CHAPTER 3

From 'Facts' of Rational Cognition to Their Conditions: Metaphysics and the 'Analytic' Method

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3.1 Two Paths in Reason's Search for Metaphysical Cognition

Kant's Critique of Pure Reason and his Prolegomena share a goal of determining whether human 'reason' is capable of achieving the kind of cognition that has traditionally been thought to belong to metaphysics, or whether instead the tradition of skepticism within philosophy (then most recently associated with Hume) is correct, and no such cognition is possible. The Prolegomena itself tells us, however, that each work sets about answering the question of the possibility of metaphysical cognition in a different way, according to a different 'method.' The Critique begins by examining the faculties of the soul (sensibility, understanding, reason itself) that would provide the 'elements' for reason, and then sets out to establish what kind of cognition reason can come up with, given this material as its 'source,' and whether it can achieve metaphysical cognition in particular (4:274). The *Prolegomena*, by contrast, examines three already acknowledged achievements ('facts') of reason itself, and then sets out to establish what conditions must be in place for such achievements to be possible, and if these conditions suffice to underwrite metaphysical cognition as well. More specifically, it assumes, first, that in pure mathematics and pure natural science we actually already have cases not just of rational cognition, but of 'cognition from pure reason'; and, secondly, that reason is also actually already in possession of at least a set of representations (concepts, ideas) that allow for it to form the idea of metaphysical cognition itself (cf. 4:275-6) - acknowledging of course that it is in dispute whether this idea can be realized in genuine cognition after all. Kant summarizes this contrast in method by characterizing the Critique as proceeding in a "progressive" or "synthetic" manner (4:276 n), to see whether reason "can develop cognition out of its original seeds" (4:274),

¹ I cite the Cambridge Edition but have made silent changes (in some cases: corrections) throughout.

with the *Prolegomena* proceeding instead in a "regressive" or "analytic" manner (4:276 n), "relying on something already known to be dependable," and then tracing this to its "source," and exploring whether metaphysical cognition could be "derived" from this same source (4:275).

For some readers, the *Prolegomena*'s willingness to entertain the idea that reason, and especially 'pure' reason, might 'actually' be capable of any (theoretical) *cognition* might itself come as a surprise, given common ways of interpreting Kant's conclusions in his earlier 'critique' of pure reason. The Critique is often read as maintaining that reason is capable only of either succumbing to a common illusion that rational cognition is possible or being disciplined to avoid its allure altogether, or - once it identifies these illusions as such – perhaps at best limiting itself to 'faith,' rather than seeking any sort of 'knowledge' from reason (cf. Bxxx).3 The idea that mathematical and natural-scientific cognition in particular should be counted as cognition 'from pure reason' might also sound strange, given Kant's well-known insistence on the use of intuition in both kinds of cognition. 4 Still more shocking to some, however, will be the final verdict that the *Prolegomena* itself pronounces concerning the possibility of specifically metaphysical cognition from reason. In its closing pages, philosophy is said now to have a "plan by which metaphysics as a science can be achieved," such that the reader will "look out with a certain delight upon a metaphysics that is *now fully in his power*, that needs no more preliminary discoveries, and that can for the first time provide reason with lasting satisfaction," because it has been shown that metaphysics "can be completed and brought into a permanent state" (4:366, my italics).

The present chapter aims to provide an interpretation of the *Prolegomena* that shines a brighter light on the positive assessment that Kant develops concerning rational cognition in general and metaphysical cognition in particular. To do so, I will focus attention upon the 'analytical' method that Kant claims he is pursuing in this work, and especially its presupposition that cognition of pure reason already exists, and its ultimate conclusion that a kind of pure rational cognition is possible even in metaphysics itself.

Concerning the method itself, a key objective will be to clarify its 'analytic' nature – its 'regressive' investigation of sources, conditions and grounds – as well as what should then be inferred from the contrast drawn with the 'progressive' methodology of the *Critique*. Here it will be

² Compare Strawson (1966), Bennett (1974). ³ Compare Chignell (2007).

⁴ Compare Anderson (2015).

important to ask whether it is in the *Prolegomena*, rather than the *Critique*, that we find the birthplace of what has come to be known as 'transcendental arguments,' insofar as these have typically been associated with a regressive argumentative strategy, moving from something actual to the conditions of its possibility. We should ask, further, whether the *Critique* itself should really be thought of as organized around 'regressive' arguments at all. Concerning the method's presupposition, my main aim will be to clarify what Kant means by 'cognition of reason' in the first place, and why mathematics and natural science should count as cases of cognition 'from pure reason,' despite their essential dependence on sensibility. Regarding the method's conclusions, I will emphasize, more so than has been usual, the *Prolegomena*'s ultimate optimism – admittedly restrained, but real nonetheless – concerning the possibility that pure reason can actually achieve genuine metaphysical cognition and that metaphysics really will come forth in actuality as a theoretical science.

3.2 Metaphysics and Method in the Prolegomena

As the extended title of the work itself suggests, Kant's main aim in writing the *Prolegomena* is to present a preliminary articulation of an answer to the question of whether 'any future metaphysics' might 'be able to come forth as *science*.' This suggests, first of all, that Kant's interest is not merely in any individual *representations* of certain special objects — whether feelings or intuitions, or even concepts or ideas. Nor is it simply in specific *propositions* or pronouncements, considered per se. Nor is it in any 'art' of 'persuading' people to hold certain propositions to be true, if this 'art' appeals only to "the common human understanding" (4:278) but does not meet the strictures of fully 'scientific' cognition. Kant is quite explicit: the "assertions" of metaphysics must "be science *or they are nothing at all*" (4:279, my italics; cf. 4:371).

The 'future' in the title also suggests, secondly, that Kant thinks no present or past metaphysics has already actually come forth 'as science'. He acknowledges, of course, that things associated with metaphysics have already come forth and so are "actual" (4:257, 4:271). Books entitled 'Metaphysics' exist, including ones which formulate the idea of metaphysics as a science and purport to present their subject matter in scientific form.⁷

⁵ Compare Pereboom (2018), Stroud (1999), Stern (1999), Callanan (2006).

⁶ Compare Ameriks (1978), Gava (2015).

⁷ Kant himself made use of just such a book – Baumgarten's *Metaphysica* (1739) – as the basis for his own lectures on metaphysics; Baumgarten himself defines 'metaphysics' as "the science containing the first principles of human cognition" (§1). Compare Beck (1969).

He also acknowledges, however, that forceful skeptical challenges have demonstrated that these previous texts have achieved only the "pretense or semblance [*Schein*]" of science (4:256–8, 4:351). In Kant's estimation, "one can point to no single book, as for instance one presents a Euclid, and say: this is metaphysics"; no book has yet actually achieved "the highest aim of this science" (4:274).

Even so, the skeptics themselves acknowledge that metaphysics as a science does already exist at least 'subjectively,' in that human reason seems to have a "natural disposition toward such a science," and so the science itself is "actually given" at least as a goal or problem (cf. 4:279, 4:328 n, 4:362). Moreover, at least some of the specific content of what would go into the achievement of this goal is also fairly determinate: "the problems which lead to [this science] are set before everyone by the nature of human reason" itself (4:327–8 n), and metaphysics is therefore already "actual at least in the idea of all humans," as the science in which such problems would be resolved (4:327 n, my italics).

What are these 'problems' that metaphysics will resolve? The very concept of 'metaphysics,' Kant thinks, implies that its 'object' is supposed to lie 'beyond' what is 'physical,' understood in this context as the domain of what can be an object of 'experience'; its objects are "supposed to be not physical, but metaphysical, i.e., lying beyond experience" (4:265, cf. 4:328). But though its objects are not included within experience, metaphysics takes them to be essentially related to the objects of experience in a specific way. This emerges from Kant's even more specific characterization of metaphysical cognition as the cognition of objects that, while "never given in any possible experience whatsoever" (4:327), nevertheless concern the "absolute whole of all possible experience" and specifically its completeness understood as the "collective unity of the whole possible experience" (4:328).

What kind of objects are these? Kant distinguishes two kinds of experience, 'inner' experience and 'outer' experience (cf. B66, 7:134). The former consists in the experience of the activity and states of our own soul (cf. B54, A382, A403, B400, B519, B700; cf. 4:335, 7:141 f); the latter consists in the experience of the activity and states of things outside of us (cf. B38–9, B196, B275). In relation to each kind of experience, metaphysics is concerned with that which lies beyond each experience but nevertheless contributes in some way at the level of the 'whole' of experience as a single 'collective unity,' in contrast to what might be uniformly true of each particular experience 'distributively' (cf. B610). In the case of the inner, metaphysics takes up the 'psychological' object which is 'the complete subject (the

substantial)' and which is responsible for the whole of inner experience. In the case of the outer, it takes up the 'cosmological' object, which is the outer world itself, understood as 'the complete series of conditions' that is responsible for the whole of outer experience. Finally, in relation to the still further whole that would be formed from the wholes of both inner and outer experience, along with the 'complete subject' and the world itself, which makes each of these wholes possible, metaphysics becomes concerned with a third 'theological' object understood as what is responsible for "the complete sum-total [Inbegriff] of what is possible" in general (cf. 4:330).

Unlike the cognition of physical objects, which can take place (at least in principle) in the course of experience, the cognition of metaphysical objects presents humans with a 'problem.' Cognition in experience involves a series of mental acts: first, we have an 'intuition,' which is a representation of an object given to us by our 'senses'; then, we become 'conscious' of this intuition, in an act that Kant calls 'perception'; and then we engage in 'judging' about the object which is represented by this intuition, which is an act that "pertains solely to the understanding" (4:300). If we judge only about the intuition itself (the representation of the object), rather than the object, and so express what we find in our perception (our consciousness of this intuition), we engage in what Kant calls a 'judgment of perception' rather than a 'judgment of experience' (cf. 4:297 f).8 Judgments of experience "express not merely a relation of a perception to a subject but a property of an object" (4:298), and so 'cognize' the object itself - albeit by way of "the connection of the representations which it provides to our sensibility" (4:299).

Because (by definition) they lie beyond experience, the objects of metaphysics cannot be cognized by the cooperation of sensibility and understanding in this fashion. As we have already anticipated, Kant takes metaphysics to consist instead in cognition by *reason*. In part, this is due to the nature of the identification of the objects in question: the objects of metaphysics are not just things lying 'beyond' experience; they are objects which are in some sense responsible for experience itself taken as a whole. Any demonstration of the validity of a claim to cognize these objects will therefore also have to express some comprehension of how they nevertheless contribute to the whole of experience itself. In order to cognize experience itself as a whole, as something conditioned by a still further metaphysical object, this further object will itself have to be recognized as

Compare as well Thielke, Chapter 5 in this volume.

a universal 'principle' which grounds the connectedness of every particular experience into the whole; in this way, the whole of experience itself will thus be cognized 'from principles.' Since reason itself is defined as the 'faculty of principles,' in the sense of the faculty of 'cognition from principles' (cf. B356–7), any cognition of metaphysical objects as to their function as a universal principle out of which features of the whole of experience can be cognized will therefore be a cognition that involves reason.

The idea that reason's cognition is a cognition of something 'from principles' is closely tied up with, and perhaps equivalent to, the idea that reason's cognition is 'cognition a priori.' The correlation of 'cognition of reason' and 'cognition a priori' appears throughout both the *Prolegomena* and the *Critique*, and also many of Kant's logic lectures. Cognition 'a priori' itself consists in the cognition of something on the basis of its grounds or causes (cf. 29:748). More specifically, it consists in the cognition of a feature or property of a thing in such a way that the property is shown to pertain to the thing with 'universality' and 'necessity' (B4), on account of its ground or cause. This contrasts with cognizing something by way of its effects or consequences, including the sensations it brings about via its specific effects 'in us.' This is (in part) why cognizing something in or through experience will count as cognition a posteriori rather than a priori, and why experience can only teach us that something is so, rather than that it always is and must be so (B3). In

But there are at least two further ways in which reason is necessarily involved in metaphysics. The first is due to the general status of metaphysics as a *science*. Beyond one-off cognition of something from a principle, reason is also the capacity responsible for bringing about the larger-scale systematic ordering of cognitions themselves, according to whatever fundamental concepts and 'basic propositions [*Grundsätze*]'¹² (definitions,

⁹ See 4:275, B4–5, 9:65, 24:133, 24:730, 24:846. ¹⁰ Compare Hogan (2009), Smit (2009).

This does not, however, rule out that cognition a priori might nevertheless involve what is empirical. In the *Prolegomena*, Kant gives one example: "all analytic judgments . . . are by their nature cognitions a priori . . . even if their concepts are empirical" (4:267). For discussion of the possibility of 'impure' cognition a priori more generally, compare Kramer (1985).

In general, the widespread interchangeability of these formulations ('cognition from reason,' 'cognition from principles,' 'cognition a priori') suggests a very close relationship between the three ideas. If all and only cognition of reason is cognition a priori, this would entail that, strictly speaking, neither sensibility nor the understanding per se suffices for cognition a priori – even if they (these capacities, their a priori forms) function as 'principles' for the possibility of cognition a priori by reason of universal and necessary truths about their objects.

^{12 &#}x27;Grundsatz' is also often translated as 'principle' (cf. 4:302 f, B169 f), though it is specifically something in the order of representations (it consists of concepts joined together to form a judgment or

axioms) they involve, and whatever conclusions (demonstrations, 'theorems [*Lehrsätze*]') might follow from these (cf. B755 f). Since this 'systematic unity' is part and parcel of any science qua science (cf. B860), reason must also be involved in metaphysics itself qua science.

The second is due to the status of the fundamental elements of metaphysics – what Kant also calls its 'principles' qua science, that is, its "basic concepts [Grundbegriffe] and basic propositions" – since these also cannot be "taken out of experience" (4:265). But if our most basic representations of the metaphysical objects which function as the ground for experience itself cannot themselves be drawn directly from experience itself (nor simply given straightaway in intuition), then from what source do they arise? Kant's answer to this is striking: it is from reason itself as a 'source' that the elementary concepts and propositions, and ultimately the cognitions, of metaphysics must arise (cf. 4:366, 255). This is "the core and what is distinctive of metaphysics":

namely, the preoccupation of reason *merely with itself* and that acquaintance with objects which is presumed to arise immediately from reason's *brooding* over its own concepts, without its either mediation from experience being necessary, or even being able to achieve such an acquaintance through experience at all. (4:327, my italics)

Note, furthermore, that reason here is announced as replacing experience not just as the source of specific concepts of objects, but also (at least allegedly) as the source of the 'acquaintance' we can achieve with these objects themselves. For beyond providing a 'rational' derivation of the basic concepts ('ideas') of metaphysics from the activity of reason itself, considered as furnishing their 'source,' reason will also need to be able to furnish a *proof* of propositions involving these concepts (e.g., 'the absolute subject of inner experience exists beyond the time of experience' (i.e., 'the soul is immortal'), 'the divine (God) exists,' and so on).

In Section 3.4 we will look into the details of Kant's positive account in the *Prolegomena* of just how reason is to serve as a source of the principles (basic concepts, basic propositions) of metaphysics, as well as potentially a source for a kind of acquaintance with its objects. We should first introduce, however, the general method according to which Kant aims to establish this account in the *Prolegomena*, and how it contrasts with that of the *Critique*.

^{&#}x27;proposition [Satz]'). Here I use 'principle' only for the German 'Prinzip,' which has a broader significance and can range over grounds that are representations (e.g., the elements of a science) but also those which are not (e.g., the physical source of an effect in a substance).

In the *Critique*, Kant "inquired in pure reason itself, and sought to determine within this source both the elements and laws of its pure use according to principles" (4:274). Having identified these 'elements and laws' within reason, as well as certain 'principles' for the 'use' of these elements, the *Critique* then aims to answer the critical question concerning metaphysical cognition from reason by specifically "trying to develop *cognition* out of its original seeds without relying on any fact whatsoever," in order to produce "a system that takes no foundation as given except *reason itself*" (4:274, my italics). In this respect, the *Critique* proceeds 'progressively' from reason as faculty to an assessment of the possibility of metaphysical cognition from reason (4:276 n).

Though Kant does not now take back any of the findings of this attempt in the *Critique*, he acknowledges that the *Critique*'s path to the assessment of reason is quite long and arduous, and obscure as to its overarching plan and as well as the "main points at which it arrives" (4:261). But having already succeeded in establishing these 'main points,' Kant proposes that, in the *Prolegomena*, a new examination of the critical question "can be laid out according to the *analytic method*" (4:263), which "signifies only that one proceeds from that which is sought" – that is, *cognition* from pure reason – "as if it were given, and ascends to the conditions under which alone it is possible" (4:276 n). Unlike the *Critique*'s 'synthetic' procedure for constructing the possibility of rational cognition, this new 'analytic' approach will rely on 'facts' about rational cognition itself – namely, it will "presuppose that such cognitions from pure reason are actual" (4:279), and then reason 'regressively' from these facts to their conditions within reason itself.

3.3 Pure Mathematics and Pure Natural Science as Cognition from Pure Reason: The 'Analytic Method' in Action

Rather than applying this method directly to the question of metaphysical cognition, Kant instead first takes up pure mathematics and pure natural science as providing two already existing ('given') cases of cognition from pure reason (cognition a priori), for the sake of then answering the question concerning metaphysics itself (4:327). By looking to Kant's treatment of pure mathematics and pure natural science in Parts I and II, we can get both a more concrete sense for how the analytic method will proceed, and head off a potential misunderstanding concerning what cognition from reason actually involves.

By presupposing that *some* cases of cognition from pure reason are given and actual, Kant is not thereby presupposing that specifically *metaphysical* cognition from reason is itself actual and given. Rather, in Parts I and II, Kant assumes as 'facts' of reason only pure mathematical cognition and pure natural-scientific cognition, that both of these are given and actual, and are cases of cognition from pure reason. In the *Critique*, Kant had already indicated that the sphere of 'cognition from pure reason' is broader than that of specifically metaphysical cognition, and that in fact mathematics is "the most resplendent example of pure reason" arriving at the requisite kind of cognition (A712, cf. A4). Kant explicitly classifies mathematics alongside philosophical cognition as "a mode of cognition of reason" (A714), as "a mode of dealing with an object through reason" (A715) and as "an intuitive use of reason" (A719, cf. A721). Here in the *Prolegomena*, Kant also points to *pure natural science* as a second example that provides us with a 'science' in which "cognitions from pure reason are actual" (4:279) and which contains propositions that are "apodictically certain through mere reason" (4:275). ¹³

Though he begins with these two cases, instead of directly with metaphysics, Kant anticipates that we should be able to derive, not just "the principle of the possibility of the given cognition" in these two cases (i.e., mathematical or natural-scientific cognition), but the principle of "the possibility of *all other* cognition [from pure reason]" as well (4:275, my italics). In other words, Kant's assumptions about the status of pure mathematics and pure natural science as also cases of cognition of pure reason are what opens up the possibility that "searching for the sources of these given sciences in reason itself" will allow us to "investigate and survey [reason's] capacity to cognize something a priori" in general, and in this way "bring light to the higher question regarding their common origin," and whether this common origin will also be sufficient to yield metaphysical cognition as well (4:280).

Since the characterization of pure mathematics and pure natural science as cognition of pure reason might sound surprising to some — especially given the familiar focus of interpretations of Kant's discussions of mathematics and natural science (in the *Critique* and elsewhere) on their status as 'synthetic' cognition — let us now turn to an explanation of what lies behind their classification as sciences of reason.

¹³ In the B-edition Introduction, Kant continues to speak of "theoretical sciences of reason" in the plural, placing pure mathematics and natural science in this group, on account of their "containing as principles" certain "synthetic a priori judgments" (BI4 f).

3.3.1 Reason in Mathematics

For Kant, mathematical cognition is 'synthetic,' because it is based not on thinking or concepts alone, but on intuition, and more specifically a 'pure' (not-sensation-involving) intuition (cf. 4:268, B40–41). Though there have been several different conceptions of how exactly the intuition-dependence of mathematics should be understood (viz. as to whether intuition factors into the very content (definition) of mathematical concepts and propositions, or only into their proof, or in some other manner altogether), ¹⁴ what is important for our purposes is simply that, as Kant puts it in the *Critique*, reason on its own "has no immediate reference . . . to intuition," and that what reason *does* deal with immediately is "only the understanding and its judgments" (B363). But then since only our sensibility, rather than our understanding, provides intuition (cf. B75), for reason to be responsible for cognition involving intuition — as in mathematics — will depend not only on intuition but also on the understanding to achieve such cognition.

Without denying these basic dependences, however, there are clear ways in which mathematics itself, simply considered as a science, will count in obvious ways as 'cognition of reason' rather than of the understanding or of sensibility. The first and perhaps foremost feature is that mathematics involves 'demonstration,' or 'apodictic proof' of the truth of a proposition (cf. B762). As previously noted, reason, rather than the understanding, is the faculty for cognition 'from principles', which Kant also describes as the faculty for cognition via 'inference' or 'derivation' (cf. B₃₅₅ f). Hence, in mathematics, too, a cognition will only count as demonstrated if reason has shown it to follow from a principle. This implies, first, that the mere having of an intuition of any object (even a pure intuition) is not sufficient for the proof of any mathematical proposition, since for there to be cognition in general, at least the understanding and concepts must be involved (cf. B₇₅ f). It implies, second, that for the cognition to be demonstrated or proven, reason must also be involved, to cognize the truth of the relevant proposition as following from some ground or principle.

Kant's characterization of mathematics as involving an 'intuitive use of reason' suggests that the manner of proof that reason makes use of in mathematics itself essentially involves intuition. Kant's description for this use of intuition in mathematical proof is "the *construction* of concepts" in intuition (4:272). ¹⁵ In construction, however, it is not the mere having of the

¹⁴ Compare Shabel (1998), Friedman (2012a). ¹⁵ Compare Carson (1997), Heis (2014).

intuition which does the proving. Rather, the specific *relation* between the intuition and the relevant mathematical concept or proposition to be proven must itself both be grasped and demonstrated a priori. There must be not just cognition that, but also a demonstration that, the relevant concept "can be exhibited in intuition" (4:271). Even if the cooperation of the two can yield a cognition (whether pure or empirical) of something that in fact has the relevant mathematical features represented in a concept, neither sensibility nor the understanding are capable of achieving demonstration 'from principles' of the relation between concept (judgment) and intuition.¹⁶

Beyond individual demonstrations, the involvement of reason at the level of mathematics as a science is perhaps even more obvious. As noted previously, reason forms 'a system out of a mere aggregate of cognition' (B860), and through this systematic ordering of propositions and demonstrations, it forms a 'science out of common cognition'. It does so by the formation of definitions, the identification of certain judgments as 'basic propositions [*Grundsätze*; 'axioms']', and the ordering of these in relations to 'theorems [*Lehrsätze*]' (cf. B754 f). None of this can be accomplished by the understanding or sensibility, whether alone or in partnership.¹⁷

3.3.2 Reason in Natural Science

Qua science, pure natural science must of course also involve reason, as it, too, consists in a system of cognitions of nature. What is more, the specific use of reason in mathematics (in construction, exhibition) will also itself carry over to some extent into pure natural science, since the latter consists in part in "mathematics applied to appearances" (4:295). To be sure, pure natural science itself deals not just, or even primarily, with appearances as objects of intuition (or of 'perception' as the 'empirical consciousness' of appearances; cf. B207), or even with the application of mathematics to the objects of intuition or perception (cf. 4:309). Rather, pure natural science deals primarily with 'nature' itself, considered as "the sum-total of all objects of experience" (4:295, my italics; cf. 4:467, B218). Experience, as we have seen, itself goes beyond the mere having of an intuition, and also beyond being

Of course, there might be a weaker sense of 'mathematical cognition' which would range over any empirical recognition (experience) of the number or spatial extent of things (viz. how many letters in a word); this weaker sense is here bracketed in favor of Kant's more demanding (and reason-implying) use of the term (cf. "properly mathematical propositions" at 4:268).

¹⁷ Compare the Preface to the *Metaphysical Foundations of Natural Science*, where Kant claims that, "insofar as a cognition is to deserve the name science," it must contain a "cognition through reason of the interconnection" of its subject matter (MFNS 4:468).

'conscious' of the intuition (and the 'sensation' contained in it) in mere 'perception,' so as to achieve the 'empirical cognition' of an object through a 'synthesis of perceptions' (cf. B218). Though it thus depends on sensibility essentially, experience is something that is brought about as a "product of the senses and the understanding" (4:300). For this reason, pure natural science as the science of the objects of experience will also have to incorporate elements (concepts, propositions) from the understanding which refer to objects beyond intuition and mere appearances — elements which are constitutive of experience itself (cf. 4:306).

Beyond the understanding, however, there are further elements of pure natural science, as in mathematics, that can only be supplied by reason. In addition to the specifically 'constructive' element manifest in the mathematical aspects of its proofs of the objective validity of its basic concepts and propositions (cf. MFNS 4:470, 472), natural science also accomplishes the 'explanation [Erklärung]' of natural phenomena, in the sense of establishing that certain things are necessary concerning the "determinations of a thing belonging to its existence [Dasein]" in nature (MFNS 4:468). Here natural science goes beyond mathematics: whereas mathematics deals only with the determinations of the 'essence' of its objects (e.g., geometrical figures) and their exhibition in pure intuition, rather than their existence in nature and in experience itself (cf. MFNS 4:467 n), natural science explains the existence of natural phenomena, in the sense of 'deriving' features of their real physical existence 'from principles' concerning nature itself (cf. 4:412), which for Kant is equivalent to specifying a relation to 'laws' by means of which the relevant object "could be given in a possible experience" (MFNS 4:459, cf. 4:353). The derivation in question is once again a cognition from a principle, rather than a cognition of the understanding or a simple intuition of sensibility, which entails that the 'explanatory' dimension of natural science is a still further mark of reason's necessary involvement.

3.3.3 Reason as 'Source': The Preliminary Findings of the Analytic Method

If the foregoing helps solidify the several senses in which mathematics and natural science will necessarily *involve* reason, we must now try to clarify Kant's further claim that the analytic method shows that pure reason contains the *source* of both pure mathematics and pure natural science. Since Kant in no way means to deny the dependence of reason on sensibility and the understanding for these sorts of cognition, he is not here meaning to make the radical claim (pursued in various ways by Frege, Dedekind and other logicists in the next century) that reason or thinking is

sufficient on its own to yield pure arithmetic or the elements of geometry, let alone elementary physics. But then what does he mean to be claiming?

One key feature that has to come into sharper focus is the standing of pure mathematics and pure natural science as cognition *a priori* of features or properties of a domain of objects: numbers and shapes in mathematics, and then substances and causes in nature itself. As cognition a priori, mathematical and natural-scientific cognition must achieve cognition of their objects 'from principles' or 'from grounds.' This involves a demonstration of the necessary and universal truth of the propositions which ascribe the relevant features to objects, supported by what is already known about the ground or principle of these objects, and the relevant grounding-relation. Cognition a priori thus presupposes that the principles or grounds themselves are also cognized, as that from which the derived or demonstrated proposition can be seen to follow.

This is why, when in Part I Kant takes up the 'fact' that human reason can 'achieve such cognition wholly a priori' in pure mathematics by way of intuition, he asks: "does not this capacity... presuppose some a priori basis [Grund] for cognition...?" (4:280) The search for such a basis ends when Kant notes, first, that "I can know a priori that the objects of the senses can be intuited only in accordance with [the] form of sensibility," and then infers that "propositions which relate merely to this form of sensory intuition will be possible and valid for objects of the senses" (4:282). The form of sensibility itself is thus uncovered as the 'a priori basis for cognition,' since propositions which describe its features will eo ipso describe features that are universally and necessarily valid of any possible object ('appearance') present in any intuition itself, since this form itself "first makes this appearance possible" by being that in accordance with which every intuition of appearances itself takes place (4:284).

The final step is to disclose how we can have acquaintance with this 'basis' itself. Kant's answer in this case is that the form of sensibility itself must be what is given in the intuitions of mathematics. On the one hand, 'I can only know what may be contained in the object in itself if the object is present and given to me,' and Kant thinks that there is no other 'object' which can be present and given "in me as subject prior to all actual impressions" besides what lies in my mind itself, and the form of sensibility meets this condition (4:282). On the other hand, there is no other way for mathematical cognitions to be guaranteed of 'apodictic validity' with respect to every object of our intuition, unless their proof is based upon the ground or principle of intuitions themselves, as what determines each and every intuition universally and necessarily, and the form of sensibility meets this condition as well (4:285).

Bracketing, for the moment, the idealist implications concerning the objects of pure mathematical cognition – that, ultimately, the objects that are cognized in geometry and arithmetic consist in aspects of our forms of sensory representations is - what is of more immediate import for our purposes is what Kant takes this to imply about the 'source' of this cognition. The first thing to note is that this source is not a 'principle' in the sense of being a 'basic proposition [Grundsatz].' The source also is not the 'pure intuition' of the form of sensibility, considered on its own. Rather, it is the recognition of the function of this form itself as a ground or principle of all sensible objects, along with the recognition of the relation between pure intuition and this form of sensibility. Though it presupposes that there is a pure intuition that is given, this recognition is something that itself could only be achieved through a series of inferences concerning this intuition – that is, through cognition by reason. Reason is the source of the identification of what is given in pure intuition with the form of sensibility, and this identification is what allows what is given in pure intuition to function as the elementary ground or principle for cognition a priori in mathematics of all the objects of sense.¹⁹

Turning now to pure natural science, we find Kant in Part II giving a parallel account of the 'source' of the a priori cognition in this domain as well. As cognition a priori, natural science, too, involves the proof of its propositions about nature — understood as the domain of objects of possible experience (see Section 3.3.2) — by reference to a ground or principle that will necessitate that the objects in nature are universally and necessarily the way that its propositions characterize them as being. For this proof itself to be possible, this universally necessitating ground or principle of physical objects itself must again be 'given and present' to the mind a priori and recognized as the ground or principle that it is. At this point Kant reminds us that experience is the manner in which physical objects are themselves given and recognized, and thereby transforms the analysis into a search for the universal and necessary conditions for the possibility of experience itself, with the key question being whether and to what extent these conditions can be 'given' a priori (cf. 4:297).

¹⁸ For some discussion of Kant's idealism in the *Prolegomena*, see Allais, Chapter 4 in this volume.

This recognition or consciousness by reason, as furnishing the principle for *cognition* a priori of these objects (*ratio cognoscendī*), should be contrasted with the form of sensibility itself or the pure intuition of this form, considered per se – that is, independently of any recognition by reason (or even consciousness by the understanding), which is the ground or principle for the very *being* of the objects of sense (*ratio essendi*).

When we "analyze experience in general," we see that it goes beyond mere intuition, insofar as it is a "product of the senses and the understanding," which includes not just an intuiting but also a judging (4:300, cf. 4:304). Moreover, it includes not just any judging, but a judging that expresses a "property of the object" represented by an intuition, rather than a relation of the intuition "to a subject" (as in a judgment of perception) (4:298). The grounds or principles that entail that each experience is universally and necessarily a certain way can thus be traced back to both the 'form' of sensibility (as what is responsible for conferring certain features on every intuition) but also to the 'form' of the understanding itself, as what is responsible for conferring certain features on every judgment, and then, even more specifically, the 'form' of (judgments of) experience itself, understood as what is responsible for conferring certain features (universally and necessarily) upon that judging in which an object is cognized by way of an intuition.²⁰

In mathematics, it is the form of sensibility, its being 'given' a priori in pure intuition, and its recognition as such by reason, which explains the possibility of mathematical cognition a priori of all objects of sense; it is this source which allows for the apodictic demonstration of the validity of mathematical concepts and laws. In natural science, it is the form of experience, and its being 'given' a priori (4:297), which will explain the possibility of the natural-scientific cognition a priori of all objects of experience. With respect to the general form of thinking (understanding) or the "formal conditions of all judgments in general," Kant takes this to have already been studied systematically in the traditional science of logic (4:306). With respect to the form of judging about objects by way of intuitions, Kant takes his newly instituted 'transcendental' logic to have disclosed the basic concepts and rules by means of which such judging necessarily and universally determines intuitions, by way of the 'connection' of appearances, so as to give rise to cognition as experience (4:318, cf. 4:302). Combining these with the principle of sensibility, these concepts yield "the a priori conditions of the possibility of experience," which then serve as "the sources out of which all universal laws of nature" - that is, laws of the objects of experience – "must be derived" (4:297).

Again bracketing the idealistic notes in Kant's conclusion about nature itself – that the objects of nature are made possible, or even first brought

In Kant's own words, our analysis of cognition a priori in natural science is looking for "the conditions and the universal (though subjective) laws under which alone such a cognition is possible as experience (as regards mere form)" (4:297).

about, through the interaction of our sensibility and our understanding, and that its basic laws depend on the 'constitution' of our sensibility and understanding (cf. 4:318)²¹ – what is most important for the present purpose is instead Kant's denomination of reason as the source that yields the possibility of cognition a priori of the objects in nature (objects of experience). Here again there is a prior demand, first, that those principles or grounds which are responsible for entailing (at the ontological level) universal and necessary features of objects in the relevant domain (nature) be themselves something that can be 'given' in some sense (cf. 4:297). But then, just as in the case of mathematics, the sheer givenness or presence to mind of these principles responsible for the being of certain objects of experience is not yet sufficient for them to function as a source for the cognition a priori of these objects. Here again reason must step in and recognize the relevant forms (of sensibility, of the understanding) as principles for the objects of experience. Only when recognized as such can they then function as principles for the cognition of objects of experience.

3.3.4 Contrast with the Synthetic Method of the Critique

We now have a better sense of how, in Parts I and II, Kant means to use the analytic method to move us from the 'fact' (actuality, existence, givenness) of two cases of cognition from pure reason to a consideration of what principles or grounds must be within the reach of reason so as to allow for it to achieve cognition a priori of the objects of the relevant domain. In this way, the *Prolegomena*'s method charts precisely the *inverse* of the path taken within the *Critique*.

Rather than starting with any rational cognition assumed to be given, or even starting with any representations, the *Critique* instead starts with our mental faculties themselves and uncovers their forms directly, and only then proceeds to derive certain 'pure' representations of objects which have their 'origin' a priori in the forms of these faculties, before finally then showing how these representations, due to their origin, can enable cognition a priori of the objects of these representations. In the Aesthetic, we begin with a characterization of our sensibility, as to its central acts (sensation, intuition), and as to its universal 'forms' (space, time) (A20–21). From here Kant gives a constructive argument for the possibility of

²¹ On the ideality of the objects of nature in particular, see again Allais, Chapter 4; compare Allais (2015), Stang (2016a).

special representations of these forms (the pure intuitions of space and of time themselves), and only afterwards demonstrates that these representations are fit to enable a species of cognition a priori of the objects of sense (A38 f). In the Analytic, we begin with a characterization of our understanding, as to its central acts (judgment, thinking), and as to its universal 'forms' (A70–76). From here Kant gives a constructive argument for the possibility of special representations (pure concepts, categories) which can be derived a priori from these forms (A76–83), and only afterwards attempts to demonstrate that these representations, when combined with the pure representations from sensibility, make possible a species of cognition a priori, concerning the objects of experience (A110 f), that is, of objects of nature (A125 f), by functioning as a "source of the laws of nature" (A127).

By the time of the B-edition, Kant had regimented his terminology so as to clarify that, with respect to the synthetic-progressive demonstration of the possibility of rational cognition from the examination of our faculties, there are two distinct steps that must be taken: first, there must be a 'metaphysical' explanation (viz. 'deduction') of our possession a priori of certain 'pure' representations, on the basis of a consideration of the faculty itself (cf. B159);²² and then, there must be a 'transcendental' explanation (viz. 'exposition,' 'deduction') of the possibility of cognition a priori of objects by means of these representations, on the basis of a consideration of the source of these pure representations themselves.²³

Now, because the *Critique* makes no official assumptions about the existence of rational *cognition* in general, but assumes only the 'fact' of the mental *faculties* or powers themselves, it is hard to see how its synthetic-progressive arguments, including its 'transcendental' deductions, could possibly take the form of what has traditionally come to be called a 'transcendental argument,' which instead are generally characterized in terms of their 'regressive' strategy.²⁴ For one thing, it is unclear what the assumption of the fact of the mental powers (the existence of sensibility, the understanding and ultimately reason itself) should imply about what else must already be true (and necessarily so), just because

^{22.} Compare Kant's gloss on 'metaphysical exposition' in the B-edition Aesthetic: an "exposition is metaphysical when it contains that which exhibits the *concept* as given a priori" (B₃8, my italics).

²³ Compare Kant's gloss on 'transcendental exposition' in the B-edition Aesthetic: "the explanation of a concept as a principle from which insight into the possibility of other synthetic a priori *cognitions* can be gained" (B40, my italics).

²⁴ Compare again Ameriks (1978), Stroud (1999), Pereboom (2018).

these *faculties* are actual. That is, it is unclear what is supposed to follow about *the conditions for the possibility of these faculties themselves*. Moreover, whenever Kant approaches questions of just this sort – how is sensibility itself possible? how is the understanding itself possible? (cf. B145–6) – he uniformly begs off from further inquiry or even speculation (cf. 4:318).

None of this fits very well, either, with the common idea that, in the *Critique*, Kant is offering regressive or analytic arguments of the following form: because a certain *cognition* (representation; viz. experience) is possible (actual), then certain further things must be true about other representations (viz. pure concepts) and about our capacities, since they are its conditions. What the foregoing supports, instead, as a more promising interpretive alternative, is that Kant really means what he says in the *Prolegomena* about the method of the *Critique* – that it is really meant to offer progressive or synthetic arguments of the form: because a certain *faculty* is actual, and because all of its acts have certain 'forms,' then it can be demonstrated that certain representations and ultimately certain *cognitions* a priori of the objects of these representations are themselves possible. It is only in the *Prolegomena* itself that Kant means to offer an argument in the classically 'transcendental' form: because certain cognition a priori is

There are many reasons to be dissatisfied with this as a reading of the deduction. For one, it displaces Kant's concern with answering the question of whether cognition a priori is possible. For another, some of Kant's main opponents (e.g., Hume) would reject this alleged 'fact' or givenness of experience as soon as it was spelled out to them what 'experience' meant for Kant in this context (e.g., that it necessarily goes beyond perception; cf. 4:310), since it would seem to beg almost all of the relevant questions. And this does not fit the development of the text of the 'Deduction' itself very well, whether in the A- or B-edition. Both begin by drawing upon facts concerning the understanding, as the faculty of thinking and judging, along with facts about apperception, the imagination, and the senses, to provide a constructive argument that experience itself is universally and necessarily possible given these faculties, due to the universal and necessary forms that characterize each of these faculties on their own. (The givenness of these forms itself demonstrates that cognition a priori of the objects of experience is possible.)

Finally, the deduction would be a much stronger and (I think) much more interesting argument if it assumed only the more basic 'fact' of the faculties and their forms, since it would be much more plausible for Kant to expect that his main interlocutors (Locke, Hume, Tetens, Leibniz, Wolff, etc.) would agree that these (subjective) facts have been established by psychologists and logicians. If, from this common argumentative ground, Kant could then marshal an argument to establish, constructively, and solely on the basis of these much more minimal assumptions about the faculties, that the conditions for having empirical cognition ('experience') are universally and necessarily met, then he will have established (against skeptics) that experience itself is really possible.

²⁵ Regressive interpretations of the Critique often focus almost exclusively on Kant's alleged assumption of a 'fact' of experience (empirical cognition), such that he is taking for granted that experience (in his sense of the term) is actual or at least really possible, and then is pursuing the transcendental deduction as a regress to the conditions which must be in place for this alleged 'fact' of experience to obtain

actual, then the representations which make this cognition possible must be in our possession, and specifically the representations that give the principles by means of which such cognition a priori is grounded, with it then being argued that these representations can only be given a priori by our capacities on account of their forms, and with these forms themselves setting necessary conditions for being an object of the relevant domain (of representation).

3.4 Pure Reason as a 'Source' for Metaphysical Cognition

Kant's treatment of mathematics and natural science in Parts I and II gives us a sense of how the analytic method is meant to operate: begin with accepted cases of actual rational cognition, regress to their conditions, identify how such conditions can be given and recognized by reason as such, and in this way discover the 'source' or 'basis' that makes possible cognition a priori on their basis (cf. 4:274–5). What we must now turn to is Kant's extension of this method to the case of metaphysics itself in Part III.

Given that the main question of the work is: 'Is metaphysics itself possible?', which we have seen can be rephrased as: 'Is cognition a priori from pure reason of the objects of metaphysics possible?', it might seem impossible that the analytic method could be extended to the case of metaphysics, since it is in dispute whether metaphysics is even *possible*, and so a fortiori it would seem in dispute whether the relevant cognitions are *actual*.²⁶ Nevertheless, Kant clearly characterizes both the method in Part III, and also the 'solution' to the general question of the work as a whole, as also 'analytic' (cf. 4:365).²⁷

As already noted, there are a variety of things related to metaphysics that Kant does think are already actual: the 'natural disposition' in reason to pursue metaphysical cognition, the 'idea' of such a science, and also our sense that the use of reason in relation to intuition and experience – even in pure math and pure natural science – "does not entirely fulfill reason's own vocation" (4:328), in addition to the actuality of a long history of attempts at formulating or establishing a metaphysics. And while none of these can be assumed to amount to cognition on their own, many of these actualities essentially involve the *representations* of the objects of metaphysics – that is,

For further discussion of the extent to which Part III fits the analytic method, see Watkins, Chapter 2 in this volume.

²⁶ Compare Kant's early description of the plan of the *Prolegomena* in terms of an attempt to "ascend from these pure a priori cognitions" in pure math and pure natural science "to a *possible* cognition . . . namely, a metaphysics as science" (4:279, my italics).

those 'ideas' of reason that we met with earlier – ideas of the soul, the world-whole, and the divine. A modified application of the analytical method in relation to these 'facts' in metaphysics, then, will start not with the actuality or even possibility of metaphysical cognition (allowing therefore that this is in dispute), but instead with the actuality of metaphysical representations, in order to inquire as to the conditions of their possibility. From here we can then ask whether these conditions – along with the principles derived from Parts I and II – might serve as a basis for cognition a priori in metaphysics after all.

Now, the basis from which reason's inferential activity gives rise to the ideas (pure concepts) in metaphysics is nothing other than the understanding's cognitions in experience (cf. 4:330). What is more, Part II has opened up the possibility that, in forming these ideas, reason could take as its basis just that aspect of experience (its 'form') which allows for cognition a priori of the objects of nature, albeit now considered as to its role in the possibility of the 'completion' of experience in a single 'collective unity' (cf. 4:228). In its appeal to the form of experience, the path which reason takes to form its ideas of those objects responsible for making experience into a collective whole is importantly different from the one which the understanding uses to form its own concepts of 'noumena,' or objects thought of through the categories alone, independently of sensibility. The concepts of these 'pure beings of the understanding' are derived directly from the mere form of understanding without any (even pure) contribution from sensibility whatsoever – that is, concepts of objects that fall under the categories but do not appear in space and time, such as: "substance but which is thought without persistence in time," and "a cause, which would not act in time" (4:332). Reason, by contrast, forms its pure concepts not through this simple negation or privation of intuitive content in relation to a category, but instead by inferring to the conditions which 'complete the series' of precisely those conditioning-relations that are (or can be) cognized by the understanding within experience via intuition (cf. 4:331). It does so in order to then represent the objects which, to be sure, lie "entirely outside of experience" and are "independent of the conditions of experience," but which nevertheless reason also attaches to the chain of just these conditions so as to "make its standing complete" (4:333).

Beyond identifying reason as the 'source' of these ideas qua *representa*tions of metaphysical objects, to address the main ('critical') question of the *Prolegomena* itself, a still further step must be taken – namely, to assess the possibility of achieving *cognition* a priori in the domain of metaphysical objects on the basis of these same ideas. It has for a long while been common to read Kant as if he were straightforwardly committed to giving a negative answer to this question of the possibility of metaphysical cognition by reason. In part, this has been due to a common assumption that, because the doctrine of cognition by the understanding seems to be completed by the end of the Analytic, that the doctrine of cognition in general has been completed. On this sort of reading, the only task left to the Dialectic's analysis of reason is negative – to explain, first, how and why we might be led into the 'illusion' that there might be more cognition still forthcoming beyond that of the understanding, and then, secondly, how we can avoid falling into 'error' on the basis of this illusion (cf. 4:328, 333). 28 Regarding this second task, it has become common to focus on Kant's remarks in the later parts of the Dialectic, and echoed in Part III, that there is a positive 'empirical use' of the ideas of reason, according to which 'unity' represented by the ideas is posited as regulative of reason's efforts "to bring experience in itself as near as possible to completeness," though this unity cannot be affirmed as 'constitutive' of the 'object of cognition' in the sense of 'inhering' in it (4:350).29

While there are clearly important features of Kant's account of reason which can only be appreciated by engagement with Kant's accounts of illusion and the regulative use of the ideas, ³⁰ it nevertheless remains true that the *Prolegomena* does not actually conclude with either the spotlighting of illusion and potential error, or the negation of the constitutive use of the ideas, or the affirmation of their merely regulative use. Rather, already in the 'Conclusion' to Part III (\$\$57–60), Kant goes beyond these points to arrive at what he explicitly calls "a *cognition* that is still left to reason" (4:361, my italics). We ourselves can conclude our examination by specifying what kind of 'cognition' this is, what it means for reason to be able to achieve or take part in it, and how the analytic method itself will have vindicated its possibility.

In its inferences about the 'completion' of experience in a whole ('collective unity'), reason forms the concept of the 'boundaries' of the 'field' of what can be an object of possible experience (4:353). What Kant takes to be striking about this concept is that this 'boundary' itself is neither 'within' the field of possible experience, nor something entirely 'beyond' this field, but rather, as its boundary, is something that "belongs just as much to the field of experience as to that of beings of thought" on the other side (4:356–7). Now, since experience "does not set a boundary for itself," then "that which bounds experience must lie completely outside of it" (4:360). What Kant thinks does establish the

²⁸ Compare Strawson (1966). ²⁹ Compare Grier (2001). ³⁰ See Willaschek (2018).

bounds for experience (and with it, the understanding) is reason itself (4:360). What is more, because Kant understands this 'boundary' of the field of experience, like all 'boundaries' (cf. 4:354), to itself be 'something positive,' when reason comes to have an 'acquaintance' with this boundary, when reason "extends itself up to this boundary," there is "an actual, positive cognition that reason thereby comes to partake of' (4:361, my italics). Hence Kant concludes:

setting the boundary to the field of experience through something that is otherwise unknown to it is *indeed a cognition that is still left to reason* from this standpoint, whereby reason is neither enclosed inside the world of sense nor speculating [schwärmend] outside it, but, as pertains to an acquaintance with a boundary, restricts itself solely to the relation [Verhältnis] of what lies outside the boundary to what is contained within. (4:361, my italics)

To be sure, even if it is 'something positive,' this boundary itself is only a 'relation [Beziehung]' between the field of experience and what functions as "the highest ground of all experience" (4:361). And Kant is emphatic that the cognition of this bounding relation between experience and its ground does not "teach us anything about this ground in itself, but only in relation to reason's own complete use in the field of possible experience" (4:361–2, cf. 4:357). What is more, reason's cognition of this relation bears within itself the additional complexity that it cognizes this boundary-relation according to the 'perfect similarity' that it bears to a second relation – namely, one of the relations that we cognize among the objects that are contained within experience itself (substanceaccident, cause-effect, community-member). For this reason, Kant calls this "cognition according to analogy," which allows us to make the boundary-relation "sufficiently determinate for us" to cognize it, even if (again) it leaves the unknown term on the other side of the boundaryrelation undetermined 'in itself' (4:357-8).31 Still, Kant clearly differentiates this 'determination' of the boundary-relation from any 'fabricating [erdichten]' by reason, which implies that reason here goes beyond the mere 'thought' of such a relation, to a genuine cognition of something 'actual' and 'positive.'

³¹ Metaphysical cognition according to analogy thus involves two pairs of terms, one pair from within experience, another pair consisting of a whole of experience and the unknown ground, and then an assertion that a 'perfect similarity' obtains in the relations that connect both pairs; in Kant's example: "in the way that a watch, a ship, and a regiment are related to an artisan, a builder, and a commander, the sensible world (or everything that makes up the basis of this sum total of appearances) is related to the unknown" (4:357). For more on cognition by analogy, see Matherne, Chapter 11 in this volume.

These optimistic notes concluding Part III are not often highlighted – in part because their import is not developed at length here by Kant himself. And even if we grant the standing of this cognition by analogy as genuine (if complex) cognition of an actual (if unusual) object (the boundary-relation) that is technically not itself an object of experience (though not fully 'beyond' the field of experience either), and grant as well that this cognition could come about through pure reason alone, we might wonder, nevertheless, whether such cognition can ever lead to any further positive cognitions about the more fully 'hyperphysical' objects of traditional metaphysics (the soul, the world-whole, the divine). We might worry especially that this will be too slim a ground on which to base a whole *science* devoted to the domain of the hyperphysical.

Still, this constrained but genuine positivity in Kant's own concluding remarks to Part III is essential to understanding how and why he might be led to claim, in the *Prolegomena*'s very last pages, as the 'solution' to the 'general question' of the work, that the preceding (along with the Critique itself) "contains within itself the whole well-tested and verified plan by which metaphysics as a science can be achieved, and even all the means for carrying it out" (4:365, my italics), and that we can now therefore "look out with a certain delight upon a metaphysics that is now fully with [our] power, that needs no more preliminary discoveries, and that can for the first time provide reason with lasting satisfaction" (4:366, 4:382). This is not because reason will finally be able to 'rationally' dissolve or extirpate its 'interest' in the ultimate ground of experience and nature and its felt sense of a 'vocation' to go beyond its use in relation to sensibility in pure mathematics and in relation to the understanding in pure natural science (cf. 4:257). Nor is it because reason will become content with using its ideas solely in a 'regulative' manner, to guide the unification of the cognitions of the understanding ever closer to completion, while themselves not being useful for cognizing anything more or in their own right. Rather, it is because reason itself, through its inferences concerning the form of experience, is able to achieve an 'actual, positive cognition' concerning the boundary-relation of experience as a whole to its ground, and in this way give itself a firm foundation upon which it "can rely with confidence" that metaphysics "can be completed and brought into a permanent state" (4:366).