

Kant and Nonconceptual Content

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To make a concept, by means of an intuition, into a cognition of an object, is indeed the work of judgment; but the reference of an intuition in general is not.

(Kant *PC* 11: 310–311)¹

The informational states which a subject acquires through perception are non-conceptual, or non-conceptualized. Judgements based upon such states necessarily involve conceptualization: in moving from a perceptual experience to a judgement about the world (usually expressible in some verbal form), one will be exercising basic conceptual skills. But this formulation (in terms of moving from an experience to a judgement) must not be allowed to obscure the general picture. Although the judgments are *based upon* his experience (i.e. upon the unconceptualized information available to to him), his judgements are not *about* the informational state. The process of conceptualization or judgment takes the subject from his being in one kind of informational state (with a content of a certain kind, namely, non-conceptual content) to his being in another kind of cognitive state (with a content of a different kind, namely, conceptual content).

(Evans 1982: 227)

I. Introduction

Perhaps the most famous and widely quoted—but I think also the most generally misunderstood—line in Kant’s *Critique of Pure Reason* is this pithy slogan: ‘Thoughts without content are empty, intuitions without concepts are blind’ (*CPR* A51/B76). Leaving aside empty thoughts, is Kant saying that intuitions without concepts simply do not exist, or exist but are meaningless? Or is he saying that intuitions without concepts do exist and are meaningful, but in a way that is sharply different from that of concepts? My aim in this paper is to relate Kant’s distinction between intuitions and concepts to the contemporary debate about nonconceptual mental content. I will argue that Kant not only defends the existence and meaningfulness of nonconceptual content, but also offers a fundamental explanation of nonconceptual content that can be directly transferred to the contemporary debate and significantly advance it.

II. Kant, Nonconceptualism, and Conceptualism

For the purposes of this essay, 'cognitive content' is mental representational content, whether object-directed (intentionality) or self-directed (reflexivity). And for every type of cognitive content there is a corresponding cognitive capacity by means of which a creature generates, possesses, and deploys that content. We could allow for nonconscious cognitions. Indeed—as I will mention in passing below—Kant holds that some cognitions are nonconscious; and it is also the case that some contemporary philosophers of cognition have claimed that nonconceptual content is nonconscious sub-personal information-content.² But the topic of nonconscious mind raises controversial and subtle issues beyond the scope of this paper. So to keep things fairly simple, I will focus almost exclusively on conscious cognitions.

Assuming that caveat, we can then formulate the thesis of *nonconceptualism* about cognitive content. Nonconceptualism holds that nonconceptual content exists and is representationally significant (i.e. meaningful in the 'semantic' sense of describing or referring to states-of-affairs, properties, or individuals of some sort). More precisely however, nonconceptualism says (a) that there are cognitive capacities which are not determined (or at least not *fully* determined) by conceptual capacities, and (b) that the cognitive capacities which outstrip conceptual capacities can be possessed by rational and non-rational animals alike, whether human or non-human.

In my view, contemporary nonconceptualism (defended and developed by, e.g. José Bermúdez, Tim Crane, Fred Dretske, Richard Heck, Susan Hurley, Sean Kelly, M. G. F. Martin, Christopher Peacocke, Michael Tye, and others³) can be traced directly back from Evans's *Varieties of Reference*⁴ to Kant's first *Critique* in a three-linked chain of philosophical influences, via (i) Russell's notion of 'acquaintance', (ii) the Brentano-Husserl-Meinong notion of an intentional 'presentation', and finally (iii) Kant's notion of 'intuition' (*Anschauung*). I will not attempt to rehearse the blow-by-blow details of this story here, except just to note the fairly obvious structural similarities recorded in the two epigraphs between the terminal points of this historical chain: Kant's theory of cognition and Evans's theory of cognition.

So my first claim is that nonconceptual cognitive content in the contemporary sense is, for all philosophical intents and purposes, identical to *intentional* cognitive content in Kant's sense. Indeed, in my opinion the contemporary distinction between nonconceptual cognitions and their content, and conceptual cognitions and their content, is essentially the same as Kant's distinction between intuitions and 'concepts' (*Begriffe*). Correspondingly, if I am correct, then the contemporary distinction between nonconceptual capacities and conceptual capacities is also essentially the same as Kant's cognitively seminal distinction between the 'sensibility' (*Sinnlichkeit*) and the 'understanding' (*Verstand*).

Both the sensibility and the understanding are innate mental capacities, or *faculties* (*Vermögen*). For Kant, the sensibility *vs.* understanding distinction is cognitively seminal precisely because it exhausts the 'fundamental sources of the

mind'. Now the sensibility is the perceptual, imaginational, affective (in the broad sense of 'feelings', not the narrower sense of desires or volitions, which for Kant belong to the 'faculty of desire' or the will) capacity of the mind, which produces intuitions as outputs, given external 'affectings' (informational-causal triggerings) as inputs. By contrast, the understanding is the logical and discursive capacity of the mind, which produces concepts as outputs, given intuitions as inputs. Intuitions and concepts together 'constitute the elements of all our cognition', in the sense that intuitions and concepts are combined together by the non-basic 'faculty of judging' (*Vermögen zu urteilen*) (CPR A69/B94) in order to form judgments, which are the central cognitive acts of the rational personal mind. And there are no other fundamental cognitive faculties over and above the intuition-producing faculty and the concept-producing faculty (CPR A50/B74).

Here it should be noted that I am construing the sensibility as only *relatively* passive, but not *entirely* passive (as, e.g. in Locke's account of sensibility), by virtue of its expressing a mental power for spontaneous synthesis, or mental processing. This mental power is the 'power of imagination' (*Einbildungskraft*), and it is delivered in two distinct basic stages or moments: (i) a 'synopsis of the manifold *a priori* through sense' or 'synthesis of apprehension', and (ii) a 'synthesis of this manifold through the imagination' or 'synthesis of reproduction in imagination' (CPR A94, A98–102). In the B edition of the first *Critique* these two basic stages of mental processing are said to have a single shared innate psychological ground in the 'transcendental' or 'productive' imagination, which carries out the operation of 'figurative synthesis' or *synthesis speciosa* (CPR B151), whose precise cognitive function it is to produce representations of static or dynamic spatiotemporal forms, patterns, or shapes. Kant's general thought here can be expressed as the thesis that 'imagination is a necessary ingredient of perception itself' (CPR A120 n.).⁵

Otherwise put, Kant's sensibility *vs.* understanding distinction captures the difference between the *sub-rational* or *lower-level* spontaneous cognitive powers of the human or otherwise animal mind, and the *rational* or *higher-level* spontaneous cognitive powers of the human or otherwise animal mind. On this Kantian picture of our cognitive capacities, it is not to be assumed that rational animals do not *also* have the sub-rational or lower-level cognitive powers; on the contrary, for Kant all rational animals also have sub-rational or lower-level cognitive powers that they share with non-rational animals, whether human or non-human. In this connection, Dretske very relevantly remarks in *Seeing and Knowing* that:

[v]isual differentiation, as I am employing this phrase, is a pre-intellectual, pre-discursive sort of capacity which a wide variety of beings possess [and it] is an endowment which is largely immune to the caprices of our intellectual life. (Dretske 1969: 29)

The crucial point grasped by Kant, Dretske, and Evans alike is that nonconceptual cognitive capacities are 'sub-rational' or 'non-rational' capacities

only in the sense that they are necessary but not sufficient for our rational cognitive capacities, not in the sense that they are irrational or arational. So nonconceptual content does not *exclude* rationality: on the contrary, on the Kant-Dretske-Evans picture, nonconceptual cognition and its content constitute the *proto-rationality* of all minded human or non-human animals.

This brings me to the thesis of *conceptualism* about cognitive content. Conceptualism holds that nonconceptual content neither exists nor is representationally significant. More precisely, conceptualism says: (a) that all cognitive capacities are fully determined by conceptual capacities, and (b) that none of the cognitive capacities of rational human animals can also be possessed by non-rational animals, whether human or non-human.

There are also at least three different weakened versions of conceptualism. The first weakened version says that nonconceptual content indeed exists but is *not* representationally significant, because such content is nothing but the intrinsic qualitative content of sensations, i.e. phenomenal qualia (whether qualia are taken to be sensory types or sensory tokens). In other words this sort of conceptualism is prepared to admit nonconceptual content, but only if it is only *pure sensory* content. Oddly this sort of conceptualism could also, with a little squinting, be regarded as a weak version of *nonconceptualism*: a 'pure sensationalist nonconceptualism'. But contemporary nonconceptualists and nonconceptualist Kantians alike will simply not go in for this, because it is crucial to their view that nonconceptual content is *representationally significant* and not purely sensory. By contrast, the second weakened version of conceptualism says that while there are nonconceptual *cognitions*, there are nevertheless no nonconceptual *contents*: the contents of nonconceptual cognitions are themselves conceptually fully determined.⁶ But contemporary nonconceptualists and nonconceptualist Kantians will not accept this formulation either: their view is not merely about cognitive acts, processes or states—it is about the *semantics* of those acts, processes, or states. Finally, the third weakened version of conceptualism says that (a) is true but denies (b): some non-rational human or nonhuman animals also have primitive or 'proto' conceptual capacities. Not surprisingly, this sort of conceptualism is favoured by some of those interested in nonhuman animal cognition.⁷ The problem with this move however from the standpoint of nonconceptualism is that it forces its conceptualist defender to posit 'simple concepts', or more generally some sort of pre-logical and pre-linguistic 'proto-concepts' that are possessed by both rational humans and non-rational human or nonhuman animals. But at this point in the discussion it becomes almost impossibly difficult to tell the difference between concepts and non-concepts: what distinguishes between a *proto-conceptual* content and a *nonconceptual* content? That problem is closely connected with what, three paragraphs on, I will call 'the concept problem' in the contemporary debate about nonconceptual content. In any case, in what follows I will focus exclusively on the full-strength version of conceptualism.

This is because the most influential version of contemporary conceptualism is in fact full-strength conceptualism, as defended by John McDowell in *Mind and*

World,⁸ and also (in slightly different ways) by Bill Brewer and Sonia Sedivy.⁹ The crucial point for the present purposes however is that McDowell not only frequently cites Kant in support of his conceptualism, but even takes himself to be working out a *Kantian* theory of cognition against *Evans's* theory of cognition, via his—I mean McDowell's—interpretations of various selected texts by Donald Davidson and Wilfrid Sellars. McDowell's conceptualist interpretation of Kant has been further developed by Paul Abela, in the context of the realist/anti-realist debate.¹⁰ Now Davidson and Sellars are both clearly conceptualists *avant la lettre*. Indeed and more generally, conceptualism—whether in the explicitly cognitive version developed by McDowell, or in its linguistic guise as 'Russell-Frege semantics' or 'descriptivism'—is one of the basic commitments of analytic philosophy in the second half of the twentieth century.¹¹ So in a way that is fully within the classical nineteenth and twentieth century tradition of neo-Kantian philosophical polemics,¹² McDowell has drafted Kant into service in support of the conceptualist/descriptivist cause, without acknowledging even so much as the possibility of a nonconceptualist reading of Kant's theory of cognition.¹³

McDowell's positive case for conceptualism is heavily based on his strong endorsement of Sellars's attack on 'the Myth of the Given',¹⁴ on Sellars's theory of intentionality,¹⁵ and above all on Sellars's controversial reading of Kant.¹⁶ So it seems clear McDowell has allowed Sellars to drive the basic narrative of his Kantian conceptualist story about mind and world, without considering an alternative nonconceptualist Kantian story. Such an oversight would, perhaps, not be especially philosophically important but for the striking fact that contemporary nonconceptualists have never explicitly acknowledged their debt to Kant *either*. Indeed, as far as I can tell, contemporary nonconceptualists have made no attempt to trace the historical sources of their doctrine beyond Evans's writings. Adding these two facts together immediately produces, I think, the emergent fact that *Kant's theory of intuition is the hidden historical origin of both sides of the contemporary debate between conceptualists and nonconceptualists*. But if Kant's theory of intuition covertly sponsors *both* conceptualism and nonconceptualism, then revisiting his theory of intuition can surely teach us something new and important about the issue of nonconceptual content.

This last claim is closely connected with three salient problems in the contemporary debate about nonconceptual content: (1) the lack of a suitably fine-grained classification of different types of nonconceptual content (*the classification problem*), (2) the lack of a generally-accepted account of the nature of concepts (*the concept problem*),¹⁷ and (3) the worry that there may in fact be no unitary phenomenon of nonconceptual content to be explained (*the unity problem*).¹⁸ It seems to me, however, that at least the first two of these basic problems can be, if not actually solved, then at least pre-emptively mitigated, so that I can concentrate for the rest of this essay on the third problem.

Here then is a pre-emptive response to the classification problem: for me, nonconceptual content is cognitive content that either (i) lacks concepts either globally or locally¹⁹ (*very strongly* nonconceptual content), or (ii) does not require the *correct application* of concepts even if it requires concepts (*fairly strongly*

nonconceptual content), or (iii) does not require concepts even if it happens to include concepts that correctly apply (*moderately* nonconceptual content), or else (iv) requires both concepts and also their correct application but does not require the possession or self-conscious rational grasp of those concepts by the user of those concepts (*weakly* nonconceptual content). The primary rationale here is classifying by inverse proportionality to the degree of involvement of conceptual capacities in cognition: the less they are involved, the greater the degree of nonconceptuality.

And here is a pre-emptive response to the concept problem: for me, concepts are (1) abstract structured semantic items with cross-possible-worlds extensions (fine-grained intensional entities), and *also* (2) psychological items in the triple sense that they are (a) tokened in some particular conscious mental states, (b) express subjective modes of presentation in affect or emotion, perception, judgment, thought, and intentional action, and (c) entail the existence of psychological capacities for generating, possessing, and applying concepts. That is, for me concepts are *intensionally-structured mental representation types*. Furthermore I think that this conception of concepts is perfectly consistent with Kant's theory of concepts.²⁰ More generally, concepts for me and for Kant are at once the basic objects of conceptual analysis, psychological rules for classifying and identifying perceptual objects, and the basic elements of cognitive rationality. It also seems to me, as I think it would seem to Kant, that concepts will satisfy Evans's 'generality constraint': the subsumption of an object under a concept implies a dual pair of cognitive capacities for applying that same concept to distinct objects and for applying different concepts to the same object.²¹ The primary rationale for this overall approach to concepts is smoothly reconciling the semantics of concepts and the psychology of concepts. It should be frankly admitted, however, that because I am postulating a fairly high-powered and overtly Kantian conception of concepts, it will tend to rule out by fiat those overly concessive forms of conceptualism that respond to nonconceptualist arguments by simply 'downsizing' their notion of a concept in order to accommodate various sorts of good evidence in favor of the existence and representational significance of nonconceptual content.

I hasten also to re-emphasize that my responses to the classification and concept problems are merely pre-emptive and not in any way decisive. Each would probably require a series of articles or a book to justify it adequately. My claim is only that each of the responses is *prima facie somewhat plausible*. But if that is so, then it reduces the philosophical task load significantly and leaves us with the unity problem as *the* central problem about nonconceptual content. Simply put, the worry about unity is that the phenomenon of nonconceptual content is nothing but a jumbled collection of apparently similar but ultimately heterogeneous cognitive facts, without a single underlying structure or nature. But then conceptualism would turn out to be true about cognitive content by default—just by virtue of being the only game in town!

By way of offering a Kantian response to the unity problem, my line of argument will be as follows. In section III, I will show that Kant gives various

arguments for the existence and representational significance of very strongly, fairly strongly, moderately, and weakly nonconceptual content in inner sense and outer sense (*innere Sinn*, *äussere Sinn*), feeling or affect (*Gefühl*), imagination (*Einbildungskraft*), sense perception (*Wahrnehmung*), and judging (*Urteilen*). Even more importantly however, as I will show in section IV, in the Transcendental Aesthetic he traces back the very possibility of nonconceptual content to our representations of space and time, which in turn are necessary and non-empirical or a priori conditions of every mental representation generated by means of human sensibility. These are what Kant calls ‘the forms of intuition’.

Kant also famously claims in the Transcendental Aesthetic that we can have direct nonconceptual representations of the forms of intuition as unique non-empirical objects, and he calls these representations ‘pure intuitions’ and sometimes also ‘formal intuitions’. Pure or formal intuition in turn is taken by Kant to be the semantic and epistemic foundation of mathematics, or more precisely, of a fundamental fragment of classical arithmetic and Euclidean geometry. In another paper, I try to show how Kant’s strange-sounding claim that the pure intuition of time is the semantic and epistemic foundation of arithmetic can make sense and even be defensible.²² But what I want to highlight in this paper are *the forms of intuition*, not *pure or formal intuitions*. Even so, at the very least, the subtle distinction between forms of intuition and pure or formal intuitions is directly relevant to Kant’s theory of nonconceptual content, and will be briefly discussed in section IV. Nevertheless the crucial point is that if Kant is right, then there are two and only two forms of intuition, our a priori representations of space and time; and these representations of space and time are not only presupposed by all nonconceptual content but also account for the existence, cognitive significance (‘objective validity’), and psychological coherence (‘subjective validity’) of every type of nonconceptual content. And in this way, the forms of intuition provide a *fundamental explanation* of nonconceptual content.

III. Kant’s Arguments for Nonconceptualism

According to Kant, the central fact about the mind is its capacity to represent (*vorstellen*), which is to say that the mind has something ‘to put before’ (*stellen . . . vor*) it, and this something is a mental ‘representation’ (*Vorstellung*) (CPR A320/B376–377). Representations, in turn, can be either conscious or nonconscious (CPR A78/B103).²³ The primary cognitive role of consciousness (*Bewußtsein*) is to contribute subjective integrity, or a well-focused and uniquely egocentric organization, to a representation (CPR B139).

In turn, every conscious representation has both (i) a ‘form’ (*Form*) and (ii) a ‘matter’ (*Materie*) or ‘content’ (*Inhalt*) (CPR A6/B9) (JL 9: 33). *Materie* is qualitative sensory content (more on this in the next paragraph). *Inhalt* by contrast is intensional content: what Kant calls a conscious representation’s ‘sense’ or *Sinn* and also its ‘meaning’ or *Bedeutung* (CPR A239–240/B298–299). The form of a

conscious representation in Kant's sense is somewhat similar to what Descartes called the 'formal reality' of an idea, and the intensional content of a conscious representation in Kant's sense is somewhat similar to what Descartes called the 'objective reality' of an idea. More precisely, for Kant the form of a conscious representation is what for lack of a better name I will call its *representational character*, by analogy with the 'phenomenal character' of phenomenal consciousness.²⁴ Representational character includes (a) the difference between clarity and unclarity, and between distinctness and indistinctness, (b) different subjective attitudes of all sorts, or what Locke called 'postures of the mind', including but not restricted to propositional attitudes, and (c) our direct conscious awareness of and ability to distinguish between and generalize over types of mental acts or mental operations of all different sorts (e.g. analysis, synthesis, memory, imagination, thought, judgment, etc.), which Kant calls 'reflection' (*Überlegung*) (CPR A260/B316) and which is somewhat similar to Locke's 'ideas of reflection'. By contrast to representational character, however, the intensional content of a conscious representation is *what it is about*, or its *topic*: more precisely, it is a *package of information about something, an X*. The intensional content of a conscious representation can be held fixed while varying its representational character (say, from unclearly seeing *A* to seeing *A* clearly; or from asserting that *P* to doubting that *P* to denying that *P*); and the representational character can also be held fixed while varying its intensional content (say, from being a memory of *A* to being a memory of *B*). But an individual representation is uniquely determined by its intensional content and not by its representational character.

Conscious representations can be either subjective or objective, but in either case they are necessarily accompanied by 'sensations' (*Empfindungen*). The 'matter' or qualitative phenomenal content of sensations—or what we would now call 'qualia'—are intrinsic non-relational phenomenal properties of all conscious representations. More precisely, sensation is 'the effect of an object on the capacity for representation, insofar as we are affected by it' (CPR A19–20/B34). Or in other words, a sensory content is nothing but how the subject directly responds to endogenously or exogenously caused changes in its own state. Endogenously-caused sensations are 'subjective sensations', or feelings (CPJ 5: 206), and exogenously-caused sensations are 'objective sensations', such as the sensations that accompany the perception of external objects (CPJ 5: 206). Whether subjective or objective however, for Kant sensations are always *cognitively transparent* features of the mental states in which conscious representations occur, in the sense that they interpose neither intensional content nor an intentional object between the conscious subject and its representations: 'sensation in itself is not an objective representation' (CPR B208). This is because sensations refer *only* to the conscious subject's direct response to changes in its inner or outer world: 'a perception (*Perception*) that refers to the subject as a modification of its state is a *sensation (sensatio)*' (CPR A320/B376). To borrow a relevant formulation from the later Wittgenstein,²⁵ for Kant a sensation is not a *something* (i.e. it is neither an intensional content nor an intentional object), but

also not a *nothing* either (i.e. it is a *direct response* of the cognitive subject, hence a genuine 'lived experience' or *Erlebnis*).

Because sensations are cognitively transparent *Erlebnisse*, they must be distinguished from both subjective conscious representations and objective conscious representations alike. Subjective conscious representations are conscious awarenesses of 'mere appearances' (*bloße Erscheinungen*) (CPR A46/B63), or the flotsam and jetsam of representational life, such as the phenomenal mental images (*Bilder*) that are constantly generated in the course of conscious psychological processes by the empirical imagination (CPR A141/B181), but may or may not have any coherence or representational significance. So in other words, a subjective conscious representation is a loosely-organized and relatively unstructured conscious state, the mere result of what Hume called 'the association of ideas', and what Kant in the A edition of the first *Critique* calls the 'empirical synthesis of reproduction' (CPR A101). By sharp contrast however, an objective conscious representation, or cognition (*Erkenntnis*), is always either outwardly directed to some object or another and thereby has 'intentionality' in the Brentano-Husserl-Meinong sense (aboutness, object-directedness), or else it is self-directed and reflexive. Self-directed and reflexive cognition for Kant is meta-cognition, or a cognizer's *objective* conscious representation of itself as the *subject* of conscious representation. Now cognitions—conscious mental states with intentionality or reflexivity—are of two distinct kinds: (1) intuitions, and (2) concepts (CPR A320/B376–377). So far, so good. But here is where things get fairly tricky.

That is because Kant defines intuitions and concepts in such a way that they are logically independent of one another, yet he also explicitly asserts that they are cognitively complementary and semantically interdependent. And this brings us back to what I will now call *the togetherness* (of intuitions and concepts) *principle* :

Intuition and concepts . . . constitute the elements of all our cognition, so that neither concepts without intuition corresponding to them in some way nor intuition without concepts can yield a cognition.

Thoughts without [intensional] content (*Inhalt*) are empty (*leer*), intuitions without concepts are blind (*blind*). It is, therefore, just as necessary to make the mind's concepts sensible—that is, to add an object to them in intuition—as to make our intuitions understandable—that is, to bring them under concepts. These two powers, or capacities, cannot exchange their functions. The understanding can intuit nothing, the senses can think nothing. Only from their unification can cognition arise. (CPR A50–51/B74–76)

What does the togetherness principle mean, and how does Kant argue for it? Well, 'thoughts' for Kant are mental acts that essentially involve concepts. Although a concept can be entertained on its own in a 'mere' thought, the only 'use' (*Gebrauch*) or application of a concept is to judge by means of it (CPR A68/

B93); hence every application of a concept involves a corresponding judgment. Judgments are higher-order self-consciously unified complex representations (CPR A69/B94, B140–142) that are systematically composed of concepts, intuitions, and logical forms—the latter of which Kant calls ‘functions of unity in judgments’ or ‘pure concepts of the understanding’. In the *Metaphysical Deduction*, he stresses that the pure concepts of the understanding are also necessarily applied to the semantic contents of the intuitions that occur in judgments:

The same function that gives unity to the different representations *in a judgment* also gives unity to the mere synthesis of different representations *in an intuition*, which, expressed generally, is called the pure concept of the understanding. (CPR A79/B104–105)

The semantic content of a judgment is a ‘proposition’ (*Satz*), and a proposition takes a truth-value if and only if it has ‘objective validity’ (*objektive Gültigkeit*) (CPR A58/B83, B142, A155–156/B194–195), that is, cognitive significance or anthropocentric empirical meaningfulness. (The subjective validity of a representation, by contrast, is its psychological coherence under the laws of association (CPR B142).) We have already seen how cognitions in general are objective conscious representations, and that both concepts and intuitions are cognitions. In the B edition of the first *Critique* however Kant also highlights a much narrower notion of ‘cognition’ that means *objectively valid judgment* (CPR Bxxvi n., B146), and this is in fact how he is using it in the famous texts at A50–51/B74–76. This narrow conception of cognition as objectively valid judgment, in turn, plays a fundamental role in the B edition version of the *Transcendental Deduction of the Pure Concepts of the Understanding* (CPR B129–169). Kant also says at A111 that ‘intuition without thought [is] never cognition, and would therefore be as nothing to us’, and there are similar remarks at A112 and A120. Finally, the togetherness principle is also explicitly supported by at least one other text:

The understanding cognizes everything only through concepts; consequently, however far it goes in its divisions [of lower concepts] it never cognizes through mere intuition but always yet again through lower concepts. (CPR A656/B684)

Now these texts have led many readers and interpreters of Kant—and in particular, McDowell and Sellars—to deny the cognitive and semantic independence of intuitions and concepts. I accept the truth of the togetherness principle as Kant states it, and I also accept his arguments in support of it. But I think that the McDowell-Sellars *interpretation* of the togetherness principle, despite its being widely held, is wrong. It is wrong not only because it does not conform to what Kant actually says, but also because it pays insufficient attention to the fine-grained details of Kant’s cognitive semantics. As I have argued in detail elsewhere²⁶ and will not repeat here, what Kant is actually saying in the texts at A50–51/B74–76 is that intuitions and concepts are indeed cognitively comple-

mentary and semantically interdependent, *but only for the specific purpose of constituting objectively valid judgments*. From this it does not follow that there cannot be 'empty' concepts or 'blind' intuitions *outside the special context of empirically meaningful judgments*.

Therefore 'empty concept' for Kant does not mean either 'bogus concept' or 'meaningless concept': rather it means 'concept that is not objectively valid', and there can be very different sorts of concepts that are not objectively valid. Some concepts that are not objectively valid are indeed bogus or meaningless (or at least necessarily uninstantiated) in the sense of being either nonsensical or conceptually absurd, e.g. the concept of a furiously-sleeping colorless green idea or of a round square. But for Kant there can also be concepts that are not objectively valid yet still fully intelligible, e.g. concepts of things-in-themselves or noumena (CPR B148–149, A238/B293, B307).

Similarly, 'blind intuition' for Kant does not mean either 'bogus intuition' or 'meaningless intuition': rather it means *objectively valid nonconceptual intuition*. So Kant's term-of-art 'blind intuition' no more implies the denial of intuitional cognition, than our contemporary psychological term-of-art 'blindsight' implies the denial of visual cognition: 'blindsight' is veridical visual cognition without visual qualia, and 'blind intuition' is veridical intuitional cognition without concepts.²⁷

So my first basic point about intuitions and concepts for Kant is that despite its being true, according to the togetherness principle, that they must be combined with one another in order to generate objectively valid judgments, nevertheless intuitions can also occur independently of concepts and still remain objectively valid. And in particular, to the extent that intuitions are cognitively and semantically independent of concepts, they are *nonconceptual cognitive contents*. So the togetherness principle is perfectly consistent with Kant's nonconceptualism. Now I need to say more about the nature of an intuition.

Intuitions for Kant are objective cognitions that are (i) immediate, (ii) sense-related, (iii) singular, (iv) object-dependent, and (v) prior to thought. As before, I have argued in detail for this interpretation elsewhere,²⁸ so will also not repeat that argumentation here. The two important things for our present purposes are that these five features are individually necessary and jointly sufficient for any objective cognition's being an intuition, and that the fifth feature is the same as the nonconceptuality of an intuition. For completeness's sake I will briefly gloss the first four features, and then zero in on the fifth feature.

(i) *Immediacy*

Kant says that an intuition 'refers immediately (*bezieht sich unmittelbar*) to the object' (CPR A320/B377) and again more explicitly that:

in whatever mode and by whatever means a cognition may refer to objects, intuition is that through which it immediately refers to them, and to which all thought is mediately directed. (CPR A19/B33)

I take this to be the same as the *referential directness* of an intuition, in the strong sense²⁹ that it picks out objects without necessarily being mediated by any sort of descriptive content (whether propositional or conceptual) or by any other sort of representational faculty, representational content, psychological intermediary, or physical intermediary. In other words: an intuition refers to its object even if there is no corresponding propositional or conceptual description of that object; an intuition refers to its object even if there *is* a corresponding description of that object but it is false of that object, or vague; an intuition refers to its object even if no other cognitive faculty apart from sensibility is involved; an intuition refers to its object without requiring any psychological intermediary other than intuition itself; and an intuition refers to its object without requiring any physical intermediary other than what is already intrinsically involved in intuition itself—that is, the body of the intuiting subject.³⁰

(ii) *Sense-relatedness*

Kant says that ‘it comes along with our nature that *intuition* can never be other than *sensible*, i.e. that it contains only the way in which we are affected by objects’ (CPR A51/B75), and again more explicitly that:

[intuition] . . . takes place only in so far as the object is given to us; but this in turn, *for humans at least*, is possible only if it affects the mind in a certain way. The capacity (receptivity) to acquire representations through the way in which we are affected by objects is called *sensibility*. Objects are therefore given (*gegeben*) to us by means of sensibility, and it alone affords us intuitions. (CPR A19/B33)

In this way, while for Kant it is in principle possible for a minded being (in particular, a divine being with ‘intellectual intuition’ [CPR B72]) to have intuitions that are not based on the givenness of objects and do not involve natural dynamical processes that externally trigger or affect our sensibility, nevertheless necessarily all creatures minded like us (i.e. conscious human animals) have a specifically *sensible* kind of intuition.

(iii) *Singularity*

Kant says that intuition ‘refers immediately to the object and is singular (*einzel*)’ (CPR A320/B377), that ‘an intuition is a singular representation’ (JL 9: 91), and that

since individual things, or individuals, are thoroughly determinate, there can be thoroughly determinate cognitions only as *intuitions*, but not as *concepts*. (JL 9: 99)

For Kant, the singularity of intuition must not be confused with the definiteness of a definite description, because a concept, no matter how specific, can never necessarily guarantee reference to a fully determinate or concrete material individual in space and time: 'a [material] thing can never be represented *through mere concepts*' (CPR A284/B340). Even a concept that is satisfied by one and only one thing in the actual world might have a counterpart in another possible world that shares all its intrinsic non-relational properties but is not identical with the original object—*this very object right here and now*. This Kantian idea is sharply anti-Leibnizian. On a Leibnizian theory, object-identity is determined entirely by intrinsic non-relational properties, which in turn are picked out exclusively by concepts. But for Kant, spatiotemporal properties are *intrinsic structural* (i.e. necessary, internal, and relational) properties of all real material objects; and furthermore for him, intrinsic structural spatiotemporal and causal-dynamic properties entirely determine the natures of real material objects (CPR A281–286/B337–342); and last but not least only an intuition can representationally capture this 'essentially indexical', or irreducibly actual-world-bound and spatially or temporally context-dependent, sort of identity.

(iv) *Object-dependence*

Kant says that 'our mode of intuition is dependent on the existence (*Dasein*) of the object' (CPR B72) and that 'an intuition is such a representation as would immediately depend upon the presence (*Gegenwart*) of the object' (P 4: 281). This is the veridicality of an intuition.³¹ In other words, intuition is essentially a *relational* form of cognition, in that the existence of the object of intuition is a necessary condition of both the objective validity or cognitive significance of the intuition and also the existence of the intuition itself: if the putative object of an intuition fails to exist, then it is not only not an objectively valid intuition, it is not even authentically an intuition (P 4: 282) but rather only an output of our faculty of imagination (CPR B278). By contrast, a concept can still both exist and be objectively valid even if it is not satisfied by anything in the actual world, so long as it can be satisfied by something in some other possible world (CPR A239/B298).

(v) *Priority-to-thought*

Kant says that 'that representation that can be given prior to all thinking is called *intuition*' (CPR B132), and all thoughts essentially involve concepts, so intuitions can be given prior to all concepts. Furthermore it is clear that this priority of intuition to thought is both cognitive and semantic. Thus an act of intuition can occur without any corresponding act of conceptualization, and also an intuition can be objectively valid independently of any concept:

Objects can indeed appear to us without necessarily having to be related to functions of the understanding. (CPR A89/B122)

Appearances can certainly be given in intuition without functions of the understanding. (CPR A90/B122)

Appearances could after all be so constituted that the understanding would not find them in accord with the conditions of its unity . . . [and] in the succession of appearances nothing would offer itself that would furnish a rule of synthesis and thus correspond to the concept of cause and effect, so that this concept would be entirely empty, nugatory, and without significance. *Appearances would nonetheless offer objects to our intuition, for intuition by no means requires the functions of thinking.* (CPR A90–91/B122–123, emphasis added)

The manifold for intuition must already be given prior to the synthesis of the understanding and independently from it. (CPR B145)

In other words, the priority-to-thought of an intuition is its *nonconceptuality*. Since on my view there are four different basic types of nonconceptuality, it is also crucial to see that correspondingly an intuition can be nonconceptual in at least four different ways: (1) it is possible to intuit an object while lacking concepts either globally or locally (= *very strong nonconceptuality*); (2) it is possible to intuit an object even if concepts are required but they are false of that object or underdiscriminate that object (= *fairly strong nonconceptuality*); (3) it is possible to intuit an object even if there is a corresponding concept that happens to apply correctly to that object, but this very same intuition could have occurred even without that concept or even if the concept had been false of that object or had underdiscriminated that object (= *moderate nonconceptuality*); and (4) it is possible to intuit an object even if there is a corresponding concept that is required for that cognition and whose correct application is also required but that concept is not self-consciously and rationally possessed by the user of that concept (= *weak nonconceptuality*).

Since intuitional cognitive content in Kant's sense and nonconceptual cognitive content are identical, I want to show now that Kant offers defensible proofs for the existence and representational significance of (1) very strongly, (2) fairly strongly, (3) moderately, and (4) weakly nonconceptual content, in inner sense and outer sense, feeling or affect, imagination, sense perception, and empirical judging. In each case, his proofs for nonconceptuality are broadly speaking 'phenomenological': he pumps our philosophical insight by appealing to introspectively or intersubjectively given self-evident facts about conscious cognitions.

(1) *Very Strong Nonconceptuality*

Inner sense is a temporally successive stream of phenomenal mental contents or states in time, by means of which a conscious subject directly intuits herself:

Inner sense [is that] by means of which the subject intuits itself, or its inner state. (CPR A22/B37)

(The inner sense) Consciousness is the intuition of its self. (R 5049; 18: 72)

Everything that belongs to the inner determinations is represented in relations of time. (CPR A23/B37)

Through inner sense, the subject is intuitionally directly aware of herself as phenomenal or apparent, and never as noumenal: 'inner sense ... gives ... no intuition of the soul itself as an object' (CPR A22/B37); and 'inner sense ... presents even ourselves to consciousness only as we appear to ourselves, not as we are in ourselves' (CPR B152–153). Moreover inner sense contains a 'subjective unity of consciousness, which is a determination of inner sense, through which [the] manifold of intuition is empirically given' (CPR B139). Thus inner sense is what we would now call *phenomenal consciousness*.

In rational animals like us, inner sense is always accompanied by a capacity for 'apperception' or self-consciousness (*Selbstbewußtsein*), which is a capacity for forming self-directed judgments and thereby imposing a higher-order unity on all the cognitive faculties and their representational outputs. This capacity for self-consciousness—which Kant calls 'transcendental apperception',³² and which (we know from the Refutation of Idealism) generates, under real-world psychological conditions, empirical apperceptions of myself as a single continuing embodied empirical self³³—is necessary for the representation of determinate states-of-affairs, that is, individual material substances in space and time together with their monadic or relational properties. Transcendental apperception also constitutes an 'objective unity' of consciousness (CPR B136–B143), by virtue of its introducing conceptual and propositional logical form into the structure of every representation that is accessible to self-consciousness. In this way, the capacity for self-consciousness necessarily implies conceptual abilities, and this necessary connection is captured by the characteristic self-directed discursive representation 'I think' (CPR B131–132). Conversely all conceptual abilities have the capacity for self-consciousness as a necessary condition (CPR B133–134 n.). But at the same time Kant holds that it is possible for non-rational animals—and in particular human infants and some nonhuman animals—to have inner sense without apperception (A 7: 127–128) (PC 11: 52), hence consciousness without self-consciousness. Indeed Kant explicitly notes that his contrast between inner sense and apperception sets his philosophical psychology sharply apart from earlier systems: 'it is customary in the systems of psychology to treat *inner sense* as the same as the faculty of *apperception* (which we carefully distinguish)' (CPR B153). Therefore it is possible for non-rational animals to have both intuitions in inner sense and also consciousness without any concepts, or indeed without any (on-line) conceptual capacities at all, which directly implies the very strong nonconceptuality of intuition in inner sense and of consciousness alike.

By contrast to inner sense, outer sense is a cognitive capacity for representing objects outside the embodied empirical subject³⁴ in space: 'by means of outer sense ... we represent to ourselves objects as outside us, and all as in space' (CPR

A22/B37). Kant holds that it is possible for non-human animals—e.g. an ox—to have outer sense intuitions of material objects in space—e.g. a barnyard-gate—without any corresponding concepts and indeed without any conceptual capacities whatsoever (*FS* 2: 59). The ox sees the gate, but cannot see the gate *as* a gate: to borrow another formulation from Wittgenstein, the ox has universal ‘aspect blindness’³⁵ built into its cognitive constitution. So, like the case of inner sense without apperception, the case of nonhuman animal perception implies what I call the *global* very strong nonconceptuality of intuition, since self-representing conscious states and external perceptual cognitions can both occur without any (on-line) conceptual capacities.

Perhaps the most interesting Kantian example of the very strong nonconceptuality of intuition, however, is this one:

If a savage (*Wilder*) sees a house from a distance for example, with whose use he is not acquainted, he admittedly has before him in his representation the very same object as someone else who is acquainted with determinately as a dwelling established for humans. But as to form, this cognition of one and the same object is different in the two. With one it is *mere intuition*, with the other it is *intuition* and concept at the same time. (*JL* 9: 33)

Leaving aside minor worries about Enlightenment cultural condescension (which would hardly be unique to Kant in any case), here the so-called ‘savage’ is clearly a rational animal, and would therefore obviously have concepts for describing and recognizing relatively large material objects in space, and also have concepts for describing and recognizing dwellings of some sort. So Kant’s point is not that he lacks all (on-line) conceptual capacities whatsoever: he merely lacks a specific (on-line) capacity for conceptualizing *houses*. Unlike the ox, he is only *accidentally and partially* but not *constitutionally and wholly* aspect-blind. This is therefore a case of *local* very strong nonconceptuality, which seems quite common in our own experience: I can see the particle-accelerator over there perfectly well without seeing it *as* a particle-accelerator and indeed without having any specific (on-line) capacity for conceptualizing *particle-accelerators*. Insofar as I very frequently perceive things that I do not know how to conceptualize, I am no doubt a rational ‘savage’ many times daily.

(2) *Fairly Strong Nonconceptuality*

Kant’s basic argument for the fairly strong nonconceptuality of intuition is from the existence of what I will call ‘veridical illusions’, quite familiar to us now from the cognitive science literature on modularity and in particular from the evidence (e.g. from the persistence of the Müller-Lyer illusion) for what Jerry Fodor dubbed ‘encapsulation’,³⁶ or the resistance of a given peripheral information-

processing capacity (e.g. vision) to penetration by 'central' processes of conceptualizing, judgment, and inference:

The astronomer can[not] prevent the rising moon from appearing larger to him, even when he is not deceived by this illusion. (CPR A297/B354)

The purest form of this example requires a naïve perceiver, i.e. yet another rational 'savage', this one not informed about astronomy, who falsely judges that the rising moon is bigger than the ordinary moon. In cases of this sort we can see that 'truth and illusion are not in the object, insofar as it is intuited, but in the judgment about it insofar as it is thought' (CPR A293/B350). In other words, the intuition in outer sense is *veridically* illusory³⁷ in the sense that our untutored or 'uncivilized' capacity for perception reliably presents an actually existing object (the moon) just as it would seem to any other untutored creature equipped with our cognitive faculties under those contextual conditions (i.e. as seeming bigger near the horizon than when it is higher in the sky), so the error or illusion lies in the corresponding concept and not in outer sense. This again directly implies the fairly strong nonconceptuality of outer sense perception, especially when taken along with the empirical fact that such illusions perceptually persist *even after the acquisition of conceptual sophistication about them*.

Perhaps most importantly however, such cases also imply the *evidential force* of some nonconceptual contents, since for Kant false perceptual judgments based on veridical illusions are *sub-rationally non-inferentially warranted* even though false (JL 9: 38, 71). If Kant is right, then McDowell is simply wrong when he claims that nonconceptual perceptual content cannot have evidential force because it is outside the 'space of reasons'.

Here is a brief elaboration of this important point. McDowell argues in *Mind and World* that since (1) all epistemic warrant or justification requires reasons for beliefs, but (2) nonconceptual perceptual content cannot constitute a reason, therefore (3) nonconceptual content cannot have any evidential force with respect to perceptual beliefs.³⁸ Kant would reject McDowell's conclusion by rejecting the first premise of his argument. For Kant, a perceptual belief can be non-inferentially defeasibly warranted solely by means of what he calls the 'aesthetic certainty' of a very strongly or fairly strongly nonconceptual perceptual experience (JL 9: 39), thus giving rise to an 'empirical certainty' which is 'unmediated' or 'original' (JL 9: 71). Kant takes this to be precisely analogous to the way in which a pure rational belief can be non-inferentially defeasibly warranted solely by means of 'insight a priori' (*Einsicht a priori*), thus giving rise to a 'rational certainty' which is also 'immediately certain' (JL 9: 71). In other words for Kant, even though strongly or fairly strongly nonconceptual contents cannot be *reasons* for perceptual beliefs (because they cannot constitute premises in arguments), they can nevertheless still be *sub-rational non-inferential grounds of either defeasible warrant or justification (in the case in which a warrant for taking a proposition to be true is correctly combined with the actual truth of that belief)* for perceptual beliefs—just as there can be insight-based non-inferential grounds of

justification for pure rational beliefs. McDowell fails to see this point because he falsely assumes that all epistemic warrant or justification must be inferential. But Kant clearly sees that warrant or justification can be *either* inferential or non-inferential, and that under the right cognitive conditions nonconceptual perceptual experience can itself constitute a genuine sub-rational noninferential warrant or justification for perceptual beliefs.

How is this sub-rational and non-inferential kind of perceptual warrant or justification possible? Here is what Kant says:

aesthetic certainty. This rests on what is necessary in consequence of the testimony of the senses, i.e. what is confirmed through sensation and experience. (JL 9: 39)

Empirical certainty is original (*originarie empirica*) insofar as I become certain of something *from my own* experience. (JL 9: 71)

Kant's idea here—which can I think be viewed as his original development of a fascinating but underexploited theoretical strand in Descartes's doctrine of 'clear and distinct perception'³⁹—is that the intrinsic spatiotemporal structural phenomenal (in Kant-speak, 'aesthetic') character of such experiences is such that it confers an *optimal phenomenal articulation or lucidity* upon their nonconceptual perceptual content, and thereby, just by virtue of this optimally articulated or lucid content, *synthetically necessitates*⁴⁰ the perceiver's assertoric belief in a corresponding propositional content that is cognitively built right on top of that nonconceptual perceptual content.

The initially surprising Kantian thesis that some intrinsic spatiotemporal structures within phenomenal representational content, when self-consciously associated with corresponding propositional contents—or what we would now call 'mental models'⁴¹—can have synthetically necessary implications for propositional attitudes, turns out upon reflection not to be very surprising after all. This is because it is architectonically and analogically right in line with Kant's better-known thesis that some intrinsic structures within *conceptual* content, when self-consciously associated with corresponding propositional contents, can have *analytically* necessary implications for propositional truth and apriority: indeed, the notion of intrinsic-structural necessitation within and between various conceptual contents provides the basic rationale for Kant's equally famous and notorious 'containment' theory of analyticity.⁴² It is important to remember, however, that because this sort of phenomenal necessitation of an assertoric propositional attitude can happen under conditions of veridical illusion as well as under conditions of perceptual correctness, it is a *defeasible* attitude. Thus I can have a nonconceptual justification for a perceptual belief, yet unfortunately still be in error.

Kant's general point is that nonconceptual perception itself can give me either a defeasible warrant or a justification without *being* a reason. So for Kant not all epistemic warrant or justification is inferential: some epistemic warrant or justification is non-inferential and based solely on nonconceptual phenomenology.

Heck and Martin make the same good point about perception and memory respectively.⁴³

Beyond veridical illusions, Kant also offers a different proof for the fairly strong nonconceptuality of intuition, from cases of what he calls 'indistinct' perception:

We glimpse a country house in the distance. If we are conscious that the intuited object is a house, then we must necessarily have a representation of the various parts of this house, the windows, doors, etc. For if we did not see the parts, we would not see the house itself either. But we are not conscious of this representation of the manifold of its parts, and our representation of the object indicated is thus itself an indistinct representation. (*CPJ* 5: 34)

Kant's claim is that we can intuitionally perceptually cognize objects that are under-discriminated by our concepts: I see the country house, but not *as* a country house, rather only as a big undifferentiated blob over there in the distance. Strictly speaking, there are two slightly distinct possible versions of the 'country house' example: one in which the cognizer is a rational 'sophisticate' who has a conceptual capacity for recognizing country houses, and one in which the cognizer is again a rational 'savage' who lacks the specific capacity for conceptualizing houses, whether urban or country—who has 'aspect-blindness' for seeing houses as houses. I see it now as a blob, but when I get closer, I see it *as a country house*. The rational 'savage' also sees the house now as a blob: but when he gets closer, by contrast, he sees it more simply *as a slightly-bigger-than-mid-sized material object over there*, which in turn evokes a lower-level, but still rational, dimension of the content of his own seeing.

From the perspective of the contemporary debate however, the crucial feature of this example is that our ability nonconceptually to perceive a manifold of phenomenal content indistinctly, directly implies that the 'richness' or 'fine grain' of perceptual content exceeds the reach of our conceptual capacities, since for Kant our 'manifold of intuitions'—our ambient perceptual array—will always contain indistinct regions. Peacocke makes the same good point.⁴⁴ McDowell replies by constructing a demonstrative conceptual device for capturing fineness of grain, 'that shade of colour' (with suitable variations for different sorts of fine-grained perceptual content), which would allow the conceptualizer either to invent new concepts or to activate previously off-line conceptual capacities.⁴⁵ Peacocke counter-replies by making another good point: that it is going to be difficult for conceptualists to give an account of concept-learning by this means without going all the way to an implausible radical nativism—like the early Fodor's—about basic perceptual concepts such as COLOR.⁴⁶ In the end however, Heck makes what I take to be the really decisive point, which is that the reference of demonstratives is fixed nonconceptually.⁴⁷ But all of this could have been avoided by just carefully re-reading Kant, since it is clear enough from his theory

of intuition that all *essentially indexical* cognition whatsoever is *intuitional* cognition.⁴⁸

(3) *Moderate Nonconceptuality*

Feelings or affects supply some very interesting examples of moderately nonconceptual content. For Kant, feelings are subjective sensations that necessarily involve either pleasure or pain (although they need not be exhausted by their pleasure/pain component). Pleasure and pain in turn are modes of 'the feeling of life' (*CPJ* 5: 204), which is an immediate subjective experience of dynamic natural vitality that expresses our existence as living organisms and embodied minds: 'the mind (*Gemüt*) for itself is entirely life (the principle of life itself)' (*CPJ* 5: 278). In aesthetic experience of the beautiful, according to Kant, we get a 'disinterested pleasure' that expresses the harmonious and life-enhancing interaction between our various cognitive faculties—and in particular between the understanding and the imagination—as they jointly operate in order to represent the phenomenal form⁴⁹ of the beautiful object (*CPJ* 5: 217–219). On the basis of this disinterested pleasure, we non-inferentially judge that the object—say, this rose—is beautiful. But at the same time, 'the judgment of taste . . . determines the object, independently of concepts, with regard to satisfaction and the predicate of beauty' (*CPJ* 5: 219). In other words, even though the object falls under some concept or another (we not only see the rose but also see it *as* a rose), this conceptual fact is wholly irrelevant to its being beautiful, since its being beautiful consists merely in the relation between its phenomenal form and the pleasure we experience in the harmonious interplay of our cognitive faculties. So despite the fact that the judgment of taste includes concepts and as it happens those concepts correctly apply to that object (i.e. this is indeed a rose), nevertheless even if the concepts were false of the object (say, I judged that this tulip is beautiful), or even if my concepts under-discriminate that object (suppose that I cannot actually tell roses apart from tulips), or even if I lacked the specific concept ROSE, or even if the putative rose did not actually exist as such (suppose it is a hallucination of a rose), still the aesthetic judgment of taste has a direct object and remains valid. *This* is beautiful in any case: 'I do not need [a concept] in order to find beauty in something' (*CPJ* 5: 207). That in turn directly implies the moderate nonconceptuality of feeling.

The role of the imagination in the nonconceptuality of feeling is crucial. The imagination belongs to sensibility (*CPR* B151), and is a cognitive function of intuition: 'imagination . . . [is a power] of intuiting even when the object is *not* present' (*A* 7: 153). Superficially this formulation is inconsistent with Kant's definition of intuition, since intuition includes object-dependence as a necessary condition. So it could legitimately be read as a case of Kant nodding. But more charitably, I think that the best overall construal of what he is saying is that imagination is essentially intuition *minus* object-dependence: so imagination is an

immediate, sense-related, singular, and nonconceptual cognitive capacity that can represent either existing or non-existing objects. Or otherwise put, imagination is *quasi-intuition*.

That there is a cognitive function for representing objects that do not exist—or at least do not presently exist—is obvious in the case of sensory reproduction (i.e. memory) and mental imagery. More generally however, as I mentioned in section II, the power of imagination for Kant is not merely a capacity for reproducing sensory representations and generating mental images, but rather an all-purpose cognitive engine for representational synthesis or mental processing (CPR A78/B103). The operations of this engine in turn have a transcendental ground in the productive imagination (CPR B152) (A 7: 167). Amongst the characteristic outputs of productive imagination is a special class of representations called ‘schemata’ (CPR A137–142/B176–181). Schemata are essentially spatiotemporally formed, patterned, or shaped, because they are the direct result of figurative synthesis or *synthesis speciosa* (CPR B151). But they are also inherently *sortal* because they can be used to organize sensory images under concepts: ‘this representation of a general procedure of the imagination for providing a concept with its image is what I call the schema for this concept’ (CPR A140/179–180). More precisely, and translated out of Kantspeak for a moment, schemata can directly encode both sensory and discursive information in a phenomenal spatiotemporal structural format—Kant’s example is a monogram (CPR A142/B181), but a better example would be a map—and thus are mental icons, outlines, models, or templates of what they represent.⁵⁰ These fine-grained details of Kant’s theory of nonconceptual content are not just exegetical window-dressing: I will return in sections IV and V to the fundamental role of spatiotemporal representation in nonconceptual content. But for the moment we need only note that insofar as schemata are cognitive functions of intuition or quasi-intuitions, and thereby *not* inherently conceptual in nature,⁵¹ it follows that the content of imaginational representation is nonconceptual.

So far, we have seen how Kant is committed to the existence of very strongly, fairly strongly, and moderately nonconceptual content in inner sense, outer sense, feeling or affect, empirical judgment (i.e. the judgment of taste), and imagination. And I have also highlighted the role of spatiotemporal representation in nonconceptual content for later consideration. But there are some further implications of Kant’s arguments that we should also briefly note. Since a sense perception of an object is simply a conscious outer intuition of a material object in space (CPR B160, B275–279), it follows directly from the very strong and fairly strong nonconceptuality of outer sense that sense perception is also very strongly and fairly strongly nonconceptual. Moreover, consider a perceptual judgment like ‘This bent stick in the water is three feet long’, accompanied by a visual sense perception that provides good *prima facie* evidence for the truth of that judgment. Suppose however that what you are actually looking at is a (relatively) straight snake in a pond filled with gin and it is actually only two feet long. This veridical illusion guarantees the nonconceptuality of that perceptual judgment, so it follows that for Kant

perceptual judgments are also fairly strongly nonconceptual. Fairly strong nonconceptuality may be inconsistent with *true* perceptual judgments,⁵² but it is perfectly consistent with false ones.

If sense perceptions and perceptual judgments alike are fairly strongly nonconceptual, then so are both perception-based desires and volitional intentions. This becomes obvious when we consider that I can want that bent stick in water (for my private collection of extremely interesting bent sticks, of course) and also intend to grab that bent stick in water (so that I can take it home with me). More generally, to the extent that desires and volitional intentions are all based on appearances of the good, that is, on things that *seem* good for me, it is obvious that not only can I be wrong about whether the *F* that I want or the *F* that I intend to act upon is in fact good for me, but also more generally I can be wrong about whether *this* or *that* is in fact the *F*, yet nevertheless nonconceptually want or intend to act upon precisely this or precisely that.

It should now be clear that Kant has solid reasons for holding that very strong, fairly strong, and moderately nonconceptual content are quite common and indeed pervasive in the mental lives of animals, including rational animals like us. There is however one other kind of nonconceptuality noted by Kant that we need to look at very briefly before moving on, because it is importantly different from the other kinds.

(4) *Weak Nonconceptuality*

So far I have concentrated on cases of nonconceptuality in which for one reason or another, a human or non-human animal's capacity for sensibility in some way cognitively dominates over its capacity for understanding, even if concepts are required by mental content and even if those concepts happen to be correctly applied. But Kant also points up cases in which there is a cognitive dominance of sensibility over the understanding even though the cognition in question is necessarily conceptual in character and also the relevant concepts must be correctly applied. These are cases in which the sensibility-driven *use* of a concept dominates over the *possession* of that concept, or more precisely, cases in which a concept is correctly applied by a subject even though the subject cannot self-consciously and rationally in the theoretical sense (i.e. logically and analytically) grasp that concept. Kant's cogent examples in this connection again trade on his notion of indistinct representations. He says:

The difference between an indistinct and a distinct representation is merely logical and does not concern the content. Without doubt the concept of *right* that is used by a healthy understanding contains the very same things that the most subtle speculation can develop (*entwickeln*) out of it, only in common and practical use (*gemeinen und praktischen Gebrauche*) one is not conscious of these manifold representations in these thoughts. (CPR A43/B61)

When we compare the thoughts that an author expresses about a subject, in ordinary speech as well as in writings, it is not at all unusual to find that we understand him better than he understood himself, since he may not have determined his concept sufficiently and hence sometimes spoke, or even thought, contrary to his own intention. (CPR A314/B370)

Here even though a subject engages in the 'common and practical use' of a certain concept, nevertheless he does not possess that concept because its specific content is 'indistinct' (*undeutlichen*). Conceptual indistinctness—or more precisely, what Kant calls 'intellectual indistinctness', because there can also be strictly aesthetic or perceptual indistinctness, as we saw in the 'country house' case above—is a specific psychological predicate or 'representational character' of conceptual content, such that the conscious subject of a certain conceptual representation C is unable either to analyze the content of C into its several necessary sub-conceptual constituents (which Kant calls 'characteristics' or *Mermale*) or to give any other sort of account of the logical details of its conceptual microstructure (*JL* 9: 33–35, 61–64). This entails that the cognizing subject lacks possession of the concept RIGHT, just as he would lack possession of the concept BACHELOR if he were unable to judge that necessarily every bachelor is unmarried and male. Consider, for example, your average five- or six-year old boy who has minimal mastery of 'right' and 'bachelor' in English. He is able correctly to pick out some instances of right action (perhaps because they superficially resemble other cases in which his parents gave moral approbation to some action), just as he might be able correctly to identify some bachelors (perhaps by the fact that they superficially resemble some bachelors he has seen on re-runs of *Seinfeld*). But he is unable to give even a partial analysis of either the concept RIGHT or the concept BACHELOR. Of course not only *children* correctly use concepts without possessing them, and in the second of the indented texts quoted immediately above Kant specifically notes cases in which philosophers who are fully rational adults (i.e. 'fully rational' in the sense that they possess an undamaged and online faculty for reason, not in the sense that they always use this faculty in an ideally successful way) also correctly deploy concepts, yet indistinctly. In other words, the correct use of concepts without their possession happens all the time. Kant's overall point is that representing subjects can fail to possess a concept even though they can correctly apply it under real-world conditions, and thus concept-use-without-concept-possession is weakly non-conceptual.

As Kantian theorists of nonconceptual content, what we need to know more precisely is just what sort of cognitive activity is actually going on in weak nonconceptuality. Unfortunately Kant does not tell us explicitly, except for an intriguing analogy between a subject's conscious awareness of the intensional content of her concepts and our cognition of maps (*JL* 9: 64). This chimes in with contemporary work in the cognitive psychology of concepts, in that it strongly suggests that much of our ordinary concept-use has little or nothing to do with

conceptual analysis but in fact is largely determined by our ability to match items in the world with 'stereotypes' or 'prototypes',⁵³ which in Kantian terms would be schemata consisting of classificational patterns of linguistic and non-linguistic imagery of perceptually salient and pragmatically important features of objects and situations. Assuming that this is pretty much what Kant has in mind, it implies that for the purposes of 'common and practical use' of concepts, the human capacity of outer sense plus the schematizing function of the imagination can cognitively dominate over our self-conscious rational capacities for concept-possession, even in cognition that requires both concepts and their correct application.

At this point, if Kant's 'phenomenological' proofs of nonconceptuality are rationally compelling—as I think they are—then we are in a good position to assert the existence and representational significance of nonconceptual content. But now the further question arises: what *accounts for* nonconceptual content? Kant's answer is that all nonconceptual content can be explained in terms of basic cognitive capacities for spatial and temporal representation, or what he calls 'the forms of intuition'. Here I do not mean that the *qualitative or sensory content* of nonconceptual experiences will be explained by the Kantian forms of intuition, but rather only that the *representational or cognitive content* of nonconceptual experiences will be so explained.

IV. The Forms of Intuition and Nonconceptual Content

In order to do this, we need the notion of a *transcendental deduction*. Since the publication of Peter Strawson's *The Bounds of Sense*, Kant's transcendental deductions have typically been construed as special epistemic arguments, with an eye to defeating skepticism—whether Cartesian evil demon skepticism or external world skepticism, or one of the Humean brands of skepticism.⁵⁴ But if I am correct, a transcendental deduction for Kant is really a *cognitive-semantic* argument of a special kind. In the first *Critique*, in the first section of the Transcendental Deduction of the Pure Concepts of the Understanding, Kant observes that 'we have already traced the concepts of space and time to their sources by means of a transcendental deduction, and explained and determined their a priori objective validity' (*CPR* A87/B119–120). And in the *Prolegomena* Kant speaks of a 'transcendental deduction of the concepts of space and time' (*P* 4: 285). More precisely, I take a Kantian transcendental deduction to be a demonstration of the objective validity—the empirical meaningfulness or cognitive significance—of an a priori representation *R* (whether that representation is an a priori concept, an a priori intuition, or an a priori necessary proposition), by means of demonstrating that *R* is the presupposition of some other representation *R**, which is assumed for the purposes of the argument to be objectively valid (*CPR* A84–94/B116–127, A156/B195). What I want to do in this section, then, is to reconstruct Kant's transcendental deduction of our a priori representations of space and time. In terms of my schema for transcendental

deductions, this will mean that the representations of space and time are slotted in for R , and that empirical intuitions of appearances of ourselves in inner sense or of material objects in outer sense are slotted in for R^* .

Corresponding to my cognitive-semantic reconstruction of this transcendental deduction of our representations of space and time, is also an explicitly cognitive-semantic reading of Kant's overall *theory* of space and time in the Transcendental Aesthetic, as opposed to either a metaphysical or an epistemic reading of that theory.⁵⁵ On my cognitive-semantic reading, Kant's theory of space and time is not first and foremost an investigation either into 'the question of the ontological status of space and time',⁵⁶ or into the question of how we obtain justified true beliefs about space and time, but instead essentially an investigation into the basic semantic features of the a priori 'concepts' or representations of space and time. Kant's turn away from metaphysics or epistemology towards cognitive semantics via his transcendental deduction of the representations of space and time implies, among other things, that his notorious thesis of the 'transcendental ideality' of space and time, which says that space and time are *nothing but* a priori necessary subjective forms of human sensibility (*CPR* A28/44, A36/B52), is *not* in fact a premise or a conclusion of Kant's transcendental deduction of the representations of space and time. Instead, on my reading, transcendental ideality is a logically independent thesis, supposedly proven by Kant's notorious 'Three Alternatives Argument', according to which:

- (1) space and time are either,
 - (a) things-in-themselves (Newton's theory),
 - (b) either intrinsic non-relational properties of or extrinsic relations between things-in-themselves (Leibniz's theory), or
 - (c) transcendently ideal (Kant's theory), but,
- (2) space and time are obviously both not-(a) and not-(b), therefore,
- (3) space and time are transcendently ideal, i.e. they are nothing but a priori subjective forms of human sensibility (*CPR* A23/B37–38, A39–40/B56–57).

In my opinion, for reasons that lie beyond the scope of this paper,⁵⁷ the Three Alternatives Argument is unsound. But I also believe for reasons that *do* lie within the scope of this paper, that Kant's transcendental deduction of our representations of space and time is sound. For my present purposes, this means that I can simply leave aside the thorny issue of the nature and justification of Kant's idealism in my presentation of the transcendental deduction of our representations of space and time.⁵⁸

Unfortunately, Kant's use of the term 'concept' or '*Begriff*' in the Aesthetic (and also in the treatise on which the Aesthetic was originally based, *On the Form and Principles of the Sensible and Intelligible World*, or the 'Inaugural Dissertation') is consistently ambiguous in one respect. He explicitly discusses the 'concepts' of space and time. But an intermediate conclusion of the Aesthetic is that neither the

representation of space nor the representation of time is a 'discursive' representation or a 'general concept': rather, both are intuitions and therefore not concepts (CPR A24–25/B39, A31/B47). So in order to be charitable to Kant and to avoid the absurdity of his arguing that the concepts of space and time are not concepts, I think that we must take all his references to the 'concepts' of space and time (with the single exception of a special case that I will mention in the next paragraph) to invoke a broad meaning of '*Begriff*' that is essentially the same as that of the neutral term '*Vorstellung*' or 'representation'. This comports well with Kant's usage of '*Begriff*' in the pre-Critical writings and in the *Reflexionen*. It also makes sense of an otherwise unintelligible passage in the first *Critique* in which he explicitly distinguishes between 'two sorts of concepts of an entirely different kind, which yet agree with each other in that they both relate to objects completely a priori manner, namely the concepts of space and time, as forms of sensibility, and the categories, as concepts of the understanding' (CPR A85/B118). So in order to avoid confusion, I will consistently use 'representation' where the broader sense of 'concept' is clearly intended by Kant.

Just to make things even more complicated however, Kant does speak in at least two places of 'the general concept of spaces' (CPR A25/B39) and of a 'general concept of space (which is common to a foot as well as an ell)' (CPR A25). Since these passages are juxtaposed with arguments *against* construing spatial representation as conceptual—and again on the charitable assumption that Kant is not simply contradicting himself—he must actually be arguing that despite the fact that the representation of space is not a concept, there can nevertheless be some sort of general concept of space. But this general concept of space will be parasitic on a more basic intuition of space, just as we might form the concept of 'being socratic' on the basis of a direct acquaintance with Socrates himself.

I will now spell out Kant's transcendental deduction of our representations of space and time. For convenience, I will abbreviate 'the representation of space' as 'r-space' and 'the representation of time' as 'r-time', display the individual steps of the argument along with supporting texts (whether from the Transcendental Aesthetic or elsewhere in the first *Critique*), and also give a brief commentary on each step.

*A Step-by-Step Reconstruction of the Transcendental Deduction of
R-Space and R-Time*

Prove: that r-space and r-time, as the forms of intuition, are the a priori necessary subjective forms of all empirical intuitions of appearances.

- (1) Empirical intuitions are singular representations of undetermined apparent or sensible objects, and those representations in turn possess both matter and form.

The undetermined object of an empirical intuition is called *appearance*. (CPR A20/B34)

I call that in the appearance which corresponds to sensation its *matter*, but that which allows the manifold of appearance to be intuited as ordered in certain relations I call the *form* of appearance (*Form der Erscheinung*). (CPR A29/B34)

Commentary: We learn later in the first *Critique* that empirical intuitions must be combined with concepts in the context of judgments in order to be ‘determined’ and thus represent determinate objects of experience (CPR A51/B75). But empirical intuitions are, as such, very strongly nonconceptual (see CPR A90/B122, and section III). The object of such a representation is not a determinate object of experience, but instead an undetermined or at best partially-determined object of the senses, that is, an appearance. These objects, as represented, have both a material component that corresponds to our objective sensory perceptions of them, and also a formal-structural spatiotemporal component that remains fixed across variations in the material component.

It is very important, however, to recognize that this formal-structural spatiotemporal component is *immanent*, or literally present, in the objective sensory representations themselves. It is indeed possible, by an act of conceptual abstraction, to consider the spatiotemporal component apart from any sensory representational content (CPR A20–21/B34–35). The semantic residue of this act of abstraction is then what Kant calls ‘a mere form of sensibility’ (CPR A21/B35) or ‘mere form of intuition, without substance’ (CPR A291/B347). These *mere* forms of intuition are *not* however the same as the forms of intuition in the proper sense, which are *empirically realized* formal-structural spatiotemporal representational frameworks. So as Kant puts it in the case of r-space, ‘if extended beings were not perceived, one would not be able to represent space’ (CPR A292/B349). One crucial implication of this doctrine is that the mere form of spatial intuition is nothing but an ‘empty intuition without an object’ or an *ens imaginarium* (CPR A292/B348), lacking any determinate structure:

[The mere universal form of intuition called ‘space’] is something so uniform and so indeterminate with respect to all specific properties that certainly no one will look for a stock of natural laws in it. (P 4: 321–322)

By sharp contrast however, the empirically realized form of spatial representation—i.e. the form of intuition in the proper sense—for Kant represents a three-dimensional rectilinear or Euclidean, egocentrically oriented formal structure that in turn guarantees, for example, the incongruence of exact physical counterparts that are also enantiomorphs (i.e. mirror-reflected isomorphs), such as the right and left hands, two spherical triangles sharing the same base, and double helix figures such as ‘oppositely spiralled snails’ (P 4: 284–286). In short and more generally, whereas the mere forms of intuition are merely indeterminate or *thin* spatiotemporal representational structures—presumably picking out Euclidean spaces but without any special topological features such as

limited dimensionality or ‘handedness’—by contrast the forms of intuition are empirically-realized, determinate or *thick* spatiotemporal representational structures.⁵⁹ I will come back to this crucial point in section V, under the heading of what I will call the ‘designated’ structures of r-space and r-time.

- (2) Appearances or objects of the senses are represented in empirical intuition by means of either outer (or spatial) sense or inner (or temporal) sense. R-space and r-time are the mutually distinct and jointly exhaustive (although not mutually exclusive) forms of intuition, and also the subjective forms of outer and inner sense respectively.

By means of outer sense (a property of our mind) we represent to ourselves objects as outside us, and all as in space. In space their shape, magnitude, and relation to one another is determined, or determinable. Inner sense, by means of which the mind intuits itself, or its inner state, gives, to be sure, no intuition of the soul itself, as an object; yet it is still a determinate form, under which the intuition of its inner state is alone possible, so that everything that belongs to the inner determinations is represented in relations of time. (CPR A22–23/B37)

Time can no more be intuited externally than space can be intuited as something in us. (CPR A23/37)

[R-]space is nothing other than merely the form of all appearances of outer sense, i.e. the subjective condition of sensibility, under which alone outer intuition is possible for us. (CPR A26/B42)

[R-]time is nothing other than the form of inner sense, i.e. of the intuition of our self and our inner state. (CPR A33/B49)

Commentary: The contrast between outer sense and inner sense is phenomenologically self-evident and primitive: roughly speaking, the outer is whatever stands in some determinate sensory relation to the body of the subject (see also CPR A23/B38), and the inner is whatever is sensory and non-outer. Otherwise put, inner sense is phenomenal consciousness (see section III). R-time, as the form of outer sense, is the intrinsic phenomenal structure or the ‘immediate condition’ (*die unmittelbare Bedingung*) (CPR A34/B51)⁶⁰ of inner sense; and correspondingly r-space, as the form of outer sense, is the intrinsic phenomenal structure or the immediate condition of outer sense. Because the contrast between outer sense and inner sense is phenomenologically self-evident and primitive, and because r-space and r-time are the forms of inner and outer sense, it follows that the contrast between r-space and r-time is phenomenologically self-evident and primitive. It does not follow, however, that r-space and r-time exclude one another; on the contrary, they are strictly complementary, just as outer and inner sense are strictly complementary.⁶¹

- (3) R-space and r-time are necessary conditions for the empirical intuition of appearances in outer and inner sense.

[R-]space is a necessary representation, a priori, which is the ground of all outer intuitions. One can never represent that there is no space, although one can very well think that there are no objects to be encountered in it. (CPR A24/B38)

[R-]time is a necessary representation that grounds all intuitions. In regard to appearances in general one cannot remove time, though one can very well take the appearances away from time. (CPR A31/B46)

Commentary: R-space and r-time belong to the formal constitution of the senses, so as a matter of conceptual necessity they cannot be removed from our representations of appearances; but it is at least barely conceivable and therefore possible that r-space and r-time can exist without any spatial and temporal objects (although they would in this case be only 'mere' forms of intuition, but even so they are still in a minimal sense forms of intuition): hence r-space and r-time are strictly necessary for the empirical intuition of appearances, although the converse is not the case.

- (4) R-space and r-time, the forms of intuition, by means of an act of self-consciousness, can also be treated as 'pure intuitions', or singular nonconceptual representations of themselves as unique abstract structural wholes or frameworks, thereby in turn representing total infinite space and total infinite time.

[R-]space is not a discursive or . . . general concept of relations of things in general, but a pure intuition. (CPR A24–25/B39)

Space is represented as a given infinite magnitude. (CPR A25/B39)

[R-]time is no discursive or . . . general concept, but a pure form of sensible intuition. (CPR A31/B47)

The infinitude of time signifies nothing more than that every determinate magnitude of time is only possible through limitations of a single time grounding it. The original representation, [r-]time, must therefore be given as unlimited. (CPR A32/B48)

[R-]space and [r-]time and all their parts are **intuitions**, thus individual representations along with the manifold that they contain in themselves (see the Transcendental Aesthetic), thus they are not mere concepts by means of which the same consciousness is contained in many representations, but rather are many representations that are contained in one and in the consciousness of it; they are thus found to be composite, and consequently the unity of consciousness, as **synthetic** and yet as original, is to be found in them. This singularity of theirs is important in its application. (CPR B136 n.)

Commentary: R-space and r-time, by means of an act of self-consciousness, can be treated as nonconceptual singular intuitions that represent themselves as unique individuals—but not in any way as empirical objects, rather only as abstract structural wholes or complete frameworks (CPR A291/B347). These abstract structural frameworks in turn present space and time as infinite totalities because, although empirical quantities are possible only through space and time, they are also presented as intrinsically unlimited, non-numerable, or ‘ideal’ totalities (CPR A438/B466). All intuitions are singular representations (see section III) but the singularity of a *pure* intuition is partially constituted by a special synthetic unity of consciousness, which directly and necessarily connects pure intuition with self-consciousness or apperception: ‘[t]he supreme principle of all intuition in relation to the understanding is that all the manifold of intuition stand under conditions of the original synthetic unity of apperception’ (CPR B136). In other words, even though a pure intuition is nonconceptual, it is only *weakly* nonconceptual, because the capacity for pure intuition stands in a necessary relation to the understanding and thereby to our conceptual capacities, via the capacity for self-consciousness (again see section III).

- (5) R-space and r-time are a priori. (From (3), (4), and the definition of a ‘a priori’ as absolute experience-independence, or underdetermination by all possible sets and sorts of sensory impressions. That is: to say that X is a priori is to say that X is not strongly supervenient on sensory impressions.)⁶²

[W]e will understand by a priori cognition not those that occur independently of this or that experience, but rather those that occur *absolutely* independently of all experience. (CPR B3)

Commentary: To the extent that r-space and r-time can be treated as pure intuitions via self-consciousness, they lack all sensory ‘matter’ or sensory qualitative content by the definition of ‘pure’ (CPR B3), and so automatically satisfy the definition of apriority.

- (6) Since r-space and r-time are (a) mutually distinct and jointly exhaustive (although complementary) necessary forms of the empirical intuition of appearances, (b) subjective forms of outer and inner sense, and (c) able to be treated, via self-consciousness, as pure a priori nonconceptual intuitions of themselves as unique abstract structural wholes or complete frameworks, they are therefore the a priori necessary subjective forms of all empirical intuition of appearances. (From (1)–(2) and (5).)

Commentary: Step (6) establishes the objective validity of r-space and r-time and thus completes the transcendental deduction of r-space and r-time. But it is

crucial to see that this conclusion invokes a basic distinction between r-space and r-time as (1) *the forms of intuition*, or the a priori necessary subjective forms of all empirical intuition of appearances, and (2) *pure or formal intuitions*, that is, the pure a priori nonconceptual intuitions of r-space and r-time as unique abstract structural wholes or complete frameworks, which in turn represent space and time as infinite totalities. (Here it should be particularly noted parenthetically that not only the forms of intuition *but also* the pure or formal intuitions alike, both of which are empirically realized representational architectures, must again be distinguished from the 'mere' forms of intuition, which are empirically unrealized.) As Kant puts it in the B edition version of the Transcendental Deduction of the categories: '[R-]space, represented as an *object* (as is really required in geometry) contains more than the mere form of intuition, namely the *putting-together* (*Zusammenfassung*) of the manifold given in accordance with the form of sensibility in an *intuitive* representation, so that the *form of intuition* (*Form der Anschauung*) merely gives the manifold, but the *formal intuition* (*formale Anschauung*) gives unity of the representation' (CPR B 160 n.). Otherwise put, the basic distinction between r-space and r-time as 'forms of intuition' on the one hand, and as 'formal intuitions' on the other hand, is that whereas the forms of intuition require only a *subjective unity of consciousness* and do not necessarily involve a synthetic unity of self-consciousness or apperception, hence are very strongly nonconceptual, by contrast the formal intuitions require an *objective unity of consciousness* that is determined by the capacity for self-consciousness or apperception, hence are only weakly nonconceptual and thus necessarily related to our conceptual capacities.⁶³ Still otherwise put, the forms of intuition are involved in rational cognition and *sub-rational* cognition (say, of pre-linguistic human children or nonhuman animals) alike, whereas the formal intuitions strictly require a capacity for self-conscious rational cognition.

In this connection, it is very important not to confuse (1) the distinction between a subjective unity of consciousness and an objective unity of consciousness, with (2) the distinction (noted in section III) between subjective consciousness and objective consciousness. Objective consciousness is the representational consciousness of either some intentional object or oneself (reflexive objective consciousness). Subjective consciousness is consciousness without an underlying unity of content; hence a subjective consciousness does not even have a *subjective* unity of consciousness, and represents neither an intentional object nor oneself. Moreover, a unity of representational content available to consciousness, whether subjective unity or objective unity, is a necessary condition of all objective consciousness. But not every objective consciousness has an objective unity. Hence there can be an objective consciousness that has a merely subjective *unity* of consciousness, i.e. a unity provided by the forms of intuition alone.

Now, taking together (6) with the material in section III, we can immediately derive my target thesis in this section:

- (6*) Since all nonconceptual content is intuitional content, and since nonconceptual intuitional content exists and is representationally significant, and since all nonconceptual content is either empirical or non-empirical, it follows that r-space and r-time, as the forms of intuition, are the a priori necessary subjective forms of all nonconceptual content. (From (6) and section III.)

Translated again out of Kantspeak for a moment, what I am asserting on Kant's behalf is that our capacities for spatial and temporal representation *constitutively explain* nonconceptual content: that is, nonconceptual content is *nothing but* cognitive content that is essentially structured by our a priori representations of phenomenal space and time. I reiterate however that by this thesis I do not mean that the sensory qualitative content of nonconceptual cognition is to be explained in this way, but rather only that the *representational* content of nonconceptual cognition is to be so explained. In particular then, Kant is saying that what determines our cognitive reference to the uniquely individual material objects of empirical nonconceptual or intuitional representations, are the spatiotemporal features of those representations alone. To cognize *this* or *that* individual material object nonconceptually or intuitionally in inner sense, outer sense perception, feeling or affect, imagination, and empirical judgment, is simply *to locate it uniquely here-and-now or there-and-then*. As the real estate agents say: it's all about location.⁶⁴

V. The Role of Spatiotemporal Structure in Nonconceptual Content

We are now in a good position to see how the Kantian forms of intuition provide a fundamental explanation of nonconceptual content. Kant's way of formulating this, as we have just seen, is that the forms of intuition are the conditions of the possibility of, or the presuppositions of, all intuitional content, as guaranteed by the transcendental deduction of our representations of space and time. But once we have translated Kant's thesis about the forms of intuition out of Kantspeak and into more contemporary terms, we can recognize that he is making an intelligible, substantive, and plausible claim that significantly extends the recent debate about nonconceptual content, by solving the unity problem.

The key to recognizing the Kantian solution to the unity problem lies in the answer to the following question: is the underlying nature of cognitive content exhausted by its functional or its purely logico-rational components? Those who answer 'yes' to this question will deny either the existence or at least the representational significance of nonconceptual content, whereas those who answer 'no' will assert the existence and representational significance of nonconceptual content. Now Kant's fundamental explanation for nonconceptual content via the forms of intuition gives us good reason to answer 'no', and here is why.

If Kant is right, then forms of intuition introduce spatial or temporal structures directly into phenomenal cognitive content: all sensory representations of material objects or of the individual subject herself are necessarily informed, infused, or 'matted' by our representations of space or time. As Kant puts it in the *Aesthetic*, you *can* conceive of space or time as empty of apparent objects or subjects, but you *cannot* conceive of apparent objects or subjects without also representing space or time (*CPR* A24/B38, A31/B46). This claim has metaphysical modal force because for Kant properly constrained conceivability entails real or metaphysical possibility, and the proper constraints on conceivability are yielded by Kant's theory of objective validity.⁶⁵ But the crucial point is that our representations of space and time are *intrinsic phenomenal structures* of cognitive content.

This claim also requires a side comment to avoid misunderstandings. Please note that for me an 'intrinsic property' is an internal, necessary property of something, and that an 'extrinsic property' is an external, contingent property of something. In turn, for me a property is 'internal' just in case all its instances are proper integral parts of the things that instantiate that property, and 'external' otherwise. So for me the 'intrinsic property *vs.* extrinsic property' distinction is *not* the same as the 'necessary non-relational (i.e. monadic or 1-place) property *vs.* contingent relational (i.e. polyadic or many-place) property' distinction, although some philosophers have offered stipulative definitions of 'intrinsic property' and 'extrinsic property' to this effect.⁶⁶ Stipulative definitions are of course perfectly philosophically acceptable. But when a stipulative usage gains currency, it may carry with it an entirely false impression of metaphysical inevitability. And it seems to me this now-popular stipulative usage of 'intrinsic' has in fact tended to carry with it the entirely false impression that it is *a priori* impossible for there to be intrinsic relational properties, or what I call *intrinsic structures*.

According to Kant, as I have said, our representations of space and time are intrinsic phenomenal structures of cognitive content. Now as a direct consequence of this, since space and time are more specifically intrinsic phenomenal *structures*, then they are irreducible to phenomenal qualia or sensory qualitative content. This is because qualia are intrinsic *non-relational* features of cognitive content, whereas our representations of space and time are fully relational (*CPR* B67). Moreover, since our representations of space and time are *intrinsic* phenomenal structures, they are irreducible to functional features of cognitive content. This is because functional features of cognitive content are *extrinsic* relational patterns or structures within content, that trace causal mappings from processing inputs to processing outputs in animals or machines. In a materialist representational framework, these mappings could ultimately be either behavioral, computational, otherwise mechanical, or neurobiological. The extrinsicness of functional structures consists in the fact of 'multiple realizability': unrestrictedly many different (kinds of) things can be the causal-role players, so the functional structure has no intrinsic properties of its own, *as* structure. By contrast, our representations of space and time are 'chauvinistic' (by virtue of being specifically anthropocentric) in that they must be empirically realized in all

and only *the phenomenal states of animals like us*. Finally then, since our representations of space and time are intrinsic *phenomenal* structures, they are irreducible to purely logico-rational features of cognitive content. This is because the purely logico-rational features of cognitive content, as *purely* logical and rational in character, are of course thereby also *non-phenomenal* in character.

So: Kant's thesis is that the intrinsic phenomenal structures of cognitive content which are introduced by our representations of space and time are not only required by but also immanently configure, organize, and 'pre-format' all phenomenal cognitive content. And while it is not implausible to hold that all the conceptual parts of phenomenal cognitive content *can* be accounted for (reductively, or non-reductively) in functional or logico-rational terms alone,⁶⁷ nevertheless the nonconceptual spatiotemporal elements of phenomenal content necessarily *resist* functional or logico-rational reduction.

Significantly, Kant's thesis about the cognitive autonomy of nonconceptual spatiotemporal representation has also received some independent *empirical* confirmation, at least as far as spatial representation is concerned, in experiments involving commissurotomy patients. Commissurotomy is the surgical severing of the corpus callosum, which is the primary neural connection between the right and left hemispheres of the brain. Commissurotomy patients typically manifest some cognitive dissociation between types of information normally processed in the right hemisphere and types of information normally processed in the left hemisphere. In one particularly interesting experiment carried out by Colwyn Trevarthyn,⁶⁸ a commissurotomy patient was instructed to carry out a left-hand task that referred to an object on the right side of the visual field, while focusing his vision on a central point between the two sides of his visual field. What happened was that as soon as the left-hand movement (controlled by the right hemisphere) started, the visual appearance of the object in the right-hand side of the visual field (controlled by the left hemisphere) disappeared, thus vividly indicating a strong dissociation between information processed in the two hemispheres. But most importantly for our purposes, even though the visual representation of the object disappeared, *the right-hand phenomenal visual field remained both intact and continuous with the left-hand side of the visual field*. In an elaboration of these results, Trevarthyn proposed 'that neo[i.e. recent]commissurotomy in man may ... divide cortical vision for perception of detail and identification of objects, without producing a similar division in the perception of ambient space'.⁶⁹ In other words, it is possible for commissurotomized humans to dissociate from the conceptual content of visual experiences and judgments, while still retaining the uncompromised nonconceptual grasp of visual space. So the visual representation of space seems to be both nonconceptual and also more cognitively basic than visual conceptualization.

This leads me up to my last leading question: How, more precisely, do the forms of intuition according to Kant play their constitutive role in nonconceptual content? Remember now that the role of empirical nonconceptual or intuitional cognition, along with its nonconceptual cognitive content, is uniquely locating individual material objects. So Kant's answer to my last leading question, I think,

is that the forms of intuition introduce a single spatiotemporal (by which I mean spatial *or* temporal, so weakly disjunctive) phenomenal framework, or a phenomenal *field*, into cognitive content. Only within the framework of such a field can real objects in the world be uniquely located by our cognitive capacities.

Absolutely essential to this uniquely locating representational function is the fact that this phenomenal spatiotemporal field is not merely a set of spatial or temporal representational relations, but also has what I will call a 'thick' or 'designated' structure. This means that the set of spatial relations and the set of temporal relations found in the sensible experience of rational animals like us have further *special* constraints on them, that cannot be found in every logically possible set of spatial or temporal relations.

For example, according to Kant, the spatial part of the spatiotemporal phenomenal field is not only represented as as homogeneous and rectilinear (i.e. Euclidean), as filled with points, as figural, and as extended, but also as *an oriented three-dimensional Euclidean manifold*. Obviously the Euclidean designation sets it apart from non-Euclidean spaces; and just as obviously the 3-D designation sets it apart from higher-dimensional Euclidean spaces or higher-dimensional non-Euclidean spaces. Nevertheless the oriented designation is particularly important. As Kant argues in his fascinating pre-Critical essay, 'Concerning the Ultimate Ground of the Differentiation of Directions in Space', and again in his equally fascinating late Critical essay, 'What is Orientation in Thinking?', all three-dimensional spaces represented by creatures like us necessarily have 'centered' or egocentric axes for right-left, front-back, and up-down directionality (*DS* 2: 381–383) (*OT* 8: 134–135). So according to Kant it is possible for me to cognize the enantiomorphic incongruence between my right and left hands *nonconceptually*, despite their being exact one-to-one analytical counterparts and thus indistinguishable conceptually, merely by possessing an outer sense (*P* 4: 285–286).

In turn, according to Kant, the temporal part of the spatiotemporal phenomenal field is not only represented as successive, filled with moments, and as linear or one-dimensionally extended (*CPR* A33/B50), but it is also represented as *asymmetric or irreversible in its succession* (*CPR* A191–193/B236–238). The asymmetric character of time—'time's arrow'—is of course crucial in our representation of the causal order of nature, and guarantees that our representation of material causal processes, and in particular those involving motion (*CPR* B48–49), will represent such processes as always and only flowing successively forwards into the future and never backwards into the past. Thus for Kant, just as our representation of the oriented directionality of space depends solely on the constitution of outer sense and is nonconceptually cognizable, so too our representation of the irreversibility of time is an essentially 'centered' or egocentric feature of time that depends solely on the constitution of inner sense and is nonconceptually cognizable.

Now both the Euclidean 3D orientability built into the representation of phenomenal space and also the time's arrow irreversibility built into the representation of phenomenal time, are conceptually or logically *contingent*

features of space and time themselves. This is apparent in non-Euclidean geometries, higher dimensional geometries, the notion of 'non-orientable' surfaces like the Möbius strip, the bare conceivability of backwards causation, and the bare conceivability of backwards time-flow. But on the other hand, our representations of both 3D Euclidean orientability and time's arrow alike seem to be built right into the metaphysics of animal minds, in the sense that for Kant the conscious states of animals in their representations of material objects, whether human or nonhuman, are necessarily framed by the nonconceptual spatiotemporal phenomenal field. Thus the 'centeredness' or egocentricity of conscious cognitive content necessarily requires spatial orientation and temporal asymmetry. Even more precisely and radically, for Kant the designated formal intuitional spatiotemporal structure of nonconceptual cognitive content *just is* its subjective or 'first-person' character. *It is precisely an animal's unique nonconceptual spatiotemporal perspective or 'point of view' that constitutes the subjective character of its objective experience*, and not the 'unity of consciousness' in the Kantian sense of a necessarily conceptual capacity for rationally self-conscious and proposition-based unification of a phenomenal manifold of sensory or representational content.⁷⁰ As the commissurotomy cases vividly show, the unity of consciousness in this Kantian sense is a relatively sophisticated and fragile achievement of rational animals, but unnecessary for animal consciousness and conscious animal cognition in general, whether the animal is rational or non-rational, and whether the animal is human or non-human.⁷¹

VI. Conclusion

Here is the punchline of this paper. Kant's important idea for contemporary philosophy of mind and cognition is that the forms of intuition constitute nonconceptual content by introducing designated intrinsic phenomenal spatial or temporal structures into all human or non-human sensibility, whose specific cognitive-semantic function it is to determine the empirical representation of individual material objects in real empirical space and real empirical time, by uniquely locating those objects. The forms of intuition also provide a first-person representational platform for all the other sorts of cognitive content, and in particular all those involving conceptualization or judgment, the specifically *rational* cognitive contents. And this solves the unity problem about nonconceptual content.⁷²

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NOTES

¹ For convenience, I cite Kant's works infratextually in parentheses. The citations normally include both an abbreviation of the English title and the corresponding volume and page numbers in the standard Akademie edition of Kant's works: *Kants gesammelte Schriften*, edited by the Königlich Preussischen (now Deutschen) Akademie der Wissenschaften (Berlin: G. Reimer [now de Gruyter], 1902–). I generally follow the standard English translations, but have modified them where appropriate. There are two deviations from this normal citation format. First, for references to the first *Critique*, I follow the common practice of giving page numbers from the A (1781) and B (1787) German editions only. And second, for references to Kant's *Reflexionen*—i.e. entries in *Kants handschriftlicher Nachlaß*—I give the entry number in addition to the Akademie volume and page numbers. All the translations from the *Reflexionen* are my own. Here is a list of the relevant title-abbreviations and English translations:

- A *Anthropology from a Pragmatic Point of View*, trans. M. Gregor. The Hague: Martinus Nijhoff, 1974.
- CPJ *Critique of the Power of Judgment*, trans. P. Guyer and E. Matthews. Cambridge: Cambridge University Press, 2000.
- CPR *Critique of Pure Reason*, trans. P. Guyer and A. Wood. Cambridge: Cambridge University Press, 1997.
- DS 'Concerning the Ultimate Ground of the Differentiation of Directions in Space', in *Immanuel Kant: Theoretical Philosophy, 1755–1770*, trans. D. Walford and R. Meerbote. Cambridge: Cambridge University Press, 1992, pp. 361–372.
- FS 'The False Subtlety of the Four Syllogistic Figures', in *Immanuel Kant: Theoretical Philosophy, 1755–1770*, pp. 85–105.
- JL 'Jäsche Logic', in *Immanuel Kant: Lectures on Logic*, trans. J.M. Young. Cambridge: Cambridge University Press, 1992, pp. 519–640.
- OT 'What is Orientation in Thinking?', in H. Reiss, *Kant: Political Writings*, (ed.) trans. H.B. Nisbet. 2nd ed. Cambridge: Cambridge University Press, 1991, pp. 237–249.
- P *Prolegomena to Any Future Metaphysics*, trans. J. Ellington. Indianapolis: Hackett, 1977.
- PC *Immanuel Kant: Philosophical Correspondence, 1759–99*, trans. A. Zweig. Chicago: University of Chicago Press, 1967.

² See Stalnaker 1998. Stalnaker argues that nonconceptual content reduces to physical information. But virtually all contemporary nonconceptualists and conceptualists are nonreductivists about cognitive content—so Stalnaker's view is oddly orthogonal to the contemporary debate.

³ See Bermúdez 1998; Bermúdez 2003a; Bermúdez 2003b; Bermúdez and Macpherson 1998; Crane 1992; Dretske 1969: ch II; Dretske 1981; Dretske 1993; Gunther 2003; Heck 2000; Hurley 1998: ch. 4; Kelly 1998; Kelly 2001; Martin 1992; Peacocke 1998; Peacocke 1992: ch. 3; Peacocke 2001; Tye 1995; and Tye 2000.

⁴ Evans 1982: chs. 2–7.

⁵ See Hanna 2001: ch. 1. And for an earlier acknowledgment of Kant's deep idea that perception is pervaded by the activity of the imagination, see Strawson 1982.

⁶ This point is also made by Heck 2000.

⁷ See, e.g. Griffin 2001: ch. 7.

⁸ McDowell 1994: lecture III, and Afterword, part II.

⁹ See Brewer 1999:ch. 5; and Sedivy 1996.

¹⁰ See Abela 2002: chs. 1–2.

¹¹ See Hanna 2001: esp. ch. 4.

¹² See Hanna forthcoming a.

¹³ McDowell's conceptualist interpretation of Kant is by no means uncontroversial. Other cognitively-oriented Kantians have adequately acknowledged Kant's theory of nonconceptual cognition: see, e.g. Brook 1994: 125; and Kitcher 1990: 161. And it has been quite plausibly argued that McDowell's Kant is in fact more Hegelian than Kantian: see Sedgwick 1997.

¹⁴ See McDowell 1994: lectures I–III, and Afterword, part I; and Sellars 1963.

¹⁵ See McDowell 1998.

¹⁶ See Sellars 1968; Sellars 2003a; and Sellars 2003b.

¹⁷ See, e.g. Fodor 1998; Laurence and Margolis 1999; and Prinz 2003.

¹⁸ See Bermúdez 1998: 7.

¹⁹ When I say that a certain cognitive content lacks concepts 'globally', I mean that the relevant cognizer (owing to temporary or permanent cognitive disruption or selective breakdown, e.g. agnosias) either lacks conceptual capacities altogether or else has no on-line conceptual capacities whatsoever. By contrast, when I say that a certain cognitive content lacks concepts 'locally', I mean that the relevant cognizer (again, owing to temporary or permanent cognitive disruption or selective breakdown) either lacks a specific conceptual capacity altogether or else lacks a specific on-line conceptual capacity, *in relation to that content*, even though it otherwise possesses some conceptual capacities, some of which are online.

²⁰ See Hanna 2001: chs. 1 and 3.

²¹ See Evans 1982: 75 and 100–105.

²² See Hanna 2002.

²³ Kant says that the synthesis (i.e. the mental processing) of the imagination is a 'blind though indispensable function of the soul . . . of which we are rarely even conscious (*selten nur einmal bewußt*)', in that the mental operations that are applied to inputs typically occur without conscious implementation (CPR A78/B103). Still, these mental operations can often also be consciously implemented; and even when nonconscious, they can to some extent be indirectly consciously recovered by acts of higher-order 'reflection' (*Reflexion, Überlegung*) on our faculties (CPR B2, A260–263/B316–319). So the difference between conscious and nonconscious cognition for Kant is always only a matter of degree, not of kind. This is sharply different from most contemporary conceptions of the nonconscious mind, which have been heavily influenced by computational theory or by Freud. See, e.g. Jackendoff 1992. But for a contemporary view fairly similar to Kant's, see Searle 1992: ch. 7.

²⁴ Searle has recently rediscovered this Kantian notion under the rubric of 'aspectual shape'; see Searle 1992: 155.

²⁵ Wittgenstein 1953: 102e, §304.

²⁶ Hanna 2001: 46–65, and 202–203.

²⁷ See Weiskrantz 1986.

²⁸ Hanna 2001: ch. 4.

²⁹ The criterion of referential directness that I am using here is somewhat stronger than the one I used in Hanna 2001: 196–197. My rationale is that whereas the earlier formulation was designed to capture the Kantian notion of immediacy that is relevant to direct *linguistic* reference, the current formulation is designed to capture the Kantian notion of immediacy that is relevant to direct *perceptual* reference.

³⁰ See Hanna 2000.

³¹ Sometimes 'veridical' is used by philosophers of mind and cognition in such a way that it implies conceptual or judgmental correctness as well. This is a perfectly legitimate

usage. But for convenience I am using 'veridical' here and elsewhere in this essay slightly more restrictedly so as to imply only object-dependence and intersubjective shareability of content but not correctness. This is so that I can help myself later in this section to the philosophically useful notion of 'veridical illusions', i.e. object-dependent and intersubjectively shared yet incorrect perceptions.

³² On my view, Kant's 'transcendental' faculties are innate spontaneous modular psychological capacities; see Hanna 2001: ch. 1.

³³ See Hanna 2000.

³⁴ For Kant, outer sense also implies the existence of the subject's own body as a three-dimensional 'centered' frame of reference for orientation in space; see Hanna 2000.

³⁵ Wittgenstein 1953: 213e.

³⁶ See Fodor 1983.

³⁷ As opposed to *falsidical* or non-object-dependent, non-intersubjectively-shared illusions (e.g. hallucinations), in which the apparent perceptual object fails to exist, the representation is highly idiosyncratic in character, and the material world is incorrectly represented.

³⁸ See McDowell 1994: lectures I–III.

³⁹ See Gaukroger 1995: 115–124, 167–172.

⁴⁰ See Hanna 2001: ch. 5.

⁴¹ See Johnson-Laird 1983; and Hanna 1998.

⁴² See Hanna 2001: ch. 3.

⁴³ See Heck 2000; and Martin 1992.

⁴⁴ See note 3 above.

⁴⁵ See McDowell 1994: Afterword, part II

⁴⁶ See Peacocke 2001.

⁴⁷ See Heck 2000. See also Hanna 1993; and Hanna 2001: 213–215. Heck doesn't really elaborate his good point, but my idea is that nonconceptual spatiotemporal cognition is what determines the reference of demonstratives. The deeper Kantian transcendental cognitive-semantic explanation for this will be worked out in section IV below.

⁴⁸ See Hanna 2001: ch. 4. Hegelians and descriptivists in the theory of linguistic reference might raise worries about the very idea of essential indexicality. Obviously an endnote is not the place to work out an adequate reply to these worries. But in the particular case of the Hegelian worry (found, e.g. in the *Phenomenology of Spirit*) to the effect that the apparently uniquely individuating 'this' will always turn out under critical examination to be a purely universal representation of some sort, one can reply by noting the crucial difference between the (i) 'semantic character' of an indexical term, which is indeed universal and rule-like because it is a function mapping from a range of particular cognitive contexts to semantic contents in those contexts, and (ii) the 'semantic content' of an indexical term, which is the particular value of that semantic function at some particular cognitive context, i.e. the unique individual object that is indexically represented. The crucial point here is then that the Hegelian has confused the semantic *character* of an indexical, which is not its meaning per se but rather only a partial determinant of its meaning, with the semantic *content* or meaning per se of an indexical.

⁴⁹ In the case of aesthetic objects like roses, their phenomenal form is their spatial shape; in the case of aesthetic objects like sounds, their phenomenal form is their dynamic profile in time.

⁵⁰ See also Blachowicz 1997: 78–83; and Johnson-Laird 1983: 2, 190, 407, 415.

⁵¹ Since schemata can encode discursive or conceptual information, there is also a sense in which schemata are quasi-conceptual, and thereby mediate between intuitions and concepts (*CPR* A137–142/B176–181) (*R* 5661; 18: 320). But whereas schemata are *functions* of intuition and intrinsically intuitional in nature, they are strictly speaking only *compatible* with concepts, and not intrinsically conceptual in nature.

⁵² Philosophical intuitions differ here however. For example, the well-known ‘Donnellan cases’ in the theory of reference imply that some fairly strongly nonconceptual perceptual judgments are also true. See Donnellan 1990; and Hanna 1993.

⁵³ See, e.g. Smith and Medin 1981.

⁵⁴ See, e.g. Stern 1999; and Stern 2000.

⁵⁵ For a defense of this reading, see Hanna 2001: chs. 1–2.

⁵⁶ Allison 1983: 81.

⁵⁷ I’m not trying to be coy or evasive. The basic problem with the Three Alternatives argument, I think, is the familiar complaint that Kant has not shown that all relevant alternatives have been considered: there is a fourth alternative. But the fourth alternative I favor is sharply distinct from the one discussed in the famous Trendelenberg-Fischer controversy: that space and time could be both forms of intuition *and also* things-in-themselves. This supposed fourth alternative is incoherent. Since forms of human intuition are phenomenal structures, and the noumenal is defined in part as the non-phenomenal, *nothing* could be both a form of human intuition and also a thing-in-itself. In a nutshell, my favored fourth alternative is that space and time could be at once (1) essentially the satisfiers of our pure intuitional representations of space and time, and also (2) such that they could exist even if no human minds *actually existed* to represent them, because (3) the existence of space and time as essential satisfiers of our representations of them requires only the *necessary possibility* of human minds like ours. For obvious reasons I call this ‘the cognitive-semantic alternative’. And if I am correct, it entails only what I call ‘weak transcendental idealism’, and *not* the strong and in effect reductive transcendental idealist thesis that space and time are *nothing but* a priori subjective forms of human sense perception. But spelling this notion out carefully and defending it against criticisms is a long story best left to another day. See Hanna forthcoming b: ch. 5.

⁵⁸ But for a general discussion of Kant’s idealism, see Hanna 2001: ch. 2.

⁵⁹ This subtle semantic distinction between the thick and thin intuitional representations of space also generates a corresponding subtlety in the general concept of space, since there then can be either (i) a general concept of a ‘thick’ Euclidean structure with special topological features such as 3-dimensionality or handedness, or else (ii) a general concept of a ‘thin’ Euclidean structure lacking special topological features. From the general concept of a thin Euclidean structure, it would then seem to be only a short step to the formation of a *super-general* concept of space which also abstracts away from homogeneous rectilinearity or Euclidean-ness, and allows for non-homogeneity or curvature (*CPR* A220–221/B268).

⁶⁰ This is a slightly different use of ‘immediate’ or *unmittelbar* than in the case of immediate cognition, where it means the *referential directness* of a cognition. To say that r-time as a formal representation is ‘the immediate condition’ of inner sense is, I think, to say that r-time is a necessary immanent phenomenal structure that essentially distinguishes inner sense from other sorts of phenomenal experience. This is what I mean by saying that that r-time is the ‘intrinsic phenomenal structure’ of inner sense. *Mutatis mutandis*, the same goes for r-space and outer sense.

⁶¹ Kant states explicitly that r-time is ‘the mediate condition of outer appearances’ (*CPR* A34/B50), which is to say that the empirical intuition of objects in space also

automatically implements temporal form: 'all appearances in general, i.e. all objects of the senses, are in time, and necessarily stand in relations of time' (CPR A34/B51). Moreover the very possibility of representing the motion of material objects in space presupposes r-time (CPR B48–49). Correspondingly, according to Kant we necessarily represent our own inner mental states in relation to space. I can introspectively 'find myself' only if there is 'something in another place in space from that in which I find myself' (CPR A23/B38). And in the Refutation of Idealism, Kant argues that 'inner experience is . . . only mediate and possible only through outer experience' (CPR B277). In other words, r-time is the immediate condition of inner sense and the mediate condition of outer sense, and r-space is the immediate condition of outer sense and the mediate condition of inner sense.

⁶² See Hanna 2001: 248. Roughly speaking, *Y* is strongly supervenient on *X* if and only if the *X*-features of something are sufficient for its *Y*-features, and there cannot be a change in anything's *Y*-features without a corresponding change in its *X*-features. The basic idea behind strong supervenience is that it captures an asymmetric modal dependency relation that is weaker than identity and consistent with irreducibility. And the point of deploying the notion of strong supervenience in the present connection is that it allows us to say that a cognition is a posteriori or *dependent on sensory impressions* just in case its form or its semantic content is strongly supervenient on sensory impressions; but a cognition is a priori or *absolutely independent of all sensory impressions* just in case its form or its semantic content is not strongly supervenient on sensory impressions and is instead strongly supervenient on one or another of our innate spontaneous cognitive capacities, or faculties (CPR B2–3).

⁶³ An important consequence of the forms of intuition *vs.* formal intuitions distinction is a sharp difference in the way in which phenomenal extensive quantities are represented by the forms of intuition alone, as opposed to the way in which phenomenal extensive quantities are represented by pure or formal intuitions. More precisely, when phenomenal spatial and temporal extensions are represented by the forms of intuition alone, as in nonconceptual perceptual experience, they have what some contemporary theorists of nonconceptual content aptly call a 'unit-free' phenomenal character (see, e.g. Bermúdez 2003a:4.). This means that phenomenal distances and phenomenal time-stretches are given in perceptual experience as, e.g. 'being *that far*' or as 'taking *that long* to happen', without these quantities being represented as determinately measured or measurable, hence without these quantities being brought or bringable under number-concepts. Kant's explanation for this is that if and only if the representational content of r-time is *combined with* the representational content of the logical categories of quantity, is the representation of the natural numbers possible (CPR A142–143/B182, A242/B300) (P 4: 283)—see also Hanna 2002. In turn, as the Axioms of Intuition show, the representation of the natural numbers then makes possible one-to-one correlations between the numbers and limited discrete parts of the spatiotemporal phenomenal manifold, thereby yielding determinate spatial or temporal magnitudes (CPR A162–166/B202–207). But as Kant stresses in the famous footnote at B 160, the representational contents of r-time and r-space cannot be combined with or brought under the categories of quantity (as, e.g. r-space is combined with and brought under the categories of quantity in geometry) until they have already been represented as unique abstract structural wholes or frameworks—that is, until they have already been represented through pure or formal intuition.

⁶⁴ This includes both *fixed location*, or spacetime place, and *successive-change-in-spatial-location*, or motion.

⁶⁵ For the details of Kant's theory of objective validity, see Hanna 2001: ch. 2.

⁶⁶ See, e.g. Langton and Lewis 1998.

⁶⁷ See, e.g. Chalmers 1996: chs. 1, and 6–7, for an argument that all conceptual elements of cognition are functional.

⁶⁸ See Trevarthyn 1974.

⁶⁹ See Trevarthyn and Sperry 1973: 547.

⁷⁰ Nagel has famously associated the first-person character of phenomenal consciousness with having a 'point of view' in Nagel 1979b. But he never actually unpacks this idea in terms of its spatiotemporal character. And in fact in Nagel 1979a, Nagel explicitly commits himself to the thesis that a *unity of consciousness* in the broadly Kantian sense is a necessary and sufficient condition for the subjectivity of phenomenal consciousness. But is quite possible to read the empirical evidence from the commissurotomy cases as making the essentially Kantian point that an animal's subjectivity is preserved by its nonconceptual spatiotemporal representational capacities, even when the unity of consciousness is disrupted by brain bisection.

⁷¹ For similar points formulated in a slightly different way, see Hurley 1998: chs. 2 and 4.

⁷² I am grateful to J.C. Brum Torres for sending me a copy of his interesting and relevant paper, 'Kant and the New Holland Savage'. I am also indebted to the following people for extremely helpful critical comments on various versions of this material: Lucy Allais; an anonymous reviewer for *EJP*; the participants in the Colorado Summer Seminar in Philosophy in July 2003, 'From Perception to Conception'; the members of the Moral Sciences Club at the University of Cambridge in October 2003 (especially Simon Blackburn, Jane Heal, and Brian King); the Dept. of Philosophy at the Open University, UK (especially Michael Beaney); and the participants in a one-day Kant conference at the University of Sheffield in March 2004 (especially David Bell, Gordon Brittan, Quassim Cassam, and Bob Stern).

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