

Andrew Chignell

Modal Motivations for Noumenal Ignorance: Knowledge, Cognition, and Coherence

Abstract: My goal in this paper is to show that Kant’s prohibition on certain kinds of knowledge of things-in-themselves is motivated less by his anti-soporific encounter with Hume than by his new view of the distinction between “real” and “logical” modality, a view that developed out of his reflection on the rationalist tradition in which he was trained. In brief: at some point in the 1770’s, Kant came to hold that a necessary condition on knowing a proposition is that one be able to prove that all the items it refers to are either really possible or really impossible. Most propositions about things-in-themselves, in turns out, cannot meet this condition. I conclude by suggesting that the best interpretation of this modal condition is as a kind of coherentist constraint.

Keywords: Cognition, Knowledge, Modality, Real Possibility, Coherence, Empirical Laws

Andrew Chignell: Cornell University, Ithaca, NY; chignell@cornell.edu

A Introduction: Knowledge and the prohibition

The third sentence of the B-edition Introduction makes it clear that Kant rejects simple empiricist constraints on mental content and cognition: “although all of our cognition begins *with* experience, yet it does not on that account all have its source in experience” [*Wenn aber gleich alle unsere Erkenntniß mit der Erfahrung anhebt, so entspringt sie darum doch nicht eben alle aus der Erfahrung*] (KrV, B 1). He goes on to argue, famously, that some of that *a priori* cognition is synthetic. Similarly, if less explicitly, Kant rejects the idea that all of our knowledge [*Wissen*] has its source in cognition [*Erkenntniß*]: as we will see below, although a lot of knowledge is based in cognition, there is some that isn’t. In sections B and C, I provide a sketch of Kant’s theory of knowledge, building on some previous work on Kant’s theory of justification; I also say a few words about the distinction between knowledge and cognition, although I won’t be able to do full justice to that issue here.

The fact that there are these complicated overlapping relations between knowledge, cognition, and experience raises the perennial question of why Kant

prohibits us from having synthetic *knowledge* of supersensible “things-in-themselves” – i.e. those things of which we cannot have any experience or cognition *per se*. In other words, even granting that we can’t experience or cognize supersensible things-in-themselves, why can’t we know something *a priori* about them? In sections D and E, I argue for a way of understanding Kant’s prohibition that has its basis not in Hume’s anti-soporific effect, or in some resulting concept-empiricism, but rather in his new theory of modality, a view that developed out of reflection on the rationalist tradition in which he was trained. In brief, Kant allows that there is a modal status that things have *per se* – their “absolute real” modal status – that is different from their merely “logical” modal status. But he comes to worry, for reasons we’ll get to, that we cannot reliably track absolute real possibility through consistent thinking, or through clear and distinct perception, or through what contemporary modal rationalists call “ideal positive conceivability” or through any other method for that matter. And so we can’t rule out the concern that in speculative metaphysics we are discussing particular supersensible things – souls, God, freedom, monads, and so forth – that are logically possible but absolutely really *impossible*. Without the ability to rule this out, Kant says we must restrict knowledge-claims and -ascriptions to items whose real possibility we can “prove.”

I conclude (in sections F and G) by suggesting that this new modal condition on knowledge is best interpreted as the requirement that we be able to establish (in a to-be-specified way) that a proposition’s truth is compatible (in a to-be-specified way) with our background knowledge of particular empirical laws. If this is right, then it turns out that Kant embraces a modest kind of coherentist constraint on knowledge after all, one that is based in our antecedent grasp of nature and its laws.¹

B An analysis of Kantian knowledge

Kant’s most elaborate discussion of the concept of *Wissen* in the *Critique* is found at the back of the book, in a chapter called the “Canon of Pure Reason.” The fundamental positive propositional attitude in this context is called “*Fürwahrhalten*” – literally, holding to be true, though often translated into English as “assent.” This kind of attitude, for Kant, is broader than our contemporary notion of “belief” – it encompasses weak opinions, hypotheses, practical acceptances, and

¹ This paper thus amounts to a recantation (or at least revision) of my suggestion in earlier work that Kant was some sort of (what we now call) modest foundationalist.

even assumptions of various sorts – none of which we would consider full-blown beliefs. Kant further characterizes *Fürwahrhalten* in the Canon as “an occurrence in our understanding that *may* rest on objective grounds (*auf Gründen*), but that also *requires* subjective causes (*Ursachen*) in the mind of him who judges”.² Knowledge, in turn, is assent that is both objectively and subjectively justified or “sufficient.” I’ve analyzed the notions of objective and subjective sufficiency at length elsewhere and won’t rehearse those arguments here.³ The account of knowledge we get by putting those analyses together into a core group of necessary conditions is this:

Knowledge (*Wissen*): S’s assent that *p* counts as knowledge only if $(\exists g)$ such that

- (i) *g* is a sufficient objective ground that S has,
- (ii) S’s assent that *p* is based on *g*,
- (iii) on reflection, S would cite *g* as his objective ground for the assent that *p*, and
- (iv) *p* is true.

(i), (ii), and (iv) are objective or ‘external’ constraints on knowledge: the assent has to be properly based on a ground that makes the truth of the assent highly objectively probable, and it has to be true.⁴ (iii) articulates a weak ‘internal’ constraint – the subject must be such that she would pick out (“cite”) what are in fact the good grounds she has for holding the assent. If S’s assent that *the table is brown* meets this condition, S has to be such that, if she *were* asked why she holds this, she would cite her visual experience of the table (or some other good ground for that assent). S does not need to be able to say *why* her experience counts as a good ground for the assent, or *how* probable it renders her assent, and so on.⁵

Readers of the *Critique* will wonder at this point whether there should also be something like an “intuition condition” in the analysis of knowledge. For Kant

2 “Das Fürwahrhalten ist eine Begebenheit in unserem Verstande, die auf objectiven Gründen beruhen mag, aber auch subjective Ursachen im Gemüthe dessen, der da urtheilt, erfordert.” KrV, A 820/B 848.

3 See Chignell, Andrew: “Kant’s Concepts of Justification”. In: *Nous* 41 (1), 2007, 33–63.

4 Note that this is a fallibilist picture of justification according to which all the other conditions for knowledge could be met apart from (iv) and the assent still turn out to be false (see 9: 72, for instance). That he is a fallibilist is controversial; for non-fallibilist readings, see Makkreel, Rudolf: “The Cognition-Knowledge Distinction in Kant and Dilthey and the Implications for Psychology and Self-Understanding”. In: *Studies in History and Philosophy of Science* 34), 2003, 149–164, and Pasternack, Lawrence: “Kant on Opinion”. In: *Kant-Studien* 105, 2014, 1–42.

5 This weak interpretation of the internal constraint is motivated by the principle of charity as well as by passages which speak, for instance, of a subject being “in a position to make a supposition” about whether a given ground is an objectively good one (see V-Lo/Blomberg, AA 24: 87f.).

often suggests, in an empiricist spirit, that *any* use of concepts, at least in the “objective” fashion required for communicable knowledge (see KrV, A 829/B 857), is constrained somehow by intuition:

The condition of the objective use of all our concepts of understanding is merely the manner of our sensible intuition, through which objects are given to us, and, if we abstract from the latter, then the former have no connection at all to any sort of object.⁶

The proposed fifth condition, then, would be something like:

(v) *g* bears an appropriate relation to some sensible intuition (pure or empirical).

Stated this way, of course, the condition is hopelessly vague: if the ground of an assent just is an intuition, or is partly constituted by intuition, then the condition is presumably met. But what other sorts of relations to intuition would count as “appropriate”? Would inference from intuitions via causal laws and transcendental arguments count? What about inference to best explanation? Probabilistic conjecture? And what is so important about *intuition* here – isn’t the relevant thing just the objective sufficiency of the ground and *S*’s subjective ability to cite it, no matter what its source or character? In other words, why do we need (v) if we’ve already got (i)?

These are good questions. We’ll see in a moment that (v) cannot in any case be a condition on *all* kinds of knowledge. For Kant clearly admits that we have some knowledge that is not related to intuition in any of these ways. After pointing this out, I’ll spend the rest of the paper trying to articulate a replacement for (v) – one that retains the unified analysis of knowledge and yet explains why Kant assigns such an important role to intuition in those passages where it seems so prominent.

C Not all knowledge is based in cognition

The discussion in the Canon is about *Wissen*, but in much of the rest of the *Critique* Kant’s focus is on cognition and the act of cognizing (*erkennen*). In many English editions (Kemp Smith’s for instance), “*Erkenntnis*” is variously translated

⁶ “Denn die Bedingung des objectiven Gebrauchs aller unserer Verstandesbegriffe ist bloß die Art unserer sinnlichen Anschauung, wodurch uns Gegenstände gegeben werden, und wenn wir von der letzteren abstrahiren, so haben die erstern gar keine Beziehung auf irgend ein Object.” KrV, A 286/B 342.

as *both* “knowledge” and “cognition” – thus suggesting that the translator didn’t think that a substantive philosophical distinction underwrites Kant’s use of the different terms. But while it’s true that “*Erkenntnis*” is used loosely in a lot of contexts, it seems clear the official or strict sense refers to the result of the combined activities of the understanding (concepts) and sensibility (intuitions) forming *a priori* and *a posteriori* judgments. Kant sums up this “strictly speaking” view in the *Real Progress* essay (written in the early 1790’s) as follows:

For a representation to be a cognition (though here I mean always a theoretical one), we need to have a concept and intuition of an object combined in the same representation, so that the former is represented as containing the latter under itself.⁷

It follows even from this brief description that the domains of theoretical cognition and knowledge are overlapping but distinct. For one thing, a cognition might be “defective” or even “false” (see KrV, A 293/B 349; V-Lo/Blomberg, AA 24: 218; KrV, A 58/B 83; A 709/B 737), or something that we merely entertain rather than assent to. Thus a lot of experience and cognition will not lead to full-blown knowledge. More important for our purposes, however, is that knowledge can have its grounds in something other than cognition. We might know a proposition that refers to a domain of things in either a *wholly negative* fashion or a *positive but very general* fashion, for instance, without having intuition of those things. In such cases, the objectively sufficient grounds of our knowledge *about* those things will be something other than cognition of those things. Examples here might include the negative assent that *the things-in-themselves are not in space and time* and the positive but very general assent that *some thing-in-itself exists and grounds appearances*. The objectively sufficient grounds of these assents would be, on the one hand, Kant’s arguments establishing that space and time are *merely* the forms of our receptive sensible intuition, and, on the other hand, the inference that there must be some non-spatio-temporal thing that is responsible for the “matter” of this intuition (see KrV, B XXVI; Prol, AA 04: 315). But such negative knowledge and/or very general positive knowledge of things-in-themselves clearly would not be based in cognition of the latter.⁸

⁷ “Damit eine Vorstellung Erkenntniß sey (ich verstehe aber hier immer ein theoretisches), dazu gehört Begriff und Anschauung von einem Gegenstande in derselben Vorstellung verbunden, so daß der erstere, so wie er die letztere unter sich enthält, vorgestellt wird.” FM, AA 20: 273.

⁸ “Thus if one takes an object of a *non-sensible* intuition as given, one can certainly represent it through all of the predicates that already lie in the presupposition that *nothing belonging to sensible intuition pertains to it*: thus it is not extended, or in space, that its duration is not a time, that no alteration (sequence of determinations in time) is to be found in it, etc. But it is not yet a genu-

Second, Kant says that assents involving *analytic* judgments allow us “to know what lies in the concept” [*wissen, was in seinem Begriffe liegt*] (KrV, B 314), but it looks like much of that knowledge won’t be based in cognition either. That’s because, in analyzing many concepts, there will be nothing for the subject to intuit in either a pure or an empirical fashion, and no other relevant connections to intuition. Kant repeatedly says, for instance, that we are unable to connect any determinate, non-symbolic intuitional content to concepts like that of God, transcendental freedom, or the ideal ethical community. All the same, he must think we have *a priori* knowledge of some of their contents, since he himself spends many pages in various critical works analyzing these concepts, and appears to view the resulting assents as both objectively and subjectively sufficient. So while “a great part, perhaps the greatest part, of the business of our reason consists in *analyses* of the concepts that we already have of objects”, the resulting knowledge will not always be based in cognition of those objects.⁹

There is more to be said about these cases, but I think they suffice to indicate that although knowledge is *typically* related in a significant way to intuition (by way of pure or empirical cognition), there is at least some knowledge that isn’t.¹⁰ And, significantly, this includes some knowledge of things-in-themselves: analytic knowledge, negative knowledge, and some very general positive knowledge. This makes it all the more pressing to find a new version of condition (v) above, one that is adequate to such cases but also explains why Kant so often emphasizes the importance of intuition. Ideally the condition would also succeed in ruling out synthetic *a priori* knowledge of specific positive properties of noumena (the domain represented by X in Figure 1).

ine cognition if I merely indicate what the intuition of the object *is not*, without being able to say what is then contained in it [...]. [Nimmt man also ein Object einer nicht-sinnlichen Anschauung als gegeben an, so kann man es freilich durch alle die Prädicate vorstellen, die schon in der Voraussetzung liegen, daß ihm nichts zur sinnlichen Anschauung Gehöriges zukomme: also daß es nicht ausgedehnt oder im Raume sei, daß die Dauer desselben keine Zeit sei, daß in ihm keine Veränderung (Folge der Bestimmungen in der Zeit) angetroffen werde u.s.w. Allein das ist doch kein eigentliches Erkenntniß, wenn ich bloß anzeige, wie die Anschauung des Objects nicht sei, ohne sagen zu können, was in ihr denn enthalten sei [...].” KrV, B 149.

⁹ “Ein großer Theil und vielleicht der größte von dem Geschäfte unserer Vernunft besteht in *Zergliederungen* der Begriffe, die wir schon von Gegenständen haben.” KrV, A 5/B 9.

¹⁰ Makkreel (op. cit.) views knowledge as “a sub-domain of conceptual cognition” in virtue of being “the recognition that a cognition is true” (151f.). But given the existence of analytic, negative, and very general synthetic knowledge of things-in-themselves, this can’t be correct, at least if we are talking about cognition in the strict sense.

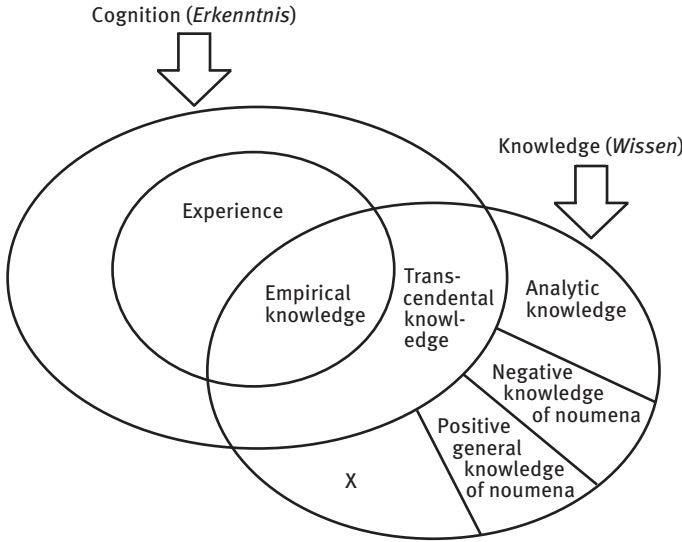


Figure 1

D Real possibility and noumenal ignorance

Kant condemns “dogmatic” metaphysicians for claiming to have more synthetic *a priori* knowledge than they actually do. It will aid us in our efforts to find a unified analysis of Kantian knowledge if we can understand where Kant thinks these metaphysicians were going wrong.

An adage commonly cited at this point is that the concepts in many valid metaphysical arguments are illegitimate for epistemic purposes because “concepts without intuitions are empty.” In other words, the problem with many arguments in speculative metaphysics is not that the inferences are *invalid*, or that the premises are false, but rather that the concepts involved lack the right kind of *content*. This gives rise to images of concepts as drawers or containers or test tubes – concepts are “empty” when the predicates contained in them are not drawn from experience, just as intuitions are “blind” when they aren’t guided by concepts (see, e.g. KrV, A 62/B 87, B 148, A 220/B 267). Kant also uses hylomorphic images to describe what he has in mind here: the “form” of our concepts has to be connected to the “matter” of experience in order for us to go beyond mere groping among “thought-entities” [*Gedankenwesen*].

But is there anything further that we can say by way of motivating this epistemic prohibition? The talk of emptiness, matter, and groping is metaphorical.

And you can't (non-question-beggingly) *stipulate* that the categories and other concepts by which we judge have no non-intuitional *epistemic* use. You need an argument. Some commentators take the demand for content or matter as symptomatic of a Hume-inspired "concept-empiricism" and leave it at that: no substantive knowledge in the understanding that isn't first in sensibility, at pain of ending up in antinomies and paralogisms.¹¹

I think we can go a step further, however, and tell the story in such a way that the prohibition arises organically out of Kant's own rationalist background – specifically, out of his critique of rationalist *modal* epistemology. In order to see this, we have to take a quick tour through some of these issues in the pre-critical period.

Back in 1755, Kant sketched what he took to be a new proof of God's existence in the *Nova Dilucidatio*; he expanded it into a book-length treatise eight years later in *The Only Possible Basis of Proof for a Demonstration of the Existence of God* (1763). The proof is similar to one that we find in Leibniz's *Monadology* according to which the very "possibility of all things in general" requires an *actual* "ground of possibility" which somehow contains all the "realities" which the mere *possibilia* possess (see BDG, AA 02: 157).¹²

It's natural to assume, especially if one reads the critical Kant as a concept-empiricist, that he would have changed his view about all this and consigned his pre-critical proof to the flames. But in fact he remains remarkably tender towards it. He never says that the inferences are flawed or that they don't provide sufficient grounds for the conclusion; on the contrary, he says in some critical lectures on religion that the argument "can in no way be refuted, because it has its ground in the very nature of human reason [...] otherwise I would be unable to recognize what in general the possibility of something consists in" [*allein widerleget kann er auf keine Weise werden, weil er in der Natur der menschlichen Vernunft seinen Grund hat [...] weil ich sonst überall nicht erkennen könnte, worin etwas möglich sey*] (V-Phil-Th/Pölit, AA 28: 1034). Suppose we grant this for the sake of argument. How could the critical Kant think that an "irrefutable" *a priori* proof no longer underwrites knowledge?

Here's my suggestion (part of which I've argued for in greater detail elsewhere¹³): In the *Nova Dilucidatio*, *The Only Possible Basis* and similar texts, Kant

¹¹ See e.g. Bennett, Jonathan: *Kant's Dialectic*. New York 1974.

¹² For a reconstruction of this proof, see Chignell, Andrew: "Kant, Real Possibility, and the Threat of Spinoza". In: *Mind* 121, July 2012, 635–673.

¹³ See Chignell, Andrew: "Real Repugnance and our Ignorance of Things-in-Themselves: A Lockean Problem in Kant and Hegel". In: *Internationales Jahrbuch des deutschen Idealismus* 7, 2009 [published 2011], 135–159.

assumed that the positive predicates of things are simply “given” to us as really possible and really compossible – given to us in thought, so to speak, just in virtue of conceiving them (see BDG, AA 02: 77). This is a classic rationalist assumption: think of Descartes clearly and distinctly conceiving the real possibility of a distinct immaterial mind or a supreme being, or of contemporary modal rationalists who take something like “positive conceivability” as a guide to real possibility. By 1781, however, Kant had given up the assumption that real possibilities are “given” to thought in this non-problematic way such that we can go on to demand a ground or explanation for them in actuality. We can *think* up various things, and we can individuate them by the different predicates in our concepts of them: the concepts are not genuinely *empty* or nonsensical, despite Kant’s rhetorical flourishes. The problem in the critical period is that Kant comes to regard such thoughts as unable to “give” objects about which we can make knowledge-claims, even on the basis of otherwise “irrefutable” arguments. So what changed?

What changed, I think, is that during the 1760’s Kant became convinced that there is a metaphysical difference between what he calls “logical” and “real possibility,” and also came to think that what he calls “real opposition” [*reale Entgegensetzung*] or “real repugnance” [*Realrepugnantz*] sometimes obtains between otherwise consistent positive properties. In the “Negative Magnitudes” essay of 1762, for instance, Kant cites numerous examples of a kind of real opposition between two or more properties that “cancels out” (the verb here is “*aufheben*”) their respective effects: opposed winds on a sail, opposed physical forces, opposed emotions, and so forth.

Having noticed that there can be non-logical opposition in empirical contexts like this, Kant starts to worry (in my view) that something similar can obtain among supersensibles, too, and that non-logical opposition in that context might make the thing absolutely impossible. Thus in “Negative Magnitudes” and more clearly in *The Only Possible Basis* of 1763, he cites a few cases that involve what we might call *subject* – rather than merely *predicate*-canceling real repugnance – in other words, a metaphysical opposition between properties that makes any being that jointly instantiates them really *impossible* (think of your favorite anti-Tractarian cases here: *being red all over* and *being green all over*). Kant’s own examples include the putative fact that “the impenetrability of bodies, extension and the like, cannot be properties of what has understanding and will” [*Die Undurchdringlichkeit der Körper, die Ausdehnung u.d.g. können nicht Eigenschaften von demjenigen sein, der da Verstand und Willen hat*] (BDG, AA 02: 85). It’s not that *being extended* and *having a mind* are logically inconsistent: there is no way to generate a contradiction from their conjunction using standard rules and definitions. Rather, it’s that “these predicates *can by no means co-exist together* as determinations in a single subject” [*Prädicate [...] nimmermehr in einem einzigen*

Subject als Bestimmungen neben einander können statt finden] (ibid., my emphasis). The ‘cannot’ and ‘can’ in these sentences refer to real modalities: a thing that is both extended and has a mind *cannot really be*.¹⁴

By the time of the *Critique*, Kant saw the rationalist’s neglect of non-logical constraints on possibility as one of their most serious sins. In the *Amphiboly of Pure Reason* he laments that with respect to the concept of God they

find it not merely possible but also *natural* to unite all reality in one being without any worry about opposition, since they do not recognize any opposition except that of contradiction (through which the concept of a thing would itself be canceled out), and do not recognize the opposition of reciprocal destruction [...].¹⁵

Leibniz’s lapse here is not just metaphysical but also epistemological: he doesn’t recognize the distinction between logical and real modality, and so doesn’t see that our grasp of the former may not be sufficient for “insight [*Einsicht*] into whether all realities *could* be united together in one object [*Objekt*], and hence into how God is possible” (V-Phil-Th/Pölit, AA 28: 1025 f.).¹⁶

14 For further defense of these claims about subject-cancelling real repugnance in the pre-critical period, see Chignell, Andrew: “Kant and the ‘Monstrous’ Ground of Possibility”. In: *Kantian Review* 19 (1), 2014, 53–69.

15 “Imgleichen finden die Anhänger desselben es nicht allein möglich, sondern auch natürlich, alle Realität ohne irgend einen besorglichen Widerstreit in einem Wesen zu vereinigen, weil sie keinen andern als den des Widerspruchs (durch den der Begriff eines Dinges selbst aufgehoben wird), nicht aber den des wechselseitigen Abbruchs kennen, da ein Realgrund die Wirkung des andern aufhebt, und dazu wir nur in der Sinnlichkeit die Bedingungen antreffen, uns einen solchen vorzustellen.” KrV, A 274/B 329 f.

16 In the *Metaphysical Foundations of Natural Science* (MAN) Kant asks us to think of a case of “two motions” that are “combined in precisely opposite directions in one and the same point” (“Zweiter Fall, da zwei Bewegungen in gerade entgegengesetzten Richtungen an einem und demselben Punkte sollen verbunden werden”) (MAN, AA 04: 491). In such a case the two predicates do not cancel one another out and leave the point at rest (as they would do if we were merely thinking of opposed *forces* – see e.g. KrV, A 265/B 321 and FM, AA 20: 283). Rather, the opposition cancels the entire subject to which they are ascribed: “[R]epresenting two such motions at the same time in exactly the same point within one and the same space would be impossible, and thus so would the case of such a composition of motions itself.” [so würde der Gedanke selbst, zwei solche Bewegungen in einem und demselben Raume an eben demselben Punkte als zugleich vorzustellen, mithin der Fall einer solchen Zusammensetzung der Bewegungen selbst unmöglich sein] (MAN, AA 04: 491). A few pages later, in a reflection on this case, Kant explains that “the representation of the impossibility of these two motions in one body is not the concept of its *rest* but rather of the *impossibility of constructing* this composition of opposite motions [...]” [die Vorstellung der Unmöglichkeit dieser beiden Bewegungen in einem Körper ist nicht der Begriff von der Ruhe desselben, sondern der Unmöglichkeit der Construction dieser Zusammenset-

This criticism of Leibniz applies equally to Kant's pre-critical self: the items with which Kant started his proof (finite *possibilia*) and the item with which he ended it (the *ens realissimum*) are presumed *a priori* to be really as well as logically possible, simply because we can think them. But if there are non-logical constraints on real possibility – constraints that we don't reliably track in some other way – then that presumption looks unmotivated.

E The new modal condition on knowledge

It is clear that this recognition of a new distinction in modal space is at least part of what moves Kant to endorse a new epistemic constraint. "I can *think* whatever I like," he says, "as long as I do not contradict myself, i.e., as long as my concept is a possible thought, even if I cannot give any assurance as to whether or not there is a corresponding object [*Objekt*] somewhere within the sum total of all possibilities." But "to *cognize* an object, it is required that I be able to prove its [real] possibility (whether by the testimony of experience from its actuality or *a priori* through reason)" (KrV, B XXVI, note).¹⁷ Kant is talking about cognition in this passage, but the kinds of knowledge we considered above that seemed not to be based straightforwardly in intuition can easily meet this modal condition. With respect to analytic knowledge, for instance, the "objects" are just the *concepts* analyzed rather than *their* objects out in the world (if any),¹⁸ and so if we can prove that the con-

zung entgegengesetzter Bewegungen [...] (MAN, AA 04: 494). Similarly, later in the MAN Kant indicates that a material being "is impossible if it has mere attractive forces without repulsive forces," and that this impossibility has its basis in "the essence of matter" rather than in a logical contradiction. [Demnach ist Materie durch bloße Anziehungskräfte ohne zurückstoßende unmöglich.] (MAN, AA 04: 511).

17 "Einen Gegenstand erkennen, dazu wird erfordert, daß ich seine Möglichkeit (es sei nach dem Zeugniß der Erfahrung aus seiner Wirklichkeit, oder *a priori* durch Vernunft) beweisen könne. Aber denken kann ich, was ich will, wenn ich mir nur nicht selbst widerspreche, d.i. wenn mein Begriff nur ein möglicher Gedanke ist, ob ich zwar dafür nicht stehen kann, ob im Inbegriffe aller Möglichkeiten diesem auch ein Object correspondire oder nicht." (KrV, BXXVI, note).

18 "For an analytic assertion takes the understanding no further, and since it is occupied only with that which is already thought in the concept, it leaves it undecided whether the concept even has any relation to objects [...]; it is enough for [the subject] to know what lies in the concept; he is indifferent to what the concept might pertain to." [Denn eine analytische bringt den Verstand nicht weiter, und da er nur mit dem beschäftigt ist, was in dem Begriffe schon gedacht wird, so läßt er es unausgemacht, ob dieser an sich selbst auf Gegenstände Beziehung habe [...]; es ist ihm genug zu wissen, was in seinem Begriffe liegt; worauf der Begriff selber gehen möge, ist ihm gleichgültig.] (KrV, A 258f./B 314).

cepts themselves are actual (by simply being aware that we have them), we can also prove that they (though not necessarily *their* objects) are really possible.¹⁹ By contrast, the objects of very general positive knowledge such as that *there are some things that ground appearances* are indeed the things-in-themselves, but taken collectively. The proof of their (or its) real possibility is found in the same Preface passage: Kant says that it would be “absurd” for there to be appearances without there also being something that appears, i.e. something that grounds those appearances (KrV, B XXVI; see also Prol, AA 04: 315, 355). It is controversial whether this is a conceptual truth or a quick deductive inference for Kant; either way, we have proof of the actuality and thus the real possibility of the *Dinge an sich* taken *together*, though not of any particular determinate *Ding*.

Since the modal condition applies to all cognition, and can also be extended to the few kinds of non-intuitional knowledge that Kant endorses, it seems plausible to include it in our analyses of both concepts. With respect to knowledge, we might try to articulate it in this way:

S is in a position to prove the real possibility of the objects referred to in *p*.

But there is a problem with this: some propositions that we clearly know refer to impossible objects – e.g. we know *that there are no intersecting parallel lines*. Kant says that in geometrical cases “the impossibility rests not on the concept itself but on its construction in space, i.e., on the conditions of space and its determinations [...]” [*die Unmöglichkeit beruht nicht auf dem Begriffe an sich selbst, sondern der Construction desselben im Raume, d.i. den Bedingungen des Raumes und der Bestimmung desselben [...]*] (KrV, A 220f./B 268 cf. A 224/B 271f.). This indicates that the “proof of possibility” that Kant has in mind is something more like proof of *whether or not* the objects referred to are really possible (think of the phrase “proving one’s mettle” or “proving the yeast” – phrases that invoke the thought of *testing* for the presence of a certain quality rather than proving that the quality is positively there).²⁰ Thus:

for any object referred to in *p*, if it is really possible then S is in a position to prove its real possibility, and if it is really impossible then S is in a position to prove its real impossibility.

¹⁹ “That the concept (thought) is possible is not the issue; the issue is rather whether it relates to an object and therefore signifies anything [daß der Begriff (Gedanke) möglich sei, wovon aber nicht die Rede ist, sondern ob er sich auf ein Object beziehe und also irgend was bedeute.]” (KrV, B 302f., note).

²⁰ Thanks to Erica Shumener for discussion here.

More work would be required for full adequacy, especially when we go beyond propositions with atomic structure,²¹ but I propose to take this as a rough-and-ready candidate for the fifth condition. For the sake of brevity, in what follows I will focus on positive atomic *p*'s in which the object is indeed possible, and so *S* needs to be in a position to prove it.

What sort of “proof” of possibility is available? In some cases, as we have seen, the proof will come by way of proof of actuality (or necessity). But what about cases in which we don't have proof of that, and yet still want to know whether the object is possible? We might simply go through all of the predicates in our concept of something and try to discern whether there is a subject-canceling real opposition between any of them. But, first, an individual, for Kant, is thoroughly determined with respect to *every* possible predicate-complement pair (of which there is a huge and probably infinite number) (see KrV, A 576/B 604). Given that any two predicates in our concept could introduce real opposition, at least in principle, it doesn't look like we finite thinkers could *prove* that many things are really possible in this way.

Second, even if we could check every predicate against the whole, we might *not realize* that a real opposition is there. For, again, the critical Kant offers no theory of modal intuition, construction, or conceivability-as-a-guide-to-possibility which could be wheeled in to help here. On the contrary, he explicitly says that our discursive thoughts track logical but *not* real modality – that, in effect, is the source of the problem.

Third, in an effort to avoid necessitarianism and leave room for non-analytic truths, Kant rejects Leibniz's theory of complete individual concepts in favor of a view according to which our concepts are always *general* representations. Thus the concept of *cat* is a rule for seeing together numerous items that share the marks of being furry, having tails, and meowing (or, in a more precise scientific context, having a certain DNA). But Fluffy and Felix themselves will have a lot of

21 We would need to know, for instance, about knowledge of (a) conditionals (I can know that “if there are unicorns, then there are horns” is true without proving that unicorns are really possible), (b) negations (I can know that “it's not the case that there is a golden mountain in the room” without proving that golden mountains are really possible or impossible) and (c) disjunctions (I can know that “I am writing a paper or God is a deceiver” without proving that God is really possible). In my view (a) can be assimilated to conceptual or broadly analytic knowledge that is about the concepts not the objects of those concept, (b) can be interpreted as *about* the room and the items in it, rather than about the golden mountain, and in (c) only the disjunct that makes the entire disjunction true has to meet the modal condition. But there is more to be said, of course. Thanks to Don Garrett, Karen Bennett, Ted Sider, and Eric Watkins for asking about these kinds of cases.

properties that aren't contained in the general concept (even singular concepts, when Kant is willing to countenance them, typically get their singular reference via intuition). Those extra-conceptual properties of concrete objects might, for all we know, be really opposed to one another or to the properties that *are* reflected in the predicates of our general concepts. That is why Kant condemns Leibniz for assuming that “if a certain distinction is not to be found in the *concept* of a thing in general, then it is also not to be found in the thing” [*wenn in dem Begriffe von einem Dinge überhaupt eine gewisse Unterscheidung nicht angetroffen wird, so sei sie auch nicht in den Dingen selbst anzutreffen*] (KrV, A 281/B 337).

In light of all this, I think charity requires us to interpret the demand articulated in (v*) somewhat more creatively. There seem to be four main strategies.

F Proving real possibility: four strategies

1 *First strategy: proof of real possibility as requiring appeal to actuality*

First, we might take Kant to recommend Locke's strict empiricist doctrine according to which a subject must have *actual experience* of the qualities *and of their compatibility* if she proposes to combine them in the complex idea of some other substance or kind. Without adducing such actual experience, Locke says, she can't be sure that the qualities are not “in-co-existent” (Locke's term). This is part of what leads him to the doctrine that things may have real essences that unite all sorts of qualities that we haven't experienced at all – or haven't experienced together – but that a good empiricist restricts her theorizing (and knowledge-claims) to propositions about nominal essences that contain qualities which “we can be sure are, or are not, inconsistent in Nature.” The only way she can be sure of that, however, is by appeal to “Experience and sensible Observation” (*Essay* 4. 4. 12).²²

²² “Our ideas of Substances being supposed copies, and referred to Archetypes without us, must still be *taken from something that does or has existed*; they must not consist of Ideas put together at the pleasure of our Thoughts, without any real pattern they were taken from, though we can perceive no [logical] inconsistency in such a Combination [...]. The reason whereof is, because we knowing not what real Constitution it is of Substances, whereon our simple Ideas depend, and which really is the cause of the strict union of some of them one with another, and the exclusion of others; there are very few of them that we can be *sure are, or are not inconsistent in Nature*, any farther than Experience and sensible Observation reaches” (*Essay* 4. 4. 12, my emphasis).

2 *Second strategy: proof of real possibility as requiring appeal to formal possibility*

If an appeal to actuality is available, the Lockean strategy would clearly work, and there may be some cases in which we have to go this route.²³ In general, however, Kant opts for a less restrictive strategy according to which what we prove is not the object's *actuality* but simply that it *could* fit within the framework set out by the categories and forms of intuition:

In a word: our reason is only able to use the conditions of possible experience as conditions of the possibility of things (*Sachen*); but it is by no means possible for us as it were to create new ones independent of those conditions, for concepts of the latter sort, although free of contradiction, would nevertheless also be without any object.²⁴

In order to evaluate this strategy, we need to know what Kant means by the “conditions of possible experience” in passages like this. The best place to look is in the definition of possibility in the Postulates of Empirical Thought:

[Formal Possibility:] That which agrees with the *formal* conditions of experience (according to intuition and concept) is possible. (KrV, A 218/B 265)²⁵

What is possible in the empirical world is what “agrees” with the formal conditions, by which Kant means the axioms of space and time [*der Anschauung nach*] and the principles derived from the categories [*den Begriffen nach*]. I'll discuss the notion of “agreement” below; for now, note that any spatio-temporal substance that stands in causal community with other substances seems to count as possible in this formal sense.²⁶

23 Note that most geometrical objects, as well as “matter” in general and any other objects we “construct” in pure cognition satisfy the condition in the Lockean way: their construction proves their *actuality*, which entails their real possibility.

24 “Mit einem Worte: es ist unserer Vernunft nur möglich, die Bedingungen möglicher Erfahrung als Bedingungen der Möglichkeit der Sachen zu brauchen, keinesweges aber, ganz unabhängig von diesen sich selbst welche gleichsam zu schaffen, weil dergleichen Begriffe, obzwar ohne Widerspruch, dennoch auch ohne Gegenstand sein würden.” KrV, A 771/B 799; see also A 602/B 630, A 610/B 638.

25 “Was mit den formalen Bedingungen der Erfahrung (der Anschauung und den Begriffen nach) übereinkommt, ist möglich.” KrV, A 218/B 265.

26 For the taxonomy of kinds of modality here, see Chignell and Stang, “Postulate des empirischen Denkens,” *Kant-Lexicon*, 2007 [published 2013] as well as Stang, “Did Kant Conflate the Necessary and the *A priori*?” In: *Nous* 45: 3, 2011, 443–471, and Markku Leppäkoski, “The Tran-

Although the definition of formal possibility is relatively clear, Kant's illustrations of how it differs from logical possibility are puzzling. With Swedenborg and other mystical enthusiasts in mind, he cites concepts of

[Ghostly Matter] A substance that is persistently present in space yet without filling it, or

[Soothsaying] a special fundamental power of our mind to *intuit* the future (not merely, say, to deduce it), or

[Telepathy] an ability of the mind to stand in a community of thoughts with other men (no matter how distant they may be).

While they may be logically consistent, Kant says,

these are concepts the possibility of which [i.e. the real possibility of whose objects] is completely groundless, because it cannot be *grounded upon experience and its known laws*, and without this is an arbitrary combination of thoughts that, although it contains no contradiction, still can make no claim to objective reality, thus to the [real] possibility of the sort of object that one would think here.²⁷ [emphasis added]

Part of the puzzle arises from the fact that it is not obvious what is meant by “*gegründet auf Erfahrung und deren bekannte Gesetze*.” (KrV, A 223/B 270) Given the definition of possibility just offered, it seems that Kant should mean something like *in agreement with the formal conditions of experience*. But then it is unclear how the objects Kant mentions in the Postulates chapter – ghostly matter that is present without being extended, mental events caused by future facts, or recip-

scendental Must: Kant's Various Notions of Necessity.” In: *Kant und die Berliner Aufklärung, Akten des IX. Internationalen Kant-Kongresses*. Band II. Ed. by Volker Gerhardt, Rolf-Peter Horstmann and Ralph Schumacher. Berlin 2001, 783–790. Thanks to Toni Kannisto for drawing my attention to this article.

27 “Eine Substanz, welche beharrlich im Raume gegenwärtig wäre, doch ohne ihn zu erfüllen (wie dasjenige Mittelding zwischen Materie und denkenden Wesen, welches einige haben einführen wollen), oder eine besondere Grundkraft unseres Gemüths, das Künftige zum voraus anzuschauen (nicht etwa bloß zu folgern), oder endlich ein Vermögen desselben, mit andern Menschen in Gemeinschaft der Gedanken zu stehen (so entfernt sie auch sein mögen): das sind Begriffe, deren Möglichkeit ganz grundlos ist, weil sie nicht auf Erfahrung und deren bekannte Gesetze gegründet werden kann und ohne sie eine willkürliche Gedankenverbindung ist, die, ob sie zwar keinen Widerspruch enthält, doch keinen Anspruch auf objective Realität, mithin auf die Möglichkeit eines solchen Gegenstandes, als man sich hier denken will, machen kann.” KrV, A 222f./B 270.

rocal telepathic community with other minds – would *fail* this test. Propositions that entail the existence of such things aren't incompatible with the merely *formal* axioms of space and time, and the examples themselves are clearly designed to be brought under the categories of relation: substance, cause, community.

3 *Third strategy: proof of real possibility as requiring appeal to empirical possibility*

This leads to a third sort of strategy, one that falls between the two just considered. The strategy invokes a modal notion that can be derived, interestingly, from the definition of *necessity* that Kant offers in the very same chapter:

[Empirical necessity:] That whose connection with the actual is determined according to universal conditions on experience is (i.e. exists) necessarily.²⁸

The “universal conditions on experience” are more substantive than the “formal conditions” referred to in the definition of possibility, as Kant's discussion goes on to make clear. Any object (or change of state) that is connected to actual events via formal conditions on experience *and/or* the much more specific “empirical laws of causality” counts as necessary in this sense (see KrV, A 227/B 280).

Modal concepts are interdefinable, and so we can generate another conception of real possibility out of the definition of necessity here: let's say that something is *empirically possible* if and only if it is *not* ruled out by the conditions on experience that make something empirically necessary – i.e. by the formal conditions plus the more specific empirical laws. Figure 2 provides a depiction of these modal domains, from the very broad domain of logical possibility all the way down to empirical actuality (but note: any existing things-in-themselves will be logically and really possible as well as actual but they will *not* be *empirically possible* or *empirically actual*. The diagram would have to be more complex in order to represent their modal situation.)

²⁸ “Dessen Zusammenhang mit dem Wirklichen nach allgemeinen Bedingungen der Erfahrung bestimmt ist, ist (existirt) nothwendig.” KrV, A 218/B 266.

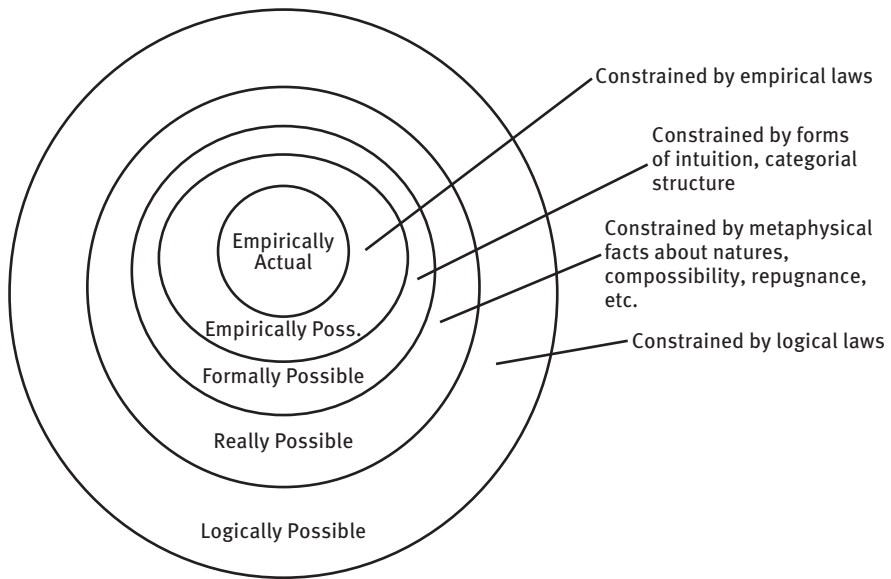


Figure 2

Consider now the following proposal regarding how (v^*) is satisfied:

Third strategy: S is in a position to prove the real possibility of the objects referred to in p if S is in a position to prove their empirical possibility.

What would it mean to say that S is able to “prove” empirical possibility? *A priori* contributions to the structure of experience underdetermine the particular laws that govern the empirical world, as Kant repeatedly emphasizes, and thus our sense of which things are empirically possible is often inductive and provisional. As a result, we will rarely be able to *prove* that something is in fact empirically possible or impossible. The demand is still too high.

My sense is that the best way to rescue Kant here is to return to the passage where he says that things like ghosts, soothsaying, and telepathy are ruled out by appeal to “experience and its known laws.” Kant argues that

If one wanted to make entirely new concepts of substances, of forces, and of interactions from the material that perception offers us, but without borrowing (*entleihen*) the example of their connectedness from experience itself, then one would end up with nothing but brain-fragments for the possibility of which there would be no indications at all,

since in their case one did not accept experience as instructress nor borrow these concepts from it.²⁹

The appeal to our “experience as instructress” suggests that the possibility of the items referred to must itself agree with what the subject *already knows* about the world and its workings. The subject also needs to be able, in some sense, to “prove” or test this agreement. In other words, even if S is not able to prove that an object’s possible existence agrees with what *in fact* is true of nature and its laws, she must be in a position to show that its possibility agrees with what she *knows* of nature and its laws.³⁰

By way of illustration, consider Kant’s discussion of a good case: the explanatory inference from observed phenomena (iron filings moving around) to the existence of an imperceptible “magnetic matter penetrating all bodies” [*alle Körper durchdringende[.] magnetische[.] Materie*] (KrV, A 226/B 273) whose features are causally responsible for those phenomena. The conclusion (that magnetic matter exists) seems to count as knowledge, for Kant, even though (a) we are unable to perceive the magnetic properties of matter directly, and (b) we hadn’t known anything about such properties before, as long as (c) we have sufficient objective probabilistic grounds for positing their existence now, and (d) we can prove with certainty that they are really possible. On the strategy under discussion, the modal constraint in (d) is satisfied not by proving *that* such magnetic properties are formally possible (that’s too easy) and not by proving that they are empirically possible (that is too hard) but simply by proving that their possibility agrees with *our existing background knowledge* of nature and its laws. Kant speaks of inferring via “the laws of sensibility and the context of our perceptions” [*Gesetze[.] der Sinnlichkeit und [...] Context unserer Wahrnehmungen*] (ibid.) when discussing this example, and that fits nicely with the suggestion I am making here.

Let’s now contrast the magnetic matter case with the three bad cases considered earlier: ghosts, soothsaying, and telepathy. With respect to such cases,

29 “Wenn man sich aber gar neue Begriffe von Substanzen, von Kräften, von Wechselwirkungen aus dem Stoffe, den uns die Wahrnehmung darbietet, machen wollte, ohne von der Erfahrung selbst das Beispiel ihrer Verknüpfung zu entlehnen: so würde man in lauter Hirngespinnste gerathen, deren Möglichkeit ganz und gar kein Kennzeichen für sich hat, weil man bei ihnen nicht Erfahrung zur Lehrerin annimmt, noch diese Begriffe von ihr entlehnt.” KrV, A 222/B 269.

30 For the sake of plausibility, we might need to weaken this further still, and say e.g. that the subject must be able to prove *merely* that it conforms to the background knowledge that subject is able to summon, or to the knowledge that strikes her as salient, or to what she *takes* to be her relevant background knowledge, etc. We would also want to make sure to avoid any requirement that the subject knows all of what she knows.

even if we *do* have experiences whose best explanation appeals to such things (I know the doors are locked but I keep hearing something rattling around in the attic; that fortune teller has correctly predicted the winning lottery numbers for three years running; the mind-reader constantly tells you precisely what you are thinking), and thus even if our assent is highly probable on the grounds we possess and would cite, we are not able to prove that the possibility of such things agrees with our existing background knowledge of nature and its laws. So the bad cases won't satisfy condition (v*), even when they do satisfy conditions (i)–(iii).³¹ This revised account, then, says:

Third strategy*: S is in a position to establish the real possibility of the objects referred to in *p* if S is in a position to prove that their possibility agrees with our shared background knowledge of nature and its laws.

This is getting closer. There is still a glaring question, however, about the notion of “agreement” or “conformity” at issue here. Kant typically uses “*übereinkommen*” or “*zusammenhängen*”. But does this mean that the possibility of the items must be shown to be *logically consistent* with our background knowledge of nature? If so, then (v*) is emptied of force – logical consistency with the laws is pretty easy to come by (almost all the supersensibles would achieve it, for instance). But then does it mean that the existence of the objects must be *provably compossible* with what we know about nature? If so, then (v*) is effectively about *epistemic* possibility, and smuggles in the presumption that we're able to discern what is compossible with what. But this is the presumption that Kant finds problematic to begin with! So does “*übereinkommen*” mean something like *follow from* or *be entailed by*? If so, then it is hard to see how some *new* assents could satisfy the condition and count as knowledge. For in many cases we would presumably be positing the existence of new kinds of objects or forces *along with* the laws governing their relations. And so it is hard to see how their empirical possibility would be *entailed by* what we knew about nature antecedently.

It is often wise to go for a middle way in Kant interpretation if you can. Here the best thing to say (I submit) is that Kant has what we now call a *positive coherence* relation in mind when he speaks of “agreement with” or “conformity to” experience and its known laws. It is not merely that the possibility of the objects re-

³¹ Again, if the grounds that allow S's assent to satisfy (i) also give S the ability to prove the truth of *p* from some other things she knows, then she will *ipso facto* satisfy (v*) with respect to that assent. The interesting cases are those in which S in fact has good probabilistic grounds and thus satisfies (i), but isn't able to demonstrate that and why those grounds are good.

ferred to is *consistent* with our background knowledge of nature, but it's not that it is *entailed* by it either. Rather, there are positive coherence relations between the claim that such items are possible and our³² background knowledge of the way the world works. As Kant says at KrV, A 537/B 565 “appearances” are “mere representations, which *cohere* according to empirical laws” [*Erscheinungen [...] sind [...] bloße Vorstellungen, die nach empirischen Gesetzen zusammenhängen*]. In other words,

Third strategy:** S is in a position to prove the real possibility of the objects referred to in *p* if S is in a position to prove that their possible existence ~~possibility~~ *positively coheres* with S's background knowledge of nature and its laws.

It is not unusual for coherentist accounts of a piece of knowledge to make reference to *other* pieces of a subject's background knowledge. Still, in order to make this version of the proposal fly, we'd need to say more about what Kant takes positive coherence to consist in – i.e. more about how it differs from mere consistency (which is usually described as *negative* coherence) and yet avoids smuggling in the presumption that we can track real compossibility relations after all.³³ My guess is that this is where Kant's frequent talk (in the *Dialectic* and the third *Critique*) of the importance of *systematicity* in science and ordinary knowledge plays a role. To know a proposition involves not just having foundationalist-style probabilistic grounds for it and being able to cite those grounds; one also has to be able to *prove* that the possibility of the objects it refers to positively coheres with the rest of our general picture of the world.³⁴

³² I leave the scope of “our” vague for present purposes. Maybe it changes by context: “our” for a child might refer just to her family or parent, whereas “our” for a professional academic might at times refer to her entire scholarly community. The vagueness of “our” also means that sometimes it will be harder for experts to acquire knowledge than it is for others. I take that to be an acceptable consequence of the view. If that man is in fact levitating (let's suppose), then the person brought up in the Transcendental Meditation movement might have an easier time gaining knowledge of that fact than a hardboiled empirical scientist who is witnessing the same phenomenon.

³³ William Lycan develops an account of positive coherence that makes reference to mutual explanatory relations in: *Judgment and Justification*. New York/Cambridge 1988 and “Explanationist Rebuttals (Coherentism Defended Again)”, in: *Southern Journal of Philosophy* 50 (1), 2012, 5–20. Cf. Paul Thagard, *Coherence in Thought and Action*. Cambridge, Mass. 2000.

³⁴ Kant suggests at KrV, A 651/B 679 that without presupposing some sort of systematicity, we can have “no coherent use of the understanding, and, lacking that, no sufficient mark of empirical truth; thus in regards to the latter we must presuppose the systematic unity of nature as objectively valid and necessary.” [...] *keinen zusammenhängenden Verstandesgebrauch und in dessen Ermangelung kein zureichendes Merkmal empirischer Wahrheit haben würden, und wir also in Anse-*

4 *Fourth strategy: proof of real possibility as requiring appeal to enhanced formal possibility*

Although I've left it relatively schematic here, I think that *Third Strategy*** is the most promising one on offer, even if there are still a lot of details that need to be worked out. There is a final, fourth kind of strategy, however, that has some attractions. Its greatest virtue is that it returns to the definition of "formal possibility" – which, again, Kant puts forward as his official definition of real possibility in the Postulates – and emphasizes his efforts in the *Metaphysical Foundations of Natural Science* to derive the most basic mechanical laws by appeal to the formal structures of sensibility and understanding together with the content of the empirical concept of matter. In other words, in the MAN, the necessity of some of the more mechanical laws governing matter is underwritten by a new and more expansive understanding of the formal contribution of the mind (by way of a complicated appeal to Kant's theory of *a priori* "construction"). I won't try to explicate the details of this here; suffice it to say that the fourth strategy would involve reverting to thinking of condition (v*) as satisfied in virtue of S's ability to appeal to the (now more robust) formal conditions on experience.

Apart from the fact that it is wedded to a controversial interpretation of a particularly difficult Kantian doctrine, the main disadvantage of this fourth strategy is that Kant clearly does not regard *all* of the particular laws as part of the formal contribution of the mind. So even if the constitutive *a priori* conditions on experience come to include *more* specific principles, they still won't capture all of them. Kant makes this clear in the B-edition *Critique*:

Particular laws, because they concern empirically determined appearances, cannot be completely derived from the categories, though they all stand under them. Experience must be added in order to know particular laws at all.³⁵

hung des letzteren die systematische Einheit der Natur durchaus als objectiv gültig und nothwendig voraussetzen müssen.] For discussion, see Ido Geiger, "Is the Assumption of a Systematic Whole of Empirical Concepts a Necessary Condition of Knowledge?" In: *Kant-Studien* 94, 2003, 273–298.

³⁵ "Besondere Gesetze, weil sie empirisch bestimmte Erscheinungen betreffen, können davon *nicht vollständig abgeleitet* werden, ob sie gleich alle insgesamt unter jenen stehen. Es muß Erfahrung dazu kommen, um die letztere *überhaupt* kennen zu lernen [...]." KrV, B 165; see also A 206f./B 252; A 222/B 269f.; KU, AA 05: 179f. Michael Friedman, after detailing the lengths Kant goes to in the MAN to "nest" the concept of matter (in motion) within the transcendental apparatus of the mind, emphasizes that "the empirical concept of matter can be really possible only if it is actually instantiated as well, and so we cannot abstract completely from perception or the material conditions of experience when considering this concept – even when considering it under the first postulate." *Kant's Construction of Nature*. New York 2013, 553.

In MAN he says, likewise, that patterns of “chemical actions of matter,” for instance, do not admit of construction or even articulation in terms of necessary laws, and thus chemistry “can be nothing more than a systematic art or experimental doctrine, but never a proper science, because its principles are merely empirical, and allow of no a priori presentation [i.e. construction] in intuition” [so *kann Chemie nichts mehr als systematische Kunst oder Experimentallehre, niemals aber eigentliche Wissenschaft werden, weil die Principien derselben blos empirisch sind und keine Darstellung a priori in der Anschauung erlauben*] (MAN, AA 04: 471). Kant also makes it clear that the mechanical laws he specifies (of e.g. inertia, and action-reaction) are applicable only to “corporeal nature” – i.e. to matter conceived as extended, lifeless, and impenetrable. So they don’t obviously succeed in ruling out soothsaying and telepathy, even if they do rule out ghostly matter (see MAN, AA 04: 471).

This indicates that even if we are able to prove that an object is *formally* possible or impossible in light of the more robust principles of “the metaphysics of corporeal nature” [*Metaphysik der körperlichen Natur*] (MAN, AA 04: 472), there will always be cases that are compatible with those principles but still empirically impossible. In such cases, we would presumably have to fall back to *Third Strategy*** and invoke the subject’s ability to establish positive coherence relations between the objects’ possibility and her background knowledge of nature and the way it works.

G Conclusion: the modal condition as coherence constraint

The core of Kant’s unified concept of propositional knowledge, then, looks something like this:

Knowledge (Wissen): S’s assent that p counts as knowledge only if $(\exists g)$ such that

- (i) g is a sufficient objective ground that S has,
- (ii) S’s assent that p is based on g ,
- (iii) on reflection, S would cite g as his objective ground for the assent that p ,
- (iv) p is true, and
- (v*) for any object referred to in p , if it is really possible then S is in position to prove its real possibility, and if it is really impossible then S is in a position to prove its real impossibility.

(v*), I have suggested, is available in the relevant texts, and is what ultimately motivates Kant's frequent appeal to possible intuition or the "conditions on possible experience" in placing limits on knowledge. I have also argued that it should be read along the lines of *Third Strategy*** above: for S to be in a position to "prove" that an object is really possible is for her to be in a position to prove that its possibility positive coheres with our shared background knowledge of nature and its laws.

Here's a final test case to consider: suppose you infer from the harmonious and fecund character of the natural laws themselves to the existence of a supersensible world-author. Kant himself thinks that such inferences are sound, and that they provide solid probabilistic grounds for the conclusion (see KrV, A 624/B 652; A 826/B 854; Prol, AA 04: 278). So (i)–(iv) may in fact be satisfied. Why wouldn't this count as knowledge?³⁶

(v*) gives us an explanation even before Kant gets to the discussion of whether physico-theology smuggles in a kind of ontological argument. For (v*) invokes our background knowledge of the world and the *specific content* of the laws that take the world from one state to the next. In other words, when Kant says we should look to the "universal conditions" on experience as our in-structress, he is talking not about second-order features of the laws themselves (their elegance, simplicity, etc., taken as a set), but rather about the *content* of particular laws regarding what types of events follow other types of events. The assent about the *Welturheber* fails to satisfy (v*) because we will never be in a position to show that there are formal or particular laws whose *content* makes the possibility of a spiritual author of the world seem likely (or unlikely). We are ignorant of the real modal status of such a being – or, as Kant more often puts it, we can provide no "objective reality" for its concept. And so we must remain agnostic about its existence, despite our otherwise impressive epistemic situation.

For similar reasons, we also can't establish positive coherence between our background knowledge of the world and the possibility of an immaterial substance or a zombie or free will or an *ens realissimum*, even if we have sufficient objective grounds for positing their existence. Thus, speculative arguments that begin or end with such things (Descartes's Real Distinction argument, certain conceivability arguments for dualism, the ontological argument, and even Kant's own possibility proof) are ruled out of epistemic bounds. This is the result we wanted, and it indicates that condition (v*) interpreted as a positive co-

³⁶ Thanks to Michael Friedman for raising this case in conversation.

herence condition is a prime candidate for inclusion in a Kantian account of knowledge.³⁷

³⁷ My thanks for feedback on these ideas are owed to audiences at Cornell, St. Louis University, NYU, University of Virginia, CUNY Graduate Center, University of Edinburgh (*Kant and Laws* conference summer 2013), Israel Institute for Advanced Study (*Kant and Empirical Knowledge* conference fall 2013), and the Institute for Advanced Study in Bucharest (*Knowledge of Transcendent Objects* conference spring 2014). For one-on-one discussions of earlier drafts, I am grateful to Susan Brower-Toland, Alix Cohen, Michael Friedman, Everett Fulmer, John Greco, Desmond Hogan, Anja Jauernig, Béatrice Longuenesse, Michela Massimi, Tyke Nunez, Michael Oberst, Ted Sider, and Eric Watkins.