have articulated above. But Frege thought that a psychological mode of presentation would relativize or subjectivize the identity of our thoughts: since subjects' thoughts may be more or less similar in respect to "mode of presentation," they would not share the same thought if *Sinn* was taken to partially individuate thoughts. I doubt, however, that the variations in psychological mode of presentation are enough to make "sharing a thought" impossible in any meaningful sense. Obviously different subjects can still share the same *objects* of thought. And while it is true that their thoughts would be token non-identical, this would not force them to be type-non-identical. Surely even within the scope of a type, there would be individual variations, but as my theory of concepts stresses, variation is essential to falling under a determinable anyway, so this is no problem unless one thinks that items must be identically determinate in order to fall under the same concept. John McDowell (2005, 49) has stressed that Frege's concept of mode of presentation could be made to involve psychology, provided that the psychology was not that of the anti-normative psychologism preached by the naturalists of 19th century German philosophy.

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