

RATIONALISM SELF-RESTRAINED: KANT, AUTONOMY, AND THE BOUNDS OF SENSE

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Kant's *Critique of Pure Reason* famously purports to preclude rational cognition of objects beyond possible experience ("rational ignorance"). On the prevailing approach (popularized by Strawson's *Bounds of Sense*), the conditions on immediate, experiential cognition explain why rational cognition cannot extend beyond it. Yet I argue that the prevailing approach risks surrendering reason to *heteronomy*, shackling reason to external constraints that no self-respecting rationalist could accept. I argue that Kant instead develops an *autonomous* approach to rational ignorance, on which reason's own principles and the conditions proper to rational cognition jointly explain why rational cognition cannot extend beyond possible experience. I sketch a reconstruction of his argument for rational ignorance based on this approach. In brief, even if rational principles that would take us beyond possible experience are true (and cognizable as such), it is impossible for us to subsume any cognitions under them.

Keywords: Kant; reason; autonomy; ignorance; rationalist metaphysics

1. Introduction

Like the intrepid dove's reach for airless space, the traditional rationalist metaphysician's lofty aspirations to transcend the limits of possible experience is bound to come crashing down. It is impossible to achieve theoretical cognition of the existence of objects beyond possible experience—or so Kant's thesis of noumenal ignorance ("epistemic humility") implies.¹ Yet his argument for noumenal ignorance remains mired in endless interpretative controversy.

1. Practical cognition fortunately faces a less sordid fate than theoretical cognition in Kant's second *Critique* (*KpV* 5: 4). Below, we will be primarily concerned with theoretical cognition. All references to Kant's works are to the Akademie edition (1900–) and are given by volume and page number, except for the *Critique of Pure Reason* (*KrV*), for which the standard A/B pagination is used. All translations of Kant's published works are taken from the Cambridge Edition of Kant's works

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Sometimes underappreciated is that the *Critique of Pure Reason* offers, well, a critique of pure reason: “a critique of the faculty of reason in general, in respect of all the cognitions after which reason might strive independently of all experience, and hence the decision about the possibility or impossibility of a metaphysics in general” (Axii). Its central target is not the mystic or prophet who claims immediate non-rational acquaintance with objects that would exist beyond possible experience, but the traditional rationalist who alleges that human reason can infer their existence. Its argument for noumenal ignorance is accordingly first and foremost an argument for (what I will call) *rational ignorance*, the claim that rational cognition [*Vernunftkenntnis*] of objects beyond possible experience is impossible.²

It is therefore unfortunate that although Kant’s conditions on immediate, experiential cognition have received extensive treatment, his conditions on rational cognition have received comparatively little. Indeed, according to the prevailing approach (popularized by Strawson’s *Bounds of Sense* in the anglophone tradition), rational ignorance is not based on conditions proper to rational cognition.³ Yet we will see that the prevailing approach risks surrendering reason to *heteronomy*, shackling it to external constraints that no self-respecting rationalist could accept. I will argue that Kant instead offers an *autonomous* approach to rational ignorance, on which conditions proper to rational cognition and the principles endorsed by reason itself explain why rational cognition can reach no further than the bounds of sense.⁴

Kant characterizes reason as the faculty of principles: “here we will distinguish reason from understanding by calling reason the faculty of principles. ... I would therefore call ‘cognition from principles’ that cognition in which I cognize the particular in the universal through concepts” (A299–300/B356–357). Rational cognition of an existing object broadly requires the following two material elements. The first is cognition of the principle itself, which expresses “the relation between a cognition and its condition” (A304/B361). A principle

(including Kant 1998 and 2002), unless noted otherwise. All other translations (including all translations of Wolff and Crusius) are my own.

2. This is not to deny that the first *Critique’s* restrictions on cognition have ramifications for the aspirations of the mystic or prophet (more on this below).

3. The focus on Kant’s account of immediate, experiential cognition is characteristic of both the classic and more recent secondary literature. Cf. Strawson (1966), Bennett (1974), Allison (2004), Allais (2015), Grüne (2017), and Watkins & Willaschek (2017). This line of scholarship might be said to adopt the spirit of Vaihinger’s (1922) addendum to the first *Critique’s* title: “The title ‘*Critique of Pure Reason*’ is to be completed through the addition: ‘*Theory of Experience*.’” (8, my translation). There has been a recent shift towards clarifying Kant’s account of rational cognition. Cf. van den Berg (2011), Willaschek (2018), Tolley (2020), and Schafer (2023). However, none of these recent discussions have detailed how this account underlies rational ignorance.

4. I frame rational ignorance here as ignorance of *objects beyond possible experience* (rather than of *things in themselves*). Neutrality regarding the distinction between things in themselves and appearances is advantageous here, given longstanding controversies surrounding it. I accordingly remain neutral about whether (at least some) objects beyond possible experience are (in some sense) *the same objects* as those given in possible experience (per so-called “two-aspect” views).

expresses a law-like, necessary connection between the satisfaction of one concept (the cognition) and another concept (its condition). For instance, the principle that *all alterations have a cause* expresses a connection between the concepts *<being an alteration>* (the cognition) and *<having a cause>* (its condition).⁵ The second material element is cognition of some (possible or existing) object that satisfies the condition of the principle. This element establishes the ontological import of the principle—that there is a non-empty domain of objects to which the principle applies.⁶ Only with cognition of these two material elements in hand can reason’s power to apply logical rules of inference enable *rational cognition of some existing object satisfying the principle’s consequent*.⁷ Rational cognition can then be iterated by either (i) treating a premise of a rational inference as the conclusion of a further rational inference or (ii) treating the conclusion of a rational inference as a premise of a further rational inference.⁸ Iterating in either direction yields “a series of inferences” (A331/B387), and thus a series of rational cognitions (e.g. of rational cognitions $\alpha_1, \alpha_2 \dots \alpha_n$).

Similar general conceptions of rational cognition were endorsed by many of Kant’s eighteenth-century German rationalist predecessors, including Christian Wolff (1679–1754) and Christian Crusius (1715–1775).⁹ As traditional rationalists, however, both affirm the possibility of rationally cognizing the existence of objects beyond possible experience (such as God).¹⁰ Yet Kant purports to prove just the opposite in the first *Critique’s* Transcendental Analytic: “we have already proved in the Transcendental Analytic ... that all the inferences that would carry us out beyond the field of possible experience are deceptive and groundless”

5. Cf. A300–302/B356–358, A330/B386–387, A713–714/B741–742, A836–837/B864–865, A840/B868, *JL* 9: 64–65, *LPö* 24: 539, and *LDW* 24: 730–731. Kant’s logic distinguishes categorical, hypothetical, and disjunctive principles. “The relation between a cognition and its condition” involves the connection between the subject and predicate in a categorical principle, between the antecedent and consequent in a hypothetical principle, and between the disjuncts (as complements to a whole) in a disjunctive principle (A304/B361). Yet to avoid conflation with other kinds of conditions discussed below, I will often describe the general logical structure of a principle in terms of the antecedent-consequent relation.

6. Whether the sort of object required to satisfy the antecedent of a principle exists or is merely possible will depend on the principle in question. Some principles involve a connection between what is possible and what exists, e.g. the principles underlying certain versions of the ontological argument or the early Kant’s argument for the existence of God from the need for an existing ground of possibility (*Beweisgrund* 2: 156–7). Although the critical Kant is skeptical that these arguments yield cognition (as we will see below), they cannot be ruled out by fiat at the outset.

7. Cf. A330/B387. Kant further distinguishes different degrees of rational cognition, including *insight* and *comprehension*. For recent discussion, see Tolley (2020) and Schafer (2023).

8. Cf. A307/B364 and A330–331/B387–388.

9. Cf. Wolff (1732: §§483–496) and (1736: §§286–289), as well as Crusius (1747: §§109–111). I focus on these two figures because of not only their great influence on eighteenth-century German philosophy (including Kant), but also their importance for understanding his argument for rational ignorance. More on this below.

10. Cf. Crusius (1745: §§204–236) and Wolff (1736: §§24–72).

(A642/B670). So how does his master argument for rational ignorance go there? This is the central question of our investigation.

The two material elements of rational cognition allow us to distinguish two potential (yet oft undistinguished) answers. The first approach would deny the cognizability of any principle whose consequent affirms the existence of particular objects beyond possible experience. Call this *the principle approach* to rational ignorance. By contrast, the second approach need not deny that such principles are true or even cognizable per se. Rather, it would deny the possibility of cognizing any (possible or existing) objects that satisfy (the antecedents of) such principles. To borrow (and interpret) Kant's phrase, such principles would then fail to yield cognition of "relation to an object, i.e., objective reality" (A109). Grant the truth of any principle you please—about monads, God, whatever. The question remains: what ensures that any object can satisfy your principle, and thus that the domain of objects that can satisfy it is not empty? Without cognizing your principle's objective reality (and thus cognizing that some object satisfies your principle), your principle will fail to yield cognition of existing objects. For instance, take the principle *all contingent beings have a necessary first cause*. Whereas the principle approach would deny the truth or cognizability of this principle, *the objective reality approach* (as I will call it) would instead deny the cognizability of any contingent being (in the sense invoked in the principle). In effect, the objective reality approach alleges that it is impossible to cognize objects beyond possible experience because no object can be cognized as satisfying a principle whose consequent affirms the existence of objects beyond possible experience.¹¹ On the reconstruction of the Transcendental Analytic's master argument for rational ignorance that I will sketch here, this argument takes the objective reality approach.¹²

Kant famously tells us that intuition and concepts are needed for cognitions to have objective reality: "Intuition and concepts therefore constitute the elements of all our cognition Without sensibility no object would be given to us, and without understanding none would be thought. Thoughts without content are empty, intuitions without concepts are blind" (A51/B75). Much has been

11. So as I shall understand it, a concept or principle has *objective reality* only if it is possible for an object to satisfy it, i.e. only if the domain of objects that can satisfy that concept or principle is not empty. *Cognition* of the objective reality of a concept or principle would accordingly require cognition that it is possible for an object to satisfy it. This characterization of objective reality will be an unargued starting point here. Nonetheless, many have recently advanced broadly similar conceptions of objective reality (despite disagreements about the nature of the possibility involved in objective reality—more on that below). Cf. Stang (2016), Grüne (2017), Chignell (2017), and Watkins & Willaschek (2017). Kant indicates that even the merely possible objects of mathematics can have objective reality. Yet given the aims of our investigation, I will be primarily concerned with the objective reality of existing, causally efficacious objects and cognitions thereof.

12. Some contemporary metaphysicians likewise construe metaphysics as ascertaining metaphysical laws and principles. Cf. Kment (2014), Rosen (2017), and Schaffer (2017). So the challenge of ascertaining their objective reality remains a live (if oft neglected) issue.

written about how intuition and concepts are needed for immediate, experiential cognitions to have objective reality. But how, then, do intuition and concepts help furnish the objective reality of *rational* cognitions?

In the first part of our investigation, I will suggest that the need for intuition and concepts in rational cognition can be understood from the nature of rational cognition itself. Specifically, they can be understood from a *well-foundedness constraint* on rational cognition, according to which rational cognitions win their relation to existing objects (and thereby their objective reality) only if they are ultimately inferred from immediate (=non-rational), experiential cognitions. Sensible (and more specifically, empirical) intuition and concepts are accordingly needed for rational cognitions to remain well-founded. Given the well-foundedness constraint, then, the objective reality of rational cognition of objects beyond possible experience hinges on preserving well-foundedness in ascending beyond possible experience.

In the second part of our investigation, we will see that preserving well-foundedness in the ascent beyond possible experience would require first abstracting the non-sensible (or “pure”) content of an experiential cognition from its connection with sensible conditions. But Kant claims that such *sensible abstraction* (as I will call it) cannot succeed: We cannot cognize that the rules expressing these sensible abstractions (“sensible abstraction rules,” for short) preserve objective reality. Given this claim, then insofar as a series of rational cognitions begins with immediate, experiential cognitions (as well-foundedness demands), it can extend no further than experience. Kant’s master argument for rational ignorance thereby stands or falls with this claim.

Unfortunately, Kant’s rationale for this claim is far from obvious. The prevailing approach construes his rationale as extending the constraints on immediate cognition to rational cognition. Yet by not considering conditions proper to rational cognition, this approach risks talking past his German rationalist predecessors (at best) or begging the question against them (at worst). And Kant himself strikingly claims that reason’s own principles explain why rational ignorance holds. A critique of pure reason reaches its verdict about reason’s boundaries “not by mere decrees but according to its [=reason’s] own eternal and unchangeable laws” (Axi-Axii). On this suggested *autonomous approach*, rational ignorance is handed down by reason’s own principles.¹³ Any self-respecting rationalist would therefore have to accept it.

In the third part of our investigation, I will sketch how the autonomous approach can explain why sensible abstraction rules do not preserve cognition

13. By “reason’s principles,” I include not merely principles that belong to the nature of reason, but principles cognizable by reason more generally. For instance, even though Kant regards sensibility as essential to mathematical cognition, mathematical principles would count as rational principles in the latter sense insofar as they are objects of rational cognition (A713/B741).

of objective reality. With help from Crusius, I will first clarify how *non-logically* necessary connections (expressed in principles of synthesis) would constrain when abstraction rules preserve objective reality. I will then show how, given this constraint, Kant's experiential principles of synthesis (purportedly proven by reason in the first *Critique*) would entail that sensible abstraction rules fail to preserve objective reality (and *a fortiori* fail to preserve cognition of objective reality). Thus, per the autonomous approach, the very principles proven by reason itself would explain why this faculty cannot ascend from immediate, experiential cognitions to cognitions beyond the bounds of sense.

In §2, I clarify Kant's well-foundedness constraint on rational cognition. In §3, I elucidate how, given this constraint, sensible abstraction rules would be needed to ascend to rational cognition beyond possible experience. In §4, I argue that the prevailing approach fails to adequately explain the impossibility of this ascent. In §5, I explain how principles of synthesis in general constrain when abstraction rules preserve objective reality. In §6, I argue that Kant's experiential principles of synthesis preclude sensible abstraction rules from preserving objective reality. In §7, I formalize the resulting argument for rational ignorance. In §8, I respond to the objection that the argument would show too much. In §9, I conclude.

2. Experience and the Well-Foundedness of Rational Cognition

Suppose you see a broken window. Through the principle *every alteration in nature has a cause*, you rationally infer that *there is a cause of the window's breaking*. Beyond the truth of the principle, what ensures that the inferred cognition represents an existing cause? And what ensures that when you infer in turn a further cause (and then to *its* cause, etc.), there are causes *out there* corresponding to your inferences? For a rational cognition in this series to represent existing causes, Kant holds, it would have to be traced back to some cognition that is not itself a rational cognition. The source of its objective reality must ultimately lie in *immediate*—and thus non-rational—cognition(s). Being inferred from immediate cognitions keeps rational cognitions tethered to reality. We otherwise risk erecting a system of rational inferences with no relationship to reality at all—mere figments of the mind [*Hirngespinnste*] (A50–52/B74–76).

In short, for a rational cognition α to be a cognition of an existing object, α must be *well-founded*, i.e. there must be an inferential path from α back to some immediate cognition(s).¹⁴ Kant, in turn, claims that we win immediate cognitions of (possible or existing) objects through *experience*:

14. We shall revisit the need for well-foundedness below.

If a cognition is to have objective reality, i.e., to be related to an object, and is to have significance and sense in that object, the object must be able to be given in some way. To give an object, if this is not again meant only mediately, but it is rather to be exhibited immediately in intuition, is nothing other than to relate its representation to experience (whether this be actual or still possible). (A156/B195)

To borrow the above example, your immediate, experiential cognition of the broken window helps explain why your inference yields a rational cognition of an existing cause. This well-foundedness constraint on rational cognition can be put as follows:

- (1) **Well-Foundedness Constraint:** for any cognition α of an existing object in a series of rational cognitions ($\alpha_1, \alpha_2 \dots \alpha_n$), α 's objective reality is cognizable only if the series terminates in an immediate, experiential cognition (of a sensible object).¹⁵

But why exactly must the immediate cognitions on which rational cognitions are well-founded be experiential? In this section, I offer a partial answer to this question. In brief, two of Kant's central constraints on experiential cognition—intuition and concepts—are needed for us to subsume immediate cognitions under the antecedent of a principle. These two constraints are ipso facto requirements on securing a rational cognition's well-foundedness, and thereby its objective reality.

Intuition is defined as ensuring a cognition's immediate relation to an object: "In whatever way and through whatever means a cognition may relate to objects, that through which it relates immediately to them ... is called intuition" (A19/B33). Intuition is therefore (by definition) required for a cognition to be immediate; an immediate cognition must be related to its object via intuition.¹⁶ This implies that a series of rational cognitions is well-founded on immediate cognition *only if* the immediate cognition in question is related to an object via intuition.

Kant makes two additional key points in this context. First, human beings only possess *sensible* forms of intuition: space and time. So in order for an immediate cognition to be related to an object via intuition, the intuition must be sensible.¹⁷

15. To say that the series terminates in an immediate, experiential cognition is to say that the last member of the series is inferred (at least in part) from such a cognition. The bolded, numbered claims will be premises of the reconstruction of Kant's master argument presented in §7.

16. We need not settle here how exactly intuition relates immediate cognitions to objects. For some recent discussion, see Tolley (2013), Allais (2015), Watkins & Willaschek (2017), Grüne (2017), and Chignell (2017).

17. Perhaps aliens with non-sensible intuitions could satisfy the well-foundedness constraint without sensible intuitions (B72). But for our purposes, *cognition* will be understood here as cognition *given our (sensible) forms of intuition*.

Not all sensible intuitions are empirical; there are *a priori* sensible intuitions of non-empirical objects (e.g. of mathematical objects). Yet the latter objects are merely *formal*; they are not real, causally efficacious objects.¹⁸ Second, sensible intuitions relate to (causally efficacious) possible or existing objects only if those intuitions are empirical (rather than *a priori*). For empirical intuitions (unlike non-empirical ones) each involve a *matter*, and thus the effects of objects on our representational capacities (A20/B34). Insofar as the objective reality of cognitions of existing objects is at issue, these cognitions must ultimately be traceable back to cognitions that involve relation to empirical intuition.¹⁹

So for a series of rational cognitions to be well-founded on immediate cognition of (causally efficacious) objects, those immediate cognitions must involve empirical intuitions. As Kant indicates: “all principles, however a priori they may be, are nevertheless related to empirical intuitions, i.e., to data for possible experience. Without this they have no objective validity at all, but are rather a mere play ...” (A239/B298). This idea can be expressed as follows:

Intuition Constraint: for any cognition α of an existing object in a series of rational cognitions ($\alpha_1, \alpha_2 \dots \alpha_n$), α 's objective reality is cognizable only if the series terminates in an immediate cognition whose object is immediately given via empirical intuition.

Nonetheless, the mere intuition of an object is still not subsumable under the antecedent of a principle, and thus alone cannot provide the starting point for a well-founded series of rational cognitions. For the antecedent (or condition) of a principle expresses a *concept*. For instance, if object *a* is to be subsumed under the antecedent of the principle $\Box \forall x(Fx \rightarrow Gx)$, *a* must first be subsumed under concept $\langle F \rangle$.²⁰ For this reason, securing the well-foundedness of a rational cognition requires another of Kant's central constraints on experiential cognition: the application of concepts to intuitions.

But, how, then, is the application of concepts to intuitions possible? The Schematism chapter famously argues that to be applied to (sensible) intuitions, concepts must be furnished with *sensible conditions* (A137–140/B176–179). These conditions infuse a concept with sensible (more specifically, temporal) content. In effect, intuitions are directly subsumable only under (what we might call) *sensible* or *schematized* concepts, i.e. concepts that involve sensible conditions. For instance, the concept $\langle \textit{house} \rangle$ is applicable to intuitions only if this concept involves the condition of sensible permanence.

18. For discussion, see Stang (2016: 238).

19. Cf. A217/B264 and A222–223/B270–271.

20. Cf. A300–302/B357–359, A306–307/B363, and A330/B386–387.

The need for sensible conditions, Kant famously argues, extends to the application of pure *a priori* concepts, viz. the categories (<unity>, <substance>, <cause>, etc.).²¹ As pure *a priori* concepts, the categories do not contain any sensible content in themselves. For instance, the concept <substance> has no sensible content in itself; it simply expresses “something that can occur solely as subject (without being a predication of anything)” (A242–3/B300). Kant calls the requisite sensible conditions *schemata*, which “contain the general condition under which alone the category can be applied to any object” (A140/B179). For instance, the schema of substance introduces the condition of sensible permanence; something that satisfies this schema “endures while everything else changes” (A144/B183). Only by satisfying this sensible condition could sensible intuitions be subsumed under the concept <substance>.

How exactly the schemata work is contentious.²² The key point here is simply that a rational cognition cannot be well-founded on immediate cognition unless it is ultimately inferred from a cognition of an object that is attributed *a concept with sensible conditions* (i.e. a sensible concept). More formally:

Concept Constraint: for any cognition α of an existing object in a series of rational cognitions ($\alpha_1, \alpha_2 \dots \alpha_n$), α 's objective reality is cognizable only if the series terminates in an immediate cognition whose object is subject to a sensible concept (within that cognition).

Thus, far from inexplicable constraints on rational cognition, two of Kant's central constraints on immediate, experiential cognition—(empirical) intuition and concepts—are required for rational cognitions insofar as these constraints are required to secure the well-foundedness of rational cognition. This helps to clarify why a series of rational cognitions of existing objects for us must be well-founded on immediate, experiential cognitions. The key question for the rest of Kant's argument for rational ignorance becomes how far rational cognitions can ascend from immediate, experiential cognitions.

One might worry that a traditional rationalist could already get off board by denying the well-foundedness constraint.²³ This issue deserves further attention elsewhere. Yet to presuppose the well-foundedness constraint is not to stack the deck against many of Kant's German rationalist predecessors. For they—and here I focus on Wolff and Crusius—also accept some version of this constraint. As Wolff suggests:

21. Cf. A137–140/B176–179 and A146–147/B186.

22. For one recent detailed discussion, see Stang (2022).

23. See Beiser (2002) and Franks (2005) for discussion of post-Kantians challenges to this constraint.

Rational cognition of what is or comes to be is called *philosophical*. (1728a: §6) ...

Cognition of that which is established through experience is only historical. (1728a: §10) ...

Historical cognition should precede philosophical cognition and be constantly conjoined with it so that it does not lack a firm foundation. (1728a: §11)²⁴

Or as Crusius puts it:

All existing entities [*Existenzen*] must in the end be proven from experiences [*aus Erfahrungen*] However it does not follow from this that all existing entities must be immediately cognized from experience, which would be absurd. One can cognize from a few propositions [*Sätzen*] that concern existing entities the existence of many other objects by means of correct inferences. (1747: §535).²⁵

Indeed, these rationalists arguably take the well-foundedness of rational cognition to require intuition of some sort.²⁶ And they likewise explicitly take intuition to be restricted by sensibility.²⁷

24. Cf. Wolff (1730: §4, §125), (1732: §§315–316, §§391–395), and (1736: §§1095–1099). For more on the experiential foundations of rational cognition in Wolff, see Tonelli (1959: 131), École (1979), Cataldi (2001), Kreimendahl (2007), Dyck (2014), Anderson (2015), Vanzo (2015), and Dunlop (2018).

25. Cf. Crusius 1747: §§259–262, §§433–434, and §519.

26. As Crusius suggests, “Intuitive cognition is therefore that in which one represents a thing through that which it is in itself. Symbolic cognition, however, is that in which one represents a thing not through that which it is in itself, but rather through other concepts, which are capable of providing symbols for it, e.g. when one represents the causes and their constitution through their effects” (1747: §184), and “We would also not be able to think of things at all if we did not have an intuitive cognition of some circumstances” (§186). For parallel discussion in Wolff, see (1732: §§325–392) and (1736: §1095).

27. As Wolff puts it, “our intuitive cognition of different things is restricted to the senses and to the faculty of imagination, which depends on the senses” (1736: §1095). Cf. Wolff (1728b: §§30–33, §§51–53) and (1732: §§315–330). See also Crusius (1747: §§184–186, §465). Two qualifications. First, the idea that these figures endorse a well-foundedness constraint is compatible with thinking that they adopt quite different conceptions of sensible objects, and that this shapes *how exactly* well-foundedness keeps rational cognitions in touch with existing objects. For instance, Wolff ultimately considers sensible objects given in experience to be confused representations of underlying simple substances. Cf. (1728b: §§97–98), (1731: §§176–301), and (1736: §§202–204). Such differences, however, do not obviate the need for well-foundedness to keep cognitions in touch with reality. Indeed, Wolff characterizes philosophical rational cognition as aiming to provide grounds for what is given in experience (1728a: §10). Second, despite clearly taking intuition to be restricted to the senses, it is debatable whether Wolff or Crusius think that we still possess some limited forms of intellectual intuition. For discussion, see École (1986). In any case, some

Thus, if Kant can preclude inferences from experiential cognitions to cognitions beyond possible experience, his argument for rational ignorance would have real force against his German rationalist predecessors. And it certainly seems that the first *Critique's* argument for rational ignorance is directed against Wolff and others who share similar general conceptions of rational cognition. At the outset, Wolff is deemed “the greatest among all dogmatic philosophers,” one who had “the skills” to transform metaphysics into a legitimate science—“if only it had occurred to him to prepare the field for it by a critique of the organ, namely pure reason itself” (Bxxxvi).

3. The Ascent Beyond Experience and the Problem of Sensible Abstraction

To infer the existence of objects beyond possible experience, reason requires principles expressing concepts that can be satisfied by such objects. Here are a few examples of such principles: *all contingent beings have a necessarily existing cause, everything has a sufficient ground, and all composite objects have simple parts*. The consequents of such principles must lack any sensible content, since they otherwise could not be satisfied by objects beyond possible experience. For instance, the concept <cause> in the principle *all contingent beings have a necessary first cause* would have to express the *non-sensible* (“unschematized” or “pure”) concept of a cause. This concept accordingly would not include the sensible content of succession tied to its schematization. Rather, it would involve “something that allows an inference to the existence of something else” (A243/B301).²⁸

Now a principle would be *absolutely pure* if both its antecedent *and* consequent concepts are pure, and thus lack any sensible content whatsoever. Kant maintains that only absolutely pure principles lie within the sphere of pure reason:

Every cognition is called pure, however, that is not mixed with anything foreign to it. But a cognition is called absolutely pure, in particular, in which no experience or sensation at all is mixed in, and that is thus fully a priori. Now reason is the faculty that provides the principles of cognition

rear-guard Leibnizians (e.g. Johann Eberhard) and neo-Platonists (e.g. Johann Georg Schlosser) more bluntly claim that we possess *non-sensible* forms of intuition. Kant's essays *On a Discovery* (1790) and *On a Recently Prominent Tone of Superiority in Philosophy* (1796) offer responses to these factions.

28. See A242–244/B300–302 for glosses on other unschematized concepts. Some find the very distinction between schematized and unschematized concepts problematic. See, for instance, Buroker (2006) and De Boer (2016). Though as Stang (2022) notes, this dispute might be partly terminological. To avoid going far afield, I will bracket this dispute here.

a priori. Hence pure reason is that which contains the principles for cognizing something absolutely *a priori*. (A10–11/B24)²⁹

So to achieve cognition beyond possible experience, Kant suggests, pure reason would have to employ absolutely pure principles.³⁰ One might still ask: Why couldn't reason use *non-absolutely* pure principles, i.e. principles connecting non-pure concepts to pure ones (e.g. where, in the principle $\Box\forall x(Fx\rightarrow Gx)$, $\langle F \rangle$ has sensible content and $\langle G \rangle$ does not)? The short answer is that without rigorously specifying non-absolutely pure principles, applying those principles is liable to produce fallacious inferences that equivocate between non-sensibly representable properties and sensibly representable ones (more on this below).³¹

Insofar as the fate of rational cognition of objects beyond possible experience stands or falls with the fate of absolutely pure principles, one salient question is whether such principles are true. Yet even if they could be shown to be true, rational cognition of (existing) objects beyond possible experience would not yet be possible. Per the well-foundedness constraint, such cognition would first have to be traced back to immediate, experiential cognitions. Can that be done?

First observe that experiential cognitions cannot satisfy the antecedents of absolutely pure principles. For as we saw above, experiential cognitions can only attribute sensible concepts to objects. Yet the concepts constitutive of an absolutely pure principle cannot have any sensible content or conditions. For instance, take a cognition of a sensible object satisfying $\langle F \rangle$ under the condition of sensible content S —which I will express as $[\langle\langle F \rangle\leftarrow S \rangle]$, where “ \leftarrow ” stands for *under the condition of*.³² If $\Box\forall x(Fx\rightarrow Gx)$ is an absolutely pure principle, that cognition cannot satisfy the antecedent of this principle. In effect, a well-founded chain of rational cognitions cannot extend beyond possible experience without first somehow liberating pure concepts from their connection to sensible contents.

For Kant and his German rationalist predecessors, pure concepts can be liberated through *abstraction*. An *abstraction rule* (as I will call it) extracts or isolates a concept from its connection to some other concept of which it is a part. This tracks Kant's distinction between abstraction and separation: “Through abstraction [*Absonderung*] I think of a part of the concept, but by means of separation [*Trennung*] I negate something from my concept.” (LB 24: 262). Schemati-

29. Cf. A306–307/B363 and A841/B869.

30. Similar characterizations of pure reason are also found among Kant's German rationalist predecessors. Cf. Wolff (1732: §§495–496), (1736: §§286–289), and Crusius (1747: §109–111).

31. Cf. A155/B194, A258–9/B314–315, A458–460/B486–488, A497–501/B525–529, and A635–637/B663–665.

32. The sensible content S is a non-discursive part of a schematized concept—hence why it is not in its own brackets here.

cally, extracting $\langle F \rangle$ from $[\langle\langle F \rangle \wedge G \rangle\rangle]$ is an instance of abstraction; extracting $[\langle\langle F \rangle \wedge \sim G \rangle\rangle]$ from the concept $[\langle\langle F \rangle \wedge G \rangle\rangle]$ is an instance of separation.³³ Kant sometimes characterizes the relation between a genus and species in terms of abstraction.³⁴ For instance, the species concept $\langle tiger \rangle$ might contain $[\langle\langle cat \rangle \wedge \langle tiger\text{-specific properties} \rangle\rangle]$. But it would be wrong to say that the genus concept $\langle cat \rangle$ contains $\langle \sim tiger\text{-specific properties} \rangle$, since that would prevent the concept $\langle tiger \rangle$ from falling under it. Instead, the genus concept $\langle cat \rangle$ is simply indeterminate about $\langle tiger\text{-specific properties} \rangle$; it neither contains $\langle tiger\text{-specific properties} \rangle$ nor contains $\langle \sim tiger\text{-specific properties} \rangle$.

A *sensible abstraction rule* (as I will call it) accordingly extracts a pure concept from its connection to its sensible conditions (or any other sensible content). For instance, take the pure concept $\langle substance \rangle$. The corresponding sensible concept adjoins sensible conditions onto this pure concept, e.g. $[\langle\langle substance \rangle \leftarrow sensible\ permanence \rangle]$. The corresponding sensible abstraction rule would extract out the pure concept: $[\langle\langle substance \rangle \leftarrow sensible\ permanence \rangle] \rightarrow \langle substance \rangle$. Schematically, if $\langle F \rangle$ is a pure concept and S is its corresponding sensible condition, then the corresponding sensible abstraction rule could be expressed as $[\langle\langle F \rangle \leftarrow S \rangle] \rightarrow \langle F \rangle$. A sensible abstraction rule does not attach any positive non-sensible content; it simply isolates a pure concept from its connection to sensible conditions.

If a sensible abstraction rule is to liberate a pure concept from its connection to sensible conditions, it must preserve objective reality. It preserves objective reality only if an object that satisfies the unabstracted concept with sensible condition(s) thereby also satisfies that concept *without* those sensible condition(s). Schematically, a sensible abstraction rule of the form $[\langle\langle F \rangle \leftarrow S \rangle] \rightarrow \langle F \rangle$ preserves objective reality only if for any object x that satisfies $[\langle\langle F \rangle \leftarrow S \rangle]$, x thereby also satisfies $\langle F \rangle$. By preserving objective reality in this sense, sensible abstraction rules would facilitate (well-founded) rational cognitions beyond possible experience. For the resulting abstracted cognition would then be subsumable under an absolutely pure principle.

To illustrate: the immediate, experiential cognition of object a 's satisfying $[\langle\langle F \rangle \leftarrow S \rangle]$ cannot be subsumed under the absolutely pure principle $\square \forall x(Fx \rightarrow Gx)$.

33. Cf. (JL 9: 94–95, 99), (LB 24: 239, 252–256, 261), (LPö 24: 566–567), (LDW 24: 753–754), and (WL 24: 907–910). Crusius similarly suggests: “By means of this decomposition, one considers the one part or circumstance of an idea for itself in particular in isolation [*Absonderung*] and according to its difference from the rest. One calls this activity [*Wirkung*] *abstraction*. For *abstraction* means nothing other than to isolate in thought a concept from another concept in which it is contained or to which it is connected, and to consider it for itself” (1747: §93). Cf. Wolff’s (1728b: §122, §716, §718), (1730: §111), and (1732: §314, §§325–336, §348). One might allege that Kant somehow fundamentally disagrees with his predecessors about what abstraction amounts to. Yet as I see it, the idea that Kant presupposes the same basic notion of abstraction would help explain why his master argument for rational ignorance does not beg the question against them.

34. Cf. (A656/B684), (JL 9: 94–95), (LBu 24: 654–655), and (LDW 24: 753).

Yet applying a sensible abstraction rule (viz. [$\langle\langle F \rangle \leftarrow S \rangle \rightarrow \langle F \rangle$]) to this cognition would, if it preserved objective reality, yield a well-founded cognition of a 's satisfying $\langle F \rangle$. This well-founded cognition could then be subsumed under the absolutely pure principle $\Box \forall x (Fx \rightarrow Gx)$. This would, in turn, yield rational cognition of a 's satisfying $\langle G \rangle$. The well-founded series of rational cognition could then be further extended via other absolutely pure principles—to cognitions of not only non-sensible features of the object in question, but also objects that exist beyond possible experience altogether.

In this way, the possibility of extending well-founded rational cognitions beyond possible experience hinges on cognizing that sensible abstraction rules preserve objective reality.³⁵ More formally:

- (2) **Sensible Abstraction Constraint:** the objective reality of a rational cognition of an object beyond possible experience from an experiential cognition of a sensible object is cognizable only if it is possible to cognize that sensible abstraction rules (of the form [$\langle\langle F \rangle \leftarrow S \rangle \rightarrow \langle F \rangle$]) preserve objective reality.

So given this constraint and the well-foundedness constraint, the fate of rational cognition beyond possible experience comes down to this: Can we cognize that sensible abstraction rules preserve objective reality?

It is not analytically true in general that if an object satisfies a concept under a certain condition, it thereby also satisfies the concept without this condition.³⁶ Yet that alone does not preclude this from holding for sensible conditions (even if only synthetically). Nonetheless, Kant flatly denies the possibility of cognizing that sensible abstraction rules preserve objective reality:

35. Wolff would arguably reject the idea that we can distinguish the non-sensible elements tied to sensible representations *only* through abstraction, and thus only through sensible abstraction rules. For sensible representations for him are necessarily *confused*, and thus their parts are not clearly represented (1732: §314–315). A sensible representation can accordingly be resolved into a non-sensible one by resolving it into its parts, and thus through analysis—not merely through abstracting away some of its parts. For a relatively terse statement of this view, see Wolff (1741). Yet Kant emphatically rejects this conception of sensible representation (most prominently in the *Transcendental Aesthetic* and the *Amphiboly*). For recent detailed discussion, see Jauernig (2021b). It is debatable whether Kant's rejection depends on the transcendental ideality of space and time (Jauernig, for instance, denies this). If it did, then given that his argument for rational ignorance rests on the sensible abstraction constraint, his argument for rational ignorance would rest on the transcendental ideality of space and time at this juncture. I want to remain neutral on such dependence here. At any rate, his argument for rational ignorance will arguably require further consideration of both the nature of rational cognition and the transcendental ideality of space and time at another juncture (more on both points below).

36. This point is emphasized in Wolff's logic (1728b: §§645–646).

Now if we leave aside a restricting condition, it may seem as if we amplify the previously limited concept; thus the categories in their pure significance, without any conditions of sensibility, should hold for things in general, as they are, instead of their schemata merely representing them how they appear In fact, even after abstraction from all sensible condition, significance, but only a logical significance of the mere unity of representations, is left to the pure concepts of the understanding, but no object and thus no significance is given to them that could yield a concept of the object. (A146–147/B186).³⁷

By abstracting from all sensible conditions, Kant claims, “no significance is given to them [the categories] that could yield a concept of an object.” Our cognitive purchase on existing objects somehow vanishes when they are subjected to sensible abstraction rules. If this key claim is correct, the sensible abstraction constraint cannot be met. Given this and the well-foundedness constraint, rational ignorance would be vindicated.

Yet this key claim demands a defense. Why is it impossible to cognize that sensible abstraction rules preserve objective reality? Unfortunately, Kant’s answer is *prima facie* unclear, and has given rise to competing interpretations. We might call this *the problem of sensible abstraction*. Before it can pose a philosophical problem to the traditional rationalist, it poses an exegetical problem to Kant’s would-be defenders.

4. The Prevailing Approach to Rational Ignorance and Heteronomy

To explain why we cannot cognize objects beyond possible experience, the prevailing approach strengthens Kant’s constraints on immediate, experiential cognition. Some proponents of the prevailing approach strengthen the intuition constraint. On their view, our rational cognition is restricted to only sensibly *intuitable* objects and features, i.e. objects and features that can be given via sensible intuition. We might call this *the strong intuition constraint*.³⁸ Other proponents of the prevailing approach instead strengthen the concept constraint. On their view, our rational cognition is restricted to only *sensibly thinkable* objects and features, i.e. objects and features that can be thought via sensible concepts. We might call this *the strong concept constraint*. For instance, Strawson (1966) famously advances a verificationist version of the strong concept constraint. On his view, pure concepts independently of any sensible content are meaningless: “there can be no

37. Cf. A155–156/B194–195, A240–242/B299–301, A247–248/B304–305, and B308.

38. This constraint is advanced by (among others) Langton (1998), Allais (2015), and Watkins & Willaschek (2017).

legitimate, or even meaningful, employment of ideas or concepts which do not relate them to empirical or experiential conditions of their application" (16).³⁹

The strong intuition constraint and the strong concept constraint would each suffice to preclude cognition of the objective reality of sensible abstraction rules. For the pure concepts attributed to objects through these abstraction rules cannot, by definition, be either sensibly given or sensibly thought. These concepts therefore could not satisfy either of these constraints. And by precluding cognition of the objective reality of sensible abstraction rules, these constraints would help explain why we cannot have rational cognition of objects beyond possible experience.

To evaluate the adequacy of the prevailing approach, the key question is *not* whether Kant endorses these strong constraints. Rather, it is whether they could be *premises* of his argument for rational ignorance. We saw in §2 that the intuition constraint and concept constraint are derivable as constraints on rational cognition because they are required for rational cognition to be well-founded for us. To this extent, these constraints are based on the nature of reason itself. But proponents of the prevailing approach have generally not attempted to establish the strong intuition constraint or the strong concept constraint based on the nature of reason or its principles. To the extent that they do not do this, the prevailing approach would offer a *heteronomous* approach to rational ignorance.⁴⁰ Yet I propose that this approach consequently faces two trenchant problems. It risks not only (i) begging the question against Kant's German rationalist predecessors, but also (ii) compromising reason's autonomy. A couple recent defenses of the prevailing approach highlight the first problem.⁴¹

Allais (2015) seeks to justify the strong intuition constraint by construing this constraint as a requirement for thought to refer to an object. On her view, whenever I cognize an object and its features, my thought refers to them only insofar as they

39. Cf. Bennett (1974) and Willaschek (2018: 254–263). In principle, the strong intuition constraint and the strong concept constraint are compatible. In practice, some proponents of the former constraint reject at least some versions of the latter. Cf. Watkins (2002) and Allais (2015).

40. Proponents of these strong constraints might resist the charge of heteronomy by arguing that these constraints are general constraints on *all* cognition, and a fortiori constraints on rational cognition. But then the question becomes whether these are indeed general constraints on all cognition, and whether this could be established independently of considering specific kinds of cognition (including rational cognition). The risk of begging the question that I will explore momentarily speaks to this issue.

41. Insofar as other approaches to rational ignorance have been previously developed, they typically rest on some comprehensive (and controversial) interpretation of Kant's distinction between things in themselves and appearances. Allison (2004) offers one example; his approach rests on a methodological interpretation of this distinction. Whatever their virtues, I will bracket such approaches here. I will ultimately develop a (non-heteronomous) argument for rational ignorance that does not presuppose a comprehensive interpretation of this distinction. As far as I can tell, the classic German interpretations of Kant (offered by Heimsoeth, Henrich, Adickes, Vaihinger, Prauss, etc.) do not develop this argument—or at least not clearly or convincingly enough for anglophone proponents of the prevailing approach.

are immediately givable—and thus givable in intuition. For instance, I succeed in referring to the glass in front of me (in part) because it is immediately givable to me. Accordingly, objects beyond possible experience would likewise have to be immediately givable in order for my thoughts to refer them, and thus for them to be cognizable. But our forms of intuition (through which objects are immediately givable) are space and time. So since objects beyond possible experience are not immediately givable through our (spatio-temporal) intuition, they are not rationally cognizable by us. As she explains: “On this view, if there are in fact things which fall under the concept of a Leibnizian monad but we have no way of being acquainted with them, we are not in a position to use the concept of a monad in successful referential thoughts—in thoughts that succeed in having relation to these things” (270).

Grant that cognition requires reference and that *one* way of establishing reference involves the object or feature in question being immediately givable to us. Still, why should it be conceded that reference is *only* possible in this way? Without answering this question, Allais’ justification for the strong intuition constraint risks begging the question against Kant’s German rationalist predecessors. For they freely concede that certain objects and features cannot be intuited (sensibly or otherwise). *But so what*, they would say. Provided that our rational cognitions are traced back to objects that are immediately given in intuition, reference to non-immediately givable objects and features would still be possible via rational inference on their views. For instance, reason can refer to a necessary first cause by inferring its existence via the principle that *all contingent beings have a necessary first cause*. Perhaps this principle is not true or cognizable—fine. But *if* this principle is cognized (along with cognition of some existing contingent being), why is reference to a necessary first cause not achievable via rational inference? It does not matter that the necessary first cause cannot be immediately given to us. As Wolff says of God: “We do not cognize God intuitively [*intuitive*], because our intuitive cognition of different things is restricted to the senses and to the faculty of imagination, which depends on the senses He must therefore be cognized from creatures, insofar as we infer from what is in them to what must be in God” (1736: §1095). Unfortunately, Allais does not address how the strong intuition constraint would avoid begging the question here.

Chignell (2017) instead suggests that the strong intuition constraint stems from a more fundamental constraint on cognition: *the real possibility constraint*. Roughly, this constraint says that in order for an object to be cognized, its real possibility must be proven (Bxxvi). Chignell construes *real possibility* quite broadly as metaphysical possibility. So the real possibility constraint does not build in an intuitability requirement. Nonetheless, Chignell claims that intuitability is typically required to prove an object’s real possibility: “And showing that an object can be intuited (or connecting it in some salient way to actual intuition) is typically the only way we have of proving its real possibility” (141).

However, the first *Critique's* introduction of the real possibility constraint explicitly allows that an object's (real) possibility might be proven through reason: "To cognize an object, it is required that I be able to prove its possibility (whether by the testimony of experience from its actuality or a priori through reason)" (Bxxviii). One way of proving an object's real possibility through reason—ostensibly without requiring the object's intuitability—would be to prove the object's existence. For instance, if the cosmological argument succeeded, "then we have no necessity of explaining the possibility of this condition [=God]. For, if it has been proved that it exists, then the question of its possibility is quite unnecessary" (A610–611/B638–639). Chignell might claim that intuitability is also required to rationally cognize the existence of an object. But then we are back to needing a (non-question-begging) justification for the strong intuition constraint; no progress is won here by appealing to the real possibility constraint.⁴²

In this way, the prevailing approach seems to leave Kant's argument for rational ignorance susceptible to talking past his German rationalist predecessors (at best) or begging the question against them (at worst). Although this problem does not foreclose the possibility of a non-question-begging heteronomous argument for rational ignorance, it does cast doubt on its viability (pending some further story). To clarify, the problem here is not with the strong intuition constraint or strong concept constraint *per se*, but rather with the above rationales for them.⁴³

The second problem facing the prevailing approach stems from the fact that Kant himself does not claim that the bounds of rational cognition are explained through an extension of the constraints on immediate, experiential cognition. Rather, they are explained through principles tied to reason's own nature:

42. My primary issue with Chignell's proposal is therefore *not* with the idea that cognizing an object requires proving its real (non-logical) possibility. Indeed, we will come back to this idea below. Rather, the issue is that it remains to be seen why reason cannot meet this standard for non-intuitable objects.

43. For all I have argued, it may be possible to establish these constraints using an autonomous approach (as described below). The same might go for other proposed constraints on rational cognition. For instance, some have suggested that the relevant constraint on cognition that is unsatisfiable by (theoretical) reason is a determinate content constraint (often in conjunction with the real possibility constraint). As Schafer (2023: 63) puts it: "Determinate Content: We can only cognize X to the degree that we are able to become conscious of X's determinate identity (both numerical and qualitative)." Even in the case of the rational idea of God, Schafer says, "we do not achieve anything like the consciousness of God's determinate nature that cognition requires" (85). I have no knock-down argument against this. But to establish this constraint via an autonomous approach, one would need to establish *from reason itself* the standards on consciousness of a thing's determinate nature. It then would remain to be seen whether reason can satisfy those standards. In any case, I take it that Kant's argument for rational ignorance aims to preclude the level of consciousness of objects beyond possible experience that traditional rationalists had sought via rational cognition (e.g. of God's existence and particular properties). Kant is not trying to talk past them through preoccupation with a level of consciousness that their arguments did not affirm in the first place.

reason should take on anew the most difficult of all its tasks, namely, that of self-cognition, and to institute a court of justice, by which reason may secure its rightful claims while dismissing all its groundless pretensions, and this not by mere decrees but according to its own eternal and unchangeable laws; and this court is none other than the critique of pure reason itself. (Axi–Axii)

the critique of pure reason ... is rather set the task of determining and judging what is lawful in reason in general in accordance with the principles of its primary institution. (A751/B779)⁴⁴

Kant thereby suggests an *autonomous* approach to rational ignorance—an approach on which reason’s own principles explain why the bounds of rational cognition extend no further than the bounds of sense. Since the verdict of rational ignorance would ex hypothesi be reached through reason’s own principles, any self-respecting rationalist would have to accept it.⁴⁵ So by taking the autonomous approach, Kant would also ostensibly avoid begging the question against his German rationalist predecessors, and thus avoid the first problem facing the prevailing approach.

This brings us to the central task of the third part of our investigation: developing Kant’s argument for rational ignorance via the autonomous approach. Specifically, how can reason’s own principles explain why the objective reality of sensible abstraction rules lie beyond our cognitive grasp, and thus why these rules cannot be used to extend well-founded rational cognitions beyond possible experience?

5. Help from Strange Places: Crusius and the Synthetic Constraint on Abstraction

I propose that for Kant, we cannot cognize that sensible abstraction rules preserve objective reality because these rules do not preserve objective reality—a cognitive conclusion from a metaphysical premise.⁴⁶ Reconstructing Kant’s

44. Cf. A11/B24–25, A13/B27, A751/B779, A758/B786, A761/B789, A836–837/B864–865, and *KU* 5: 167.

45. In a narrower sense, *reason’s principles* would refer to only principles that have their origin in the faculty of reason (e.g. the various regulative principles of reason discussed in the Transcendental Doctrine of Method). In a wider sense, *reason’s principles* would refer to any principles that reason endorses (regardless of whether they have their origin in the faculty of reason). These would include principles of sensibility and the understanding (A762/B790). In the context of the autonomous approach, I take it that *reason’s principles* would involve principles in the wider sense (more on this below).

46. Recall, again, that a sensible abstraction rule preserves objective reality only if an object that satisfies the unabstracted concept with sensible condition(s) thereby also satisfies that concept *without* them.

rationale for this premise requires addressing the following two questions. First, under what conditions does an abstraction rule more generally fail to preserve objective reality? If this proposal is to make good on the autonomous approach, reason's own principles would have to imply that *sensible* abstraction rules fail to preserve objective reality. Second, then, which of reason's principles imply this? I will take up the first question in this section; the second, in the next.

Help in answering the first question comes from Crusius. This is potentially surprising, since Crusius (unlike Kant) claims cognition of objects beyond possible experience. Yet he importantly details how the objective reality of abstraction rules is constrained by *principles of synthesis*. Instead of specifying how concepts decompose into their constituent concepts, a principle of synthesis specifies how simpler concepts combine into more complex concepts.⁴⁷ In overview, Crusius offers the following two insights here. First, he postulates non-logical principles of synthesis, which yield *non-logically* necessary connections (i.e. whose absence does not entail a contradiction). Second, he astutely notes that an abstraction rule does not preserve objective reality if the abstracted concept (i.e. the concept expressed in the consequent of the rule) stands in a non-logically necessary connection to the other concepts expressed in the rule's antecedent. These two points jointly entail that some abstraction rules do not preserve objective reality. To signpost where this is headed: Kant will inherit these two insights from Crusius. But unlike Crusius' principles of synthesis, Kant's will preclude any sensible abstraction rules from preserving objective reality.

As for Crusius' first insight: in addition to the principle of contradiction, he counts two non-logical principles of synthesis among the three highest principles of reason (1747: §262). These two principles offer non-logical constraints on combining *elements of possibility* (or perhaps more accurately: the concepts that express those elements) (1747: §§259–262). Both principles are based on what is (in principle) thinkable and unthinkable to reason, albeit in the absence of contradiction (1745: §58). The first, *the principle of non-combinability*, says that if two concepts cannot be combined in thought (even though their combination entails no contradiction), they cannot be combined in reality. For instance, “a single point of a body cannot be red and green together [*zugleich*].” (1747: §259). No contradiction is entailed by combining <red> and <green> at a single point in a body, yet this combination is nonetheless unthinkable. So given his first non-logical principle of synthesis, it is (non-logically) impossible for these concepts to be combined in reality; no body can satisfy them together. The second, *the principle of inseparability*, says that if two concepts are not separable in thought (even though their separation entails no contradiction), they are not separable

47. Cf. Crusius (1747: §§570–584). Incidentally, some of Kant's earliest uses of the term “synthesis” occur in his discussion of Crusius (*Prize 2*: 293–296).

in reality. That is, if $\langle F \rangle$ is not thinkable apart from $\langle G \rangle$ (though no contradiction is entailed by the thought of their separation), this principle entails that $\langle F \rangle$ and $\langle G \rangle$ stand in a non-logically necessary connection to each other. Suppose that thing A does not exist at time t_1 but exists at the following time t_2 . Crusius claims that it is unthinkable (albeit not contradictory) for thing A to lack a cause; if “someone said that thing A is generated without a cause, he would say something absurd [*ungereimtes*], but nothing contradictory” (1747: §260). So by his second principle, the concept $\langle \textit{being an alteration} \rangle$ stands in a non-logically necessary connection to $\langle \textit{having a cause} \rangle$.

Crusius’ anti-logicism and its influence on Kant have received attention elsewhere.⁴⁸ But Crusius’ views on the relevance of non-logical principles of synthesis to the conditions under which abstraction rules preserve objective reality have gone largely unnoted. The central idea here is that if a concept stands in a non-logically necessary connection to another according to non-logical principles of synthesis, then the former concept is not satisfiable abstracted from its connection to the latter—just as a house would collapse once the pillars supporting it are removed. In effect, the mere fact that the constituent concepts of an abstraction rule are logically distinct does not suffice for that rule to preserve objective reality.

Schematically, suppose that non-logical principles of synthesis for object x entail that $\langle F \rangle$ is necessarily connected to $\langle G \rangle$, i.e. $\langle F \rangle$ is satisfiable only under the condition of $\langle G \rangle$. In that case, $\langle F \rangle$ is not an independent possibility; $\langle F \rangle$ is not satisfiable abstracted from $[\langle \langle F \rangle \leftarrow \langle G \rangle \rangle]$ (where “ \leftarrow ,” again, stands for *under the condition of*). The abstraction rule $[\langle \langle F \rangle \leftarrow \langle G \rangle \rangle] \rightarrow \langle F \rangle$ would therefore not preserve objective reality. By extension, $\langle F \rangle$ in this context would amount to (what Crusius calls) *an incomplete abstractum*. Mistaking an incomplete abstractum for having objective reality can lead to further errors:

An incomplete abstractum is such that although it is distinguished from its accompanying abstractum [*Neben:Abstracto*] while one thinks them together, it cannot therefore be abstracted [*absondern*] in thought; in such a way that [*daß nicht*] if one wanted to remove the concept of the former, then the concept of the latter must also disappear, e.g. subject and power,

48. For instance, see Cassirer (1907), Heimsoeth (1926), Watkins (2005), Hogan (2009), Anderson (2015), Stang (2016), and Abacı (2019). I will continue using “non-logical possibility” (rather than “real possibility”) to denote any kind of alethic possibility that requires compatibility with non-logical principles of synthesis. For although it is widely agreed that Kant uses the term “real possibility” to denote some kind of non-logical possibility, significant disagreement remains about which kind it denotes (i.e. whether it denotes non-logical possibility *writ large* or some specific kind of non-logical possibility). Cf. Stang (2016), Chignell (2017), Watkins & Willaschek (2017), and Abacı (2019). Crusius uses the term “logical possibility” in a very different sense (viz. to refer to a kind of subjective possibility) (1747: §363).

quantity and quality. ... It can create great errors if one takes incomplete abstracta as separable in reality. (1747: §127)

Here is one such error: if one wrongly takes some object x to satisfy $\langle F \rangle$ once abstracted from $[\langle\langle F \rangle \leftarrow \langle G \rangle\rangle]$ (when $\langle F \rangle$ is not satisfiable abstracted from $[\langle\langle F \rangle \leftarrow \langle G \rangle\rangle]$), one will be prone to take x to satisfy the antecedent of principles that do not take account of this restricting condition (e.g. a principle of the form $[\langle\langle F \rangle \rightarrow \langle H \rangle\rangle]$). This may lead one to outright contradiction (e.g. if the principle $[\langle H \rangle \rightarrow \langle \sim G \rangle]$ also holds).

Thus, Crusius discredits the thought that abstraction rules automatically preserve objective reality. Rather, whether abstraction rules preserve objective reality depends on the non-logical principles of synthesis that constrain the space of (non-logically) necessary connections. More formally:

- (3) **Synthetic Constraint on Abstraction:** for any concept of the form $[\langle\langle F \rangle \leftarrow \langle G \rangle\rangle]$, the abstraction rule $[\langle\langle F \rangle \leftarrow \langle G \rangle\rangle] \rightarrow \langle F \rangle$ preserves objective reality for object x only if the principles of synthesis for x do not entail that $\langle F \rangle$ is not satisfiable abstracted from $[\langle\langle F \rangle \leftarrow \langle G \rangle\rangle]$.

On the one hand, if no non-logical principles of synthesis are supposed, this constraint would be satisfied by any pair of logically distinct (and thus non-analytically related) concepts. For if there are no non-logical principles of synthesis, a concept would remain satisfiable abstracted from its connection to a logically distinct concept. Consequently, abstracting one concept from its connection to the other might well preserve objective reality, yielding an independently satisfiable concept.⁴⁹

On the other hand, if some non-logical principles of synthesis are supposed (as Crusius does), the mere fact that two concepts are logically distinct does not entail that one is satisfiable abstracted from its connection to the other. For if $\langle F \rangle$ stands in a non-logically necessary connection to $\langle G \rangle$ (as determined by non-logical principles of synthesis), $\langle F \rangle$ will not be satisfiable abstracted from $[\langle\langle F \rangle \leftarrow \langle G \rangle\rangle]$. So despite its logical necessity, the corresponding abstraction rule $([\langle\langle F \rangle \leftarrow \langle G \rangle\rangle] \rightarrow \langle F \rangle)$ would fail to preserve objective reality. To illustrate, Crusius holds that it is unthinkable for an alteration to lack a cause, though not unthinkable on pain of contradiction (1747: §261). Granting this, Crusius' non-logical principles of synthesis imply that $\langle \textit{being an alteration} \rangle$ must stand in a non-logi-

49. Wolff is sometimes read as rejecting all non-logical principles of synthesis. For discussion, see Cassirer (1907: 525), Lenders (1971), Longuenesse (1998: 96), Hogan (2009: 367), and Anderson (2015). If correct, his view implies that all abstractions satisfy the synthetic constraint on abstraction. And indeed, unlike Crusius, Wolff claims that abstraction in general preserves possibility: "A notion that is abstracted from possibilities is possible and true." (1728b: §718).

cally necessary connection to <having a cause>. So although the concept [*<<being an alteration><-<having a cause>>*] is satisfiable, the abstracted concept [*<being an alteration>*] is not satisfiable abstracted from [*<<being an alteration><-<having a cause>>*]. The corresponding abstraction rule, [*<<being an alteration><-<having a cause>>*]→*<being an alteration>*, would therefore fail to preserve objective reality.⁵⁰

6. Sensible Abstraction Rules and Kant's Anti-Logicist Idealism

Kant repudiates Crusius' non-logical principles of synthesis, which are based on human reason's alleged power to track non-logical possibilities through what is thinkable to it.⁵¹ But far from jettisoning non-logical principles of synthesis altogether, Kant deems them essential to assessing the bounds of our rational cognition. These principles determine "whether we can build at all, and how high we can carry our building with the materials that we have (the pure a priori concepts)" (A738/B766).⁵² Kant's claim is unsurprising, on the hypothesis that he follows Crusius in adopting the synthetic constraint on abstraction. For in that case, the extent to which abstraction rules preserve objective reality depends upon how concepts can first be combined via non-logical principles of synthesis.

When coupled with this constraint, I will now argue, the non-logical principles of synthesis advanced in the first *Critique* entail that sensible abstraction rules fail to preserve objective reality. In outline, the argument has two parts. First, the non-logical principles of synthesis advanced in the first *Critique*—viz. *the experiential principles of synthesis*—imply that pure concepts are satisfiable among sensible objects only insofar as these concepts stand in non-logically necessary connections with sensible conditions. This implication amounts to (what I will call) Kant's *anti-logicist idealism*. Second, taken together with the synthetic constraint on abstraction, Kant's anti-logicist idealism entails that sensible abstraction rules fail to preserve objective reality. The ideality of Kant's experiential principles of synthesis would thereby explain why sensible abstraction rules cannot be used to extend well-founded rational cognition of existing objects beyond the bounds of sense.

"Experience," Kant says, "has principles of its form which ground it a priori, namely general rules of unity in the synthesis of appearances, whose objective reality, as necessary conditions, can always be shown in experience, indeed in its possibility" (A156–157/B196). The experiential principles of synthesis advanced in the first *Critique* include not only the *a priori* principles tied to our forms of

50. Cf. Crusius (1747: §§259–260, §268).

51. Cf. (*Prize* 2: 293–296), (*Träume* 2: 342), (*Prol.* 4: 319n, 476n), (*MH* 28: 9–10), and (B167–168).

52. Cf. B19, A10/B23, A14/B28, and A718–722/B746–750.

intuition, but also the *a priori* principles of the understanding—e.g. *all intuitions are extensive magnitudes* (B202) and *all alterations have a cause* (B232). Like Crusius' non-logical principles of synthesis, Kant's experiential principles of synthesis provide non-logical constraints on the space of possibility; the necessary connections expressed by these principles do not hold on pain of contradiction.

Yet unlike Crusius' principles of synthesis, Kant's experiential principles of synthesis are restricted to possible experience along the following two dimensions. First, sensible objects in experience are possible only if (and because) they agree with these principles. As Kant puts it: "Whatever agrees with the formal conditions of experience (in accordance with intuition and concepts) is possible." (A218/B265).⁵³ For instance, sensible objects are possible in experience only if (and because) they agree with the principle of the Second Analogy that *all alterations have a cause*.⁵⁴

Second, experiential principles of synthesis involve the sensible ("schematized") versions of pure concepts. That is, for any pure concept $\langle F \rangle$ in an experiential principle of synthesis, $\langle F \rangle$ never appears by itself, but only in necessary connection to some sensible condition. Once abstracted from that connection, a pure concept is no longer compatible with the experiential principles of synthesis. As Kant suggests, the experiential principles of synthesis are valid "merely as principles of its empirical use, hence they can be proven only as such; consequently the appearances must not be subsumed under the categories per se [*schlechthin*], but only under their schemata" (A180–181/B223). For instance, in the experiential principle of synthesis *all alterations have a cause*, $\langle \text{being an alteration} \rangle$ and $\langle \text{having a cause} \rangle$ refer to the sensible versions of these concepts. The sensible version of the latter involves not only the non-sensible ("pure") content tied to the pure concept of a cause, but also some sensible condition (e.g. the condition of temporal succession) (A144/B183).

Given that a sensible object is possible only if (and because) it agrees with such experiential principles of synthesis and given that pure concepts in these principles only appear in necessary connection to sensible conditions, sensible objects cannot satisfy pure concepts once those concepts are abstracted from their connection to sensible conditions. As Kant puts this result: "our pure cognitions of the understanding are in general nothing more than principles of the exposition of appearances that do not go a priori beyond the formal possibility of experience ..." (A250)⁵⁵

53. Cf. A92–94/B125–127, A110–111, A126–128, B163–165, A154–159/B193–198, A267–268/B323–324, and A581–582/B609–610.

54. I will leave implicit the "in experience" qualification below. Certain "non-conceptualist" views (e.g. Allais 2015) could grant the possibility of sensible objects without the categorial determinations that are constitutive of experience. Yet even if this were granted, sensible objects without such determinations could not furnish cognitions subsumable under principles (as we saw in §2).

55. Cf. A92–94/B125–127, A126–128, B163–165, A154–159/B193–198, A180–181/B223, A218/B265, A267–268/B323–324, and A581–582/B609–610.

Thus, like Crusius, Kant is an *anti-logicist*; he accepts *non-logical* principles of synthesis. Yet unlike Crusius', Kant's non-logical principles of synthesis privilege *sensible* conditions in the above ways. His position therefore amounts to a form of idealism—aptly labelled *anti-logicist idealism*. More formally:

- (4) **Anti-Logicist Idealism:** for any sensible object x , pure concept $\langle F \rangle$, and sensible condition S , the principles of synthesis for x entail that $\langle F \rangle$ is not satisfiable abstracted from $[\langle\langle F \rangle \leftarrow S \rangle]$.

So why should anti-logicist idealism (so construed) be accepted? On one potential reconstruction, Kant argues in the Transcendental Analytic that reason can prove the experiential principles of synthesis only if they are ideal. As he indicates: “For after this alteration in our way of thinking we can very well explain the possibility of a cognition *a priori*, and what is still more, we can provide satisfactory proofs of the laws that are the *a priori* ground of nature, as the sum total of objects of experience—which were both impossible according to the earlier way of preceding” (Bxix). In effect, anti-logicist idealism is the cost of securing reason's cognition of these principles.⁵⁶ I must bracket Kant's argument for anti-logicist idealism and its connection to other idealist theses he might accept. Here I merely aim to draw out its implications for extending rational cognition beyond possible experience.⁵⁷

From this idealist claim, Kant says,

there emerges a very strange result, and one that appears very disadvantageous to the whole purpose with which the second part of metaphysics concerns itself, namely that with this faculty we can never get

56. Cf. Bxvi–Bxxix, A125–127, B163–168, A762/B790, A782–783/B810–811, and MAN 4: 418–422.

57. Two notes. First, insofar as anti-logicist idealism presupposes the ideality of space and time and his argument for rational ignorance presupposes anti-logicist idealism (as I will suggest), the ideality of space and time is essential to this argument. By extension, since Kant purports to show the ideality of space and time in the Transcendental Aesthetic, that part of the first *Critique* is essential to his argument. But this is not to say that his argument for rational ignorance reduces to this doctrine and an alleged general requirement that objects of cognition are intuitable (we saw reasons to resist such a reduction in §4). Second, it might be disputed that Kant endorses anti-logicist idealism (so construed). For some commentators, Kant's idealism does not concern the ideality of the categorial determinations of sensible objects (e.g. their causal features), but merely the ideality of space and time. See, for instance, Langton (1998: 210–218). I cannot engage with such interpretations here, except to say that they cannot avail themselves of the argument for rational ignorance developed here. This may be a cost, insofar as their arguments instead take the prevailing approach criticized in §4. Nonetheless, anti-logicist idealism remains largely neutral on many of the controversial issues that divide different readings of transcendental idealism, e.g. the exact relationship between things in themselves and appearances.

beyond the boundaries of possible experience, which is nonetheless precisely the most essential occupation of this science. But herein lies just the experiment providing a checkup on the truth of the result of the first assessment of our rational cognition *a priori*, namely that such cognition reaches appearances only. (Bxix)

Rational ignorance, then, purportedly follows from the ideality of the experiential principles of synthesis. Unfortunately, this passage does not spell out *how*. Fortunately, the synthetic constraint on abstraction does. This constraint implies that an abstraction rule (of the form $[\langle\langle F \leftarrow \langle G \rangle \rangle] \rightarrow \langle F \rangle$) preserves objective reality only if $\langle F \rangle$ is satisfiable abstracted from $[\langle\langle F \leftarrow \langle G \rangle \rangle]$. And Kant's anti-logicist idealism implies that it is not possible for sensible objects to satisfy pure concepts once abstracted from its connection to sensible conditions. The domain of sensible objects that satisfy both the antecedent and consequent of sensible abstraction rules is therefore empty. In this way, the synthetic constraint on abstraction and anti-logicist idealism jointly entail that sensible abstraction rules (of the form $[\langle\langle F \leftarrow S \rangle] \rightarrow \langle F \rangle$) do not preserve objective reality.⁵⁸

Put in Crusius' terminology: pure concepts, once abstracted from their connection to sensible conditions, are *incomplete abstracta*. As Kant concludes, "Without schemata, therefore, the categories are only functions of the understanding for concepts, but do not represent any object. This significance comes to them from sensibility, which realizes the understanding at the same time as it restricts it" (A147/B187).⁵⁹ Indeed, the fact that a sensible object x satisfies $[\langle\langle F \leftarrow S \rangle]$ does not even entail the disjunctive claim that x must satisfy either the pure concept $\langle F \rangle$ or its corresponding negation $\langle \sim F \rangle$. A disjunctive sensible abstraction rule of the form $[\langle\langle F \leftarrow S \rangle] \rightarrow [\langle\langle F \rangle \text{ or } \langle \sim F \rangle]$ is no more objective reality-preserving than any other sensible abstraction rule. In this sense, sensible objects may not even be *determinable* with respect to pure concepts. As Kant suggests: "If this condition of the power of judgment (schema) is missing, then all subsumption disappears; for nothing would be given that could be subsumed under the concept. The merely transcendental use of the categories is thus in fact no use at all, and has no determinate or even, as far as its form is concerned, determinable object" (A247–248/B304).⁶⁰

58. One might worry that insofar as Kant's argument for rational ignorance rests on the non-logical principles presupposed in his anti-logicist idealism (as I will argue below), it begs the question against those that simply reject any non-logical principles (such as Wolff, on many readings). However, the key point is that Kant takes himself to offer arguments for such principles in the *Transcendental Analytic*. Of course, whether these arguments succeed or not (or perhaps even beg the question in some more surreptitious way) is worth scrutinizing elsewhere.

59. Cf. A146/B186, A155–156/B194–195, A240–242/B299–301, A247–248/B304–305, and B308.

60. This implication is potentially illuminating. For on at least one reading of Kant's resolution of the antinomies, sensible objects (in virtue of their ideality) can fail to be determinable with

7. Rational Ignorance Reconstructed

Grant whatever principles about objects beyond possible experience you like. The problem remains that no rational cognition of existing objects will be wrought through them. For if a series of rational cognition is to remain tethered to existing objects, it must begin with immediate, experiential cognitions (per the well-foundedness constraint from §2). Extending a well-founded series of rational cognitions to objects beyond possible experience would require first isolating their non-sensible content via sensible abstraction rules and would require these rules to preserve objective reality (per the sensible abstraction constraint from §3). But an abstraction inference preserves objective reality only if the abstracted concept remains satisfiable (per the synthetic constraint on abstraction from §5). Yet the ideality of Kant's experiential principles of synthesis implies that sensible abstraction rules cannot meet this constraint, and thus that they do not preserve objective reality (per Kant's anti-logicist idealism from §6). Hence, given that rational cognition of existing objects must remain well-founded on possible experience, it cannot extend beyond possible experience.

More formally:

The Transcendental Analytic's Master Argument for Rational Ignorance

- (1) **Well-Foundedness Constraint:** for any cognition α of an existing object in a series of rational cognitions $(\alpha_1, \alpha_2 \dots \alpha_n)$, α 's objective reality is cognizable only if the series terminates in an immediate, experiential cognition (of a sensible object).
- (2) **Sensible Abstraction Constraint:** the objective reality of a rational cognition of an object beyond possible experience from an experiential cognition of a sensible object is cognizable only if it is possible to cognize that sensible abstraction rules (of the form $[\langle\langle F \rangle \leftarrow S \rangle] \rightarrow \langle F \rangle$) preserve objective reality.
- (3) **Synthetic Constraint on Abstraction:** for any concept of the form $[\langle\langle F \rangle \leftarrow \langle G \rangle \rangle]$, the abstraction rule $[\langle\langle F \rangle \leftarrow \langle G \rangle \rangle] \rightarrow \langle F \rangle$ preserves objective reality for object x only if the principles of synthesis for x do not entail that $\langle F \rangle$ is not satisfiable abstracted from $[\langle\langle F \rangle \leftarrow \langle G \rangle \rangle]$.
- (4) **Anti-Logicist Idealism:** for any sensible object x , pure concept $\langle F \rangle$, and sensible condition S , the principles of synthesis for x entail that $\langle F \rangle$ is not satisfiable abstracted from $[\langle\langle F \rangle \leftarrow S \rangle]$.

respect to pure concept pairs. For instance, the sensible world need not be either a finite whole or an infinite whole. Cf. A406–407/B433, A483–484/B511–512, A500–501/B528–529, A504–510/B532–538, A514/B542, A521–522/B549–550, and A526–527/B554–555. For more on the connection between idealism and indeterminacy, see Chaplin (2021) and Jauernig (2021a, 85–94).

- (5) No sensible abstraction rule preserves objective reality (and a fortiori it is not possible to cognize their objective reality). **(from 3, 4)**
- (6) It is impossible to cognize the objective reality of a rational cognition of an object beyond possible experience from an experiential cognition of a sensible object. **(from 2, 5)**
- ∴ It is impossible to cognize the objective reality of a rational cognition of an object beyond possible experience. **(from 1, 6)**

All these premises, I have suggested, are found in the Transcendental Analytic itself. So precisely as Kant claims, the Transcendental Analytic contains an argument that, if sound, would show “that all the inferences that would carry us out beyond the field of possible experience are deceptive and groundless” (A642/B670).

Although the soundness of this argument remains an open question, its premises were reached through the nature of reason and its principles. The argument therefore seems to respect reason’s autonomy. By extension, Kant’s German rationalist predecessors arguably cannot cry foul that reason is being hobbled through contrived constraints on its cognition. This, of course, does not mean that they would accept the argument. For instance, one central point of contention concerns what reason’s own principles are (e.g. whether they include the principles of synthesis that underlie Kant’s anti-logicist idealism). But by locating the disagreement here, the strategy pursued by his argument for rational ignorance (even if perhaps not all the premises of the argument itself) neither talks past them nor begs the question.⁶¹

If this argument is sound, what happens when the traditional rationalist looks to extend cognition of existing objects by means of reason’s (absolutely) pure principles? Since the antecedents of such principles express pure concepts, the requisite cognitions of objects needed to satisfy these antecedents would have to satisfy pure concepts. Are such cognitions available? On the one hand, such cognitions cannot be found among immediate, experiential cognitions. For only *sensible* concepts can be predicated in experiential cognitions. On the other hand, such cognitions cannot be rationally inferred from experiential cognitions. For per premise (2), that would require first applying a sensible abstraction rule. Yet per premise (5), sensible abstraction rules do not preserve objective

61. The above argument could be used to help establish the strong intuition and strong concept constraints. To wit, if *rational* cognition of objects beyond possible experience is impossible and *non-rational* cognition of objects beyond possible experience is impossible (and these are the only two forms of cognition), then all cognition of objects would be limited to cognition within possible experience. But given this and given that cognition within possible experience requires sensible intuition and sensible concepts, then *all* cognition would require sensible intuition (per the strong intuition constraint) and sensible concepts (per the strong concept constraint). Importantly, however, these constraints would be theorems established with the help of reason’s principles (per the autonomous approach).

reality. Sensible abstraction therefore fails to yield rational cognition of existing objects. So, in either case, Kant's master argument leaves the traditional rationalist without cognition of existing objects to subsume under the antecedents of (absolutely) pure principles. In this way, we lack cognition of the antecedent objective reality of such principles. For all we can cognize, the domain of existing objects that satisfy the antecedents of such principles might well be empty. Thus, no existing objects can be rationally cognized through such principles. As Kant puts this result: "Principles of pure reason, on the contrary, cannot be constitutive even in regard to empirical concepts, because for them no corresponding schema of sensibility can be given, and therefore they can have no object *in concreto*" (A664/B692).

To illustrate, consider a toy version of the cosmological argument that starts with the principle *all contingent beings have a necessary first cause*. Insofar as this principle is absolutely pure, its concepts of <contingency> and <necessity> cannot have any sensible content. This principle accordingly refers to the *pure* concept of <contingency>, viz. "the not-being of which is possible" (A243/B301). Kant could grant (at least for the sake of argument) that this principle is true (and even cognizable). Even then, the existence of a necessary first cause cannot be rationally cognized through this principle until the principle's objective reality is cognized. Cognizing the principle's objective reality would require cognizing the existence of a contingent being. It is tempting to think that such cognition is possible. After all, sensible objects are contingent. Yet immediate cognition of contingency among sensible objects requires attributing the *sensible* concept of contingency to them. This concept has sensible conditions, (e.g. alterability across time) (A640/B488).

But even if a sensible object satisfies the sensible concept [$\langle\langle\text{contingency}\rangle\leftarrow S\rangle$], it does not follow that a sensible object satisfies the abstracted pure concept <contingency>. To the contrary, the sensible constraint on abstraction and anti-logical idealism jointly entail that sensible abstraction rules do not preserve objective reality. A fortiori, the sensible abstraction rule [$\langle\langle\text{contingency}\rangle\leftarrow S\rangle\rightarrow\langle\text{contingency}\rangle$] does not preserve objective reality. Given this, cognition of existing objects that satisfy the pure concept of contingency cannot be inferred from our immediate, experiential cognition of contingent sensible objects. This result, together with the well-foundedness constraint, entails that the objective reality of the absolutely pure principle *all contingent beings have a necessary first cause* is uncognizable; we cannot cognize that there are any existing objects that satisfy the antecedent of this principle. So even if this principle is true, the existence of a necessary first cause cannot be rationally cognized through it. As Kant tersely puts this line of reasoning: "Thus the succession of opposed determinations, i.e., alteration, in no way proves contingency in accordance with concepts of the pure understanding, and thus it also cannot lead to the existence of a necessary being

in accordance with pure concepts of the understanding. Alteration proves only empirical contingency" (A460/B488).⁶²

8. An Unacceptable Implication?

Nonetheless, one might worry that this argument for rational ignorance would prove too much. Specifically, one might worry that since this argument entails that it is impossible for sensible objects to satisfy pure concepts once those concepts are abstracted from their connection to sensible conditions, it would further imply that pure concepts cannot be satisfied by objects independently of sensible conditions at all (and to this extent cannot be thought). This further implication would be unacceptable. For, on the one hand, Kant maintains that *non-sensible objects* can be thought (albeit not cognized) as satisfying a pure concept independently of its connection to sensible conditions. For instance, the existence of God and a supersensible soul are both thinkable (A696/B724). On the other hand, Kant maintains that *sensible objects* can be thought (albeit not cognized) as satisfying a pure concept independently of its connection to sensible conditions. For instance, they can be thought as the effects of transcendently free causes that are not subject to sensible conditions (A532–559/B560–587).

Fortunately, the above argument does not yield this unacceptable implication. First, consider non-sensible objects. Since non-sensible objects are not subject to sensible conditions in the first place, we need not think of non-sensible objects as satisfying pure concepts by means of sensible abstraction rules. Instead, we can directly think of non-sensible objects as satisfying pure concepts without any sensible conditions. These thoughts might even be true. For instance, if a necessary first cause exists, the thought that *a necessary first cause exists* would be true. Nonetheless, such thoughts would still not amount to rational cognitions. For as we have just seen, they cannot be traced back to immediate, experiential cognitions—and thus their objective reality remains uncognizable.

Second, consider sensible objects. The key point is that although the above argument implies that pure concepts *once abstracted from* sensible conditions are unsatisfiable, it does not imply that pure concepts *independent of* sensible conditions are unsatisfiable. This point latches onto Kant's distinction between two different kinds of ascent beyond possible experience: the *logical* ascent and the *real* ascent. The logical ascent is described as follows: "This ascent (if that can be called an ascent which is only an abstraction from the empirical in the use of the understanding in experience, since that still leaves the intellectual, namely the category, which we ourselves, in accordance with the nature of our

62. Cf. B289–291, A243–244/B301–302, A415/B442, A458/B486, and A609–610/B637–638.

understanding, have installed *a priori* beforehand) is only *logical*" (ÜE 8: 216). The logical ascent abstracts out pure concepts from their connection to sensible conditions via sensible abstraction rules (of the form $\langle\langle F \rangle \leftarrow S \rangle \rightarrow \langle F \rangle$). The logical ascent has been the focus of our investigation. If my proposal is correct, the logical ascent does not preserve objective reality—precluding sensible objects from satisfying pure concepts once abstracted from sensible conditions.

Unlike the logical ascent, the real ascent does not attribute pure concepts to sensible objects via mere abstraction from sensible conditions. Rather, the real ascent attributes pure concepts with connection to *non-sensibly intuitable* concepts or conditions, i.e. those that could be represented via a non-sensible intuition. As Kant says: "For the true *real* ascent, namely to another species of being that can in no way be given to the senses, not even to the most perfect, another mode of intuition would be needed, which we have named intellectual" (ÜE 8: 216). Schematically, the real ascent moves from $\langle\langle F \rangle \leftarrow S \rangle$ to $\langle\langle F \rangle \leftarrow I \rangle$ —where $\langle\langle F \rangle \leftarrow I \rangle$ adds the positive non-sensibly intuitable content I. The latter is not merely abstracted from the former in this move, but rather introduces a non-sensible form of representation. So whereas the logical ascent rests on *abstraction rules* (of the form $\langle\langle F \rangle \leftarrow S \rangle \rightarrow \langle F \rangle$) through which sensible conditions are merely *subtracted*, the real ascent rests on *additive rules* (of the form $\langle\langle F \rangle \leftarrow S \rangle \rightarrow \langle\langle F \rangle \leftarrow I \rangle$) through which non-sensible conditions are *added*.

What does the above argument for rational ignorance imply about objects thought through the real ascent? On the one hand, it does not preclude the possibility of such objects. That is, even though a sensible object x cannot satisfy $\langle F \rangle$ once $\langle F \rangle$ is abstracted from $\langle\langle F \rangle \leftarrow S \rangle$ (if the above argument is correct), it does not thereby follow that x cannot satisfy $\langle\langle F \rangle \leftarrow I \rangle$. In other words, the impossibility of x 's satisfying $\langle F \rangle$ once abstracted from $\langle\langle F \rangle \leftarrow S \rangle$ is compatible with the compossibility of x 's satisfying $\langle\langle F \rangle \leftarrow S \rangle$ and $\langle\langle F \rangle \leftarrow I \rangle$. By extension, the real ascent enables us to think of sensible objects as satisfying pure concepts in a non-sensible way. This allays the worry that the above argument renders such ascriptions unthinkable or false. For instance, the real ascent enables us to think of sensible objects as having a sensible cause *and* a non-sensible cause. I can think of the glass that I just carelessly broke not only as an effect of a sensible cause (by predicating $\langle\langle F \rangle \leftarrow S \rangle$), but also as an effect of a non-sensible cause (by predicating $\langle\langle F \rangle \leftarrow I \rangle$). Since $\langle\langle F \rangle \leftarrow I \rangle$ is not abstracted from $\langle\langle F \rangle \leftarrow S \rangle$, nothing precludes (for all we know or cognize) the objective reality of the resulting predication of $\langle\langle F \rangle \leftarrow I \rangle$ to the glass.

On the other hand, the real ascent would not open a backdoor path to cognition of non-sensibly intuitable features. For extending our cognition through the real ascent would require cognition of additive rules (of the form $\langle\langle F \rangle \leftarrow S \rangle \rightarrow \langle\langle F \rangle \leftarrow I \rangle$). Because additive rules attribute positive non-sensibly intuitable features to sensible objects (rather than merely abstract pure concepts), they are synthetic. Given this, there must be some "third thing" in virtue

of which the connection represented by the rule in question obtains. For any synthetic proposition requires some “third thing” in virtue of which the connection of concepts represented in it obtains: “Where is the third thing that is always requisite for a synthetic proposition in order to connect with each other concepts that have no logical (analytical) affinity?” (A259/B315).

Yet just as the fact that experiential principles of synthesis express connections involving *sensible* intuition indicates that grasping the third thing for such principles requires *sensible* intuition, the fact that the additive rules express connections involving *non-sensible* intuition indicates that grasping the third thing for such rules requires *non-sensible* intuition.⁶³ But as we saw in §2’s investigation of the well-foundedness constraint, Kant denies that we possess any non-sensible forms of intuition. If he is right to deny this (an open question, for all I have argued), no cognition of the requisite additive rules will be possible for us. Granting this and given that cognition through the real ascent would require cognition of additive rules, no cognition through the real ascent will be possible. Precisely as he dismisses the real ascent: “But who could provide us with such an intuitive understanding, or can acquaint us with it, if it somehow lies hidden within us?” (ÜE 8: 216).⁶⁴

9. Conclusion

If this reconstruction of Kant’s master argument for rational ignorance in the Transcendental Analytic succeeds, the bounds of rational cognition are not to be explained through extending constraints on immediate, experiential cognition onto reason (*pace* the prevailing approach). Rather, his argument ambitiously aspires to explain the bounds of rational cognition *autonomously*—through reason’s “own eternal and unchangeable laws” (Axii). Now reason (being the reasonable faculty it is) offers the aspiring rationalist the following plea deal: Accept the ideality of the experiential principles of synthesis. By accepting this, she can preserve rational cognition of these principles. Yet this plea deal requires her to relinquish the traditional rationalist’s aspiration to extend rational cognition beyond the bounds of sense. To be saved, rational cognition must be restrained. The aspiring rationalist must forever “subject reason, which does not gladly suffer constraint in its fits of lust for speculative expansion [*Anwandlungen ihrer spekulativen Erweiterungssucht*], to the discipline of abstinence.” (A786/B814, translation modified).

63. Cf. A155–157/B194–196, A217/B264, A732–733/B760–761, and A766/B794.

64. Cf. A252–256/B309–312 and A286–288/B342–344. One remaining question concerns whether and how it can be claimed that there are objects beyond possible experience at all, as Kant often seems to. Although I cannot address this complicated issue here, one might reconcile this claim with rational ignorance by holding that this claim does not assert (theoretical) cognition of such objects, but some other attitude (perhaps knowledge [*Wissen*] or belief [*Glaube*]). For recent discussion, see Chignell (2017), Watkins & Willaschek (2017), and Schafer (2023).

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Abbreviations of Kant's Works

<i>Beweisgrund</i>	<i>Der einzig Mögliche Beweisgrund zu einer Demonstration des Dasein Gottes</i>
JL	Jäsche Logik
MH	Metaphysik Herder
KU	Kritik der Urteilskraft
KpV	Kritik der praktischen Vernunft
KrV	Kritik der reinen Vernunft
LB	Logik Blomberg
LBu	Logik Busolt
LDW	Logik Dohna-Wundlacken
LPö	Logik Pölitz
MFNS	Metaphysische Anfangsgründe der Naturwissenschaft
MM	Metaphysik Mrongovius
<i>Prolog.</i>	<i>Prolegomena zu einer jeden künftigen Metaphysik</i>
<i>Prize</i>	<i>Untersuchung über die Deutlichkeit der Grundsätze der natürlichen Theologie und Moral</i>
<i>Träume</i>	<i>Träume eines Geistersehers</i>
ÜE	Über eine Entdeckung, nach der alle neue Kritik der reinen Vernunft durch eine ältere entbehrlich gemacht werden soll
WL	Wiener Logik

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