

On the referential function of intuition

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Abstract: In contemporary terms, this short paper is about perceptual reference. In Kant's terms, the topic is *intuition*. The main explanandum is that intuition can indeed be understood in terms of perceptual reference. More specifically, I examine two issues with two intermingled questions: How, on the one hand, should intuition be understood when it comes to perceptually referring to locally present macroscopic objects, such as chairs and tables? How, on the other hand, should intuition be understood when it comes to perceptually referring to huge objects that cannot be perceptually present to us in their entirety, such as oceans, galaxies, and ultimately the world itself?

Keywords: perceptual reference, intuition

Resumo: Nos termos contemporâneos, este curto artigo é sobre referência perceptiva. Nos termos de Kant, o tópico é intuição. O principal explanandum é que intuição pode de fato ser entendida em termos de referência perceptiva. Mais especificamente, eu examino duas questões com duas entremescladas perguntas: Como, por um lado, a intuição deve ser entendida quando vem a referir perceptivamente a objetos macroscópicos localmente presentes, tais como cadeiras e mesas? Como, por outro lado, a intuição deve ser entendida quando vem a referir perceptivamente a objetos imensos que não podem ser perceptivamente presentes a nós em inteiro, tais como oceanos, galáxias, e, em última instância, o mundo em si mesmo?

Palavras chave: referência perceptual, intuição

1. Preliminaries

1.1. Background

Often, when philosophers discuss reference, they speak of *linguistic* reference (see e.g. Reimer & Michaelson, 2003/2014). The same people might also want to insist that establishing reference is cognitively quite demanding. They might hold, for instance, that if I simply utter “Aristotle” this is hardly sufficient for me (the speaker) and even less for you (the hearers) to fix the reference of that name. It could be that the word simply escapes my mouth, i.e., that I do not really indicate or *intent* anything or anyone by it. Perhaps I have no clue what I am talking about, or perhaps the name does not mean anything to me. Or it could be that I mean by “Aristotle” Aristotelis Onassis the shipowner, not Aristotle the philosopher, but fail to be clear about this. You might think that I mean Aristotle the philosopher and confusion follows. Even if there *is* a specific referent for the name, the referent is either not known or sufficiently expressed. Presumably, parrot's speech works like this. What the animal really does is to repeat certain sounds that

resemble spoken words used in real speech. It does not know that it is referring to x (where the x could be, say, a cracker). Indeed, it does not know that it is referring at all. In this sense, parrot's words are not *about* anything. Similarly for myself, or any human being, it could be claimed that in such cases reference fails or at least something essential of the phenomenon remains uncaptured. What is ultimately missing in such cases, one might want to argue, is a *description* or *specification* of the object of reference.

But does *perceptual* reference work this way?¹ I do not think so. Suppose we are confronted with some unknown object that easily fits our perceptual field. For perceptual reference, it seems to be perfectly enough that we are able to *single out* that particular object, whatever it is. We might point a finger at it (and wonder “Now, what’s *that?*”) or try to describe it, but that would already be way more than sufficient for fixing perceptual reference to the object. Indeed, most probably the parrot, too, would be able to single out the thing. The bird might not be able to point at it or give a description of the thing. But it sees the same thing and might just as well be in such an *intentional state* that it tries to catch it because it takes it to be edible, for example. And if that is so, referential relation per se demands a lot less from the cognitive agent than linguistic reference does. (Of course, it may be the case that also linguistic reference is similarly primitive in the end, but that is not my concern in this paper.)

I am certain that with his notion of intuition Kant tried to capture (among other things) something similar as the kind of primitive perceptual reference just described. *To intuit a thing is to single out a thing*. Intuitions are *essentially indexical*, as Robert Hanna (2006, p. 109) has well put it. Let it be granted, though, that intuition is a diverse notion. For instance, intuition is not limited to perception—namely, *empirical* or *a posteriori* representation—but can be *a priori* as well. For example, geometrical representations are *a priori*. Indeed, also space and time are intuitions according to Kant (see the Transcendental Aesthetic). This raises the question how exactly should intuition be understood in terms of reference?

As will be shown in what follows, even space and time can be relatively easily understood in referential terms. And when intuition *is* perceptual—when intuition is an *empirical* intuition—it is clearly an instance of perceptual reference. Even so, as evidenced by the ongoing debate about non-conceptual representation in Kant, it is not entirely clear what it takes—or, rather, what *else* it takes—for intuition to fulfill a referential function. A possible worry, to be examined in what follows, is that intuition is not sufficient for genuine reference. Perhaps also *concepts* are needed, in a more or less “descriptivist” fashion as suggested above.

¹ For the notion of perceptual reference in the literature, see e.g. Burge, 2010; Miller, 1982.

Much of what I will have to say about intuition relates closely to what Hanna has to say on Kant in his 2006 book *Kant, Science, and Human Nature*. However, I will not use much time pointing out the connections, but they should be clear enough for those who know Hanna's work, even though the connections are not always direct. In the end of the paper, I will shortly turn more explicitly to two issues in Hanna's book, namely the refutation of idealism (Hanna, 2006, ch. 1) and non-conceptual content (Hanna, 2006, ch. 2).

1.2. Two Functions

Kant states in the *Critique of Pure Reason* that the two fundamental faculties of the human mind—sensibility and understanding—have unique *functions* which they “cannot exchange” (*KrV* A 51/B 75). The function of the understanding is “the unity of action of ordering different representations under a *common one*” (*KrV* A 68/B 93). For example, when I regard both yellow and red as colors, I thereby “order” these representations so that I understand both as belonging under the same *general* concept which, by itself, is irrespective of the particular color instances yet common to both of these particular color instances. Or when I think of *x* as having the property *y*, I make a specific kind of “ordering” of representations. Here, the representation common to any such act of thinking would be the category of Substance or *substantia et accidens*: *x* is taken as the substance and *y* as one of its accidents. Indeed, all the categories can be regarded as different ways of “ordering” representations—with the help of relevant intuitions, of course.

Kant is not quite as explicit when it comes to the function of sensibility. He even suggests that intuitions “rest on affections” (*KrV* A 68/B 93) which is supposed to distinguish them from concepts, which do rest on functions. However, in that context Kant can be read as meaning specifically the functions of understanding, not functions as such, as already suggested by the fact that Kant *also* refers to the unique function of sensibility. Indeed, when he speaks of the function of sensibility, he must mean *intuiting*, as opposed to *thinking*, which would be the more general way to express the cognitive function of understanding (*KrV* A 51/B 75). What is crucial here is that according to Kant, in stark contrast to Leibniz, only intuitions can put us in relation with *individual objects* (see e.g. *ÜE*, 8: 217*).

2. Perceptual reference and empirical intuition

As suggested, the notion of *empirical intuition* is used for explaining *perceptual reference*. In other terms, the cognitive function of empirical intuition is to fix reference to empirical objects. This makes it an *objective* representation or *cognition* (*KrV* A 320/B 376–7). And as also already suggested, such an objective representation takes as its object a singular thing—a particular or individual—such as *that thing over there*.

To understand empirical intuition and its special referential role, the first thing to notice is that perceptual reference is not possible without *sensation*. We can only perceptually refer when there are sensations of colors, sounds, texture, and so forth. To put it differently, it is sensation that makes an intuition *empirical* (*KrV* A 20/B 34) and only so can intuition be, or play a part in, perceptual cognition. And thanks to sensation, empirical intuition necessarily has qualitative content.

However, another important thing to notice is that sensation and intuition are very different (see Allais, 2009, pp. 97–8). While sensation itself can be regarded as mere sensory input, to intuit is to genuinely represent or “intent” an object. One such object of intuition is our own body: “We are first **object of outer sense for ourselves**, for otherwise we would not be able to perceive our **place** in the world and to intuit ourselves in relation to other things.” (*HN*, 18: 619, R 6315; Kant, 2005, p. 361)

To intuit, then, is not just to single out *other* things but also to locate or orient *ourselves* with respect to those other things. In fact, this must be one of the ultimate conditions of singling out: we can single out things only if we have a first-person point of view. (Indeed, what would it even mean to lack such a point of view?)

For my purposes, the crucial point is this. Intuiting—singling out things from the first-person point of view—is not fully determined by sensations. Phenomenologically, this means that intuition is an “immediate representation of the given object, without admixture of noticeable sensation” (*An*, 7: 156; Kant, 2009, p. 268). In terms of reference, the fact that empirical intuition is not fully determined by its qualitative or sensuous content can be exemplified as follows.

Suppose you look admiringly at a car. As you do so you inspect its beautiful design and shining color. In a word, your object of perception has complex phenomenal characteristic provided through visual sensations. Then the lighting conditions change dramatically. The car looks different now, as the phenomenal characteristic of your perception changes accordingly.

Then suppose you are walking on a pedestrian crossing and the same car is about to run you over. You quickly step aside and, moments later, breath freely again. In this latter situation, all that mattered was that you positioned yourself with respect to a moving object, which you thereby

also successfully singled out, albeit very briefly. Basically, all there was to this situation is that you perceptually referred to a thing and acted in a certain way based on that. Most importantly, the referential function of intuition, thanks to which you were able to single out the thing and escape, was not fully determined by sensations or the phenomenal characteristic of your perception (see also Hanna, 2005, pp. 248, 254).

In fact, the referential function of intuition by itself was only very *minimally* dependent on sensations. Of course there had to be sensation going on—recall that without sensations there are no empirical intuitions—but their exact configuration did not matter one bit. In short, the precise phenomenal characteristic of your perception was and is irrelevant for perceptually referring to the car.

What is more, this kind of *immediate* perceptual reference appears to be independent of what we happen to *think* of the things we single out. Tellingly, Kant emphasizes that intuiting is not thinking. He even goes so far as to point out how intuitions “can be given prior to all thinking” (*KrV* B 132). This makes perfect sense. Also the parrot—a creature that, according to Kant at least, lacks the capacity of thinking—would have evaded the car. More generally, intuitions preceding thinking implies that we do not need to be self-reflectively aware of our objects of intuition in order to single things out. This has the implication that perceptual reference is an autonomous capacity. This in turn has the consequence that we do not need to make judgments in order to refer (cf. George, 1981, pp. 243–4). In this sense, Kant’s theory of reference is not “descriptivist” at all.

3. Fixing reference requires determining the referent

But then there is the worry I mentioned in the beginning. Is intuition really sufficient for genuine reference or, more specifically, for *establishing* or *fixing* reference to an object? Of course, the answer depends on what we mean by reference—recall the “descriptivist” account of reference briefly touched upon in the beginning, as opposed to the “direct” account implied by Kant’s notion of intuition. And it *is* clear that Kant thinks that intuitions do *refer* to objects immediately (e.g. *KrV* A 320/B 376–7).

Yet Kant also states that intuitions without concepts are blind. One possible, and to my mind also a very plausible, way to construe this dictum is that even though blind intuitions fulfill some kind of referential function, without concepts—or self-conscious thought more generally—the referents of such intuitions cannot be epistemically accessed. This is to say that a

“blindly” intuiting subject does not really know what it refers to—what it sees or tries to catch, for example (cf. *V-Met-LI/Pölitz*, 28: 199; *V-Met/Mron*, 29: 923). In this sense, the cognitive subject fails to fix reference to the thing. Just recall the parrot. In fact, many if not all non-human animals seem to be such subjects. However that might be, the point is that it can be argued that to really establish reference to an object requires *both* intuitions *and* concepts. Only the latter can provide the relevant description or specification of the referent thanks to which the overall representation of the object can be said to have the “aboutness” required for full-blown reference (cf. Hanna, 2006, pp. 96–7). In this sense, Kant’s theory of reference is *both* descriptivist *and* direct.

Certainly, mere intuition can be said to be “about” the object in the sense that intuition is the only way to bring the subject into cognitive touch with the particular object or thing in question. Then again, for a representation to be really about something there has to be both the representation and the object the representation is about. However, I do not think intuition is “representation” in this sense—rather, it is a *representing* or *intuiting* or, even better, *presenting* (see Searle, 2015, 41). To give a concrete example of what I have in mind here: my concept of car—which includes a whole lot of *beliefs* about cars—is certainly *about* cars, but my mere seeing a car is not “about” the car. Instead, I simply see the car (cf. Searle, 2015, 76). In Kantian terms, I intuit the thing. But without concepts, I merely single out the car and have no means of explicating or describing what my representational content is about.

This is how Kant himself generalizes the idea just described: “With us **understanding** and **sensibility** can determine an object **only in combination**. If we separate them, then we have intuitions without concepts, or concepts without intuitions, but in either case representations that we cannot relate [*beziehen*, i.e., refer] to any determinate object.” (*KrV* A 258/B 314)

There are two important things to note here. The more obvious one is this. Both concepts and intuitions are required for full-blown reference to an object. Or at least this is how one can read such phrases as “to determine an object” and “to refer one’s representation to a determinate object”. Now, why would this have to be so? Because, I hear Kant saying, only this way can we really indicate or specify the object of our representation, i.e., what our representation is about. Parrot who repeats the word “cracker” does not do that. Neither did you as you avoided the car. (At least I do not see any reason why would you have *had to* do that in order to avoid the car.)

The less obvious thing to notice is this. In the passage, Kant appears to claim implicitly that the referring to an object in a determinate manner can take place both ways: either from intuitions to concepts or from concepts to intuitions. So, for example, we intuit a car and

figure out that it is really a car we are looking at. Or we think of cars in an abstract fashion and then try to find out whether the thing we are looking at really fits our car-concept. Here, the ultimate question would be whether or not the *concept* can be given an “exhibition” (see e.g. *KrV* A 105; *KU*, 5: 351–2; *V-Met-K3E/Arnoldt*, 29: 971).

There is a sense in which it is the latter scenario, where the approach to cognition is “concept first”, that is more important for Kant. It certainly is evident that the most pressing issue for Kant in his critique of speculative metaphysics is concepts—or self-conscious thought more generally—that fail to refer to an object because no appropriate intuition can be provided for such concepts. This does suggest, and indeed does so straightforwardly that there should not even be a question about it, that reference is *guaranteed* by intuition.

Yet, at the same time, the issue of “empty” concepts, too, suggests that reference is ultimately *both* an intuitive *and* conceptual matter. Let me explain. If I think of God, this thought of mine certainly lacks immediate spatiotemporal reference, i.e., the kind of perceptual reference described earlier. However, that does not mean that God does not exist. Instead, in Kant’s terms, the concept of God is to remain if not totally “empty” at least a “problematic” concept, at least from the theoretical point of view (cf. *KrV* A 254–5/B 310). But given the possibility of other points of view, including humanly *impossible* points of view, that God-thought of mine could just as well have a referent in some sense, even if only such that we fail to have epistemic access to. Of course, for us human beings cognition can *only* take place within spatiotemporal limits, and *only* intuition can put us into the kind of intentional state that is required for fixing reference to the objects of experience. In this sense, intuition is always the reference-fixer.

But still, the “empty concept” situation looks pretty similar to the “blind intuition” situation in that both are (or may be presented as) instances of some kind of referential failure. In the “empty concept” case, you cannot provide the relevant intuition and thus cannot fix reference to the object the concept is supposed to be about. In the “blind intuition” case, you do not provide the relevant concept and thus cannot fix reference to the object the concept would be about. The point is, mere intuition is not *about* anything: instead, it *gives* the object your *thought* can or could be about.

4. Perceptual reference and a priori intuition

As suggested in the beginning, even the pure a priori intuitions of space and time can be relatively easily understood in referential terms. Whereas the referential function of empirical intuition is to make it possible for us to single out an empirical object, space and time set the *framework* or ultimate *preconditions* under which all actual reference takes place. In this sense, all reference is spatiotemporal reference. If we are to fix reference to an object, it got to be *somewhere* at some point in time.

So, when we perceive bodies (but also when we do geometry and theoretical physics) we make use of that framework (see also Hanna, 2006, p. 70). At the same time, as Hanna points out, space “functions as a directly referential term” (ibid.). In this sense, the a priori intuition of space “picks out *space* if it picks out anything at all” (ibid.). But what exactly does such an intuition refer to? How exactly do we fix reference to this “all-encompassing receptacle” (V-*Met/Mron*, 29: 830) that is called space?

Let’s try some analogies, starting from macroscopic objects, such as the chair over there. Clearly, representing space is very different from representing things that we can easily single out in our perceptual field. Space is not any specific *that over there*. It rather “fills” everything in any possible perceptual field. Briefly put, the analogy to perception of ordinary macroscopic objects is pretty much useless.

How about very big geographic objects? If we stand on the shore of the Atlantic, we cannot single out the *whole* sea if by singling out we still mean indicating what there is in our perceptual field. This marks an important distinction: intuiting understood as seeing—to stick to vision—and intuiting as the reference fixer for our thoughts and judgments more generally. In the latter sense it does make sense to claim that we intuit the whole sea. In other words, when we make the judgment “This is the Atlantic”, the intuition guarantees that our thought has a referent, even if a somewhat inexact or indistinct referent. This is because from our limited perspective on the shore we lack the means of becoming conscious of the *manifold* contained in the *whole* representation of the sea. In other words, we lack the means of establishing what exactly the object is or is actually like. Of course, there is always some inexactness in empirical cognition. The crucial thing is that there is, nonetheless, precisely *one* object our thought is about, namely *the* sea.

In fact, perception of macroscopic objects often takes place in a similar manner. Suppose we are looking at a house from the front. Assuming that the manifold of the house-representation also includes the back wall of the house, the rest of the sea is not that much different from the backside of the house we are not able to see from the front. Of course, if we get to look at the sea from very high above, then we are in a position to single it out just like that. And we can

easily imagine this, just like we can imagine the back wall of the house when we are not looking at it. This implies that what really counts in representing objects we cannot see just like that is the capacity to represent *what it would take to perceive the whole thing*.

So, to represent very big objects requires the ability to think of something that extends way beyond what can be given in immediate perception. To refer to space is more like this. Still, to refer to space is also very different from representing actual objects, however big. To refer to space requires the ability to represent something that *just* extends. Space is *not* constructed from parts up until you get “there.” Space is essentially a *whole*, and indeed also infinite or, more precisely, “represented as an infinite **given** magnitude” (*KrV* B 39–40). In a sense, to refer to something like this is to refer to everything there is.

5. Determining “all there is”

It does seem to be the case that somehow we can refer to everything there is. Perhaps one just should not think of this “everything” too concretely. We cannot represent every actual *thing* there is, of course (cf. Langton, 2001, p. 196). But we can represent *that* in which all the actual things must reside as it were. Space appears to be the best candidate for *that thing*. As a matter of fact, what else could ‘space’ ultimately mean?

Besides ‘space’, as that thing which encompasses everything there is—at least in the specific sense of “is” of all possible spatiotemporal presence—a typical term for such a singular object is the *world* or *nature*. That would be the biggest possible—indeed, the infinitely big—individual or whole that limits all the actual things. In this sense, whenever we represent something through intuition, the whole world is present at the same time. Moreover, if we identify this world with the whole physical universe—and why not, given that the physical universe is spatial to the core—the whole physical universe can be said to be present whenever we represent something, given that we stand connected to it “in virtue of the effects” (Langton, 2001, p. 196) produced by all there is in the same causal nexus.

To this extent, there is clearly a tension in Kant. Certainly, as space is the precondition of all representation that relates to the world of experience, space can very well be said to be present to us whenever we refer to something located in the physical universe (see also Hanna, 2006, pp. 126–7). At the same time, Kant also has a much more negative take on the matter. Kant seems to think that *the world*—understood as the totality of all there is—*cannot* be intuited at all

and thus remains a cognitively empty concept (*V-Met-K2/Heinze*, 28: 773). This is to say that the world-whole as an object is a mere *idea*, which has merely heuristic or “regulative” role at best (see e.g. *KrV* A 509/B 537). We may need the concept for making sense of reality but we never actually *cognize* such a thing. It is just a *thought* the referent of which cannot be fixed. In this sense, we do not really know what such a representation is about.

How do we even have such thoughts, then? Kant seems to have in mind something like this. When we think of absolute totality, we make an implicit use of *the concept of an object in general*. This is to say that we draw from those resources of the mind that allow us to think of any object in the first place, even without any support from actual intuition. We know what it takes to be, or construct, an object: it is something that has a magnitude, qualities, properties, whose parts are reciprocally dependent on the whole, and so forth. This notion of ours we can apply to basically anything. It is as if when thinking of the whole of nature we build on an analogy with perceiving some simple object we can single out just like that—a ball, for example. The crucial factor is, however, that in some cases there is not really anything like the ball present.

Recall the sea-example. As we related our immediate intuition, limited to what we could see from the shore, to our thought about the sea, we made an implicit reference to the concept of an object in general, which allowed us to think of the sea as spatially extending beyond what was provided to our senses—with the help of a priori intuition and imagination, of course. In other words, we saw a part of something and related that beyond what we actually perceived.

Why cannot we use the same procedure with the totality of the world? Granted, as human beings, we cannot ever obtain a maximally distinct representation of nature and its “manifoldness.” There will always be more to know, more to discern. But perhaps this is so with everything there is. Kant himself thought that even a blade of grass cannot be thoroughly explained by natural science (*KU*, 5: 400). Yet we can intuit that blade of grass, just like that. Why would the world-whole have to be so special in this respect?

For Kant, at least a part of the problem lies in the relation between infinite magnitude and perception. I hear Kant asking: “How to make perceptually present something *empirical* yet *possibly* infinite, with *possibly* infinite amount of things in it?” To think of the physical universe as extending unlimitedly is to think something very indeterminate and unspecifiable. What is more, this *presupposes* that the physical universe in fact is infinite. To put it differently, the capacity to represent *what it would take to perceive the whole thing* cannot be called for help when the representation of the whole world is at stake. There is such a procedure only for objects we take to be, or know to be, spatially bound. For *this* space applies nicely: all such objects can be taken as

limitations of the “all-encompassing” (*KrV* A25/B 39) space. But *that* is not identical with the physical universe, is it? Nor is such an a priori intuition *about* the physical space, is it?

As Kant also puts it, “the world cannot be given **as a whole**” (*KrV* A 522/B 550), whereas space is not only given, or represented as given, but also, as intuition, a whole or “essentially single” (*KrV* A 25/B 39). However, as a priori, it is not a *perceived* whole. Needless to say, nor is a world as an *idea* a perceived whole. If so, nor is the world-whole, to borrow a phrase from the third *Critique*, a “manifold which strikes the eye” (*KU*, 5: 243; Kant, 2000b, p. 127). Only objects of perception can have such “eye-striking” manifolds. What is more, the perceptual manifold is always contained *in* a whole representation. It is the manifold of the house, the Atlantic, Milky Way, and so forth. In particular, it is not the manifold of “all there is”, or even if it is, we cannot fix reference to *that*, namely, the whole of *empirical* nature. What we have here is a representation “that we cannot refer to any determinate object.” Yet we can fix reference to *space*, given that by space we mean that in the empirical cognition through which every object of experience is locatable, traceable, and determinable.

5. Implications

Lastly, let me quickly pinpoint two implications from the above analysis of perceptual reference. The first implication concerns Hanna’s construal of Kant’s refutation of idealism in the chapter 1 of *Kant, Science, and Human Nature*. The second implication is about Hanna’s view of non-conceptual content in the chapter 2 of his book.

The first thing I would like to point out concerns intuition, particularly a priori intuition, and realism. From early 1770s on, Kant famously insists that space (or space-time) is not “real” but “ideal” (*MSI*, 2: 401). As such, space is a mere *form*—basically, a referential framework. Now, if space indeed is the kind of referential framework Kant suggests it is, the referent of the term ‘space’ is ultimately a feature of our own mind, namely that feature of the mind thanks to which we can represent things in a certain way—in particular, as three-dimensional bodies. And this kind of view is of course *some* kind of idealism.

Granted, Kant would also insist that we nevertheless encounter *empirically* real objects in space (see e.g. *KrV* A 374). Indeed, Kant’s position seems to me to be totally compatible with what Hanna calls *manifest* realism, taken in the phenomenological sense. But what kind of realism really is that? Similarly, if Hanna’s construal of the refutation of idealism is correct, only a very minimal or compromised realism follows. A realist proper, one might argue, needs a *world*—a world more

or less independent of us and yet such that we can fix reference to it and be able to claim that it is such and such. But can Kant offer us one from such minimally realist premises? As suggested, the Kantian notion of space (or space-time) is a good candidate but does not seem to be quite sufficient for the purpose. Among other things, the realist's world would have to be an empirical world, but Kant's space-time is no more empirical as it is exactly the world.

The second implication concerns intuition, particularly empirical intuition, and non-conceptual content. In above, I was a bit skeptical about the idea that mere so-called blind intuition actually has the capacity to fix reference to anything. As I put it, intuition as such is not *about* an object. Rather, to intuit is to be presented with an object. In other words, the cognitive function of intuition is to set us into such an intentional state that we can be related to some *individual thing*. Yet, for a representational content to really be *about* something, what is also needed is that the object of representation is *determined*, and this requires concepts, too.

That said, nothing in the above threatens the non-conceptualist reading of Kant presented in Hanna's 2006 book and elsewhere. The kind of primitive perceptual reference I described in the early parts of this paper has basically nothing to do with concepts. In particular, the kind of content—"filled" above all with shape and location information—that gives us directly experienceable objects is up to the forms of intuition (see also *KrV* B 306). The human understanding or reason has no such cognitive function.

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