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Das *Substantiale* ist das Ding an sich selbst und unbekannt.
Immanuel Kant, *R* 5292 (c. 1778 – 80)

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Abstract

This dissertation provides a novel account of Kant's distinction between appearances and things in themselves, and of Kant's denial that we know things in themselves. I show that one can appreciate Kant's distinction only by seeing how deeply engaged his philosophy is with the metaphysics of substance as developed in the Aristotelian and scholastic traditions. I argue that Kant's distinction amounts to the classical distinction between the essence of a substance on the one hand and its sensible qualities and powers on the other. Kant's denial that we know things in themselves thus conceived is, therefore, part of a tradition of reflections on the unknowability of substance found in scholastic and early modern thought. Kant's philosophical originality thus does not lie so much in the conclusions he reaches about the unknowability of substance. Rather, it lies in the manner in which he reaches them, which he calls critique: the project of unfolding out of the concept of a finite faculty of knowledge both the proper objects of that faculty and the limits of what we can know of them.

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Introduction

On its face, the question of what it is for something to be object of thought *for me* can be pursued independently of questions about what sort of *structure* or *being* that object might have, or of what I could come to know about it. The first is perhaps a topic that can be treated by a theory of reference or singular thought, the second moves our topic to metaphysics, and the third to the theory of knowledge. One of Kant's great achievements is to show that these topics are not as independent from one another as they may seem: that a proper account of the conditions on which something can be an object of thought *for me* will show that thing to have a certain structure or formal features; that an investigation of my capacity to think an object in a determinate way will simultaneously be an investigation of the formal character of said object; and, finally, that such an investigation will indicate how far our cognition of objects may extend.

That this *is* one of Kant's great achievements is in some sense uncontroversial. It is generally accepted that Kant teaches us that for something to figure as a *real* subject of predication I must represent it as a *substance*, and that there are certain structural features an object must have to be representable *by me* as a substance. But it is rare indeed to find someone connect this point with Kant's claim that there are limits to how far our cognition of objects may extend – and rarer still to connect it to Kant's claim that we cannot cognize objects as they are *in themselves*.[1]

In a real sense, my aim in this dissertation is to show how deeply connected these topics are. On the reading I will develop, Kant has a much richer conception of *what* we must represent

[1] Part of the reason for this is surely that, however deeply connected Kant thinks these points are, it is not feasible for interpreters to treat them all at the same time. But another aspect is that there has been a tendency to view the question of what sort of features an object must have to be an object of thought for me as a much more respectable topic for philosophical reflection than the question of what Kantian things in themselves are and whether we can know them. In his pioneering study of Kant, Peter Strawson (1966) identified the former with the Kantian 'wheat' and the latter with the Kantian 'chaff', and I think this attitude has been fairly widespread.

something *as* in order to represent it as a substance – and thus as a real subject of predication – than is generally appreciated. It is generally accepted that to represent something as a substance, for Kant, is to represent it as a perduring subject of accidents. But, as I will argue, Kant thinks our ability to do *that* presupposes we (tacitly) possess a quite sophisticated metaphysics of substance, which in its most basic form requires that we represent substances as belonging to *kinds* in virtue of which they have the various powers and accidents they do. To represent a substance as such – to represent it as having a nature or essence, and that nature or essence as being in some sense responsible for the various accidents we predicate of it – is to represent it as a real unity, and not merely a collection of accidents. As such, it involves representing it as having being *independent* of these accidents – as having being 'in itself', or to use older terminology, as something with *per se* or *kath' hauto* being.

The most fundamental act of our power of knowledge – that of relating subject and predicate through the categories of substance and accident – therefore presupposes our thinking of a real subject of accidents as something that has being 'in itself'. If that is right, the 'respectable face' of Kant's theoretical philosophy, e.g., the theory of judgement or metaphysics of experience, is not separable from the more esoteric Kantian doctrine of the thing in itself.

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In the Preface to the second or 'B' edition of the *Critique of Pure Reason*, Kant states critique teaches us that "the object should be taken in a **twofold meaning,** namely as appearance or as thing in itself", and that "we can have cognition of no object as a thing in itself, but only…as an appearance" (B xxvi-xxvii). This pair of claims – that we must distinguish a thing as it is *in itself* from that same thing considered *as an appearance*, and that we can have no

cognition of *things in themselves* – comprise perhaps the most famous Kantian doctrine.[2] And yet there is nothing even *approaching* consensus in the literature about how they should be understood.[3] For ease of reference, in what follows I refer to the first half of this doctrine – that the object should be considered in two ways, namely as appearance and as thing in itself – as ***Kant's distinction***, and to the second half – that we cannot know things in themselves – as ***epistemic humility*** (and occasionally simply as *humility*).[4]

My project in this dissertation is to argue for a particular interpretation of this doctrine – to give an account of what Kant's distinction amounts to; to say why Kant thinks critique teaches us epistemic humility; and to tell a story about how this pair of claims fits within a broader history of reflections on the nature and knowability of *substance* in medieval and early modern thought. There are three core interpretative claims that will be defended in this dissertation:

(1) Kant's distinction between appearances and things in themselves should be understood in terms of the classical distinction between *substantial* and *accidental being*. Appearances are the sensible qualities and powers of substance we cognize in experience, and Kant thinks the features of substance given to us in experience are *accidents*. Things in themselves are substances considered merely with respect to their *metaphysical principles* such as their form, nature, or essence. Appearances and things in themselves are thus *numerically identical*, and yet are not one in *being*, in much the same way that, for Aristotle, 'Socrates' and 'seated Socrates' are *numerically identical* and yet are different *kinds* of beings, with different attributes.[5]

[2] As Gerold Prauss (1974) noted, the most common expression Kant uses is *Dinge an sich selbst*, rather than the shorter *Dinge an sich*. Prauss argues that '*an sich selbst*' is an adverbial modifier for an attitude like "consider". While both phrases can be translated the same way into English, if Prauss is correct the translation that better captures the spirit of Kant's text would be "thing considered in itself". In what follows, I freely use both 'thing in itself' and 'thing considered in itself' depending on what more naturally fits the context. As the reader will see, I think Prauss is right that things in themselves are objects of experience considered in a particular manner, although I do not think much hangs on the terminological considerations he relies on.

[3] Karl Ameriks (1992: 239) noted the startling lack of consensus regarding the interpretation of these doctrines nearly thirty years ago in a survey on the state of Kant studies, and no consensus has emerged in the ensuing decades.

[4] In calling the denial that we know things in themselves 'epistemic humility', I am following Rae Langton (1998).

[5] Another way to put this would be to say that appearances and things in themselves are extensionally but not intensionaly equivalent; I think, however, that the substantial/accidental being divide gets at the matter more directly. My understanding of accidental being in Aristotle is indebted to S. Marc Cohen (2013).

(2) Kant's denial that we know things in themselves therefore amounts to the denial that we know substantial or essential being – and thus to a denial that we know substance, if one follows the traditional equation of a substance with its metaphysical principles.

(3) Kant's argument for the unknowability of essential or substantial being begins from the *discursive* character of finite cognition. In brief, a discursive power of cognition is one that cognizes given representations by predicating concepts of them in acts of judgment. Discursive cognition is therefore cognition through *concepts*, and thus *through predicates*. However, Kant argues that what figures as a *predicate* in a real judgement is something that represents only *accidents* of the object cognized. Material exercises of a discursive power of cognition are, therefore, limited to *accidental* features of things; one cannot cognize essential or substantial being through an act of predication.

Before moving on, I want to clarify how I will be using the term *accident* in what follows – and thereby what I mean when I characterize appearances as 'accidents' or 'accidental being'. I will be using 'accident' in the manner suggested by Aristotle's *Categories*, where terms are divided exhaustively and mutually exclusively into the *essential* and *accidental*. In the *Topics*, Aristotle provides a more fine-grained account of the so-called 'predicables', distinguishing *species*, *genus*, *differentia*, *proprium*, and *accident*.[6] As I will use 'accident', it is a term for everything *except* the essence, and thus includes things like *propria* or necessary but non-essential features of a thing that follow directly from the essence. By accidental one should not thereby understand *contingent*.[7]

I also would like to clarify something about my ambitions in this dissertation. The interpretation I will be developing in what follows departs in rather significant ways from the dominant approaches in the literature. How it fits with respect to the literature will be discussed in more detail below, but I feel the need to say something about what I *don't* intend to do in this dissertation. I do not intend to show that competing approaches to these topics are all *wrong*.

[6] *Top.* 1. 5 102a18-30.
[7] This is in line with Kant's usage of the essential/accidental distinction. While he recognizes the traditional Aristotelian distinction between the essential, accidental, and *propria*, the most general division of terms or *marks* he makes is into those pertaining to the essence (*essentialia*) and those that fall outside the essence, or *extraessentialia* (a class that includes accidents, modes, powers, relations, and propria) (*JL* 9: 61; *L2* 28: 553).

Perhaps the biggest departure I take from the literature is my explanation of why Kant thinks we do not know things in themselves. I argue that this is due to the character of our *understanding*, while the dominant approach is to locate arguments for the unknowability of things in themselves in our *sensible* nature – in the fact that things in themselves cannot be *given* to us.[8] There is surely something right about such accounts, and it is not my intention to deny the role of sensibility, or of the transcendental ideality of space and time, in the full story of the unknowability of things in themselves.

The view I articulate in this dissertation must ultimately be compatible with these more traditional approaches – it is both implausible and philosophically unattractive to claim otherwise. However, I do think the approach I develop here has a certain *priority* to arguments for the unknowability of things in themselves that focus on the character of our sensibility. For the fact that objects must be *given* to us, the fact that our intuitions are thus *sensible* – the fact that we possess sensibility at all – is a consequence of the finite, and therefore discursive, character of our understanding. As such, my approach in what follows is to articulate the limits of finite knowledge from the standpoint of a discursive faculty of knowledge. The particular form our sensibility takes (namely that of space and time) are accordingly less central to the story I tell here. But I believe this approach to be a defensible one, and I hope that is borne out by the insight it affords us into the nature and limits of discursive thought.

The purpose of the remainder of this introduction is to provide some context for this project. In the following section (§1), I introduce a passage from the *Prolegomena* where Kant offers a detailed argument *from* the discursive character of our knowledge *to* the fact that we

[8] Robert Adams (1997: 806) provides a nice example of this thought, saying "the fundamental reason why things as they are or may be in themselves cannot be…objects for our cognition is not that we do not have the concepts for it, but that we do not have the intuitions for it." For further examples of such a view see Paul Guyer (1987: 336), Lucy Allais (2015: *passim*), and Eric Watkins and Marcus Willaschek (2017: 108-9).

cannot know substantial being, or the *Substantiale*. This passage functions as a kind of 'sermon text' for the dissertation, and I return to it repeatedly in what follows. Then, (§2) I lay out how the approach I take here fits within the broader landscape of interpretive work on these Kantian doctrines. My project self-consciously situates Kant within the broadly Aristotelian tradition of 'substance metaphysics' and skepticism concerning our knowledge of substance. It also draws rather freely from Kant's lectures, correspondence, and *Reflexionen* – i.e., from texts outside the standard canon of his published work. This obligates me to say a bit about my method and overall interpretive approach (§4). At the end, I give a brief overview of the coming chapters (§5).

1. The *Substantiale*

A full account of Kant's critical metaphysics of substance is developed throughout this dissertation. Here, I simply wish to note that Kant shares with the Aristotelian tradition a commitment to the thought that particulars have an 'essence', 'formal nature', or 'inner principle' which grounds and give rise to their faculties, powers, and accidents. He also shares with the most prominent medieval and early modern Aristotelians the thought that we cannot know the essences of objects of experience, writing that "of the real or natural essences of things…we are never able to have insight."[9] While he has a number of ways of making this point, variously denying we know the 'real essence', 'formal nature', and 'absolutely inner' character of objects of experience, his *explanations* for our inability to know the essence, formal

[9] *JL* 9:61; see also *WL* 24: 840; *L2* 28: 553. Kant marks a distinction between 'logical essence' and 'real essence' that is much the same as Locke's distinction between nominal and real essences (Kant often uses the terms 'logical' and 'nominal' interchangeably in contexts where he is considering essences and definitions). For Kant, the logical essence is comprised of the constituent concepts or *marks* contained in our conceptual representations of things, while real essences are metaphysical principles within substances that account for their unity and ground all of their accidents or determinations. I am only concerned here with Kant's denial that we know the *real essences* of things, and so for ease of exposition I use the term *essence* to designate Kantian real essences.

nature, or absolutely inner in things are often exceedingly terse. For example, Kant will often make the following sorts of claims:

> [W]e can infer the inner principle only from the properties known to us; *therefore the real essence of things is inscrutable to us*. (*L2* 28: 553, italics in original)

> Substances can be cognized only by means of accidents. We cognize only by concepts, and therefore by predicates, and thus accidents. (*L2* 28-2 (1): 562)

Such arguments in Kant have received little serious attention in the literature.[10] The most detailed of the many variations of this argument found in Kant's published writings is in the *Prolegomena*. Here I will quote the argument in full; the rest of this section will be devoted to offering a compressed reading of the passage. I have numbered the sentences for ease of reference:

> (1) It has long been observed that in all substances the true subject – namely that which remains after all accidents (as predicates) have been removed – and hence the *Substantiale* itself, is unknown to us; and various complaints have been made about these limits to our insight. (2) But it needs to be said that human understanding is not to be blamed because it does not know the substantial in things, i.e., cannot determine it by itself, but rather because it wants to cognize determinately, like an object that is given, what is only an idea. (3) Pure reason demands that for each predicate of a thing we should seek its appropriate subject, but that for this subject, which is in turn necessarily only a predicate, we should seek its subject again, and so forth to infinity (or as far as we get). (4) But from this it follows that we should take nothing that we can attain for a final subject, and that the *Substantiale* itself could never be thought by our ever-so-deeply penetrating understanding, even if the whole of nature were laid bare before it. (5) For the specific nature of our understanding consists in this: to think everything discursively, that is through concepts, thus through mere predicates, for which the absolute subject must therefore always be absent. (6) Consequently, all real properties by which we cognize bodies are mere accidents for which we lack a subject – even impenetrability, which must always be conceived only as the effect of a force. (*Prol.* 4:333)

[10] Béatrice Longuenesse (1998: 326-7) is one of the few commentators who have considered Kant's repeated claims that we cognize only accidents, although she ultimately dismisses it as Kant's settled view because she does not see how it can be compatible with his thought that the category of substance applies to appearances. However, this is a worry only on the assumption that one must be able to cognize the essence of a thing in order to represent it as a substance; such a view has had adherents in the history of philosophy (it is Descartes' view), but there is no reason to think it is Kant's view. My defense of the compatibility of Kant's denial that we cognize 'essences' or 'the substantial' with his claim that the category of substance applies to appearances can be found in Chapter Two, §2.2. I discuss Longuenesse's views in more detail in Chapter Five.

Kant opens the above passage by noting a history of reflections of the following sort: if we set the accidents of a substance aside, and hence consider the substance itself insofar as it is substantial (*Substantiale*), it is unknown to us. Kant here uses the Latin term *Substantiale* in a German context. Generally, his use of Latin in such contexts indicates he is employing a philosophical term of art, something he can perhaps expect the educated reader to be familiar with. As I will argue in Chapters Two and Three, the term '*Substantiale*' is, in fact, such a philosophical term of art: it is used extensively by Baumgarten in his *Metaphysica*, the textbook Kant lectured from for many years. Baumgarten uses *Substantiale* as a term for substance considered insofar as it is a real subject in which accidents inhere.[11] Substance insofar as it is *Substantial*(*e/is*) is, for Baumgarten, substance conceived independently of its accidents, and thus considered simply in terms of the metaphysical principles (in this case its essence) in virtue of which it is a real metaphysical subject, i.e. a real ground of the accidents that inhere in it.[12]

Kant is using the term *Substantiale* here in the same manner as Baumgarten: it indicates the principle of the substance, namely its real essence or formal nature, in virtue of which it is a real subject of inherence. As I show in Chapter One, Kant is quite right to say that the philosophical tradition is full of reflections on the unknowability of substance thus conceived.

In sentence (2), Kant states that this is not due to some simple limitation to or flaw in our cognition, as if the essence or nature of a substance was simply another ordinary property or feature of a thing along with, say, its color and mass. Rather, Kant states that the *Substantiale* is a special kind of representation he refers to as an *idea*. What it means to say that the *Substantiale* is an *idea* is a topic I treat in Chapter Five – but for the moment, we can say that for Kant *ideas*

[11] *Metaphysica*, §196.
[12] This, I think, is true generally of substance conceived independently of its accidents in the 17th and 18th centuries. On this point, see Michael Ayers (1981: 253).

are representations proper to reason, and to state that a representation is an idea is to indicate that its *object* is not something we can have (theoretical) knowledge of. Kant's claim that our representation of substance as *Substantiale* or as essence is an idea therefore commits him to the thought that the *Substantiale* is not a possible object of cognition.

Sentences (3-5) explain how the idea of substance as *Substantiale* or essence has its origin in the nature of reason (3-4) and show why the idea of substance as essence is not something that could be a possible object of knowledge (5). Sentence (3) states that pure reason seeks for each predicate of a thing we cognize its subject; however, this subject will itself turn out to be a mere predicate, and so the process of seeking subjects for the predicates of things we cognize forms a kind of potentially infinite series. *Why* Kant thinks every feature of a thing we cognize will turn out to be a 'mere predicate' will be discussed in chapters Three and Four. Kant's statement that reason seeks for each predicate cognized its ground is simply a compressed statement of what he thinks reason *is*. Kant characterizes reason as the faculty of principles, by which he means universal propositions that can stand as the major premise in a syllogistic inference.[13] As such, reason is the faculty that makes possible knowledge of necessary truths, for Kant characterizes the knowledge syllogistic reasoning affords as "cognition of the necessity of a proposition through the subsumption of its condition under a given general rule".[14] That is, the judgement that is the conclusion of an inference combines subject and predicate in such a way that one can see how the judgement derives from a rule that states that the predicate or its negation applies to the subject if a certain condition is met (the major premise) and that the subject meets this condition (the minor premise).

[13] A 300/B 356 fw.
[14] *JL* 9: 120.

Kant's conception of the role of syllogistic proof in contributing to cognition draws from a long Aristotelian tradition of what explanation of the natural world looks like.[15] In brief, such cognition involves comprehending the 'natures' or 'essences' of things in such a way that we come to understand how they ground and give rise to the various accidents and powers that are more immediately present to us in experience. As reason always seeks to achieve cognition through principles, it drives us to find for the cognition of particular features of objects we achieve through the understanding the more fundamental features of these objects that serve as their causal or metaphysical ground. This gives rise to what Kant calls the 'supreme principle of reason':

> [T]o find for the conditioned knowledge obtained through the understanding the unconditioned whereby its unity is brought to completion. (A307/B 364)

This principle is a kind of imperatival version of the Principle of Sufficient Reason (PSR).[16] Where the PSR states that for each thing that is the case there is an explanation, reason, or ground for its being the case, the 'supreme principle of reason' directs us to *find* for each such thing the ground or condition through which it is the case. Further, it asks us not to merely find *a* ground for it, but to so-to-speak 'complete the series' of grounds, and not be satisfied until we have met an *unconditioned* or *self-grounding* thing for which no further reason for it obtaining need be provided.

We can see, then, why Kant thinks that reason would dictate that for each predicate or accident of a thing we cognize in experience we seek its subject (i.e. ground). Sentence (4), however, states that given all we meet in experience will *in turn* be simply a further predicate or accident, we will never meet in experience the kind of ultimate ground (what Kant calls the 'final

[15] My discussion here is indebted to Matthew Boyle (2020).
[16] For a discussion of the connection between the 'supreme principle of reason' and the PSR see Omri Boehm (2014: 50 fw.).

subject' or '*Substantiale*') that would bring our desire for explanation to an end, even if "the whole of nature were laid bare before us". Finally, sentence (5) explains why every feature we encounter in experience is a 'mere predicate' or accident. The argument is quite compressed. Kant says that it follows from the nature of our understanding, which is such that it "thinks everything discursively, that is through concepts, thus through mere predicates, for which the absolute subject must therefore always be absent." It follows from the fact that our cognition is discursive, and thus involves acts of predication, that "all real properties by which we cognize bodies are mere accidents – even impenetrability, which must always be conceived only as the effect of a force." By *real property* Kant means what was known in the tradition as a 'reality', i.e. a positive determination of a substance.[17] The example Kant gives of something that is a 'mere accident' is 'impenetrability'. It is worth pausing over this example. The argument we have been considering occurs in the *Prolegomena* shortly after Kant's claim that 'impenetrability' is the feature or 'mark' on which the empirical concept of *matter* is based.[18] Impenetrability is not, therefore, just any accident – it is that which forms the basis of the concept of matter, which in turn stands as the highest genus under which every object of outer sense falls.

Kant's claim, then, is that even the most fundamental features of objects we can cognize are all 'mere accidents', that this is due to the predicative character of our cognition, and that

[17] In the most basic sense 'reality' in the tradition refers to a mode or way of being (this usage is reflected, e.g., in Descartes' discussion of 'formal' and 'objective' reality). Kant is here drawing on a derivative notion of 'reality', where realities (as opposed to privations or negations) are ways in which a thing exists or has being, and thus positive determinations of that thing. For further discussion of realities in the tradition see Newlands (2013), and for discussions of 'realities' in Kant see Chignell (2009), Proops (2015), and Rosefeldt (2020).

[18] *Prol* 4: 295. Kant uses 'mark' both as a term for the content of a concept, and thus a term for a partial representation, and as term for a feature, property, or accident of the object cognized through said representation. The same thing can be considered first insofar as it has 'intentional' or 'objective' being, and then insofar as it exists 'naturally' or 'formally', to use more familiar Thomistic/Cartesian vocabulary. For an excellent discussion of how Kant uses 'mark' in both an epistemic and a metaphysical register, and why he switches so effortlessly between the two, see Houston Smit (2000: 248 fw.).

because we are only acquainted with accidents we cannot cognize substance as *Substantiale* or essence, i.e. as the metaphysical subject in which accidents inhere. The task in what follows is to expand on the interpretation of this passage sketched above, and to vindicate my opening claim that understanding Kant's argument in this part of the *Prolegomena* will give us real insight into his thinking about the structure and limits of finite cognition – including just what it is Kant is denying we know when he denies that we know objects 'in themselves'.

2. Situating my Approach

In this section, I would like to briefly say how I think my approach to Kant's distinction fits within the larger literature of Kant interpretation – at least, how it fits with respect to the most influential extant positions in 'analytical' Kant interpretation in the 21st century.

Interpretive work on Kant's distinction – and on his idealism more broadly – has largely taken place between two extremes. On the first of these, Kant's distinction between appearances and things in themselves is not a *metaphysical* thesis. Rather, the distinction is made in a 'methodological' register – it is not a distinction made as a substantive premise or conclusion of any particular philosophical argument, but merely a tool or device employed by Kant to arrive at some substantive conclusion.[19] Henry Allison is by far the best-known and most influential proponent of the 'methodological' approach to Kant's distinction, although he was preceded in this general approach by Graham Bird and Gerold Prauss.[20]

On Allison's reading, the distinction between appearances and things in themselves is introduced in the service of establishing what Allison calls 'epistemic conditions': non-logical and non-psychological conditions on the possibility of knowledge, the establishment and

[19] This, anyway, is my gloss on Allison's distinction between 'methodological' and 'metaphysical' approaches to transcendental idealism – Allison is not terribly clear on how he understands the distinction, but this seems to capture the way in which he thinks Kant uses the distinction to arrive at a theory of 'epistemic conditions'.
[20] Allison (1983/2004), Bird (1973), and Prauss (1974).

elucidation of which Allison takes to be the central task of the *Critique of Pure Reason*.[21] On Allison's reading, the distinction is introduced to mark two ways of conceiving of an object. We can consider an object through the conditions in which it can be a possible object of representation or knowledge (this is to consider it as *appearance*). But we can also consider the same object in abstraction from epistemic conditions, or the conditions in which the object is a possible object of knowledge – this is to consider it 'in itself'.[22]

I have two principal objections to Allison and the 'methodological' approach to Kant's distinction. First, on this view, the fact that things in themselves are unknowable amounts to a tautology – it is, roughly, the claim that things are unknowable in the absence of the conditions in which one could know them. As such, the claim is trivial, and it is puzzling why Kant would go to such tremendous effort to establish it. Second, it makes Kant's conception of a thing in itself an *empty* concept. I don't mean empty in the sense of having no extension (presumably we can fix the reference of Allison's things in themselves demonstratively – *this thing,* considered in abstraction from the ways in which I can know it), but rather as empty in the sense of a concept that has no marks or determinations through which we can think it.[23] I am not going to provide an argument that an interpretation of Kant's distinction that (1) makes the unknowability of things in themselves non-trivial, and (2) gives the concept of a thing in itself some determinate meaning is superior to one that does not – I take this to be self-evidently true, and it is a presupposition of this project. One further thing I will say, however, is that Allison's approach is

[21] Allison (2004: 19) goes so far as to say that "transcendental idealism, as here understood, is a…theory of epistemic conditions."
[22] Allison (2004: 11-19).
[23] Allison might, of course, welcome this consequence, and Kant does have a term for a thing considered in abstraction from all relations to a cognitive faculty or presentational capacity – this is a *noumenon in the negative sense* (B 307fw.). The concept of a noumenon in the negative sense is, however, not something Kant identifies with things in themselves *simpliciter*; rather, Kant identifies it with the 'doctrine of sensibility' (ibid). As I understand him, Kant means that in considering the transcendental ideality of our forms of intuition in the Aesthetic, we also form the concept of an object whose only content is <*something not given to our sensibility*>. But this is no more the full story of things in themselves (or of noumena) than the Aesthetic is the full story of our power of knowledge.

difficult to reconcile with much of what Kant says about things in themselves in his larger corpus. When Kant opines that God knows things in themselves, and that we may perhaps hope to in the afterlife when we "are in community with God so as to participate immediately in the divine ideas which are the authors of all things in themselves", it strains credulity to think Kant is saying that through communing with the divine ideas we may know things in the absence of the conditions in which it is possible to know them.[24]

At the other extreme of Kant interpretation is the approach variously called the 'two-world' or 'two-object' interpretation of Kant's distinction (and his idealism).[25] On the two-object reading, things in themselves and appearances are two *distinct* sorts of objects. Appearances are the spatio-temporal objects of ordinary experience,[26] and things in themselves are a *distinct*, special sort of object – a kind of object that differs from appearances in some of the following ways: it is non-spatiotemporal; immaterial; and perhaps 'free' in the sense that certain substantive truths about it have no 'determining ground' through which they can be known.[27]

My principal objections to the two-object approach to Kant's distinction consist of an exegetical and a philosophical point. As an exegetical point, Kant is clearly committed to the fact that 'things in themselves' and 'appearances' indicate two ways of considering or 'taking' one and the same thing, speaking of "the distinction, which our critique has shown to be necessary,

[24] *Philosophical Theology Pölitz*, 28: 1052. I don't mean, of course, that it strains credulity to read this as saying we could thus know things in the absence of the conditions in which *human beings* can know them.
[25] The label 'two-world' is somewhat anachronistic, for the term 'world' is something of a technical term for Kant, indicating a whole that is not a proper part of any greater whole, all of whose parts stand in community or real connection. Kant states, moreover, that the Antinomies show that appearances do not constitute a whole with being 'in itself' and therefore fail to constitute a *world* in this sense – and this is why the Antinomies provide an indirect proof of transcendental idealism (A 506-7/B 534-5). So even the most ardent metaphysical readers of Kant should acknowledge that there is at *most* one world.
[26] There had been a tendency for two-object interpreters to have a phenomenalistic interpretation of appearances (cf. Strawson (1966), Bennett (1966, 1974), Van Cleve (1999)) but this approach has declined in recent decades along with the general popularity of phenomenalism.
[27] For versions of the special object view, see Strawson (1966), Van Cleve (1999), Watkins (2005), Hogan (2009a, 2009b), Stang (2014, 2015), and Jauernig (2021). Focus on the immateriality or non-spatiotemporal character of things in themselves is, unsurprisingly, most common; the claim that things in themselves have no 'determining ground' through which certain of their features can be known has been argued by Hogan (2009a, 2009b, 2009c).

between things as objects of experience and those same things as things in themselves."[28] Furthermore, the fact that appearances and things in themselves are two ways of 'taking' one and the same thing is of crucial import for Kant's practical philosophy.[29]

Finally, as a philosophical issue, I do not think the problem of the knowability of things in themselves can emerge as a genuine philosophical *problem* unless we can get some purchase on what it is we fail to have knowledge of. At its worst, the two-object readers have Kant introducing by a kind of stipulative definition a novel class of entities, and then informing the reader they cannot have knowledge of such things. But – and I am well aware this falls short of constituting an argument – I do not think we can feel ourselves moved by the unknowability of things in themselves as a philosophical problem if things in themselves are a novel class of entities Kant is introducing in this way.

Recent decades have seen the emergence of a family of readings of Kant's distinction that are neither methodological nor two-object approaches. Part of the appeal of the methodological approach is that it can respect the sense in which appearances and things in themselves are numerically identical – they are different ways of 'taking', to use Kant's vocabulary, one and the same thing. Allison originally framed his methodological approach to Kant's distinction in opposition to 'metaphysical' approaches. But he simply assumed that any metaphysical approach

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[28] B xxvi. Some two-object readers (e.g., Stang 2015, Chignell and Sandoval 2017) are overly impressed by the fact that there is of course *some sense* in which things in themselves and appearances are non-identical. For example, by Leibniz's Law I think it follows in some trivial sense that appearances and things in themselves are distinct on *every* interpretation – even on Allison's view, they are going to have some different relational properties (e.g. being 'conceived-in-abstraction-from-the-conditions-in-which-it-could-be-known' will not be a relational property of any appearance). Robert Adams (1997: 821 fw.) provides a nice overview of some of the problems of the identity and non-identity of appearances and things in themselves that metaphysical interpreters of Kant's distinction may wish to puzzle over. As stated above, I think my approach has the merit of avoiding most of the puzzles Adams raises: both the identity and non-identity of appearances and things in themselves are no more puzzling than the identity and non-identity of 'Socrates' and 'seated Socrates'. The closest view I know of to mine in the literature is in Marshall (2013), where Marshall builds on Kit Fine's (1982) notion of a *qua*-object to explain Kant's distinction. The similarity, as far as I can tell, is due to the fact that Fine is there drawing on Aristotle's notion of accidental being such as 'the walker' or 'seated Socrates' in developing his theory of *qua*-objects.

[29] Ameriks (2000) makes this point well.

had to be a two-object approach – 'metaphysical' as he used it, was synonymous with 'two-object' or 'two-world' views; similarly, Allison assumed any identity or two-aspect view had to be 'methodological'.

Recent decades have seen the emergence of *metaphysical* two-aspect or identity views. Such an approach was pioneered by Rae Langton and Daniel Warren, and has also been defended by Lucy Allais and Tobias Rosefeldt.[30] Metaphysical two-aspect readings generally understand the distinction between appearances and things in themselves in terms of a distinction between two sorts of properties or features an object may have: 'intrinsic' vs. 'extrinsic' for Langton; 'absolutely inner' vs. 'comparatively inner' or 'outer' for Warren; and 'essentially manifest qualities' vs. 'categorical' or 'intrinsic natures' for Allais.[31]

I think some version of the metaphysical two-aspect view is the most promising way to understand Kant's distinction. I think the approach taken by Langton and Warren – that of approaching the very abstract questions of what Kant means to deny when he denies we know things in themselves, and why he denies it, via understanding the more determinate restrictions Kant places on our knowledge – is the best way to make interpretive progress. For Kant does not merely deny that we can cognize objects as they are 'in themselves'; he also denies we can cognize the 'real essences' of objects of experience, their 'formal nature', the 'absolutely inner' in things, and substance as substantial.[32] This dissertation is, in part, a contribution to the broader project of understanding Kant's distinction and epistemic humility via the (hopefully) more tractable interpretive questions of why Kant denies we know essences or substantial being.

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[30] See Langton (1998), Warren (2001), Allais (2015), Rosefeldt (ms.).

[31] Throughout the dissertation I engage principally with the views of Langton and Warren. I think these are the most sophisticated and original versions of the metaphysical two-aspect view in the literature, particularly as regards the *detailed metaphysics* of the views. Allais, for example, has some local disagreements with Langton about e.g. whether intrinsic properties are causally inert or not, and the exact character of the relational properties that constitute appearances, but still agree on fundamentals, as she herself notes (2015: 232-3).

[32] For the denial we know real essences see (28: 116; *L2* 28: 554; *Correspondence* 11: 37), nature in the 'formal sense' (28: 49; *Mrongovius* 29: 821), the absolutely inner in things (A 277/B 333), and the substantial (*Prol* 4: 333).

I discuss the views of Langton and Warren in more detail below, chiefly in Chapter Two. Here, I would like to briefly state some bigger-picture issues I have with their approaches, focusing on Langton.[33] Langton is – I think rightly – struck by the distinction Kant draws between 'absolutely inner' features of an object and those that are 'comparatively inner' or 'outer', and by Kant's denial that we can know what is absolutely inner in things. Langton explicates Kant's distinction between 'absolutely inner' and 'comparatively inner/outer' in terms of the distinction between 'intrinsic' and 'relational' properties. However, her approach is anachronistic in a way that prevents her from fully appreciating what Kant's distinction amounts to. She develops her account of the distinction between 'intrinsic' and 'relational' features of an object using the tools of contemporary modal metaphysics: a property of an object is 'intrinsic' if it is one that object has independently of whether or not any other things exist.[34] Even if her account were otherwise adequate – I will argue in Chapter Two that it is not – Langton's account is still unsatisfying, for it picks out as the defining characteristic of what is absolutely inner in things something that would only be a consequence of a more fundamental way of characterizing them.[35]

Finally, the position that I defend here is unique among 'metaphysical two-aspect' views in that the distinction I mark between appearances and things in themselves is not a distinction between two sorts of *properties* an object may have. Rather, the distinction I draw is between a *thing* and *its properties* or *accidents*. Things in themselves are, I argue, things considered merely

[33] For my purposes here, I think it is fair to treat her views as a stand-in for both. While Warren's understanding of the inner/outer distinction isn't presented as precisely as Langton's, they share the basic intuition that inner features of objects are those that obtain independently of the sorts of relations that object may stand in to other things, and that is sufficient for my purposes.
[34] Langton's precise way of formulating this is discussed in Chapter Three, where I argue that her definitions are inadequate to model what she wants them to, namely Kant's distinction between 'inner' and 'outer' predicates. One problem is that, in contemporary parlance, Kant's notion of the 'inner' and the 'outer' are *hyperintensional*, and so the modal machinery Langton employs is not fine-grained enough to capture them.
[35] Boyle (forthcoming) makes a similar criticism of Langton.

with respect to *their metaphysical principles* (e.g. their form or essence) in virtue of which they are real subjects of accidents, and appearances the accidents of things. And, if one follows the traditional equation of a substance with its metaphysical principles, the resulting view is that the distinction between things in themselves and appearances is the distinction between a *substance* and its *accidents*. Spelling out the details of this view is the task of the remainder of this dissertation.

3. Distinguishing 'Critique' and 'Doctrine'

One natural worry about the interpretation of Kant's distinction I develop here is a kind of incongruity with the problem as it first appears in the *Critique of Pure Reason*. If the view presented here is correct, why does Kant not just say at the opening of the *Critique* that by 'thing in itself' he will mean substantial being or essence? Instead, he introduces the distinction in the following manner:

> In the analytical part of the critique it is proved…that we can have cognition of no object as a thing in itself, but only insofar as it is an object of sensible intuition, i.e. as an appearance[.]…Yet the reservation must also be well noted, that even if we cannot **cognize** these same objects as things in themselves, we at least must be able to **think** them as things in themselves. For otherwise there would follow the absurd proposition that there is an appearance without anything that appears. (B xxvi-xxvii)

Kant's argument here seems to be as follows: (1) in experience we cognize objects given in sensible intuition, i.e. *appearances*, (2) if something can be considered as *given to us* (i.e. considered as appearance), it can be considered apart from being given to us (i.e. as a thing in itself), (3) therefore we must be able to mark a distinction between *appearances* and *things in themselves.*

If we read 'thing in itself' as substantial being or essence in the above argument, it looks like an *incredibly bad argument*. But the same is true for *every substantive interpretation* of

'thing in itself' – it's also a terrible argument if we read 'thing in itself' as simply indicating a non-spatiotemporal entity.[36] A such, I don't think we should read the above argument as making *any* substantive claims about things in themselves. All Kant is doing is indicating two ways of 'taking' or conceiving an object – as something sensibly given to us, and thus a possible object of cognition; and as that same thing having whatever sort of being it has independently of being given to us. Any claims about the *sort of being* so conceived will have to be arrived at through further argument.

The problem of the thing in itself *in its most fully articulated form* is, as we will see, the problem of the *unity of an essence* - it is the problem of the simple unity of that in a substance which is the cause or ground of all of its faculties, powers, and accidents. As such, an articulation of the problem of the thing in itself seems to involve a host of other substantive philosophical commitments – a commitment to a certain metaphysics of substance, on the one hand, and a commitment to a certain kind of metaphysical rationalism, on the other.[37] Kant's relation to metaphysical rationalism is a major theme of this dissertation as a whole, and here I can only indicate the account of Kant's relation to metaphysical rationalism that will, I hope, emerge more fully out of the work as a whole.

Kant's relation to metaphysical rationalism is not that of a straightforward endorsement – he is not committed to the *truth* of metaphysical rationalism as a description of being as such. Kant does, however, think a version of the PSR can be found in the "supreme principle of reason" by which he means that *reason as a faculty* is guided by a commitment to universal intelligibility and explicability – the distinctive contribution reason makes to cognition is that of

[36] I mean here that such an argument does not show that the being of objects given to us differs in any significant way from the being those objects have in themselves.

[37] By 'metaphysical rationalism' I mean a view that accepts the Principle of Sufficient Reason – the view that all things or facts are explicable. A metaphysical rationalist is, then, someone committed to the intelligibility of being as such. For an articulation and defense of the PSR that I am indebted to see Michael Della Rocca (2010).

finding principles through which to understand and explain the particular cognitions that are the products of the understanding. This means, of course, that the thing in itself in its most articulated form as described above – the simple essence that unites and grounds all of the faculties, powers, and accidents of a substance – is not something the existence of which Kant is straightforwardly committed to in the way that, say, Leibniz might be straightforwardly committed to the existence of simples.

There are two Kantian distinctions that I think will help make sense of the relation between the thing in itself as introduced in the B Preface above and what I have called the thing in itself in its most fully articulated and developed form. These are the distinctions between *critique* and *doctrine* on the one hand, and between the *analytic* and *synthetic method* on the other.

First, by *critique*, Kant means a distinct kind of discursive activity intended as a precursor to metaphysics. Critique is "propaedeutic (preparation), which investigates the faculty of reason in regard to all pure *a priori* cognition".[38] This discursive activity, which Kant broadly refers to as 'reflection', is described as a kind of self-cognition of our faculties: it is a science in which reason is concerned "merely with itself, with tasks which spring wholly from its own womb and which are set for it not by the nature of things but by its own [nature]."[39] We undertake this task as a 'propaedeutic' to metaphysics. It is a *propaedeutic* to metaphysics because through such reflective activity we isolate the fundamental concepts of metaphysics – the categories – and as such demonstrate the principles to be followed in the construction of a scientific metaphysics.[40] In addition to enumerating the principles of scientific metaphysics, the *Critique* "catalogs the

[38] A 841/B 869; cf. B xxiii, A xi.
[39] B 23.
[40] A 82/B 108.

entire outline of the science of metaphysics, both in respect of its boundaries and in respect of its entire internal structure."[41]

Kant contrasts critique with *doctrine*. Doctrine is, in short, the fully articulated system of metaphysics that critique makes possible: it is the "complete system of the philosophy of pure reason".[42] Such a completed scientific metaphysics will include not just the fundamental concepts of metaphysics, namely the categories, but also a complete enumeration and exposition of all derivative a priori concepts, or as Kant calls them *predicables*. Kant never completed such a task – although both the *Metaphysics of Morals* and the *Metaphysical Foundations of Natural Science* are understood by Kant as contributions to doctrinal metaphysics – but he refers the reader to various existing works in ontology if they wish to get a sense of what a complete exposition of the concepts of metaphysics might look like.[43]

As a work of first philosophy, the *Critique* must proceed without presuppositions – it cannot take any received knowledge, including any prior philosophy, for granted. As such, it proceeds via the *synthetic method*. Kant's most famous description of the synthetic method is found in the following passage from the *Prolegomena*:

> In the *Critique of Pure Reason* I worked on this question synthetically, namely by inquiring within pure reason itself, and seeking to determine within this source both the elements and the laws of its pure use, according to principles. This work is difficult and requires a resolute reader to think himself little by little into a system that takes no foundation as given except reason itself, and that therefore tries to develop cognition out of its original seeds without relying on any fact whatever. (*Prol* 4: 274)

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[41] B xxiii.

[42] A 12/B26. See also A 247/B 304, where Kant contrasts *critique* with ontology, which is a "systematic doctrine". Kant often uses the term 'doctrine' just to indicate any systematic body of cognition insofar as it is 'material' or concerned with objects, e.g., at *KU* 5: 176; *R* 3964; *MAN* 4: 468 (this indicates, of course, that 'critique' is by contrast a *formal* science). The distinction between critique and doctrine I have in mind is one that takes place within metaphysics, where 'doctrine' is a term for systematic metaphysics, the sort made possible by critique. The relation between critique and doctrine will be returned to in Chapter Five.

[43] Kant (*Prol* 4: 326) tells the reader that a full account of the predicables can be extracted in Baumgarten's *Metaphysica*.

Because the *Critique* advances synthetically, proceeding via resources that are available via sheer reflection on our cognitive faculties, it cannot just help itself to the philosophical concepts and vocabulary that one might find in doctrinal philosophical texts. And, therefore, it would be wholly inappropriate for Kant to introduce the distinction between appearances and things in themselves in the *Critique* in terms of a distinction between substantial and accidental being, or the essence of a substance and its accidents. That would be employing philosophical vocabulary and concepts that Kant is not yet entitled to. Kant must mark the distinction in terms of something that is immediately available to reflective consciousness, namely in terms of the way something is given to us in experience, and whatever sort of being that object may have independently of being so given. This also explains why, when Kant does introduce technical philosophical vocabulary (e.g. the *a priori*/*a posteriori* distinction), he does not introduce them either as terms already understood (although any of his readers would be familiar with them), or by providing explicit definitions. So, although Kant claims in other works that he understands the *a priori/a posteriori* distinction in the same way his peers do (namely in terms of cognition from the grounds of a thing vs. cognition from its effects),[44] he introduces e.g. *a priori* in terms of marks or features that he thinks have a distinctive phenomenology that will be immediately available to reflective consciousness – namely the marks of *necessity* and *universality*.

What I above called the 'fully articulated problem of the thing in itself' is, then, something I think of as Kantian *doctrine*. It is what the problem – as first inaugurated or made available by critique – looks like in a fully articulated system of metaphysics, where one can help oneself to the conceptual resources required to state the view. I don't mean that this is not the view presented in the *Critique* – just that it is something Kant is not in a position to state at the opening of that work, where he doesn't yet have available even such fundamental concepts as

[44] *ÜE*, 8: 320.

substance and *accident*. This is also why I draw so freely on Kant's lectures – particularly his lectures in logic and metaphysics. That is a place where we do find Kant freely expounding on doctrinal philosophy, and so it is often in these lectures (along with correspondences and *Reflexionen*) that we can most clearly see the fully articulated doctrine critique makes possible.

4. Overview of the Coming Chapters

The five chapters that follow situate Kant's denial that we know things in themselves within a broader tradition of reflections on the unknowability of substance; develop the interpretation of Kant's denial that we know things in themselves sketched above; and show that the approach taken here is 'critical' in Kant's sense.

In Chapter One, I open by situating Kant's claim that we do not know the *Substantiale* within a broader history of reflections on the knowability of substance in late medieval and early modern thought – focusing in particular on Thomas Aquinas, Francisco Suárez, and John Locke. Then, I situate Kant's discussion of the *Susbstantiale* within a debate about the metaphysics of substance in the German rationalist tradition. For Leibniz and those most immediately influenced by him – Christian Wolff and Alexander Baumgarten – there was no 'problem' about the knowability of substance or its metaphysical principles. I argue that this is partly explained by their reinterpretation of the classical metaphysics of substance in terms of an ontology of powers or forces, and their identification of *form* and *essence* with the capacities and powers of a substance. Kant, I argue, resists this identification of capacities or powers and essence, holding the more classically Aristotelian/Thomistic view that while the capacities and powers of a substance are grounded in its essence, they are not identical with its essence – and this return to a more traditional metaphysics of substance opens up the conceptual space for the denial that we know substantial or essential being.

In Chapter Two, I connect this historical background to Kant's distinction between appearances and things in themselves. I argue that Kant's distinction between appearances and things in themselves should be understood in terms of the classical distinction between accidental and substantial being, making the textual and philosophical case for the view sketched in this introduction.

In Chapter Three, I turn to Kant's argument for why we cannot know things in themselves. I argue that the unknowability of the essences of objects of experience – and thus the unknowability of those same objects taken 'in themselves' – follows from the discursive character of finite cognition. In brief, *material exercises* of a discursive power of cognition involve *determining given representation* by predicating concepts of them in acts of judgement. Discursive cognition is thus, as Kant puts it in the *Prolegomena* passage, cognition "through concepts, and therefore through *mere* predicates". Kant argues that the features of an object cognized through and represented by a predicate are one and all *accidents*, and therefore one cannot cognize essential or substantial being through an act of predication.

In Chapter Four, I show that my reading is compatible with Kant's claim that we have knowledge of the essences of mathematical objects. I argue that mathematical knowledge is non-predicative, and in *some sense* non-discursive – hence Kant's characterization of mathematical cognition as *intuitive rational knowledge*. Further, I argue that Kant thinks we can know the real essences of mathematical objects because we have a kind of 'maker's knowledge' of the objects of mathematics, and argue that we should ascribe to Kant the view that one can know something as it is 'in itself' only insofar as one is either (1) the ground of its possibility, or (2) the ground of its actuality, i.e. brings it about as far as its existence is concerned.

In Chapter Five, I argue that the rich metaphysics of substance I have developed in this dissertation is something we can attribute to Kant without he is guilty of *dogmatism*. I argue that a properly critical metaphysics must show how the basic concepts it employs are drawn 'from the faculty of thinking' and show how we might give a critical derivation of the concepts of *power* and *essence* that I take to be central to Kant's critical metaphysics.

Chapter One: The Knowability of Substance

"[N]o substance is understood in itself" – or so says Duns Scotus. With respect to our practice of offering apparent real definitions of substances, he states that "we have a vocal disposition, just as one born blind is able to syllogize about colors."[1] In other words, we can go around defining things all we want, but it does not change the fact that we do not, in some basic way, know what we are talking about. Scotus is not alone in expressing pessimism regarding our ability to know substances, or their essence, or give real definitions of the objects we encounter in our daily lives. Thomas Aquinas, for example, writes that "the essential principles of things are unknown to us",[2] and Francisco Suárez that "never can we explicate the essences of things, as they are in the thing".[3]

Denial that we can know the metaphysical principles of substance (e.g., form, prime matter, or essence) and, therefore, that we can *know substance*, is found in virtually all the leading scholastic philosophers. It is also found in those modern philosophers, such as John Locke, who maintain broadly Aristotelian commitments in metaphysics, logic, and natural philosophy. A characteristic feature of philosophy in the Aristotelian tradition, then, is the view that we do not know what substances (*res* or 'things') are 'in themselves'. Substance, that which is *per se* or 'in itself', is a necessary concept of everyday experience and metaphysical theorizing, but not something we are able to achieve knowledge of.

Stated at such a level of abstraction, there is a striking affinity between scholastic Aristotelian philosophy and core tenets of Kant's transcendental idealism. Both mark a distinction between a thing as it is knowable to us and that same thing as it is in itself, and both

[1] *Q.Met* 2.2–3, 115–19.
[2] I*nDA* 1.1 254-5.
[3] *Disp.* 40§4p16.

deny that it is within the capacity of finite beings to know things as they are in themselves.[4] As far as I know, this affinity has not been seriously considered by interpreters of Kant.[5] One reason for this may be that the scholastic version of 'epistemic humility' has been downplayed and even forgotten by some historians of philosophy. This is partly because scholastic attitudes towards substance, essence and substantial forms were misrepresented – intentionally or unintentionally – by early modern critics of Aristotelian philosophy such as Descartes, who acted as though the scholastics treated substantial forms as perfectly intelligible entities,[6] thereby obscuring the scholastic claim that the real nature of things is unknown to us.[7] Whatever the reason may be, the goal of the present study is to take seriously Kant's affinity with this long philosophical tradition, and in doing so to shed light on and add content both to Kant's distinction and his epistemic humility.

The principal aim of this chapter is to situate Kant's remarks on the *Substantiale* within a longer history of reflections on the knowability of substance in medieval and early modern thought. Kant prefaces his argument for the unknowability of the *Substantiale* by stating that the history of philosophy is full of reflections of the following sort: "in all substances the true subject – namely that which remains after all accidents (as predicates) have been removed—and hence the substantial (*Substantiale*) itself, is unknown to us[.]"[8] Stephen Engstrom (2018) has recently claimed that the philosophical position Kant has in mind in the *Prolegomena* passage is that

[4] And both state that God (and perhaps angels) can and do know things as they are in themselves. See Aquinas *DV* Q 2.7, Kant, *Pölitz* 28:1052.
[5] A notable exception is Matthew Boyle (forthcoming), which situates Kant's denial that we know things in themselves within the longer Aristotelian tradition and which has had a profound impact on my approach here – far more than can be accounted for by individual citations. Connections between Kant and Locke discussed below have also been made by Houston Smit (2014).
[6] Descartes, "Letter to Merin", CSMK, p. 122.
[7] This confusion is found in more recent authors. J.L. Mackie, for example, writes that the scholastics believed "that in defining things and classifying them into genera and species they were, merely by processes of ratiocination and verbal disputation, arriving at knowledge of the true essential natures of things." (Mackie, 1976: 86).
[8] *Prol.* 4: 333.

substance is a so-called *bare substratum*, a view often associated with Locke and Berkeley. Thinking Kant has the substratum view in mind, Engstrom finds Kant merely criticizing a confused philosophical view, and thus does not read the passage as expressing any deeper insights into the nature and limits of our knowledge. The first task of this chapter, then, is to make the case that Kant has an entirely different sort of philosophical view in mind – namely, that Kant means to situate his remarks on the *Substantiale* within the history of Aristotelian epistemic humility mentioned above.

I open (§1) with the reading of the *Substantiale* passage offered by Stephen Engstrom, on which the passage is read as a critique of substratum theories. Then (§2), I begin the work of developing my alternative interpretation, in which Kant is denying that we know the metaphysical principles of substance, such as its essence. I do this by situating Kant's claim within a broader Aristotelian tradition of skepticism about the knowability of substance. Next, (§3) I turn to the metaphysics of substance found in the German rationalist tradition. I argue that a core project in this tradition is the reinterpretation of Aristotelian metaphysics in terms of a powers- or force-based ontology. Kant's remarks about the *Substantiale* are in part a critique of this tradition, and its equation of the form or essence of a thing with its powers. I close (§ 4) by considering the view of substance and essence Kant leaves us with.

1. The Substratum Reading

Stephen Engstrom offers the following gloss on Kant's use of the term 'substantial' (*Substantiale*): Kant's reflections on a subject considered independently of its accidents is intended as a critique of Locke's view that even when we know the qualities of a substance, something about the substance remains unknown to us. Kant's thought is meant to be that it is only through a determination that an object can be known to us. But the thought of the

substantial just is the thought of a substance without any determinations; as such it should come as no surprise that such a thing would be unknowable to us. But, he goes on, a thing without any determinations is no *thing* at all; in the German rationalist tradition, being completely determined with respect to every pair of opposing predicates is intimately connected to the notion of being an existing thing.[9] It is therefore a confusion of Locke's, on this reading, to think that there is an existing, featureless thing which we are incapable of knowing, and Kant's remarks on the *Substantiale* should be understood as exposing Locke's confusion.

Engstrom goes beyond merely identifying Locke as the implicit target of Kant's criticism, and develops a diagnosis of why metaphysicians have been led to consider substance as a featureless substrate. The diagnosis is as follows. The pure category of substance – our original concept of an object – is a merely formal representation, universally applicable and, therefore, empty of any content more determinate than the thought of a subject of predication. Engstrom writes that

> It is thus not surprising that, although metaphysicians inquiring into the first principles of knowledge may, in their analysis, focus their attention on the object represented through this concept and seek to "consider it naked", as Descartes said, Locke and many other philosophers regard pure substance considered in isolation from all accidents as an "unknown support", of which we are "perfectly ignorant". (Engstrom, 2018: 252)

The error Engstrom attributes to Locke is that of having mistakenly reified a formal concept, coupled with a kind of fallacy of composition. In seizing on this conception of substance, Locke noticed that accidents depend on the subject in which the inhere in a way that substances do not

[9] Baumgarten, for example, defines 'actuality' or 'existence' in terms of complete determination at *Metaphysica*, §54, and Leibniz famously connects this notion of complete determination with that of substance (cf. *Discourse on Metaphysics*, §8).

depend on their accidents.[10] But it clearly does not follow from this that there can be an existing substance without any determinations. Thinking that it does follow explains, Engstrom suggests, the infamous 'naked substance' of modern philosophy.

We should note that Engstrom takes Kant to be offering a criticism of the notion of substance that anticipates one commonly found in 20th century philosophy. A representative example can be found in the following passage from Bertrand Russell's *History of Western Philosophy*:

> 'Substance', when taken seriously, is a concept impossible to free from difficulties. A substance is supposed to be the subject of properties, and to be something distinct from all its properties. But when we take away the properties, and try to imagine the substance by itself, we find that there is nothing left. (Russell, p. 201)[11]

Russell proceeds to try and convince the reader that substance should be understood as a convenient way of 'collecting events into bundles'. Engstrom does not, of course, wish to convince his reader to accept a bundle theory. But he has Kant engaging in criticism of a philosophical position that is more a creation of philosophers critical of the very idea of substance than a position that has been seriously held in the history of philosophy, particularly the history of philosophy prior to the 19th century. It is no accident that the conception of substance as featureless substratum has been attributed to Locke, Aristotle and 'scholastically trained thinkers' by individuals such as Russell and J.L. Mackie who wished to persuade philosophers to abandon the concept of substance altogether.[12] In what follows I will argue that it is a mistake to attribute a conception of substance as substratum to Locke, let alone Aristotle or

[10] This goes hand in hand with the modern denial of 'real qualities', qualities that are a *res*, as heat and motion were sometimes taken to be. For a discussion of the modern denial of real qualities see Stephen Menn (1995a). Kant often repeats this Cartesian point, focusing in particular on how 'motion' is not a real quality but a state of substances.
[11] A similar criticism can be found in Mackie (1976: 77).
[12] Mackie (1976: 79). Mackie's reluctance to pick out any particular such thinkers is, I think, an indication of how seriously we should take this charge.

the major figures of scholastic philosophy. Whether anyone has seriously held such a view is not something I am in a position to answer, but I will note that it is a bit suspicious that it is much easier to find *critics* of the substratum conception of substance than it is to find genuine adherents of such a view.[13] Once we see why attributing such a view to Locke is mistaken, we will be in the position to see how Kant's remarks on the substantial provide insight into his understanding of finite knowledge more generally.

2. Developing an Alternative

I think we have several reasons to find the 'substratum' interpretation of the substantial unsatisfying. For one, it trivializes the *Prolegomena* passage outlined in the Introduction. It has Kant making an obvious point: if there is nothing there to be known, there is no way to know it. As such it makes the rest of the passage rather mysterious. Why would it follow from such a point that a discursive understanding can only cognize accidents, and consequently that all real properties by which we cognize an object are 'mere accidents'? It also fails to pay due attention to the text. For Kant claims that the *Substantiale* is substance considered without any accidents, not considered without any marks whatsoever. Accidents, for Kant, comprise a genus of marks consisting of internal relations (*modi*) and external relations (*relationes*). It does not include marks that are constituents of the essence of a substance (*essentialia*), nor does it include those that follow or flow from the essence (*attributa*, a class which further divides into common

[13] This is a point that requires some subtlety, for there are positions philosophers have both adopted and entertained for dialectical reasons that resemble this substratum theory. William Ockham's theory of matter as something that is an actually existing *res* does look close to a 'bare substratum' – but even this is somewhat complicated, for matter for Ockham has quantitative determination and extension (it has "parts outside of parts") (*Summula philosophiae naturalis*, ch. 12), and is thus not truly a *bare particular*. Either way, Ockham's position comes closer to the bare substratum reading than most – I want to emphasize, however, that this was a quite heterodox interpretation of Aristotelian matter. A second historical antecedent is the picture of matter as substratum that Hylas defends in Berkeley's *Dialogues*. Here, however, the position is one introduced dialectically solely so that Berkeley can enjoy picking it apart. However, even given these potential historical antecedents, I think the larger claim that a substratum conception of substance is largely a fictitious invention of philosophers who are hostile to the idea of substance has merit.

attributes which follow from only some of the essentialia, and proper attributes or *propria*, which follow from the essence as a whole and are proper to and convertible with the species). The substratum reading is also difficult to fit with the complex discussions of the *Substantiale* found throughout Kant's corpus, and in figures in the German rationalist tradition to which Kant directly responds such as Baumgarten. Finally, it depends on a modern misunderstanding of what it is to consider a substance 'naked', with the accidents set aside. There is, in fact, a long intellectual tradition – we can call it broadly the scholastic Aristotelian tradition – that conceives of the ideal of knowledge in terms of knowing *what* the substance is, and thus as knowing the substance with the accidents put aside, as it were. On the presupposition that the scientist or natural philosopher is concerned only with the essence (and so genus and specific difference) and properties of a substance, the scientist is in the business of considering substances independently of their accidents.[14] And when a metaphysician such as Descartes – hardly a scholastic Aristotelian – sought to consider a piece of wax independent of its accidents, to "take the clothes off, as it were, and consider it naked" this was not an exercise in trying to think *nothing*, but was meant precisely to bring the nature or essence of the wax (or in more properly Cartesian terms the *principle attribute* of wax) into view for the first time. As Michael Ayers puts this point:

> So far from being, as the less perceptive modern commentators are inclined to assume, wholly natureless, the naked substance of seventeenth-century philosophy, whether Aristotelian or anti-Aristotelian, precisely is the properties and, above all, the essence exposed to view. Everyone agreed with Aristotle's

[14] This ideal of knowledge as involving a demonstration *propter quid*, wherein the middle term of the syllogism is the cause and explanation of the conclusion, is at the core of the conception of science in the Aristotelian tradition (for a classic statement in Aristotle, see *An. Post.* 71b 18-19). In a general sense such demonstrations involve showing how a predicate holds of a subject by showing that it is caused by the sort of thing the subject is – e.g. (P1) All philosophers are humans; (P2) All humans are risible; (C)All philosophers are risible. But, as we will see, one can have such an ideal of knowledge and still think we fail to have knowledge of the essences of things – perhaps by thinking that we sort things into natural kinds in terms of their properties, and that such syllogistic reasoning requires merely that we be able to connect predicates with a subject by seeing how these predicates follow from the kind of thing the subject is, where our ability to do this still does not mean we have a grasp of the essential nature of the thing (this seems e.g. to be Scotus's view).

> principle that the substance and the essence are one and the same. (Ayers, 1983: 253)

My contention, then, is that a more faithful interpretation of sentence (1) of the *Prolegomena* passage finds Kant claiming that "It has long been observed that the essence or substantial form of a substance – and thus in some sense the substance itself – is unknown to us."[15] A full exposition and defense of this interpretation will be the work of the rest of this chapter. But, if this interpretation is correct, then Kant is quite right that the unknowability of essence, or substantial form, or substance itself has long been observed in the philosophical tradition. In what follows, I discuss how this is a prominent theme in the scholastic tradition, found in virtually all its most important figures, and in early modern philosophy. In scholastic philosophy, I focus on its most prominent figure (Thomas Aquinas), as well as Francisco Suárez, who, apart from being a significant influence on philosophers such as Leibniz and Descartes, was highly influential in the teaching and development of metaphysics in Germany in the 17th and 18th centuries. [16]

2.1 The Knowability of Substance in Medieval Philosophy

There is a common narrative in the history of philosophy on which the knowability of substance first became a problem in early modern philosophy, when various anti-Aristotelian philosophers came to doubt that our knowledge of bodies extended beyond mind-dependent

[15] The question of the relation between the terms 'substantial form' and 'essence' is a quite complicated one. There are philosophers in the Aristotelian tradition who identify the two, saying that the essence of a thing just is its form. For Aquinas, they are distinct in that the essence of a thing will include everything in its definition, and so in the case of material substances the essence will include both the form and common matter. On this view substantial form and essence are distinct in the way a proper part is distinct from a whole. And on later scholastic views, such as that of Suárez, substantial forms are invoked to explain what unites and regulates all the powers, properties and qualities of a substance, so it is somewhat misleading to identify the substantial form with any particular collection of the features or predicates of a thing (say, those which constitute its essence). However, where I don't think it philosophically significant to distinguish between substantial form and essence, I use the terms interchangeably.
[16] For discussion of Suárez's place in the development of German *Schulmetaphysik* see Ludger Honnefelder (2003). Heidegger offers a brief discussion of Suárez's place in the development of modern philosophy, including German *Schulmetaphysik*, at (1982: 78 fw.). A thorough discussion of Leibniz's indebtedness to Suárez can be found in Roger Ariew (2012).

sensible qualities. This narrative, however, is false. Doubts about our knowledge of substance and its *metaphysical principles* such as *substantial form*, *essence*, and *prime matter* were pervasive in scholastic Aristotelian philosophy.[17] Worries about the knowability of substance in scholastic philosophy are not motivated by the thought that what we directly perceive are ideas, chiefly mind-dependent secondary qualities. Rather, the worry is that we only directly perceive certain *features* of substances, namely the accidents that inhere in them.

Aquinas, following Aristotle, regularly notes that what we first (and often only) grasp are the sensible properties and operations of substances. Our linguistic practices follow the order of that which we most easily know rather than that which is most knowable in itself. Aquinas distinguishes that from which (*id a quo*) we name and that which the name signifies (*id a quod*). It is often the case that these differ; that from which we name is a sensible quality or power of a substance, and that which the name signifies is the (unknown) substance or essence.[18] There are, however, cases where that from which we name and that which the name signifies come together. The cases where these come together seem to constitute what Thomas understand to be transparent sensible qualities.[19] In the cases Aquinas gives – heat, cold, whiteness – that from which we name and that which our terms signify are identical, and in such cases he says, "there are things…we known in themselves".[20] Apart from basic sensible qualities such as heat and

[17] The medieval problem of the knowability of substance had been largely absent from standard narratives of the history of philosophy for some time but has received increased attention in recent decades. See Pasnau (2001, 2004, 2011), Timothy B. Noone (2011), and Dominik Perler (2020) for helpful discussions.
[18] Aquinas' favorite example of the difference between that from which we name and that which a name signifies is the case of 'stone'. It was, apparently, a common (and mistaken) belief that the word 'stone' comes from 'that which bruises the foot', but the term 'stone' signifies a particular kind of body, not just anything that bruises the foot. For a detailed discussion of how names signify in Aquinas see Ralph McInerny (1996: 70 fw.).
[19] By 'transparent sensible quality' I mean to indicate a kind of quality whose essential nature is manifest to any individual who experiences it. Not all of Aquinas' examples would at present be accepted as transparent (if heat is essentially molecular motion it is not a transparent quality), but there have been quite influential contemporary arguments that there are transparent sensible qualities – as I understand him, Saul Kripke (1980) defends the claim that 'pain' is, in my terminology, a transparent sensible quality.
[20] *ST*, Ia, q. 13, a. 8.

white, these come apart, and in these cases we do not know the things in themselves but merely their powers and accidents:

> Since, however, the essences of things are not known to us, and their powers reveal themselves to us through their acts, we often use the names of the faculties and powers to denote the essences. But, since knowledge of a thing comes only from that which is proper to it, when an essence takes its name from one of its powers, it must be named according to a power proper to it. (Q.V, Q.10 A.1)

Here we find Aquinas claiming that 'as the essences of things are not know to us' we name or denote them by the faculties and powers that are knowable to us in experience.[21] The best we can do, claims Aquinas, is to name substances by powers or faculties proper to them.[22] A faculty or power will be proper to a substance when it is uniquely entailed by or grounded in the essence of the substance. As such, it is unique or proper to the species of which the substance is a member, and in virtue of this is suitable to pick out and sort the natural world into species or natural kinds.[23]

Denial of our ability to have direct knowledge of the essence or substantial form of a substance is similarly found in Francisco Suárez. This is particularly significant for two reasons. First, Suárez enjoyed a nearly unparalleled influence in the development of metaphysics in the early modern German university. Second, Suárez offers some of the most sophisticated and detailed discussions of substantial forms in the scholastic tradition; his *Metaphysical Disputation*

[21] This passage comes from a discussion of whether the intellect is the essence of the soul; his answer is that as a *power* of the soul, the intellect cannot constitute the essence of the soul. A strikingly similar discussion of how the faculty of thinking is a power of the soul and is not, therefore, substantial can be found in Kant, *Mrongovius* 29: 771. Kant's claim that there is a kind of 'category error' involved in identifying the powers and faculties of a substance with what is substantial in it will be of import later in this chapter and is also taken up in Chapter Four.

[22] Importantly, this means that Aquinas distinguishes the powers and faculties of a substance from the essence of a substance. This is why he can claim that the faculty of thought is an accident of the human being – the faculty is an accident in the sense I outlined in the introduction, because it is not part of the essence. Rather, as a property in the technical sense, the faculty of thought is *grounded* in the essence of the human being. For a discussion of this topic in Aquinas see Pasnau (2001: ch. 5).

[23] Understood this way, the difference between Aquinas and Locke regarding our knowledge of 'real essences' is not as radical as it is usually taken to be. The principal difference, as I understand it, is that Locke is skeptical that we are able to pick out which features of an object are *proper to it*. His denial that we can know the real essence of a substance would have been commonplace for at least four centuries.

XV: On the Formal Cause of Substance has been described as the most detailed exposition and defense of substantial forms in the history of philosophy.

Because the notion of a substantial form will be so important in what follows, it will be helpful to offer a brief overview of what a substantial form was generally understood to be. Such a task is difficult for several reasons. As a historical point, apart from Suárez, substantial forms were not elaborated on or defended at length by many Aristotelian philosophers. As a somewhat subtler philosophical point, there was a slow transformation in the scholastic tradition of the notion of 'form' from the more abstract, metaphysical or 'functional' role they had in Aristotle's philosophy to a more physical, mechanistic explanatory role in late scholastic and early modern philosophy.[24] The abstract, metaphysical sense of 'form' comes out when substantial form is invoked as what gives being or existence to a substance. Aquinas gives voice to the metaphysical conception of form best in passages where he invokes the homonymy principle, or the principle that an object is an *F* homonymously if it is called an *F* but differs from proper *F*'s with regard to its essence/nature/form/function,[25] such as the following passage:

> This is clear from the fact that both the whole and the parts take their species from it, and so when it leaves, neither the whole nor the parts remain the same in species. For a dead person's eye and flesh are so-called only equivocally. (*SCG* 2.72.1484)[26]

[24] The distinction between physical and metaphysical conceptions of form is found in Suárez. The distinction is not, to be clear, between two different substantial forms—a physical and a metaphysical one. It is, rather, a distinction between form invoked to explain natural phenomena and substantial form invoked to explain more abstract metaphysical questions, such as what accounts for the synchronic and diachronic identity of substances. But the distinction between metaphysical and physical explanation here seems one of degree and not of kind, which is indicated by Suárez's claim that an exposition of substantial form to explain physical phenomena is '*a posteriori'* (or from the effects) while an exposition of substantial forms in metaphysical terms is '*a priori*' (or from the grounds or causes). Taken literally, this indicates that the explanation of physical phenomena in terms of substantial forms is grounded in a notion of form metaphysically conceived.

[25] This formulation of the homonymy principle, and my understanding of it generally, is indebted to Chris Frey (2007). My discussion here is also indebted to Pasnau (2004).

[26] See also *ST* 1a Q76.4, where Aquinas states "the substantial form gives substantial being". This conception of substantial form is also captured in the scholastic slogan "*forma dat esse rei*", or "form gives being to the thing". Kant uses this Latin phrase in a number of published works, notes and lectures. See *PT* 8: 404, *Mrongovius* 29: 826, *R* 3850-51. It also occurs more than two dozen times in his last major unfinished work, the *Opus Postumum*.

The physical, quasi-mechanistic invocation of substantial form in scholastic philosophy is brought out particularly well in Suárez's *Disputation XV*. The bulk of Suárez's discussion of substantial forms is characterized by Suárez as *a posteriori*, or from their effects. He offers five *a posteriori* arguments for substantial forms. First, a substantial form together with matter compose a human being, so other material substances are also so composed. Second, the accidents, faculties, and powers of substances must be united in order for them to be a substance and not a mere aggregate. In addition to the accidental forms

> [t]here is required a form to rule, as it were, over all those faculties and accidents and to be the source of all the actions and natural changes of…the subject in which the whole variety of powers and accidents is rooted and unified in a certain way. (Suarez, *Disp.* 15§1p6)

Third, substantial forms are invoked by Suárez to account for the natural dispositions or tendencies to return to a natural state found in substances. The fact that water, when heated, will return to a cool temperature after removal of the source of the heat is explained by appeal to the role of substantial forms in the regulation and maintenance of a substance. Unless the substantial form is destroyed, the substance will have a nature and will tend back towards its natural state. Fourth, the fact that properties stand in relations of subordination and superordination to one another is a sign of substantial forms. Suárez's example is the subordination of the will to the intellect, and the claim is that dependence relations among powers, faculties and properties is possible only when a substantial form is invoked which unites and orders them.[27] In other words, substantial forms provide a kind of terminus of explanation: questions regarding the co-presence and subordination of powers, faculties and properties to and with one another in a substance terminate in the invocation of the substantial form of the substance. Finally, substantial

[27] Substantial forms are equally required to account for the presence of properties that are not subordinated to one another, as "sweetness and whiteness are in milk." (*Disp*. 15§1p14).

forms are invoked to explain why, when a substance is acted on in one way, its power to act in another is reduced.

The sole *a priori* argument Suárez invokes in favor of substantial forms is that they are not impossible (i.e. there is no contradiction involved in the concept of a substantial form), and so given his other philosophical commitments appeal to substantial forms is justified. To be clear, however, Suárez in no way claims to have a clear conception of what a substantial form is beyond their being something capable of doing a certain kind of explanatory work. Nor does he say that experience provides us direct knowledge of the substantial form or essence of substances. In fact, he states that "almost never can we explicate the essences of things, as they are in the thing, but only through their being ordered to some property."[28]

This lack of a positive explication of substantial forms (even in as thorough a discussion as *Disp.* 15) and denial that we know the form or essence of a thing as it occurs in substances is, I have claimed, characteristic of the scholastic Aristotelian tradition. As Dennis Des Chene notes in his study of late scholastic and Cartesian natural philosophy, the notion of 'substantial form' in the Aristotelian tradition is illuminated at least as much through what it denies as through what it affirms. What is denied in the appeal to substantial forms "is that the kinds we encounter in nature are merely collections of accidents…some accounts are ruled out, and that is progress of a sort." But the question of what a substantial form *is* is not something that the Aristotelian tradition pursued: "the only 'analysis' [of substantial forms] Aristotelianism was willing to provide was to describe the active powers associated with a form and the dispositions required for its reception".[29] This denial of the intelligibility of a 'bundle theory' of substance, and the invocation of something like a principle that governs, unites and grounds the properties, powers

[28] Suárez, *Disp.* 40§4p16.
[29] Dennis Des Chene (1996: 74-5).

and accidents of a substance remain central commitments of both Locke and Kant, and it is on this basis that I will argue we should consider them part of this tradition of thinking of the unity of substances in terms of a form.

While we have seen the denial that we have knowledge of substantial forms or essences – and thus of substance – is common among scholastic Aristotelians, what is not easy to find is an explicit *argument* for the unknowability of substance. What we find more often is a repeated claim of the following sort: because we know substances through their *accidents*, we do not know the substance itself. In what follows, I will briefly try to sketch such an argument, bringing out certain presuppositions that I think are common among scholastic thinkers. My presentation will be fairly dogmatic, not considering alternative interpretations in the literature and glossing over various subtleties of the arguments and differences between the authors who make them. My defense of this approach is that my reconstruction here is not, in the first place, in service of the exegesis of any particular scholastic thinker. Rather, it is to provide background in terms of which we can situate Kant's denial that we know the *Substantiale*.

Scholastic philosophers reached the conclusion that substance such is unknown to us for a number of quite different reasons, some of which rely on rather exotic metaphysical views.[30] However, they all agreed that the essences of things are unknown to us because at a basic level what we cognize are *accidents*, which are in some sense distinct from the substance.[31] The argument will rely on the following distinction between two ways of considering a substance:

[30] For example, one form of the argument found in Suárez relies on the much-maligned doctrine of real accidents (roughly: the view that accidents in the category of quality are *res* and capable of independent existence), while Francis of Marchia's argument (*Sent*. 1.3.1) relies on the thought that ideas of essences have a greater degree of perfection than ideas of accidents; as all our ideas are of accidents we cannot form from them the idea of an essence, as a concept cannot be the cause of a more perfect concept (the reader may recognize the principle Marchia relies on from Descartes' *Third Meditation*). For a more detailed discussion of Suárez's views, see Perler (2020), and for Marchia, see Pasnua (2011: 124 fw.).

[31] Recall that I am using the term *accident* here simply to indicate that which is not part of the essence of a thing.

The ***metaphysical subject****:* The substance conceived of strictly in terms of its metaphysical parts or principles (e.g. as a compound of form and matter), and thus as the real metaphysical subject in which accidents inhere

The ***concrete particular***: the thin metaphysical subject + its accidents that jointly comprise an ordinary Aristotelian primary substance[32]

Whether one thinks such a distinction is ultimately warranted, accepting such a distinction seems natural if one accepts the identity of a substance and its essence or metaphysical principles. It need not commit one to the thought that substances can exist free of any accidents, or indeed to anything stronger than the thought that substance is prior in nature to its accidents and thus conceptually independent of them. Given such a distinction, we can present the following argument for the unknowability of substance:

(1) The features of substance that we cognize in experience are *accidents*, chiefly from the categories of quality and quantity
(2) Accidents are not features or parts (whether metaphysical or integral) of the metaphysical subject they inhere in
(3) All our cognition of substance arises from experience
(4) Therefore, we do not cognize the metaphysical subject in which accidents inhere

As we see, the view that we do not cognize the substance *qua* metaphysical subject follows almost immediately from our marking a distinction between the substance *qua* concrete particular and the substance *qua* essence, form, or matter, along with the thought that in experience what we cognize are accidents. Further, we can see that there are broadly empiricist assumptions that play a key role in the 'veiled subject' argument – empiricist assumptions we may think Kant broadly sympathetic to. This argument indicates that medieval skepticism about the knowability of substance can be put in slogan form as the thought that substances are 'veiled' by the accidents that inhere in them.

[32] See Pasnau (2011: 100 fw) for a helpful discussion of this contrast, which I have relied on in setting the argument up in this manner.

The thought that because we only know the accidents of things we do not know the substance itself has been the subject of much ridicule.[33] This ridicule, however, stems from a fundamental misunderstanding of the argument. In distinguishing a substance from its accidents and saying that because we know accidents we do not know the substance in which these accidents inhere, scholastic authors were not committing themselves to so-called 'bare particulars' or entities without any features whatsoever. Rather, in 'setting the accidents aside' these authors were considering substance *simply with respect to its metaphysical principles*, including its form or essence, and denying that we have knowledge of substance so conceived. But, of course, an essence, substantial form, or form-matter compound is not a featureless, natureless, bare particular.

I imagine many readers will still find themselves unmoved by this argument, perhaps thinking it follows solely from rather archaic metaphysical commitments. However, I think there are compelling and somewhat intuitive philosophical considerations underlying this argument. Suárez, for example, writes that the unknowability of essences and substantial forms follows from the fact that

> we know a substance in its essence in a human way, that is *a posteriori* and through its effects. In this way we know matter, our soul, etc., but we never conceive of these things by proper and absolute concepts. (*DA* dis. 9 Q.4 N.8)[34]

Suárez claims that we do not conceive of things by "proper and absolute concepts" because we do not know substance *per se* or 'in itself' but only through its accidents and effects, and that this is because our knowledge of substance is *a posteriori*. As Suárez makes clear, he is using the phrase '*a posteriori*' in its classical sense, where to know a thing '*a posteriori*' is to know it from

[33] Elizabeth Anscombe (1964: 71) was characteristically blunt in her assessment, calling such an argument "so idiotic as to be almost incredible." Her description of the view she characterizes as idiotic, however, shows that she does not understand the traditional doctrine: she takes it be committed to so-called bare particulars, but the traditional view was not that we cannot know bare particulars, but that we cannot know essences.
[34] I owe this reference to Perler (2020).

its effects or consequences, while to know a thing '*a priori*' is to know it through its grounds or causes.[35] Suárez claims that knowledge is 'human' when it is *a posteriori* in this sense, i.e., it moves from the effects of things to their causes. On one influential classical view, the accidental features of a substance are 'caused' by the principles of substance, meaning its form and matter or what I above referred to as the 'metaphysical subject'.[36] Thus, on this view, human knowledge is distinctive in that it 'moves' from the effects or consequences of the principles of a substance towards the more fundamental features of the substance, and in the ideal situation towards the essence, nature, or form of the substance. The fact that our knowledge moves or comes to know one thing through another in this way is why human cognition has classically been characterized as 'discursive'.[37] This is meant to contrast our position with e.g., that of angels, for whom "the essence is apprehended through itself", and who through a simple act of apprehending the principles of a thing know all the accidents caused by it.[38] What I think underlies our scholastic authors' pessimism about our ability to cognize the principles of things is the fact we are always in a position of knowing substances through their effects. We know powers through their acts, and substances through their powers, but our characterizations of the powers of things are always going to be in terms of what they *do*. While Molière's famous example of a physician explaining the sleep-inducing powers of opium in terms of its *virtus dormitiva* was clearly a satire of the schoolman, I posit that it does contain a truth about the limits of our explanatory powers that several of our authors would have accepted.[39]

[35] See Robert Adams (1994: 109-10) and Houston Smit (2009) for discussion of this classical sense of the *a priori*/*a posteriori* distinction.
[36] See Aquinas *De ente et essentia* 6.54-7; *SCG* 4.14.3508.
[37] See, for, example, Aquinas *ST* Q.14.A.7.
[38] Aquinas *InDA* 35.2.2.1c; *ST* Q.85 A.5.
[39] Such pessimism regarding our knowledge of the categorical grounds of dispositions or powers has also found recent defenders. See, e.g., Simon Blackburne (1990), David Lewis (2009).

Whatever the ultimate explanation of the limits of our knowledge may be, however, it is clear that a great many scholastic authors took the view that the essences of things are unknown to us, and that as we only cognize substances through their accidents, we designate the essences of things by accidents (generally by *propria*, or necessary features that follow uniquely from the essences of things, and therefore allow us to sort things into essence-tracking kinds).[40]

*

As we saw above, Engstrom understands Kant's discussion of 'the substantial' as a critique of a particular kind of *substratum* conception of substance. The substratum conception is that of a featureless, natureless, something that functions as a subject that underlies all predicates. In contemporary parlance, it is a conception of substance as a *bare particular*: something that does not itself have any features or properties, but merely instantiates them.[41] The philosopher Engstrom attribute such a conception of substance to, and which he therefore takes to be the target of Kant's criticsm, is John Locke.

Such a substratum conception of substance is standardly attributed to Locke, and there are a number of passages that seem to support such a reading. He decries the "fruitless inquiries" after substantial forms, which are "wholly unintelligible".[42] And he famously claims that by the word 'substance' we signify only "an uncertain supposition of we know not what…which we take to be the substratum, or support, of those ideas we do know."[43] It is important to note,

[40] Scotus voices this nicely, saying that we understand substances only *per accidens* "by understanding a property or many properties that pertain to it alone." (*QMet* 2.2-3, 116).
[41] See Sider (2006) for a defense of bare particulars thus conceived.
[42] *Essay*, 3.6.10.
[43] *Essay*, 1.3.19. Locke often uses the term 'substance in general' for this notion of substance as 'something I know not what' that supports qualities. I think the best way to hear 'substance in general' as a 'something I know not what' is as something like an attributive use of a definite description in Donellan's (1966) sense – it's an expression that picks out the real support of qualities, *whatever that may be*. Locke's notion of 'individual substance' or 'real essence' refers to the actual arrangement of corpuscules that is the real – albeit unknown – support of the observable qualities and powers of substance. The expressions 'substance in general' and 'individual substance' or 'real

however, that Locke nowhere says of substance that it has no features or nature (i.e. is 'bare'), and the idea that Locke has a conception of substance as bare substratum is, I will argue, one that cannot be seriously maintained in light of other commitments Locke explicitly holds. Locke is much closer to the tradition of scholastic Aristotelianism than is commonly thought, and his famous claims concerning the unknowability or unintelligibility of substance, substantial form and real essences should be thought of as extensions of, and continuous with, similar claims we saw above in Aquinas and Suárez.[44]

2.2 The Knowability of Substance in Locke

We can begin to bring out continuities between Locke and the scholastic figures we have been discussing by noting how Locke also believes that all of the qualities by which we know and sort substances bottom out in powers, and the real essence of the substance as it is in itself that grounds and unifies these powers is something we do not know.

> For we are wont to consider the substances we meet with, each of them as an entire thing by itself, having all its qualities in itself, and independent of other things…Put a piece of gold any where by itself, separate from the reach and influence of other bodies, it will immediately lose all its colour and weight, and perhaps malleableness to…Water, in which to us fluidity is an essential element quality left to itself, would cease to be fluid…We are then quite out of the way, when we think that things contain within themselves the qualities that appear to us in them. (*Essay* 4.6.11)

Locke is, however, clear that a 'bundle theory' of substance must be ruled out, and that he is committed to something that will play the role Suárez assigned to substantial forms: "'tis past doubt, there must be some real Constitution on which any Collection of simple *Ideas* co-existing must depend".[45] The 'real Constitution' that unites all the powers and accidents of a substance

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essence' are therefore extensionally equivalent, so the notion of 'substance in general' does not require us to posit the existence of bare particulars in addition to real essences.

[44] My understanding of Locke's relation to the Aristotelian tradition is most indebted to Michael Ayers (1991).

[45] *Essay*, 3.3.15.

into *one* substance is what Locke refers to as a 'real essence' and it is that "from which all these [sensible] Properties flow."[46]

While Locke is in many places quite critical of scholastic Aristotelianism (mocking, for example, vegetative souls and intentional species), his commitment to explanation in terms of real essences, properties, and accidents shows that he is still wedded to the logical and explanatory framework central to Aristotelian philosophy known as the 'doctrine of predicables'. A common exposition of the doctrine of predicables is the following example from the category of substance:

Genus: animal
Species: man
Difference: rational
Propria/Properties: laughter
Accidents: pale, sitting, musical

Scientific demonstration proceeds by genus and specific difference, so the definition of 'man' in terms of his essence is 'rational animal'. The properties or 'propria' of man are those that follow or 'flow from' the essence as 'a natural emanation'. Scientific explanation on this picture concerns itself solely with the essence and propria, so that the accidents do not actually feature in a scientific explanation of what the substance is. Furthermore, knowledge of the essence and propria does not provide us any specific knowledge of the accidents – we can know that Socrates is a human being, and therefore capable of laughter, without having any knowledge of e.g., the fact that he is pale.

On the scholastic view, we know the essence of a material substance by having in the intellect (and so 'intentionally' or 'objectively') the same form that, when a material substance has it 'naturally' (or, in Cartesian terms, 'formally') makes that substance an instance of the kind it is. As noted above, however, Locke denies the existence of intentional species, and in doing so

[46] *Essay*, 2.31.6.

denies that the *same thing* that serves to unite and order the powers and properties of a substance also serves to unify the complex idea we have of substances. This is the basis of Locke's famous distinction between 'real' and 'nominal' essences: real essences serve the function that substantial forms played in scholastic philosophy,[47] and nominal essences serve something of the role of intentional species, i.e., they serve as the meaning of general terms and allow us to sort individuals into kinds. However, while Locke denies the scholastic Aristotelian account of our cognition of natural substances, as well as the explanatory use any appeal to 'form' or 'real essence' has in natural philosophy, his commitment to the doctrine of predicables still informs his underlying conception of cognition and explanation both in the natural sciences and, somewhat uneasily, in metaphysics. For example, Locke takes it that our initial complex idea of a natural kind like gold comprises a great deal of 'accidents' – sensible secondary qualities which are, as he puts it, "not in the things themselves" except as powers to produce ideas such as 'heat' and 'yellowness' in us. The task of natural philosophy, in brief, is to show how these powers, and thus the sensible secondary qualities that are, to borrow a phrase of Aristotle's, "more knowable to us", relate to actual properties or *propria* of substances, namely the corpuscular arrangements of bodies which are "the real constitution on which their sensible qualities depend".[48] But importantly this corpuscular structure is itself at best a property of a substance, and so even though we posit a "real essence belonging to several species, from which these properties all flow", such an essence or principle of unity of a substance is merely a

[47] At least what I have called, following Suárez, the 'physical' function played by substantial forms. The question of whether they also play the 'metaphysical' function of substantial forms is somewhat complicated by Locke's novel discussions of identity.
[48] *Essay*, 2.23.11.

something ‘we know not what’ that constitutes no part of our “nominal essence” and, importantly, is not a topic of study in natural philosophy.[49]

This is not, however, to deny or overly downplay the deep disagreements between Locke and Aquinas or Suárez. There is also, I think, an important sense in which Locke thinks our epistemic position concerning knowledge of the natural world is much worse off than Aquinas or Suárez thought. The explanation for why we are worse off is not, I have been arguing, that one camp thinks we can know the real essences of things and another does not – both deny this. Rather, it is that Aquinas and Suárez think we sort things into genuine, essence-tracking kinds because they think we know and name things (at least in some cases) by things *proper to them*, i.e., by properties in the technical sense. Locke, however, is genuinely skeptical of our ability to reliably differentiate between properties and accidents, or between properties and what Kant will call ‘common attributes’.[50] But the sense in which we are in a worse epistemic position has nothing to do with Locke’s denial that we cognize real essences, or with his having a conception of substance as featureless, natureless substrate. His conception of substance *is* (real) *essence*, and his denial that we know substance *is* the denial that we know the natures of things, a point on which he agrees with the major figures of scholastic philosophy. So, while I agree with Engstrom that Kant’s understanding of the term *Substantiale* is in important respects identical to Locke’s understanding of ‘substance’, I think he is quite mistaken about what this amounts to. With the reading of Locke presented here in place, we can say that the agreement amounts to the claims that 1) substances have natures (conceived of as internal principles of motion, rest, and maintenance of the substance – i.e., conceived of as substantial forms or essences) and 2) the

[49] *Essay*, 3.6.49. I say ‘at best a property’ due to Locke’s concern that we are unable to genuinely distinguish properties and accidents. But it is still the case that the ideal of scientific investigation involves knowledge of arrangement of bodies proper to particular kinds.
[50] He also has a worry that kinds are more continuous with one another than the idea that species ‘carve nature at the joints’ allows for, which I cannot discuss here.

nature or inner principles of substances is unknown to us. But in order to get Kant's position in view, we must first discuss substantial forms in the German rationalist tradition.

3. Substance, Form, and Essence in German Rationalism

One possible explanation for why Engstrom may view Locke as the figure Kant has in mind is that there is a certain tendency to view Aristotelian metaphysics and natural philosophy as 'dead' by the 18th century. What I hope to show in what follows is how alive certain aspects of Aristotelian and scholastic metaphysics were in the German rationalist tradition – substantial forms, natures, and essences were key concepts in the metaphysics of Leibniz and his followers such as Christian Wolff and Alexander Baumgarten. I first examine Leibniz's defense of these metaphysical notions in response to Robert Boyle's 1686 essay "A Free Enquiry into the Vulgarly Received Notion of Nature". Leibniz's defense of this metaphysics involves a wholesale transformation of Aristotelianism into an ontology of forces. For Leibniz, and for Wolff and Baumgarten, there was, therefore, no problem about the *knowability* of substance, or substantial forms, or essence. This was not, I will contend, just because they abandoned certain empiricist assumptions common to scholastics and Locke. Rather, it is that the *metaphysics itself* redefines the metaphysical parts or principles of substance in terms of powers or forces that can be known through their acts – there simply is no room in their ontology for an 'unknown support' or ground of the various determinations of a substance.

Kant, I will argue, rejects this ontology of forces in favor of a more traditionally Aristotelian metaphysics. As such, he rejects the equation of the metaphysical principles of a substance with its powers, capacities, and forces. This rejection reopens the conceptual space for something that figures as the unknown metaphysical subject – and this, I will argue, is the requisite metaphysical background for understanding Kant's remarks on the *Substantiale*.

3.1 Boyle and Leibniz on 'Nature'

In 1686 Robert Boyle published his essay "A Free Enquiry into the Vulgarly Received Notion of Nature". In this essay Boyle continues the assault on the Aristotelian conception of nature as the internal principle of motion, rest and maintenance (and therefore of the scholastic conception of substantial forms) that Descartes had begun a half-century earlier.[51] Boyle denies that appeal to substantial forms is any help in the explanation of natural phenomena. More precisely, Boyle denies that the Aristotelian conception of *nature* as the internal principle of change, motion and rest in a substance is a concept that does any real explanatory work or offers us any real insight into natural phenomena.[52]

> When a man knows the contrivance of a *watch* or *clock,* by viewing the several pieces of it and seeing how, when they are duly put together, the spring or weight sets one of the wheels a-work…the man if he be wise will be well enough satisfied with this knowledge of the cause of the proposed effect, without troubling himself to examine whether a notional philosopher will call the time-measuring instrument an *ens per se,* or an *ens per accidens,* and whether it performs its operations by virtue of an internal principle such as the spring of it ought to be, or of an external one such as one may think the appended weight. And as he that cannot, by the mechanical affections of the parts of the universal matter, explicate a phenomenon, will not be much helped to understand how the effect is produced by being told that *nature* did it, so, if he can explain it mechanically, he has no more need to think, or (unless for brevity's sake) to say, that *nature* brought it to pass[.] (Boyle, "Notion of Nature" 185-6)

Boyle's proposal (again, not unlike that of Descartes) is to eliminate the idea of *natures*, and replace this concept, so central to the Aristotelian tradition and scholastic philosophy generally, with *nature*, considered singularly as corporeal substance or *matter* obeying laws laid down by God:

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[51] Descartes' considered view on substantial forms is a somewhat complex issue. He certainly denies that they are "necessary to explain the causes of natural effects". (CSMK, 207). But this rejection is complicated by his repeated claims that the soul "is the true substantial form of man" (CSMK, 208), and that the soul informs the whole body: "we need to recognize that the soul is really joined to the whole body, and that we cannot properly say that it exists in any one part of the body to the exclusion of the others" (*Passions* 1.30). The classic discussion of whether Descartes has an Aristotelian conception of the human being can be found in Paul Hoffman (1986).

[52] Such an account of 'nature' can be found in a number of Aristotle's texts, but the following is representative: "nature…is an origin of change…in a thing itself *qua* itself" (*Metaphysics Theta* 8 1050^{a}. 8-10).

> And of *universal nature* the notion I would offer should be some such as this: that *nature is the aggregate of the bodies that make up the world, framed as it is, considered as a principle by virtue whereof they act and suffer according to the laws of motion prescribed by the Author of things.* Which description may be thus paraphrased: that *nature* in general is *the result of the universal matter, or corporeal substance of the universe, considered as it is contrived into the present structure and constitution of the world, whereby all the bodies that compose it are enabled to act upon, and filled to suffer from, one another, according to the settled laws of motion.* (Boyle, "Notion of Nature", p. 187. Italics in the original.)

Boyle eliminates any substantial role for the idea of an individual nature or the nature of an individual substance. To the extent that we refer to an individual substance as having a nature we are merely applying the general notion of nature to a particular bit of the material world.[53]

The elimination of the Aristotelian conception of *natures* is part of Boyle's larger attack on and reinterpretation of the notion of *substantial form.* Boyle wishes to eliminate what I have been calling the 'metaphysical' or functional aspect of substantial form, and to reinterpret the 'physical' aspect of substantial form in corpuscular terms. As he puts it, "though I shall for brevity's sake retain the word *form*, yet I would be understood to mean by it not a real *substance* distinct from matter, but only the matter itself of a natural body, considered with its peculiar manner of existence, which I think may not inconveniently be called either its *specifical* or its *denominating state*, or its *essential modifications*—or, if you would have me express it in one word, its *stamp*."[54] Boyle's identification of form with the essence of a substance and his claim that the form or essence gives the substance "its being and denomination" and is that "from whence all its qualities…flow" might look like a continued commitment to some form of Aristotelianism. It seems, however, that his committed view is that the form is *all* the features, properties or accidents of a substance considered together, which places him squarely outside the

[53] Boyle, "Notion of Nature" p. 187.
[54] Boyle, "Origin of Forms and Qualities", p. 40.

Aristotelian tradition.[55] And, given the close connection between the Aristotelian conception of nature and the idea of a substantial form, Boyle's rejection of the former seems to necessitate a rejection of the latter. Irrespective of the details of Boyle's own position, Leibniz understood Boyle and his followers to be denying that created substances had any energy or force proper to themselves, which involves a rejection of Aristotelian natures and any commitment to substantial forms, no matter how physically or mechanistically they are construed.

Leibniz corresponded at length with Johann Christopher Sturm of Altdorf, a defender of Boyle's position that 'mechanism' should replace 'nature', and in 1698 published "On Nature Itself, or on the Inherent Force and Actions of Created Things" in the journal *Acta eruditorum* as a response to Boyle, Sturm and mechanistic philosophy more generally. It is one of Leibniz's most important papers and is the published work in which the term 'monad' appears for the first time. The paper is part of a sustained defense and reimagination of substantial forms and natures as they figured in the Aristotelian and scholastic tradition. Leibniz argues we are required to posit "that nature which Aristotle called the principle of motion and rest" at least if understood broadly enough to include "not only local motion or rest in a place, but change in general and stasis or persistence." Leibniz proceeds to argue that such an internal principle of change and rest must be posited 1) in order to differentiate substances from one another and from God, thereby avoiding Spinozism, 2) in order to account for the unity and persistence of substances, thereby accounting for the substantiality and being of substances, for Leibniz holds that 'being' and 'one' are convertible terms, and 3) in order to account for the preservation of the quantity of active power or motion required by the laws of physics. The active force or nature we must ascribe to substances

[55] "This convention of essential accidents, being taken (not any of them apart, but all) together for the specifical difference that constitutes the body and discriminates it from all other sorts of bodies, is by one name, because considered as one collective thing, called its form." ("Origin of Forms and Qualities" p. 52 n. 9).

> is what is called the soul in living things and the substantial form in other things; insofar as, together with matter, it constitutes a substance that is truly one, or something one *per se*, it makes up what I call a monad, since, if these true and real unities were eliminated, only entities through aggregation, indeed (it follows from this), no true entities at all would be left in bodies. (*AG,* 162)

Evidently, then, Leibniz understands his ontology as a kind of hylomorphism, and introduces 'monads' as the substantial form of substances. In addition to the work they do accounting for what we might call the metaphysical foundations of physics, they ground the synchronic and diachronic identities of substances, and they unite the various powers, qualities and features of a substance into a true unity. Even the imagery Leibniz uses to describe the way in which a 'dominant monad' unites complex substances such as animals and organic natural bodies is strikingly similar to Suárez's image of the soul as that which 'rules over' all of the faculties and accidents in a substance.[56]

Leibniz's position is not, however, a simple restatement of traditional Aristotelian views about substance, form, or matter. For his ultimate view is that metaphysically basic entities are not traditional Aristotelian primary substances, but rather that *forces* are the most fundamental entities in the created world.[57] This is something we find explicitly in "On Nature Itself": "[T]he very substance of a thing consists in a force for acting and being acted upon."[58] It seems to be his considered view that everything in the Aristotelian tradition accounted for by appeal to

[56] "I also believe that when substantial things besides monads are admitted, that is, when a certain real union is admitted, the union that brings it about that an animal or some organic body of nature is a substantial unity, having one dominant monad, is very different from the union that makes a simple aggregate, such as is in a pile of stones: the latter consists in a mere union of presence or place, the former in a union constituting a new substantiated thing." (Letter to Des Bosses, 20 September 1712).

[57] This is a somewhat contentious claim among Leibniz scholars, but there are few uncontroversial claims concerning Leibniz's metaphysics. A view that explicitly opposes that presented here can be found in Daniel Garber (2009). A view close to that which I express here, and from which I have learned quite a bit, can be found in Julia Jorati (2018). Similar views can also be found in Robert Adams (1994) and Donald Rutherford (1995). It is also, as I will argue below, how later German rationalists such as Baumgarten understood Leibniz, which seems to tell in favor of it being the Leibniz with which Kant would have been most familiar.

[58] *AG* 159.

'substantial forms' can be accounted for by what Leibniz calls the 'law of the series'.[59] The 'law of the series' is the primitive force by which each monad unfolds, by its own power, the series of perceptual states that will constitute its complete individual concept. The substance remains numerically identical while undergoing changes in its states or accidents as long as these changes occur in virtue of a principle internal to the substance, and as long as these changes are such that they conform to the complete individual concept of the substance. If there is a force that changes monadic perceptual state p at time t_1 to monadic perceptual state p^* at time t_2 the substance (monad) will remain identical as long as the 'law of the series' or its complete individual concept is $<(p, t_1) \rightarrow (p^*, t_2)>$.

We have seen that Leibniz equates the substantial form of a substance with an inner force or power. He further equates the essence – the complete individual concept – with this internal force: "The essence of substances consists in the primitive force of action, or in the law of the sequence of changes."[60] Leibniz also understands *matter* to be grounded in the passive forces of substances. He distinguishes between *primitive* and *derivative* passive powers of substance and identifies these with primary and secondary matter: "the primitive force of being acted upon or of resisting constitutes that which is called primary matter in the schools, if correctly interpreted. … As a result, the derivative force of being acted upon later shows itself to different degrees in secondary matter"[61]. On Leibniz's view then, the basic elements of Aristotelian philosophy – substance, substantial form, essence, prime matter – are ultimately nothing more than ways of conceiving of force.

[59] "The substance that succeeds is taken to be the same as long as the same law of the series, i.e., of the continual simple transition, persists that gives rise to our belief in the same subject of change, i.e., the monad. I say that the fact that there is a certain persisting law, which involves the future states of that which we conceive of as the same, is the very thing that constitutes the same substance." (January 21, 1704, Letter to De Volder).
[60] Letter to Foucher, 1676.
[61] *AG* 119 fw.

3.2 Baumgarten on the *Substantiale*

It is within the context of Leibniz's reworking of Aristotelian metaphysics into an ontology of forces that we should understand Alexander Baumgarten's remarks on the *Substantiale*. Baumgarten's *Metaphysica* was written as both an original contribution to the subject and as a textbook that could be used in the instruction of metaphysics, covering 1) General Ontology, 2) Rational Psychology, 3) Cosmology and 4) Theology.[62] It is the textbook that Kant used in his lectures on metaphysics in 1756 and then from 1759 on. This is a particularly useful text to consider as background for the *Prolegomena* passage on the *Substantiale*, for *Substantiale* is a technical term for Baumgarten and Kant directly engages with and criticizes Baumgarten's discussions of the *Substantiale* in his lectures on metaphysics.

In what follows I am chiefly concerned with the chapter of Baumgarten's *Metaphysica* that deals with general ontology. Baumgarten follows Christian Wolff in characterizing ontology as *universal metaphysics* and *first philosophy* – it is the science of "being in general, or insofar as it is being."[63] For both Baumgarten and Wolff, the task of ontology is to elucidate the most general *predicates of being*. These include both the *universal internal predicates of being* – predicates that hold of all things insofar as they are, and which are thus *transcendentalia* or *propria* of being. These include 'possible', 'one', 'true', and 'perfect' – and the *universal*

[62] As Heidegger points out, it thus mirrors Suárez's distinction between *metaphysica generalis* or general ontology and *metaphysica specialis* which includes rational psychology, cosmology and theology. It also influenced the structure of the *Critique of Pure Reason*, with transcendental logic taking the place of general ontology and rational psychology, cosmology and theology dealt with in chapters I-III of the Transcendental Dialectic (the Paralogisms, Antinomy, and Ideal). See his (1982: 80).

[63] Baumgarten *Metaphysica* §1; see also Wolff *WO* §1. Baumgarten (again, following Wolff) has a univocal conception of being: being is that which is *representable as such* (§7), and it is representable because it is that which is *logically consistent*, or without contradiction. Baumgarten is here drawing on a long tradition – going back at least to Scotus – of defining being as that 'to which existence is not repugnant' in that it is free of logical contradiction.

disjunctive predicates of being, one of each pair of which holds of all things (e.g., necessary/contingent, substance/accident, simple/composite, finite/infinite).[64]

Baumgarten's ontology has two fundamental categories: substance, defined as that which *subsists per se*, and *determinations* or *accidents*, that whose '*esse* is *inesse*'. By subsisting *per se*, Baumgarten means at minimum substance is defined as that which is not 'in' another.[65] This seems at first like a more Cartesian than Leibnizian way of introducing substance. Descartes famously defines substance in his *Principles* as that which subsists *per se*:

> By substance we can understand nothing other than a thing which exists in such a way as to depend on no other thing for its existence. (*Principles* 1.51)

Leibniz famously criticized this as a 'merely nominal' exposition of substance.[66] Leibniz requires of a *real definition* of substance that it distinguish the actions or activities of God from those of created substances, and this is accomplished by defining a substance as that which has a complete individual concept, or a concept such that everything truly predicable of the subject is *in* [*inesse*] the subject either explicitly or virtually.[67] As we saw above, Leibniz explained this in terms of the 'law of the series', or the force by which the perceptual states of the monad unfold. This force, he claimed, was that of which 'the very substance' of things consisted of and was what he identified with the 'properly understood' scholastic Aristotelian notions of 'substantial form' and 'nature'.

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[64] Although Baumgarten is no category theorist, the transcendentals owe their name to the fact that 'transcend' the categories and hold of all being prior to categorial determination. Kant alludes to this tradition of metaphysics as transcendental philosophy or the science of the propria of being in §12 of the Analytic of Concepts, where he discusses the "transcendental philosophy of the ancients" and their famous proposition "*quodlibet ens est unum, verum, bonum*." I discuss in detail Kant's critique of this alternative conception of transcendental philosophy in "The Function of Kant's Table of Nothing" (ms.).

[65] *Metaphysica* §191. The term 'subsists' was introduced to identify one of the two characteristic features of substance, namely substance is that which does not *inhere* in another. The second characteristic feature is '*substanding*' – substance is that in which accidents inhere. For a discussion of this distinction and its background see Pasnau (2011: 103 fw.).

[66] *Discourse on Metaphysics* §8, *AG* p. 41.

[67] *DM* §8, *AG* 41.

When we turn to the details of Baumgarten's metaphysics, however, we see that the theory of substance is indeed, Leibnizian. For Baumgarten's understanding of *determinations* (that is, of *accidents* in the sense of nonessential features, i.e., of *modes* and *attributes*)[68] as that whose *esse* is *inesse* follows Leibniz's use of '*inesse*'. '*Inesse*' literally expresses an idea of spatial containment, but had been used by Leibniz as a technical term for a kind of metaphysical entailment relation:

> We say that an entity is in [*inesse*] or is an ingredient of something, if, when we posit the latter, we must also be understood, by this very fact and immediately, without the necessity of any inference, to have posited the former as well (*GM* 7:19)[69]

Something *y* is in in' (*inesse*) or an 'ingredient in' *x* if, when *x* is posited *y* is immediately posited as well. This is why Leibniz says monads are 'in' (*inesse*) bodies. Leibniz does not mean that monads are literally contained in or part of a body, but rather that the very being or possibility of bodies is such that they presuppose monads: '*ens per accidens*' require *'ens per se*'. And this relation of being a *metaphysical consequence* of substance is what Baumgarten means when he says that determinations or accidents are 'in' substance. Thus the very *being* of a determination is to be caused or grounded in substance (this why when one posits a determination, substance is immediately posited as well); and the very being of substance is that which causes or grounds determinations.

This being of substance – substance as the cause or ground of its accidents – is what Baumgarten calls the *Substantiale*: the substantial is substance insofar as it is the ground and cause of its accidents. And, insofar as it is the ground of accidents, i.e., insofar as it is

[68] §195 fw. Attribute (*attributa*) is the term Baumgarten uses for propria, i.e. features proper to a species that are grounded in its essence. This is also the term Kant uses for propria, cf. *JL* 9: 61.
[69] My exposition of '*inesse*' in what follows is indebted to Donald Rutherford (1990).

Substantiale, substance is a *power* (activity, energy).[70] Given that all Baumgarten's ontology allows for are *substances* and *determinations* or *accidents*, the question arises whether power is substance or accident. Baumgarten argues that because power is that which grounds determinations or accidents, power cannot *itself* be a determination or accident. It must, therefore, be substance.[71]

Like Leibniz, then, Baumgarten conceives of substance as power, activity, or force. And, again, Baumgarten's term for substance conceived of as power or force, and therefore conceived of as the real metaphysical ground of all its accidents and determinations, is substance as *Substantiale.* Like Leibniz, Baumgarten divides the forces constitutive of substance into active and passive – Insofar as it is an agent it has active potency, power (*vis*) or is a faculty (*facultas*, what Kant will call a *Vermögen*), insofar as it is a patient it is a receptivity (*receptivitas*) and is considered a passive power or a capacity to be acted on.[72] But all of these different aspects of substance – its active and passive powers, determinations and accidents – are ultimately conceived of as constituting a genuine unity because they are *caused by* the metaphysical principles of the substance, i.e. the substance as *Substantiale*. As we will see, while Kant adopts a significant amount of Baumgarten's philosophical vocabulary, he rejects the fundamental picture of substance – and thus of the *Substantiale* – we find in Baumgarten by rejecting his force- or power-based ontology.

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[70] *Metaphysica* §197-99.
[71] *Metaphysica*, §198.
[72] *Metaphysica*, §216. The equation of the ground of possibility of acting with *facultas* or faculty is also found in Wolff, WO §716. Kant discusses this terminology in his metaphysics lectures and defines faculty (*facultas*) as the ground of the possibility of acting and receptivity (*receptivitas*) as the possibility of suffering. See *Mrongovius* 29: 823. For a discussion of these passages in defense of translating Vermögen as 'faculty' rather than the more standard 'capacity' see Matt Boyle (2020).

3.3 Kant's Critique of Leibnizian Ontology

Kant offers explicit criticisms of Baumgarten's treatment of the substantial in a number of his lectures on metaphysics, and there are implicit criticisms found in several *Reflexionen* and in published work such as the *Inaugural Dissertation*. Kant agrees with Baumgarten that an account of substance must explain the '*Substantiale*' or substantiality of substances, or substance conceived of as a real metaphysical subject, and thus as that in which accidents inhere. The crux of Kant's disagreement with Baumgarten is over whether the substantial can be understood as Baumgarten does – namely as a power. Kant states his disagreement with Baumgarten in the following passage:

> Concerning power, it is to be noted: the author [Baumgarten] defines it as that which contains the ground of the inherence of the accidents; since accidents inhere in each substance, he concludes that every substance is a power. That is contrary to all rules of usage: I do not say that substance is power, but rather that it has power, power is the relation…of the substance to the accidents, insofar as it contains the ground of their actuality, e.g.: I cannot say that the faculty of thinking within us is the substance itself – the faculty belongs to it[.] (*Mrongovius* 29: 771)

Kant's position is quite clear: powers or forces are a kind of *relation*, and therefore cannot be all there is to substance. This is because "the activity of power…is not a thing, but a relation <*respectus*> and therefore an accident."[73] Kant states elsewhere that powers are relations and *thereby* phenomena and accidents:[74]

> Whoever thus says: the soul is power, maintains that the soul is no separate substance, but rather only a power, thus a phenomenon and accident. (*L1* 28: 261)

Kant's claim that powers are relations, and thus phenomena and accidents will be discussed in more depth below. But for the moment we can note two important points. First, *pace* Leibniz and Baumgarten, one cannot have an ontology grounded ultimately in forces or powers. For forces

[73] *Mrongovius*, 29: 771. Kant elsewhere explicitly contrasts substantiality and relations. At R 4493, for example, we find "Substantiality and its opposite—mere relation".
[74] Met *L1* 28: 262.

and powers are themselves relations and accidents, and so (by standards Leibniz and Baumgarten readily accept) require a ground in something substantial. To deny this is to deny one of Leibniz's favorite points: that *being* and *one* are convertible terms, so that *per se* unities are required for there to *be* anything at all, and aggregates or accidents are not *unum per se*. If Kant is correct that powers are *mere* relations and accidents, then the 'substances' of a power or force-based ontology are actually what Baumgarten and Kant call *phaenomenon substantiatum* or substantiated phenomena. Baumgarten defines *phaenomenon substantiatum* as cases where "accidents seem to exist *per se*" and we treat things that are not strictly speaking substances *as* substances, i.e., as subjects of predication, bearers of powers and grounds of accidents.[75]

In addition to Kant's complaint against Leibniz and Baumgarten that a force-based ontology turns all substances into phenomena and accidents, Kant believes it is unable to account for the possibility of change. Kant's basic point is that unless there is something in the substance that remains one and the same across changes in state of the substance the substance will not remain numerically identical. In fact, he claims, on the Leibnizian picture sketched above, we cannot properly conceive of *change* at all, but rather the continuous creation and annihilation of substances:[76]

> Thus if the same subject X should be successively *a* and *non-a*, thus must the subject not be changed; otherwise X would first be *a* and then Y *non-a*. The substantial is unchanging. For in the succession of accidents it is always one and the same. (*R* 4060)

[75] *Metaphysica*, §193. Wolff offers a similar gloss at WC §299. The term '*phaenomenon substantiatum'* is not Leibniz's, but it is inspired by Leibniz's concept of 'well-founded phenomena', i.e., intentional objects constructed by the mind's perceptions that are intersubjectively available and are grounded in things as they are in themselves, i.e., true substances or monads. Kant uses the terms *phaenomenon substantiatum* and *substantia pheanomenon* in the critical period seemingly interchangeably to describe phenomenal substance and matter; it is 'in itself no substance' but is substance 'as appearance'. See *Dohna* 28: 682, *K2* 28: 759, A 265/B 321, A 277/B 333. He also will speak of bodies as '*substantiae comparativae, substrata phaenomenorum*', i.e., substances comparatively speaking, the substratum of phenomena, *R* 5294.

[76] Which is not, on Kant's view, a kind of change at all. Generation and corruption are predicables (or subordinate *a priori* concepts) of the categories of modality, not relation (A82/B108).

We find a similar argument in the *Inaugural Dissertation*:

> The possibility of all changes and successions…presupposes the continued duration of a subject, the opposed states of which follow in succession. (*MSI* 2: 410)

No mere collection of predicates (a 'complete individual concept') whether it unfolds of its own power or not, can have the unity necessary to be a substance, for it cannot undergo change, let alone remain numerically identical while undergoing change.[77] Something more is required to unite the powers of the substance and account for identity through change, and what is required is the substance be properly understood as S*ubstantiale*.[78]

Kant's invocation of the substantial here should, I think, be read as a move back to a more traditionally Aristotelian conception of substance than that found in Leibniz or Baumgarten. Kant's complaint is that a power-based ontology comes to look like a bundle theory of substance, and he believes that resisting such a view requires having a correct account of the *Substantiale*. This is, of course, the core motivation for which Aquinas, Suárez and others invoked the notion of a 'substantial form', conceived not as *a* power or set of accidents, but as that which *unites* all the powers and accidents of a substance into *one* substance. We find several other discussions in Kant that connect the substantial (*Substantiale*) with the traditional notion of a substantial form. The *Substantiale* is described as the real subject, the first subject, and the last subject.[79] It is "what contains the first ground of the accidents," and that "which contains the true grounds of the inherence of the accidents".[80] It is thus a *real* and not a merely *logical* subject:

> The distinction between a logical and a real subject is this, that the former contains the logical ground for the setting of a predicate, the latter the real ground

[77] For more in-depth discussion of this point see Wuerth (2014).
[78] See also *Herder* 28: 145 where Kant states that "for each substance the *Substantiale* [as opposed to the accidents] remains through all changes."
[79] By 'first subject' I understand Kant to mean that which is the primary *cause* of accidents and ground of inherence; by 'last subject' that which is the endpoint of explanation in giving an account of why a substance has the determinations it does.
[80] *Dohna* 28: 672.

> (something different and positive)…The first subject is *therefore a something*, through which the accidents exist. (*R*, 4412)

This explains Kant's continued use of the term *accidents* as that which is grounded in the substantial, and as that which we strip away in thought when we conceive of substance *as* substantial. For as Kant repeatedly makes clear, the term *accident* only has a proper application in transcendental logic and metaphysics. Strictly speaking, <predicate> is a logical concept, and <accident> is applied only to real, positive determinations of a substance:

> The determinations of a substance that are nothing other than particular ways for it to exist are called accidents. They are always real, since they concern the existence of the substance (negations are merely determinations that express the non-being of something in the substance). Now if one ascribes a particular existence to this real in substance (e.g., motion, as an accident of matter), then this existence is called "inherence," in contrast to the existence of the substance, which is called "subsistence." (A 186-7/B 229-30)

The point is further reinforced in a lecture dated to 1782/3 where Kant states that "negative predicates are…not accidents, nor are logical predicates".[81] These considerations tell decisively against the reading of *Substantiale* as featureless substrate, and as a confused reification of the pure category of substance. The *Substantiale* is not featureless or natureless substrate, but rather the 'true', 'first', 'real' or 'final' ground and something positive. If Kant thought of the *Substantiale* as a merely formal concept, with no more content than being the subject of predication, he would not use the terminology of grounding accidents or real, positive determinations to describe it.

As I have shown, *Substantiale* for Kant is a term designating substance conceived as a real metaphysical ground of accidents – it is substance conceived of just with respect to its metaphysical principles, and thus as essential or substantial being. There is thus a definite sense of continuity in the usage of the term in Baumgarten and Kant. However, Kant has two

[81] *Mrongovius* 29: 769.

fundamental disagreements with Baumgarten. First, Kant objects that thinking of the *Substantiale* as a power means that it is a *mere accident*. As such, the ontology of Baumgarten and Leibniz is one that has no *genuine* substances or unities; it is therefore unable to account for the thought that substantial being has a certain 'independence' from its accidents in that it can remain one and the same while undergoing changes in its accidents or states. Second, and relatedly, Kant thinks that the *Substantiale* as the principle of a substance that is the cause or ground of its accidents – and thus as essence – cannot be equated to any particular faculty or power of the substance. This is because the substantial is, in some basic sense, something that must have being 'in itself', while *powers* are fundamentally relational beings.

This thought – that substantial being, or that which has being 'in itself' – is that which is wholly 'inner' in a substance, and thus describable independently of how it relates to anything else, is a central Kantian commitment. And, as we will see, it is a commitment that makes the *knowability* of substantial being for a finite creature – a creature that must be *sensibly affected* so as to be *given objects* – a genuine problem.

4. Conclusion

In this chapter, we have seen that Kant's statements about the *Substantiale* in the *Prolegomena* are best understood as remarks about substantial being or essence. His claim that we do not know the substantial is, therefore, the claim that we do not know the metaphysical principles of objects of experience – their formal nature or essence. Kant's remarks on the *Substantiale* therefore place him within a long and rich tradition of reflections on the unknowability of substance in medieval and early modern thought. Kant shares with this larger tradition both a sense of what the metaphysical framework of substance must look like, and the thought that as our knowledge is of *accidents*, the metaphysical subject in which these accidents

inhere – the *Substantiale* – is unknown to us. In the following chapter, I connect these claims about the knowability of substance to Kant's thought that things as they are in themselves are unknown to us.

Chapter Two: Things in Themselves as Substantial Beings

We have seen that Kant's remarks on the *Substantiale* – and his denial that we can have knowledge of essential or substantial being – place him within a long history of reflections on the metaphysics of substance and of skepticism concerning our ability to know the metaphysical principles of substances we encounter in experience. In this chapter, I connect this discussion to Kant's claim that we cannot know things as they are in themselves. The chapter proceeds as follows. First (§1), I turn my attention to some more determinate restrictions Kant places on our knowledge, and which have been taken in recent decades to support a 'metaphysical two-aspect' interpretation of Kant's distinction. These include Kant's claims that we cannot know *real essences* of objects of experience; the *formal nature* of things; what is *absolutely inner* in things; and substance as *Substantiale*. While these terms are not all synonymous, I show that they also are not unrelated, and so the above does not constitute something like a 'mere list' of things we cannot know. I argue that the notion of a *real essence* (or simply essence for short) is something like the 'focal meaning' of these terms, such that an understanding of *essence* is involved in understanding all the other terms.

Then (§2), I make the case that there is good textual evidence for thinking that Kant thinks of the appearance/thing in itself distinction in terms of the distinction between essence and accident or substantial and accidental being. My ambitions here are rather modest: I *merely* wish to make the case that this interpretation is one that has textual support. Whether we have philosophical and systematic reasons to understand Kant's distinction in this way will depend on how illuminating this interpretation is for understanding Kant's distinction and his epistemic humility as a whole. Finally (§3), I show that the interpretation proposed here has significant

advantages over competing approaches in the literature, particularly those offered by Rae Langton and Daniel Warren.

1. Kant's More Determinate Restrictions on our Knowledge

Here I offer a brief overview of the more determinate restrictions Kant places on our knowledge that were not covered in the previous chapter, i.e., real essences, formal natures, and the absolutely inner. I then explain why 'real essence' is the core or 'focal' meaning of this constellation of philosophical terms.

(*a*) *Real Essences*

In his critical philosophy, Kant repeatedly denies that we can have knowledge of the *real essences* of objects of experience, writing that writing that "of the real or natural essences of things…we are never able to have insight."[1] Kant uses the qualifier 'real' or 'natural' to designate the essences he is interested in here as a way of distinguishing them from *logical essences*. Kant's real/logical essence distinction is similar to Locke's real/nominal essence distinction,[2] as can be seen in the following passage from *Metaphysik L2*:

> A logical essence is the first ground of all logical predicates of a thing; a real essence is the first ground of all determinations of a thing. For an essence is either logical or real. We posit a logical essence through the analysis of concepts. The first ground of all predicates thus lies in a concept; but that is not yet a real essence. E.g., that bodies attract belongs to the essence of things, although it does not lie in the concept of the body. Accordingly, the logical essence is the first inner ground of all that which is contained in the concept. But a real essence is the first inner ground of all that belongs to the thing itself—If I have the logical essence, I still do not have the real essence. Predicates belonging to the real essence, but only as a consequence, are called attributes; what on the other hand belongs to essence as a ground is called an essential property. The real essence is not the essence of the concept, but rather of the thing. E.g, the predicate of impenetrability belongs to the existence of body. Now I observe through experience much that belongs to its existence; e.g. extension in space, resistance

[1] *JL* 9: 61; see also 28: 116; *L2* 28: 554; *Correspondence* 11: 37; *WL* 24: 840; *L2* 28: 553.
[2] Kant uses the terms 'logical' and 'nominal' interchangeably in contexts where he is discussing definitions and essences.

> against other bodies, etc. Now the inner ground of all this is the nature of the thing. (*L2* 28:553)

Kant's conception of a real essence is the classical conception of the principle of a substance that is the ground of all its determinations, accidents, powers, and attributes or propria. In addition to describing a real essence as the inner principle or ground of all the determinations or accidents of a substance, Kant often describes essences as the *possibility* of a thing: "Essence is the first inner **principle** of all that belongs to the possibility of a thing."[3] There are three points to be made about this somewhat less familiar way of characterizing an essence. First, there is the historical point that in speaking of essences as the principle of the possibility of a thing, Kant is clearly drawing on Leibniz's conception of essence.[4] Leibniz's conception of essence as the principle of the possibility of a thing under considerations fits within a broader theological and metaphysical context of viewing essences as *possibilia,* which have being in virtue of being the intentional objects of the divine mind.[5] On the Leibnizian view, the possible is prior in being to the actual; what actually exists is that compossible set of essences that God creates.

For reasons I will discuss in Chapter Four, I think we cannot straightforwardly attribute such a Leibnizian view of the priority of the possible to the actual or of possibilia as intentional objects of divine thought to Kant.[6] All we need say for the moment is that Kant does mark the essential/accidental distinction at times in terms of the modal distinction between the possible and the actual. The essence of a thing tells us what the thing is; and the sorts of determinations a thing actually has are going to be caused, in part, by the sort of thing it is – and thus by its essence. But the determinations or accidents a thing has in *actuality* are, Kant thinks, partly a

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[3] *MAN* 4: 468.
[4] For example, in the *New Essays*, which we know Kant read, Leibniz states that "[e]ssence is fundamentally nothing but the principle of the possibility of the thing under consideration." (*NE*, 294).
[5] See Newlands (2013) for a detailed account of Leibniz's account of the being of *possibilia*.
[6] For someone who does think Kant embraces this broadly Leibnizian picture, see Rosefeldt (2020). That such a picture is a fundamental object of criticism for Kant is argued in Conant (2020), to which I am indebted.

product of the substances it is in real community with. Determinations or accidents are actualizations of the powers of a substance; powers require enabling conditions or 'determining grounds' to be in act; and so, the fact that a substance has determinations or accidents is partly explained by the fact that it is in real community with other substances and is therefore actual.[7]

Because having an essence therefore does not require that a thing be *actual* and does not require that the thing be endowed with powers or forces, not only substances have essences. Mathematical objects also have essences, and these essences are also the 'cause' or 'ground' of the properties and attributes of mathematical objects.[8]

(b) Formal Natures

As we have seen, to say that something has an essence is not yet to say that it is actual, or that it is a substance. When a thing is actual, and when it is a substance, and therefore a locus of causal powers, the term for its essence is *nature*. Nature is the proper term used for the essence of something that is a substance, something that 'expresses an existence': "the first inner real ground of determinations of a thing is nature."[9] A helpful illustration of how the abstract notion of an essence becomes the somewhat more concrete notion of a nature in a substance can be found in following passage from the pre-critical *Metaphysik Herde*r lectures:

> From the nature one can distinguish not merely the matter, but rather also give grounds of its alteration…e.g., the nature of quicksilver must contain the real ground of all of its consequences, i.e., the power, e.g., weight, fluidity, mobility. (*Herder*, 28: 49)

[7] *Mrongovius* 29: 770-71; 29: 824. As we saw in the previous chapter, in thinking of the accidents of a substance as *acts* or *actualizations of a power*, Kant is following a long Aristotelian tradition of thinking about the relation of substance and accident, and of thinking of accidents as in some sense 'caused' by the principles of a substance. For the claim that, *qua powers*, accidents require a determining ground see also 29: 824, *R* 3585.
[8] *MAN* 4: 468; *ÜE* 8: 321; *JL* §106.
[9] *MAN* 4:468; *Mrongovius* 29: 821. Kant will freely speak of both the 'essence' and 'nature' of substances, so the terms are more or less interchangeable. But only substances have a nature.

While this is an admittedly quite early text, it explicates the manner in which nature is a term for the *essence* of an existing substance. It is important to be clear here about the sense of 'nature' Kant has in mind when he claims that essence as it is found in existing things or substances is nature. It is what Kant will elsewhere call nature in its *formal meaning*:

> where it means the first inner principle of all that belongs to the existence of a thing…there can be as many [natures]…as there are specifically different things, each of which must contain its own peculiar inner principle of the determinations belonging to its existence. (*MAN*, 4: 467)

This is the Aristotelian conception of nature found in the scholastic tradition, and which Leibniz defended in his essay "On Nature Itself" discussed above. Kant contrasts this sense of nature (such that there are *natures*) with what he calls nature in its *material meaning*:

> But nature is also taken otherwise in its material meaning, not as a constitution, but as the sum total of all things, insofar as they can be objects of our senses, and thus also of experience. Nature, in this meaning, is therefore understood as the whole of all appearances, that is, the sensible world, excluding all nonsensible objects. (*MAN*, 4: 467)

This is the sense of nature as that which is studied in natural science (*Physica*) proper: nature such that it has a 'pure' part in virtue of which "its fundamental laws are prescribed *a priori*".[10] This is a thoroughly modern conception of nature, on which it makes sense to speak of *matter* as having a nature. It is what we saw Robert Boyle refer to as 'universal nature' in Chapter One, and is that which Boyle intended to replace the scholastic notion of *natures* as part of his general attack on substantial forms.[11] Nature in its *formal sense* is thus a more classical Aristotelian notion of nature: it is the internal principle of a substance that unites and regulates all its powers and accidents, and which serves as an inner principle of explanation of its behavior and activity.

In the critical philosophy we therefore find *two senses of nature*. The first, nature in the material sense, is concerned with describing laws of *phenomenal substance* (*substantia*

[10] *MAN* 4: 469.
[11] Boyle, "Notion of Nature", p. 187.

phaenomenon) or matter. The second sense of nature – nature in the formal sense – is the older Aristotelian sense of nature, and it is this sense of the nature of substance that Kant denies we can have knowledge of. It is what Kant calls the inner principle of substance that "grounds…alteration" and which "concerns [the] *power* and *activity*" of substance.[12]

(c) The Absolutely Inner

In the *Critique of Pure Reason*, Kant states repeatedly that we have knowledge only of *relations* or *outer determinations*, and never of what is *inner* in things. In the Amphiboly, Kant defines the 'inner' as that "which has no relation whatsoever (as far as its existence is concerned) to anything different from itself."[13] Further, Kant claims that phenomenal substance is *wholly relational*: "its inner determinations are nothing but relations, and it itself is entirely made up of relations":[14]

> Matter is *substantia phaenomenon*. That which inwardly belongs to it I seek in all parts of the space which it occupies, and in all effects which it exercises…I have therefore nothing that is absolutely, but only what is comparatively inward and is itself again composed of outer relations. The absolutely inward nature of matter, as it would have to be conceived by a pure understanding, is nothing but a phantom[.] (A 277/B 333)

> All that we know in matter is merely relations…It is certainly startling to hear that a thing is to be taken as consisting wholly of relations. Such a thing is, however, mere appearance[.] (A 285/B 341)

The Amphiboly is a notoriously difficult chapter to interpret, for it functions chiefly as a criticism of the Leibnizian view that (in Kantian terms) *sensibility* is not a distinct capacity, whose representations have their own form and logical character. Kant thinks that Leibniz's inability to appreciate that sensibility is a distinct capacity which makes its own contributions to cognition leads him to develop an *intellectualist* metaphysics – a metaphysics of objects as they

[12] *Herder* 28: 49.
[13] A 265/B 32.
[14] Ibid.

would have to be to be objects of knowledge for a being whose intuitions are not *sensible*. In the Amphiboly, therefore, Kant will often speak in the subjunctive or *Konjunktiv II* – saying that *if* we could cognize objects through purely intellectual means, without having to be sensibly affected by them, then Leibniz's metaphysics would articulate principles of the possibility of such objects.[15]

A number of interpreters of Kant's metaphysics fail to pay adequate attention to the mood in which Kant is making these statements, and thereby attribute to Kant metaphysical commitments that he is in fact stating in the subjunctive mood, and which he thinks reflect the views of Leibniz.[16] But even with these caveats, I think the following statements are safe to attribute to Kant:

(1) A feature of an object is *inner* if its existence does not depend on anything distinct from itself
(2) Appearances are *wholly relational* – we find nothing in appearances that are absolutely, but merely comparatively inner

The passages we have seen above explain the appearance/thing in itself distinction in terms of the distinction between 'outer' or relational and 'inner' features of a thing. This is a way of understanding Kant's distinction we find in other parts of the *Critique* as well; in the Transcendental Aesthetic, for example, Kant states the following:

> In confirmation of this theory of the ideality of both outer and inner sense, and therefore of all objects of the senses, as mere appearances, this comment is especially useful: that everything in our cognition that belongs to intuition…contains nothing but mere relations…Now through mere relations no thing in itself is cognized; it is therefore right to judge that since nothing is given to us through outer sense except mere representations of relation, outer sense can also contain in its representation only the relation of an object to the subject, and not that which is internal to the object itself. It is exactly the same in the case of inner sense. (B 67)

[15] A 283-4/B 339-40.
[16] This is a problem both Langton and Lucy Allais fall prey to. For criticisms of Allais in this vein, see James Kreines (2016), R. Lanier Andersion (2017), and Simon Gurofsky (2020).

This equation of the thing in itself/appearance distinction to the inner/outer distinction is central to the theories of Kant's distinction developed by Daniel Warren and Rae Langton, and I discuss their views below. But before doing this, I think it is worth trying to spell out how I think Kant understands this distinction.

Unfortunately, Kant does not say a terrible amount about the inner/outer distinction in the *Critique*. But from what little he says, there are two important features of the distinction we can bring out: (1) something in an object is inner if its existence does not require the existence of anything else; and (2) in addition to speaking of 'absolutely' inner features, there are also *comparatively* inner features. I will try and unpack both.

First, as we saw above, Kant thinks that the features of a substance that require something other than the substance for their existence are its *accidents.* This is because the relation of substance to accident is that of a power; and powers are essentially relational – they require both a ground within a substance, and some enabling condition or 'determining ground' that makes possible the transition from potency to act. To say of a determination that its existence requires the presence of some other thing is, therefore, to indicate that the determination is an *accident*. And, conversely, to say that a feature of a substance does *not* require the presence of anything else is to mark off that one is talking about the *essence* of a thing. We find further support for understanding Kant's inner/outer distinction in terms of the essential/accidental distinction on two grounds. First, there is the simple fact of Kant's usage: Kant almost invariably describes real essences (and related concepts such as *nature* and *the substantial*) as the 'first' or 'absolutely' *inner* in things: "Essence is the first **inner principle** of all that belongs to the possibility of a

thing",[17] and an essential property is one "on which the inner possibility of a thing rests as a condition".[18]

Second, there is the fact that Kant's usage of 'inner' to designate essences and 'outer' to designate accidents tracks how the inner/outer distinction is understood by Alexander Baumgarten. The inner/outer distinction is the primary one drawn in the chapter on general ontology in Baumgarten's *Metaphysica*. My proposal, then, is that we can understand both Kant's use of the distinction between the 'inner' and the 'outer' or 'relational' as well as Kant's lack of an exposition of these concepts by noting that they are central to Baumgarten's metaphysics and would have been readily available to – and known by – Kant's readers. As discussed above, Baumgarten's *Metaphysica* is divided into a section on *metaphysica generalis* or general ontology and *metaphysica specialis*, treating of rational psychology, cosmology and theology. The chapter on general ontology has one major division – into the *internal* and the *external* or *relative* predicates of beings. When Baumgarten proceeds to characterize the distinction between internal and external or relative predicates, it amounts to the distinction between the essence and properties of a thing (they are 'absolutely' inner), and the accidents and relations of the thing which are external or relative.[19] The absolutely inner features consist in the first sense of the *essentialia* which are "the unqualified grounds of the rest of the internal determinations," and also referred to as the first principles of a substance, and in a secondary or derivative sense also pick out the 'affections' which are consequences of the essence and follow

[17] *MAN* 4: 468.
[18] *MAN* 4: 511. See also *Mrongovius* 28: 553, *Correspondence* 11: 37.
[19] The internal/relational distinction doesn't *exactly* map onto the essential and attribute/accident and relation distinction as modes or accidents have an intermediate state—they comprise what Baumgarten (and Kant following him) refer to as 'internal relations' (see *Metaphysics* §37, §50 fw.) But they are not what Baumgarten calls *absolutely* inner determinations (*Met* §37, 41-65) which are those that either comprise the essence or follow from the essence, i.e., properties or what Baumgarten calls 'affections'. The absolutely inner determinations (essentialia and properties) are those we represent in "things considered in themselves". (Met. §15, 37). The fact that modes are internal relations explains why Kant thinks there are some *relatively inner* properties we can cognize, and why his example of a relatively inner property is a power. See *L2* 28: 553.

immediately from or are wholly grounded in the essence. The absolutely inner is, therefore, in the first sense identical with the essence, and in a derivative sense also picks out the attributes or properties of the substance, in the technical sense of a 'proprium'. These comprise all the absolutely inner determinations, for "[a]n internal determination that is not an essential determination is a consequence of the essence…and hence an affection."[20]

The external or relative predicates of a thing consist of accidents and relations. Accidents or modes (*modi*) are referred to by Baumgarten (and Kant following him) as *internal relations*. They have an intermediate status: they are relatively internal, perhaps because they can be thought to have their cause solely in the substance, although not in its essence. Aquinas, for example, talks of accidents that are caused by the principles of the individual, i.e., by the *matter* of the individual, for he believes the matter is the principle of individuation. Being male or female, or having a particular eye color, are examples Aquinas gives of such accidents. Or, perhaps more abstractly, we might think of modes as internal relations purely in virtue of the fact that there is an asymmetric relation of dependence between a substance and its modes – we have a relation, but there is strictly speaking only one relatum, for a mode is no distinct entity but rather a way the substance *is*.

The question of what counts for Kant as an internal relation is somewhat difficult. One candidate example is *shape*: every material substance, one might think, has a determinate shape, and having a shape is just a mode or way for a material substance to be.[21] Shape, however, is

[20] *Metaphysica*, §41–44.

[21] One might, of course, deny even this. Leibniz, for example, denied that corporeal substances have a determinate shape, saying that the notion of shape "contain[s] something imaginary and relative to our perception" (*DM*, §12), and thought of geometrical representations as idealizations of well-founded phenomena. But this, of course, means that geometry is not *strictly speaking* true either of substances or of well-founded phenomena. Kant's position, however, is that space is the (outer) *form* of appearances and phenomena, and in virtue of this geometry is strictly speaking true of appearances, and therefore it is true that phenomena have determinate shapes. For a discussion of Leibniz's denial that bodies have determinate shapes see Samuel Levey (2005).

described by Kant as an 'outer relation,'[22] presumably because it consists of the relations of the parts of a body to one another, and more generally because he conceives of the representation of space that makes any representation of determinate shape possible as itself fundamentally a representation of outer relations. Given that shape is an outer relation, we can give a good example of what at least one inner relation might be. Assuming that shape is something like the outer surface of the region of space occupied by a substance, then the notion of a substance *filling a region of space* will be prior to the notion of a substance *having a shape*. But, as Kant argues, substance *fills a region of space* through a particular kind of motive force, namely what Kant calls *primitive repulsive force*.[23] So the notion of a *primitive repulsive force* will ground and explain *filling a region of space* which in turn grounds and explains *having a shape.* Such forces are regarded by Kant as not 'absolutely' but comparatively inner. Finally, the external relations of a thing consist of those predicates only intelligible when there is more than one substance – being different than, simultaneous with, or an effect of a thing are relative predicates.[24]

Hopefully the above discussion has situated Kant's use of the inner/outer distinction as a shorthand for the essential/accidental distinction within a broader tradition of marking the essential/accidental distinction in terms of the distinction between the absolutely inner and the outer features of a substance. I think the vocabulary of inner/outer is used because it captures something rather intuitive – namely, features a substance may have that depend on the relations it may (or may not) stand in to other things, and features the substance may have solely 'on its

[22] A 274/B 330.
[23] *MAN* 4: 498.
[24] These are the predicates that would fall within the extension of 'extrinsic' as Lewis and Langton (and, I think, Warren) understand it, i.e. they depend on a substance being 'accompanied'. But it isn't clear that *causal powers* are understood by Kant and Baumgarten as *relationes* and not *modes*—in fact we have good reason to think that Kant considers them 'internal relations' or modes, for he speaks of us coming to know the 'relatively inner' in things by becoming acquainted with their powers in experience (L2 28: 553).

own'. But I think this intuitive distinction is something that has to be understood as a *consequence* of a more fundamental demarcation we can make between the essential and accidental. As we have also seen in the discussion of the relation between 'primitive repulsive force' and 'shape', (1) there are both absolutely and *comparatively* inner features, and (2) this is because 'inner' has an explanatory dimension. For the notion of 'inner' in a both absolute and comparative sense is a notion of explanatory priority: A is 'inner' with respect to B if 'A' grounds and explains 'B'.

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We can see, now, why the notion of essence is the core or 'focal' term of the various restrictions on our knowledge that Kant makes.[25] This is because *essence* shows up in the definition or account of all the other terms, but not vice versa. So, by *formal nature* Kant means *essence* insofar as it is actual, i.e., the essence of an existing substance; by *absolutely inner*, Kant means *essentialia* or the marks or features of the essence of a thing; and by *Substantiale*, substance with the accidents set aside, and thus conceived of solely with respect to its metaphysical principles such as its *essence* or *formal nature*. The fact that these more determinate restrictions Kant makes on our knowledge are related in this manner by having a core or focal meaning gives a certain unity to our investigation of the determinate restrictions Kant places on our knowledge.

The fact that these terms are related in this manner has not been appreciated or noted by any interpreters of Kant. In particular, it is absent from those metaphysical two-aspect readers such as Langton and Warren that prioritize the 'inner' in their explication of Kant's distinction and epistemic humility. But if the above discussion is correct in identifying *essence* as the core

[25] By saying that essence is the 'focal' meaning here, I am drawing on G.E.L. Owen's (1965) term for the sense in which some homonymous terms have a core meaning for Aristotle, e.g., the way in which the being of substance is prior in account to all other senses of being, and thus the 'focal' meaning of being.

or focal term for the limits Kant places on our knowledge, then it is a mistake to make what is 'inner' in things the centerpiece of one's story – it is a mistake similar to making the being of 'quantity' or 'quality' the center of our metaphysical investigations.

2. The Thing in Itself/Appearance Distinction as the Substance/Accident Distinction

As Lucy Allais rightly points out in a discussion of the remarkable lack of consensus among Kant interpreters concerning the nature of transcendental idealism, there is seeming textual evidence for a variety of incompatible understandings of Kant. There are passages that seem to tell for a kind of phenomenalism about appearances, and those that tell against phenomenalism. There are passages that seem to support a 'metaphysical' reading of transcendental idealism, and passages that tell in favor of epistemic or methodological readings. The point, I take it, is that no mere assembling of passages will count decisively in favor of one reading over all others. The philosophical and systematic advantages of any particular interpretation will have to finish whatever is left underdetermined by the text. My aim in this section, then, is not to provide decisive evidence for the claim that Kant understands the appearance/thing in itself distinction in terms of the distinction between substantial and accidental being – the plausibility of the reading as a whole will depend on whatever cumulative systematic and philosophical insight this approach affords us. It is, rather, simply to demonstrate that the reading is one of many for which there is textual support

The first point in favor of the interpretation being developed here is that Kant often equates things in themselves with *substance* in contrast to phenomena or appearances which are characterized as *determinations*, *relations* or *accidents*.

> We are not acquainted with the substrate or the ground of the soul, merely its appearance…bodies are not substances, but only appearances. [*L2* 28:591]
>
> A phenomenon is in itself no substance. (*Dohna* 28: 682)

> Whoever thus says: the soul is power <*anima est vis*>, maintains that the soul is no separate substance, but rather only a power, thus a phenomenon and accident. (*L1* 28: 261)
>
> The *Substantiale* is the thing in itself (*Ding an sich selbst*) and unknown. (*R* 5292)
>
> Matter…does not mean a kind of substance…but only the distinctive nature of those appearances of objects—in themselves unknown to us—the representation of which we call outer. (A 385)
>
> [I]t is…self-evident that a thing in it self is of another nature than the determinations that merely constitute its state. (A 360)
>
> Matter is the ultimate subject of the outer senses, it perdures, even if its form is altered, and therefore matter is also called a substance. Because matter is possible only through space, then it is substance not in itself, but rather as appearance. (28: 759)[26]

The above passages clearly indicate that Kant thinks that *if* one establishes that *x* is an accident, then this shows *x* is appearance or phenomenon.[27] Relatedly, to say that *x* is a substance 'in itself' is to mark *x* off from those things that are 'phenomena' or 'appearances' – where something can be characterized as a 'power', 'relation', 'accident' or 'determination' it is the sort of thing that does not have being 'in itself' but rather is best characterized as 'appearance' or 'phenomena'.

[26] I owe some of these references to Ameriks (2000), where he briefly considers the idea that 'thing in itself' might mean *essence*. Ameriks notes there seems to be a lot of textual evidence for such a view, but he quickly dismisses it, because he equates (in a manner common to 20th century analytic philosophy) 'essential' with 'necessary', and he notes that appearances have plenty of necessary features or properties. He thus does not consider the view I develop here, where 'essence' is understood in its classical sense as that which gives being to a thing, and not merely as whatever necessary properties it has.

[27] 'Appearance' and 'phenomenon' are not synonymous terms. Kant states that an appearance is "the undetermined object of an empirical intuition" (A 20/B 34), by which I understand him to mean an object that is intuitable by us but not yet determined by the understanding in an act of judgment. An appearance is an object considered insofar as it is intuitable and so a potential object of knowledge; phenomena are (partially) determinate appearances and, as such, not merely possible objects of cognition, but *cognized objects*. Another way to put this point would be to say that appearances are the proper objects of *sensibility*, and phenomena the proper objects of the *understanding*. But I think appearances and phenomena are both understood by Kant as *accidental beings*, and so I do not think it misleading to use them interchangeably in this section.

2.1 *substantiae phaenomenum* and *substantiae comparativae*

As we see in the quotes with which I opened this section, Kant denies that matter is 'in itself' substance, maintaining that it is substance *as appearance*. Throughout the *Critique*, Kant refers to matter as *substantiae phaenomenum*, which he glosses as that which is 'in itself no substance' but 'substance as appearance'.[28] Kant similarly speaks of bodies as '*substantiae comparativae, substrata phaenomenorum*', i.e., substances comparatively speaking, the substratum of phenomena.[29] In this, Kant is following a certain way of referring to accidental being 'taken' as substance that we find in Wolff and Baumgarten. Baumgarten defines *phaenomenon substantiatum* as cases where "accidents seem to exist *per se*" and we treat things that are not strictly speaking substances *as* substances, i.e. as subjects of predication, bearers of powers and grounds of accidents.[30] Kant's usage certainly seems in line with how Wolff and Baumgarten speak of 'substantial phenomenon', and as I have said, Kant's usage of Latin terms generally indicates that he is employing technical philosophical vocabulary – vocabulary that we can better understand by seeing how such terms were used by Kant's contemporaries, and so would have been understood by his readers.

Kant's claim, then, is that objects of experience are, when considered 'in themselves', *merely accidental beings*. As such, the things we treated as substances in experience – as subjects of predication, bearers of powers, etc. – are not 'in themselves' substances. Although we must *think* that they have some way that they are 'in themselves', and that the being they have in themselves is *substantial*, an appearance considered 'in itself' is *a merely accidental being*.

[28] A 265/B 321, A 277/B 333; cf. *Dohna* 28: 682, *K2* 28: 759.
[29] *R* 5294.
[30] *Metaphysica*, §193.

2.2 '*Substanz*' as Universal Predicate of Objects as Appearances

There is, I think, one significant potential objection to treating appearances as accidents. The worry is that one of Kant's central achievements in the *Critique* is the establishment of the objective validity of the categories, and in showing their objective validity Kant establishes that the categories are universal predicates of objects as appearances. As such, the category of substance [*Substanz*] must be applicable to appearances. But does this interpretive approach not *deny* that appearances are substance, and thereby *deny* the objective validity of the category of substance?

In a word: No. More seriously, I think this worry involves a conflation of the category of substance with the substantial, or of *Substanz* with *das Substantiale*. For as a *category* – i.e. as a pure concept of the understanding – *substance* is a term for a *form of real predication*. That is, 'substance' is a term that indicates a certain functional role that a representation will take in a real exercise of the understanding. Thus, in the judgement "a body is divisible", the term *body* is brought under the category of substance and *divisible* under accident, and a consequence of this is that the representation 'body' can only play the role of a subject term in further real acts of predication. Kant's account of this role the categories play as *forms of real predicative unity* can be found in §14 of the B Deduction, where he states that categories are:

> concepts of an object in general, by means of which the intuition of an object is regarded as *determined* in respect of one of the *logical functions* of judgment. Thus the function of the *categorical* judgment is that of the relation of subject to predicate; for example, 'All bodies are divisible'. But as regards the merely logical use of the understanding, it remains undetermined to which of the two concepts the function of the subject, and to which the function of predicate, is to be assigned. For we can also say, 'Something divisible is a body'. But when the concept of body is brought under the category of substance, it is thereby determined that its empirical intuition in experience must always be considered as subject and never as mere predicate. (B 128-9)

Empirical concepts are applications of the categories *in concreto*. From the perspective of pure general logic, both terms that are related in a categorical judgment are on equal footing, and there is a certain degree of arbitrariness in the distinction between subject and predicate. In such a case where we have a 'merely logical' subject, the subject can itself always go on to serve as the predicate in a further categorical judgment. When we are considering transcendental logic, however, the object which is determined in a categorical judgment is thought through the category of *substance* and is thereby thought of as a *real* and not merely *logical* subject, and that which is predicated of the substance (subject) is no longer a (merely logical) predicate but an *accident*, i.e., a real, positive determination.

As we will see in more detail in the following chapter, the above story of the role of the categories in real predication or material exercises of our faculties is in important ways incomplete. It merely tells us how a given representation can function in thought *given* the fact that it is brought under the category of substance. But it does not tell us *how* or *why* a representation is e.g., brought under the category of *substance* instead of *accident* in the first place – and as we see from the above passage from the B Deduction, that story is not going to be able to rely on any logical or grammatical features of the representations brought under the category. I will not go into that story in depth here, but part of what is involved in bringing a representation under the category of substance is that one represents it as a *bearer of powers*, and therefore as having an *essence* or *nature* that grounds the various powers and accidents of the substance and accounts for their substantial unity. And to represent a substance *in this way* involves representing it as *das Substantiale*, and as something that has being 'in itself'. So, the claim that appearances do not 'transcendentally' speaking have being 'in themselves' merely amounts to the denial that *what they are in themselves is substantial being*. It does not, therefore,

amount to the denial that the category of substance applies to them – in fact, it is part of the very story of how we apply the category of substance to appearances *in the first place*: if we did not represent appearances as *Substanz*, we would not think they have being 'in themselves', and so would have no idea of *das Substantiale*.

3. Langton and Warren on the Inner/Outer Distinction

As stated in the Introduction, the interpretation I have been developing here – that the distinction between things in themselves and appearances should be understood in terms of the classical distinction between substantial and accidental being – is not entirely without precedent. I am, with some caveats, happy to think of it as a member of a family of positions that have come to be known as 'metaphysical two-aspect' interpretations of Kant's distinction.[31] This position – now most strongly associated with Rae Langton, Daniel Warren, and Lucy Allais – agrees with the more traditional 'methodological two-aspect' views that appearances and things in themselves are, for Kant, one and the same thing. However, unlike methodological two-aspect views, they disagree that this distinction can be understood in terms of different standpoints or ways of conceiving, i.e. that the distinction is *merely* methodological or epistemic.[32] They instead think the distinction must be metaphysical, and at heart a distinction between two kinds of properties an object can be thought to have.

The motivation for such a metaphysical two-aspect view often comes from the observation that Kant regularly distinguishes between *inner* and *outer* properties of a thing. As discussed in the Introduction, both Rae Langton and Daniel Warren understand the key to Kant's

[31] The caveats are (1) that the distinction I am drawing is not between two kinds of properties or features a thing might have, but between a *thing* and its properties or features, and there is something perhaps a bit awkward about saying that a 'thing' is an aspect of itself, and (2) the way 'metaphysical' is used in characterizing most 'metaphysical two-aspect' views is a conception of metaphysics that is *dogmatic*, while I intend this to be a *properly critical* metaphysical view. I discuss what it means to claim that this metaphysics is 'critical' in Chapter Five.
[32] Classic statements of the methodological two-aspect view can be found in Allison (1983) and (2004), Bird (1973), and Prauss (1974).

distinction between appearances and things in themselves in terms of a distinction between two kinds of properties a substance can be considered to have: the intrinsic and the extrinsic or relational. And, finally, both seize on Kant's distinction between the 'inner' and the 'outer' or 'relational' characteristics of substances to textually motivate their readings.

Langton and Warren understand Kant's distinction between the 'inner' and the 'outer' as the distinction between intrinsic and relational properties respectively, although they do not understand this distinction in the same way. For Langton, an understanding of the intrinsic/relational distinction is arrived at through modal considerations: a property *p* is intrinsic if its presence is indifferent to 'loneliness' or 'accompaniment'.[33] If not, it is extrinsic or relational. Warren's distinction between 'intrinsic' and 'relational' is somewhat less anachronistic and is arrived at through his interpretation of the category of reality. On Warren's view, the category of reality is applicable to sensible qualities only insofar as if they can be considered intensive magnitudes, which requires that they be understood as causal powers.[34] But causal powers are relations, so all properties we can cognize in experience (all sensible qualities) are relations. Warren then infers that things in themselves are the 'intrinsic' or 'non-relational' properties of objects that ground their causal powers cognizable in experience.[35]

Both of these influential interpretations are, I think, on to something quite right concerning Kant's distinction between appearances and things in themselves – the distinction between the 'inner' and the 'outer' is important for gaining insight into the distinction between an appearance and something that has being 'in itself'. And, somewhat more deeply, I think Warren is absolutely right that part of the explanation of why we do not know things as they are in themselves is due to the fact that we only know substances through their *effects*. Although

[33] An object is defined as 'lonely' if it is the only object at a world, and 'accompanied' if it is not.
[34] Warren (2001: 22 fw.).
[35] Warren (2001: 47).

Warren would not put it in exactly these terms, I agree that it is because we know powers through their acts, and substances through their powers, that we do not know what substances are 'in themselves'.[36]

However, I have three major concerns with their approach. First, I do not think Langton's way of explaining the inner/outer distinction in Kant is particularly illuminating – it is objectionably anachronistic, and there are real worries whether it is an extensionally adequate account of Kant's inner/outer distinction, even apart from however illuminating their analysis may otherwise be. Second, and relatedly, I have argued above that an investigation of Kant's distinction that makes the inner/outer distinction central to understanding the appearance/thing in itself distinction is misguided. This is because the inner/outer distinction is posterior to the essential/accidental distinction. The fact that a property or feature of a substance is one that it has independently of whether it stand in relation to other substances is a consequence of a more basic or fundamental way of characterizing that feature – namely, that it is *essential*. Finally, the conception of *metaphysics* that serves to qualify their view as a 'metaphysical two-aspect' view strikes me as *dogmatic*, and objectionable on that front. As I have already tried to make the case for the second point above, below I will concern myself with the first and third objection.

First, Langton's explication of the 'inner' and the 'outer/relational' in terms of Lewis's distinction between intrinsic and extrinsic properties is, at best, anachronistic. Further, she understands the 'inner' properties of substances as causally inert and as neither standing in (even potential) grounding or explanatory relations to the causal powers substances actually have, and which we cognize in experience, nor as constraining or determining in any respect the actual causal powers of substances.[37] The lack of a grounding or explanatory relation such properties

[36] I develop this line of thought in more detail in Chapter Four.
[37] Langton (1998: 115 fw).

stand in to the powers we cognize in experience should, I think, give us pause. For, as we saw in the above discussion of Locke and Suárez, it is precisely questions about the *grounds* of causal powers and the unity of substances that motivate the postulation of something inner and unknowable in experience. The postulation of inner properties that serve no metaphysical explanatory work at all seems otiose.

Of course, Langton might accept this as a *virtue* of her view – it is, after all, why she thinks the inner principles of substance are unknowable to us. But apart from the fact that positing causally inert inner properties in this way strikes me as 'brute', and thus antithetical to what Kant thinks of as the rationalist intuitions that underpin our positing of the absolutely inner in things, there are strong textual and systematic objections to such a view. First, this is because Langton's account of the *inertness* of the inner depends on her attributing to Kant a broadly Humean conception of natural laws:

> In a world where the laws of nature were different, things might not have an attractive power, despite having the very same intrinsic properties that attractive things actually have. These modal intuitions rest on certain assumptions about the contingency of laws of nature, and the contingency of connections – if any – between intrinsic properties and causal powers. These modal intuitions suppose that causal powers do in a sense depend on something other than the way a thing is, in and of itself: that causal powers do depend on something else—but the something else is not simply the existence of some distinct object, but the existence of certain laws. (1998: 118)

This 'Humean' intuition would allow the possibility of two universes with the same objects with the same intrinsic properties, but different natural laws, and therefore different causal powers. Because the intrinsic properties of substances have no bearing on how, or whether, they interact with one another, God must superadd causal powers at the act of creation.[38] Although she does not use Kant's terminology, what Langton's claim amounts to is the denial that natures *in the formal sense* have any bearing on *natural laws*. But this is deeply at odds with Kant's conception

[38] Langton (1998: 123).

of what *explanation of the natural world* in terms of *natural laws* amounts to. Our explanation of the natural world involves the faculty of reason which demands that we seek knowledge of the underlying conditions or grounds that *explain* particular cognitions of the understanding. And we do this by following a "regress of conditioned to conditions".[39] Now, reason's activity of seeking conditions that ground and explain particular phenomena is merely regulative for the activity of explanation; but still, it gives us a picture of natural explanation by which we discover how particular features of substances are grounded in and *necessitated by* the natures of things. As such, the very notion of a natural law for Kant is something intimately connected to the idea of a *formal nature* – natural laws explain particular phenomena by showing how they are grounded in and necessitated by the particular *natures* of substances. If the fact that gold is soluble in *aqua regia* were to be a natural law, then the statement "all gold is soluble in *aqua regia*" would be one that is grounded in the nature of the kind *gold*.[40]

As the above discussion concerning the relation between particular *natures* and *natural laws* should make clear, Kant is committed to the thought that *essences* or *natures* – i.e., what is absolutely inner in things – play an explanatory role (albeit a regulative one) in understanding why substances have the particular *outer determinations* (i.e. accidents) they do. This is why essence is described as the "first inner ground of all that belongs to the thing", and nature as "the first inner principle of all that belongs to the existence of a thing."[41] As such, there is decisive textual evidence against Langton's reading.

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[39] A 523/B 521.

[40] I am indebted to James Kreines (2008) for helping me appreciate this point. The view he puts forth there is known as a "necessitation" account of natural laws, for it states that laws of nature are necessitated by the *natures* of particular kinds. While there are stronger and weaker versions of the necessitation reading (depending on whether natural laws are taken to be partly or wholly grounded in particular *natures*), some version of the necessitation reading of natural laws has become the dominant one in the literature. For other versions of the necessitation reading see Watkins (2005: 406) and Messina (2017).

[41] *L1* 28: 553; *MAN* 4: 468.

Warren's understanding of an (absolutely) inner property seems quite close to Langton's, although he does not spell it out with the same precision she does. But by absolutely inner Warren means a property which can exist in a substance and be understood independently of any relations that substance stands in to other things, so it does not seem misleading to group them together. However, Warren does not deny that such properties might ground or explain the 'outer' or 'relational' powers we can cognize in experience. He denies merely that *we* can cognize and understand such properties, for we must be sensibly affected by a thing in order to cognize it. Warren's conception of an (absolutely) 'inner' property as that which can exist and be understood independently of other things does not, however, explain why one might think that causal powers are 'outer' or 'relational' rather than 'inner'. This is not to deny that Kant (and a host of other modern thinkers, such as Locke and Boyle) consider powers to be relations. It is, rather, to say that neither Warren nor Langton provide an explanation of why powers cannot be 'inner' *if* inner means intrinsic and intrinsicality is understood in modal terms.[42]

This last point – that modeling the notion of the 'absolutely inner' in Kant in modal terms might fail to capture the features Kant means to pick out with his notion of the absolutely inner – is a genuine worry. This is because, as I have argued, the notion of the *absolutely inner* in Kant should be understood in terms of the notion of *essence*. And, as philosophers have generally come to appreciate in the last decades, 'essence' – at least in its classical sense, the sense used by Kant – is a *hyperintensional* notion.[43] To say that a feature of a thing is *essential* is not the same as saying that it is *necessary*. Those features that are necessary can include things like *propria,* but also necessary accidents – for example, consider the Thomistic view given above that being

[42] The position that powers are intrinsic in the way Langton and Warren seem to think is not merely consistent but a position many philosophers today hold. For an argument against the possibility that all powers are 'extrinsic' (and so at least some must be 'intrinsic') in the sense meant by Warren and Langton see George Molnar (2003: 102 fw.).
[43] The popularization of this point is generally credited to Kit Fine (1994).

male or *female* is a necessary accident caused by the principles of an individual (i.e., their form and matter), and so a feature an individual will have *necessarily*, and will have *independently of actual or possible relations* it stands in with other individuals, but still a feature that is a metaphysical accident.

Intensional theories such as the ones Langton employs individuate properties by actual and possible extension and define sameness of property by sameness of extension. But this means that intensional theories cannot *distinguish* properties that have the same actual and possible extension.[44] If 'absolutely inner' is a hyperintensional notion, as I have argued, then we should expect the modal machinery Langton employs to not be fine-grained enough to capture it.

Finally, I think there is a deep problem with how 'metaphysics' is understood by most metaphysical two-aspect readers. The conception of metaphysics we find in Langton (and, arguably, in Warren) is *dogmatic.* Kant characterizes dogmatic philosophy as that which "does not trouble to investigate from which powers of mind a cognition arises, but rather lays down as a basis certain general and accepted propositions and infers the rest from them".[45] This is, I think, an apt characterization of how they proceed: they help themselves to a certain conception of an object; define kinds of properties that object may have; and provide an argument for epistemic humility that does not center on an investigation of the nature of our cognitive faculties.

This is, I think, the philosophical worry underpinning Karl Ameriks' complaint that Langton offers what he has called a 'short argument' for our ignorance of things in themselves. By a 'short argument' Ameriks means an argument that bypasses the quite specific discussions

[44] There will also not be a way to pick out 'in virtue of' or 'priority' relations that hold between properties in the way that e.g., 'rationality' is prior to 'risibility'. This point is, again, one that was popularized by Fine (1994) and which has generated an enormous literature.
[45] B xxxv; *Mrongovius* 29: 772.

Kant offers regarding space, time, or the categories. Such arguments seek to reach Kant's denial that we know things in themselves through general considerations of the nature of representation, or receptivity, or the metaphysics of relations.[46] Ameriks' objection is pitched as a kind of textual complaint: the *Critique* offers long and complex arguments for the unknowability of things in themselves, and metaphysical two-aspect readers tend to offer short, simple arguments that don't hang on those found in the *Critique*. Metaphysical two-aspect readers seem to offer arguments for the unknowability of certain features of objects that *anyone* could accept, regardless of whether they considered their project 'Kantian' or 'critical'. As a textual, interpretive objection I think this is a strong one. But we can add to this the fact that the kinds of considerations of the nature of representation, or the metaphysics of relations, that metaphysical two-aspect readers tend to rely on are *dogmatic* in the manner outlined above. Kant's arguments for the unknowability of things in themselves aren't merely one of several possible routes to this conclusion from 'within' metaphysics as it has been classically practiced; arriving at the unknowability of things in themselves via reflection on the nature of our faculties is the only way to arrive at such a thesis in a *critical manner*.

My characterization of the thing in itself/appearance distinction in terms of the distinction between substantial and accidental being is not, however, subject to such criticism. For as we will see in the coming chapter, the route *from* this distinction *to* the unknowability of things in themselves is via reflection on the finite, and therefore discursive, nature of our cognition. As we will see, Kant thinks that finite cognition knows its object by *thinking it*, that is, by predicating concepts of given representations in acts of judgement. Kant is therefore committed to the thought that insofar as our thought is cognitive it is *essentially predicative*. However, Kant

[46] See Ameriks (2003) for a discussion of short arguments, and his criticism of Langton for providing one. Eric Watkins (2002) provides a similar criticism of Warren's 'short argument' to humility.

argues that what is represented *through* predicates are metaphysical *accidents.* The unknowability of things in themselves therefore follows directly from the predicative character of finite knowledge. As such, an understanding of the thing in itself in terms of essential or substantial being makes possible a properly critical version of the metaphysical two-aspect view.

Chapter Three: The Predicative Character of Finite Thought Explains the Unknowability of Real Essences

In Chapter One, I argued that Kant's remarks on the unknowability of the *Substantiale* are best understood as claiming that the real essence or substantial form of substances are unknowable to us. This claim places Kant within a broader history of reflections on the metaphysics of substance in the Aristotelian tradition, as well as that traditions skepticism concerning our knowledge of essential or substantial being. This skepticism concerning our knowledge of substance is a common theme in this tradition found in figures as diverse as Thomas Aquinas, Francisco Suárez, and John Locke. The basic picture shared by these figures and Kant is that we know powers through their acts, and substances through their powers, but the essence – the ground of these powers or inner structuring principles of substance – remains beyond our ken. As such we do not know substance *per se* or 'in itself'.

Kant's distinction between objects of experience and those same things considered 'in themselves' should be understood as the distinction between the accidents and powers of substance cognition of which constitutes empirical knowledge, and the real essence or inner nature of substance that remains always beyond experience. While the distinction between objects of experience and things in themselves thus understood is one recognizable in the philosophical tradition prior to Kant, Kant's distinction is not *simply identical* to that found in the tradition. To hold this would be to fail to make sense of what is 'critical' or revolutionary in the critical philosophy. Rather, Kant's distinction should be thought of as a *vindication* of the Aristotelian tradition arrived at not via 'first-order' metaphysical inquiry, but via the method of *critique*, which involves starting from the concept of a finite faculty of knowledge and unfolding out of such a concept both the proper objects of such a faculty and the limits of what it can

know.[1] While Kant arrives at a similar conclusion to figures such as Aquinas and Locke in his denial that we can cognize the real essence of substance, the route he takes to this conclusion is through a sustained investigation of the nature of *finite* or *discursive* cognition.

As we will see in more detail below, Kant thinks that finitude is not accidental to or a simple determination of our faculty of knowledge, as if the difference between a finite and infinite faculty were one of degree. Rather, it characterizes the form or essential structure of finite knowledge itself.[2] Two basic features of our faculty of knowledge that are a consequence of our finitude and which will be important in what follows are: (1) our intuition is sensible, meaning it must be affected by an entity whose being is independent of and prior to it, and (2) we know objects given in intuition – appearances – only by thinking them, that is, by determining them in acts of judgment. As such our power of cognition is "through concepts, not intuitive but discursive."[3]

In the *Prolegomena* passage concerning the unknowability of the *Substantiale*, Kant argues that the fact that we cognize only accidents and not the *Substantiale* or essence of things is a consequence of the discursive character of our power of cognition:

> [T]he *Substantiale* itself could never be thought by our ever-so-penetrating understanding, even if the whole of nature were laid bare before it; for the specific nature of our understanding consists in thinking everything discursively, i.e., through concepts, hence through mere predicates, among which the absolute subject must always be absent. Consequently, all real properties by which we cognize bodies are mere accidents for which we lack a subject—even impenetrability, which must always be conceived only as the effect of a force. (*Prol*, 4:334)

[1] See Kant's discussion of the method of the *Critique* in Letter to Garve 7,August 1783; Ak. 10:340. I discuss this passage and Kant's method more generally in Section Five. For a detailed investigation into the conception of theoretical knowledge underlying this method see Stephen Engstrom (2017).
[2] This point is made particularly strongly in Henry Allison (1983, 2004) and by Heidegger (1990).
[3] A 68/B 93.

The goal of this chapter is to unpack this rather dense argument, and thus to try and make sense of how the fact that we cognize only accidents is a direct consequence of the finite, and therefore discursive, nature of our cognition.

I proceed as follows. First (§1), I examine some historical precedent for the view that knowledge of essences is not had via predication or judgement. For ease of exposition, I focus on Aristotle, the fount from which this classical doctrine flows. In Aristotle one finds the claim that a certain kind of *logos* (statement or sentence) that is *apophantic* – that is capable of being either true or false, i.e., is a kind of act of the soul that involves combination and separation or affirmation and negation, what we could simply call a *judgment* – is such that it predicates accidents of a subject. But a grasp or apprehension of essences does not involve combination or separation, and as such is not a judgment or predicative act. In other words, grasp of essences is a simple act, one that differs in kind from judgment and as such is non-predicative and, in some sense, non-discursive. In what follows I will call this complex view concerning predication and knowledge of essences the 'classical doctrine'. Then (§2), I make the case for attributing the classical doctrine to Kant and show how Kant's holding the classical doctrine together with a view about the predicative character of finite knowledge entails finite knowers cannot know the essences of objects given in experience.[4] Attributing the classical doctrine to Kant requires we investigate why he thinks that finite cognition is essentially predicative, and why he thinks that what is represented through predicates are accidents.

[4] The claim about the unknowability of essences is a claim about the limits of material exercise of our faculties (i.e., cognition of *given representations*). It leaves open the possibility that knowledge of the essential nature of things may be had in, e.g., mathematics and philosophy.

1. The Classical Doctrine

Above I stated what I call the 'classical doctrine': *logos* that can be true or false (that are *apophantic*) involve acts of combination and separation or *synthesis* and *diaresis* in the predicative act of *assertion* or *denial*. They are acts of the soul that bring distinct or separable entities together in a unity such that they are capable of being either true or false – what Kant will call a judgment. But not all acts of the soul have this form. In particular, the noetic grasp of *essences* or the 'what it is to be' of a substance is not something that can be false and does not involve combination or separation:

> [W]here the alternatives of true or false applies, there we always find a sort of combining of objects of thought in a quasi-unity…Assertion is the saying of something concerning something, as too is denial, and is in every case either true or false: this is not always the case with thought: the thinking of the definition in the sense of what it is for something to be is never in error nor is it the assertion of something concerning something[.] (*De Anima* 3.6 $430^{a}26$-$430^{b}30$)

The classical doctrine is something we are liable to find deeply obscure. And, in fact, the whole framework in which it is couched – in terms of substance, essence, accident, predicative act – is largely alien to much contemporary philosophy. The first obstacle to overcome, then, is the apparent strangeness of the world Aristotle inhabits. What we require is some orientation in Aristotle's metaphysics. The hope is that as we pursue more well-known doctrines of Aristotelian metaphysics the concepts of substance and essence will seem less mysterious to us, and this in turn will lend some clarity to a core part of the classical doctrine – the idea that essences are not predicated of substances. Before I proceed, however, I would like once again to state how I will be using the term *accident* in what follows. I will be using 'accident' in the manner suggested by Aristotle's *Categories*, where terms are divided exhaustively and mutually exclusively into the *essential* and *accidental*. In the *Topics*, Aristotle provides a more fine-grained account of the so-called 'predicables', distinguishing *species*, *genus*, *differentia*,

proprium, and *accident*.[5] As I will use 'accident', it is a term for everything *except* the essence, and thus includes things like *propria* or necessary but non-essential features of a thing that follow directly from the essence. While the examples I use will often *also* be 'accidents' in the *Topics* sense, what I say applies *mutatis mutandis* to the predicables as a whole. The salient distinction here is not between, e.g., predication of an 'accident' in the *Topics* sense and predication of a *proprium*, but between *predication* and *definition*. A necessary (although not sufficient) condition of predication is that it involve two distinct entities; it "says something of something" or involves attribution of "another to another".[6] What appears as the grammatical predicate in a definition does not say something of something but tells *you what something is*.[7]

1.1 The Metaphysical Picture

The most well-known formulation of substance Aristotle offers is found in *The Categories*:

> A substance – that which is called a substance most strictly, primarily, and most of all – is that which is neither said of a subject nor in a subject, e.g. the individual man or the individual horse. (*Cat.* 2a11)

The initial characterization of substance arises via reflection on the different roles that can be played in a judgment or act of predication: there are things which are predicated of (*said of* or *in*) the subject, and there is the subject which partakes of or is determined through predication. That which first characterizes or distinguishes substance from the other categories is that substance is never predicated of a subject, while those things which fall in the other categories can always appear in the predicate position, as that which is combined with the subject in a judgment.

Aristotle proceeds in the *Categories* to offer a number of other distinguishing features of substance. Of special note are the following:

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[5] *Top.* 1. 5 102a18-30.
[6] *Cat.* 3, 1b10.
[7] *An Pos.* 1.22.

(1) "Every substance signifies a certain 'this'". (*Cat.* $3^{b}10$) In other words, substance is a singular, determinate individual (cf. *Met* 7.3, $1029^{a}27$-28)
(2) "It seems most distinctive of substance that what is numerically one and the same is able to receive contraries." (*Cat.* $4^{a}10$fw.) As Aristotle puts it, one and the same man – a substance – is able to become pale and then dark, hot and then cold, good and then bad. Substances are not so 'caught up in' or dependent on their accidents that they cannot remain identical through changes in their accidents.

It is characteristic of substance that it serves only as subject, never as predicate; that it is a 'this', i.e., a determinate particular; and that it is able to remain one and the same while undergoing changes in its state or accident.

One question we might immediately have is what sorts of things count as substances—Living beings? Tables and chairs? Holes and shadows? Another question we might pursue is into the *substance* of substances, i.e., into what it is about substances that allow them to serve as the subject of further determination in acts of judgment, that makes them a 'this', and makes it so they can remain the same while taking on contraries. This second project is one Aristotle pursues in book 7 of the *Metaphysics*.

In Metaphysics 7.3, Aristotle offers a list of potential candidates for the *substantiality* of substance, for what makes a substance have the various characteristics specified in the categories.[8] He offers the following four possibilities:

> We speak of substance, if not in more ways, at least in these four main ways; for (1) being what it is, and (2) the universal and (3) the class to which it belongs, and fourth (4) the subject of these things. (*Met.* 7.3, $1028^{b}33$-$1029^{a}1$)

[8] Here I am supposing that the account of substance Aristotle offers in the *Categories* is compatible with that he offers in the *Metaphysics*, which is generally accepted as a later work. This is, however, a highly controversial point within Aristotle scholarship. It has been argued that in the *Metaphysics*, and in particular in book 7, Aristotle changes his mind from regarding concrete individuals as substance in the primary sense to regarding forms or species as primary substances. Versions of such a view can be found in Michael Frede and Günther Patzig (1988), and Alan Code (1985). However, the view that the two works are compatible, and that *Metaphysics* 7 offers a detailed investigation into the 'substantiality' of concrete particular substances is widely defended in the literature. For a sustained discussion of the compatibility of the *Categories* and *Metaphysics 7* see Michael Wedin (2000). That the two works are compatible is also argued for in Michael Loux (1991) and structures Aryeh Kosman's approach in Kosman (2013). Finally, the approach I take here is also at odds with the view that the *Categories* is not a work of metaphysics at all, but merely a manual for dialectic, such as that found in Menn (1995b).

In the case of a primary substance such as Socrates, then, we could speak of his substance as (1) his essence, or his being a human, (2) the universal or form *Human* of which he is a member or perhaps 'partakes', (3) the more abstract class to which human belongs – mammal or animal, or (4) the underlying subject which is any of these things, of which 'human' or 'animal' is predicated. One task pursued in the *Metaphysics* is to rule out various of these options, showing how none on their own are able to account for the substantiality of substance. Options (2) and (3) can be ruled out, for example, because a substance is above all a particular individual – a *this*. Option (4), pursued in *Metaphysics* 7.3, focuses on substance as that of which things are predicated, but which are not in turn predicated of anything else, or substance as *substratum*. However, when we focus on removing all predicates and determinations from a substance – say, Socrates – including both accidents like his being pale and snub-nosed, as well as the 'what it is to be' of Socrates, or his being human, we are left with no determinate particular at all. This is the so-called 'bare substratum' conception of substance I discussed in more detail in Chapter One, where I argued that it is a conception of substance alien to the Aristotelian tradition, including John Locke, to whom it is often attributed. The bare substratum view again fails to meet the basic characteristics of what it is to be a substance outlined above, for it fails to be a 'this', and "separability and thisness seem to belong chiefly to substance".[9]

The lesson of the failure of option (4) – of matter being a substance – is that substance must have some particular characteristic if it is to be a subject. It must, as Aryeh Kosman puts it, be "both a *this* and a *what*; and…its *being a this* is what enables it to serve as subject, and its *being a what* is a condition of the possibility of its *being a this*".[10] The last item to consider from

[9] *Met* 7.3 1029^{a}27 fw.
[10] Kosman, (2013: 21). Alan Code (1985: 104) makes a similar claim: "According to Aristotelian doctrine, a particular is a logical subject, or subject for predication, in virtue of the fact that it is something (definable) essentially".

our list is (1), somethings being what it is, i.e., the substance of a thing as its essence. This last possibility fails, and for reasons not dissimilar to the reason matter fails. As we have seen, substance must be both a *this* and a *what*; the exclusive focus on form or essence, however, gives us substance as a 'what' but not as a 'this'. Everything that is a determinate particular, a 'this', has matter of some sort.[11]

The failure of the four options offered in Met. 7.3 to account wholly for the 'substance' of substances is resolved in the bringing together of our two extremes – substance as matter and substance as form or essence. The account that brings these together is the famous doctrine of 'hylomorphism'. Substances, we have seen, are both a *this* and a *what,* and in fact they are a *what* realized in a *this.* There are two basic questions we can ask about a substance: what is it, and of what is it constituted. An answer of the first of these questions gives us the *form* or *essence* of the thing; an answer to the second gives us its matter. An answer to the question 'What is Socrates?' directs us to his form – he is a human being—and an answer to the question 'Of what is he constituted?' directs us towards his matter – to his flesh and bone. The fact that Socrates is both form and matter, or form realized in matter, is what accounts for the chief characteristics of substance identified in the *Categories*, including its being the possible subject of predication.

Aristotle's analysis of substance is often said to give us a 'hylomorphic compound' – a combination of a form and matter. Such a formulation is potentially misleading, for it can lead us to think that there are two separate and independent entities that are brought together or compounded in the substance. This is not so, and we can begin to see that it is not so by looking at Aristotle's claim that the parts of a body are only its parts in reference to the soul or functional

[11] Or, at least, everything that comes to be and passes away and is not a pure form—all sublunary sensible substances. There doesn't seem to me anything gained here by adding in the complexity of pure forms or activity; the connection between being a 'this' and having matter is made at *Met.* 7.8 $1033^{b}19$ fw., *Met.* 7.11 $1037^{b}32$ fw.

unity of the living organism taken as a whole, and that, for example, the hand or finger of a dead man is a hand or finger only homonymously.[12] In the paradigmatic case of substance then – that of a living being – there is no way to specify the matter of substance completely independently of its form. But we can also see that this is incorrect by thinking through what it would mean for matter and form to be independently existing entities that can be brought together to form a compound. It would require at the very least that Socrates' form is some particular *a* and his matter some particular *b* that can be combined in the right way to form the compound *ab*.[13] But we have just seen that his form is not a *this* and therefore not a particular, and his matter is not a *what* and therefore not a particular. Moreover, it would require that Socrates' form and his matter be two actual, independent beings capable of being combined. As Aristotle argues at length in *Metaphysics Theta*, however, matter and form are not both 'actualities' in the requisite way. Rather, "matter exists as potentiality (*dunamei*) just because it may come to its form, and when it exists in *actuality*, then it exists in the form."[14] Matter and form, then, are not separable or independent in the way that would be required for them to form a compound whole in a literal or mereological sense. Finally, such a view would make substance posterior to form and matter – but this would be to negate the primacy of substance.[15]

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[12] *Met.* 7.11 1036^{b}30 fw.

[13] I would like to note here that there are some readings of Aristotle on this point that *do* read 'form' and 'matter' as independent parts and not merely abstractable principles of substance. One notable historical example of this is Ockham, who understands both matter and form as independent actualities (see *Summula philosophiae naturalis*); a contemporary proponent of such a view is Kathrin Koslicki (2008, 2018). But, if anything, I think these exceptions make the above point even stronger: they are *extremely* heterodox interpretations of matter and form, notable for how far they diverge from traditional understandings of hylomorphism. Thanks to Daniel Moerner for directing me to this text of Ockham.

[14] *Met.* 9 1050a9–17.

[15] Although this is a view found in those who take Met. 7 to establish that individual forms are substance in the primary sense and the principle of the compound that is, e.g., Socrates (cf. Alan Code, 1985). Whatever the merits of such a view as a reading of *Aristotle*, they seem to fall outside the scope of the mainstream of Aristotelianism as found in the commentary and Scholastic tradition (for example, it is not Aquinas' understanding of Aristotle), although a commitment to individual forms is found in later Scholastic and modern philosophers such as Suárez and Leibniz. For a sustained discussion of individual forms in Suárez and its influence on Leibniz see Jan Cover and John Hawthorne (1999: ch.1). Although he does not put it in exactly this way, Kant diagnoses the view that

Form and matter, then, are conceptual distinctions introduced in the analysis of substance, and introduced via the most basic questions we can ask about a natural substance. They are not independent parts; they are abstractable, not extractable.[16] And they are arrived at by thinking through what is characteristic of substance, thinking through why some things are only able to function as the subject of a judgment, why they are a particular 'this' that we can determine in an act of judgment, and why they exhibit a degree of independence from their accidents such that they are able to undergo contraries.

Does this metaphysical picture enrich our understanding of the claim that thought concerning the essence of a substance is not '*apophantik*', i.e., is not a predicative act, a combination or separation that can be true or false and that we might call a judgment?
I think there is at least one dimension on which this approach to substance and essence is illuminating. Recall that the kind of propositions that are *apophantik* involve predicative acts that involve an "assertion or denial"; they "say something of something". Predication involves saying something of a *subtstance*, and so the kind of combination and separation involved in the act of predication presuppose, ultimately, a substance and an individual. As we have seen, for something to be a substance and an individual such that it can be determined in a predicative act it must already be a 'what' or have an essence. The essence of a substance is not, therefore, something that can be predicated of it, for acts of predication presuppose a subject, and there is no ultimate subject of predication that does not have an essence.

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substances are individuated by their form (e.g., a complete individual concept) as stemming from a failure to appreciate the distinct role sensibility contributes to finite cognition, and the fact that sensibility allows for individuation in ways that need not be capturable in terms of conceptual content.

[16] The phrase 'abstractable not extractable' is one used by Gilbert Ryle (1960: 436) in the context of a discussion of Frege: "Word meanings or concepts are not proposition components but propositional differences. They are distinguishables, not detachables; abstractables, not extractables – as are the audible contributions made to the voiced monosyllable 'box' by the consonants 'b' and 'x'." Thanks to Michael Kremer for this reference.

As we saw above, form and matter are not separable entities or parts of a substance, but are rather abstractable explanatory principles of a substance. This fact – that they are not metaphysically separable – is what ultimately underlies the fact that neither are predicated of the other, rather than any particular feature of grammar or logic. Predication requires a separable subject and predicate, and what is separable in the requisite way is a substance and its *accidents*, not a substance and its essence. As Aryeh Kosman puts this point

> One might say, although it would clearly be hyperbole, that for Aristotle all *predication* is accidental. What one would mean by this is that insofar as predication is understood as this being said of that…the saying one thing of *another*, it is in this sense accidental. Essential being—the being ultimately to be identified with substance—is not the predication of a being in relation to some other independent subject. (2013: 171)

When we say "Socrates is a human" we do not say of an independent subject that it is a human – there is no independently identifiable Socrates once we have abstracted or set aside that he is a human in the way there is when we abstract or set aside his being walking or being healthy.[17] There is simply Socrates, and his being a man is simply his being what he is.

If one has this view that in order to be a subject of predication or accidents one must already have an essence or form (and perhaps also matter), one cannot think that the essence of a thing is something that is *in turn* predicated of a subject. As a condition of the possibility of serving as a subject, the form or essence of a substance may be an abstractable metaphysical principle, but it is not itself yet another integral part or accident that inheres in a subject, and is

[17] One might object to this and say that our ability to entertain the thought that Socrates is in fact a robot or an alien of some kind makes it the case that 'human' is abstractable from Socrates and predicable of him in the same way that 'pale', 'walking' or 'healthy' is. I think a response to this is that it at most represents a certain kind of epistemic possibility, and the thought it could turn out *of Socrates* that he is a robot or an alien is an illusion of possibility, not a real one. What we might be imagining is a world or scenario in which something quite like Socrates—something that plays the 'Socrates' role—is a robot or alien. We are not thinking of something that is a live metaphysical possibility in the actual world. This approach to illusions of possibility is one developed at length by Saul Kripke in *Naming and Necessity*, and I think it forms the basis of an appropriate response here. Furthermore, as discussed below, the theory of predication is grounded in a metaphysical theory of the relation between a substance and those things really predicable of it – concerns about such epistemic possibilities are largely orthogonal to questions concerning the nature of predication.

not predicable of the substance in any ordinary sense.[18] Predication is the combination of terms that are in some sense independent or separable, such as "Socrates" and "white" in the judgement "Socrates is white". As such, predication involve acts of combination and separation or *synthesis* and *diaresis* in the predicative act of *assertion* or *denial*. However, the classical doctrine is that not all thought has this form of combination and separation; in particular, thought of the essence of a thing does not involve predication or the combining of separate terms, but is rather a kind of simple act of intellection Aristotle describes as 'touch' or 'contact'.[19] On the classical view, our intellect is thus capable of two distinct kinds of acts, one of which involves the grasp of simple essences and the other the combination of representations characteristic of judgment through which accidents are predicated of substances.[20]

This doctrine survives into early modern philosophy in textbooks in logic and metaphysics. It survives, for example, as the logical doctrine that only accidents 'add anything' to the subject, for the essence simply tells one what the thing is. It also survives as the metaphysical doctrine that as a substance and its essence are identical, only accidents count as 'determinations', for only accidents add realities to a thing.[21]

1.2 Natural and Counternatural Predication

The discussion so far has situated the classical doctrine within the inquiry Aristotle undertakes in book 7 of the *Metaphysics* into the 'substance' of substance – into what it is about substance in virtue of which it has the characteristic features expounded in the *Categories*. One reason for this is that the classical doctrine concerning the non-predicative character of the

[18] See Kosman (2013: 170 fw.) for an excellent discussion of the sense in which predication for Aristotle is all "accidental".
[19] For the discussion of essences as 'simples' and knowledge of essences as 'touch' or 'contact' see *Met.* 9.10 $1051^{b}17$-$1052^{a}4$.
[20] See Thomas Aquinas *Com*DA 3.11.7.
[21] See Thomas Spencer's *The Art of Logic* (1628: p. 59); Baumgarten *Metaphysica* §50, §191.

attribution to a thing of its essence is a somewhat recherché Aristotelian doctrine, and so approaching it through the discussions of substance in the *Categories* and *Metaphysics* is an appealing way into the topic. The other reason, however, is that Aristotle's metaphysical commitments serve as the ultimate foundation for his views concerning what counts as a genuine predication. Metaphysical questions can be approached via reflections on logic and grammar, but logic and grammar are not themselves the final arbiter of such questions.

In *Posterior Analytics* 1.22 Aristotle offers an extensive discussion of *actual* and what one might call *merely apparent* predication, or as they came to be known in the commentary tradition *natural* and *counternatural* predication.[22] Aristotle notes that grammar allows for the construction of all sorts of *apparently* predicative statements that involve 'predicating' an accident of an accident ("the white is musical") or a substance of an accident ("the white is a log"). But these do not count as genuine predications, for in neither case is the apparent predication one that reflects or reveals genuine metaphysical structure. Actual predication requires that the predicate be attributed to the subject in virtue of the subject being what it is; as such it involves a substance term in the 'natural' position of the subject and a genuine predicable in the 'natural' position of the predicate. In the 'counternatural' or merely apparent predications Aristotle considers we do not have cases where the predicate genuinely belongs to the subject in virtue of the subject being what it is. In "the white is musical" there is a man who *happens to be white* and who also *happens to be musical*, and in the case of "the white is a log" there is *a log that happens to be white*. As Jonathan Lear comments, counternatural predication does not count as predication

> for it fails to reveal the metaphysical structure of subject and predicate. It is not that the white thing is the underlying subject which happens to be a log. Rather

[22] This terminology is suggested but not used by Aristotle; its origins lie in Philoponus' commentary on the *Posterior Analytics*. See *On Aristotle*: Posterior Analytics, 218, 1 fw.

> the log is the underlying subject which happens to be white…Only predications which reveal metaphysical structure are strict[.] (Lear, 1980: 31)

One cannot simply divine from the apparent grammatical form of a statement, then, whether it is predicative or non-predicative. Genuine predication tracks the actual structure of substance and accident, and so requires at least 1) the combination of two terms that are distinct or separable, and 2) the terms combined must be related in the act of predication in a way that shows how the predicate term depends on the subject term in the various ways in which a genuine predicable can depend on a substance. Where a statement involves two terms that are not merely co-extensional but have the same intension such as a substance and its essence, we have a case of *definition* not predication.[23]

2. Locating the 'Classical Doctrine' in Kant

It is my goal in what follows to locate this classical doctrine in Kant. However, the doctrine is not something he straightforwardly articulates or endorses, so the route to attributing it to him will be somewhat indirect. The classical doctrine is a doctrine about the nature of *judgment* – acts of predication, synthesis, or combination – and the kinds of features of substance cognized in such acts. It says that predicative acts that involve combination or division are limited to knowledge of non-essential features, and that acts of the mind that involve knowing

[23] Statements like "man is a rational animal" are therefore the clearest and most uncontroversial examples of non-predicative attributions of the essence. But, if one holds that concrete particulars like Socrates are primary substances, then statements like a) "Socrates is a man" or b) "Socrates is a rational animal" will likewise be non-predicative for, as Aristotle argues at length in 7.6, a substance and its essence must be one and the same. Alan Code (1985) argues that the 7.6 identity thesis requires us to reject that the concrete particular Socrates is a primary substance, as this is the only way to maintain that statements a) and b) are predicative; if a principle of predication is that subject and predicate are non-identical, then a) and b) can only be genuine predications if the concrete particular Socrates is not identical to his essence. Code concludes that Socrates is identical to his form, but that this is distinct from the hylomorphic compound that is Socrates the particular person, which is his form in some matter. The sort of statements one will count as predicative or not therefore depend on one's conception of the underlying metaphysics—but as I think that Socrates the flesh and blood man is a primary substance for Aristotle, and that Aristotle thinks a substance and its essence are one and the same, statements like a) and b) also count as non-predicative on my reading.

essences are of a fundamentally different nature – they don't involve predication but 'grasping', 'intellection', 'touching', or 'contacting' essences.[24]

In the passage from the *Prolegomena* cited above, we see Kant making an argument strikingly similar to the classical doctrine. He says that the "nature of our understanding consists in thinking everything discursively, that is through concepts and thus mere predicates", and consequently "all real properties by which we cognize bodies are mere accidents".[25] If some form of the classical doctrine is a consequence of the fact that our understanding is discursive and thus predicative, then our initial starting point should be understanding what a discursive faculty of cognition is, and why discursive cognition is cognition *through predicates*.

2.1 The Predicative Character of Finite Cognition

Kant states that the fact that our cognition is essentially predicative follows from the fact that it is cognition *through concepts*, and this in turn because it is *discursive*. Understanding the predicative character of our cognition therefore requires understanding what discursive cognition is.

The fact that our understanding is discursive is a consequence of a still more basic or fundamental fact about it, one that characterizes its form: our understanding is *finite*. While Kant rejects the thought common to the rationalist tradition that an understanding of *our* mindedness should be posterior to an understanding of God's nature, he does think we can better understand the nature of our mind by contrast with an infinite or divine mind. The representation Kant thinks is common both to finite and infinite minds is *intuition*, which he characterizes as a singular, immediate representation.[26] The distinction between finite and infinite knowledge therefore

[24] *Met.* 9.10 $1051^{b}17$-$1052^{a}4$.
[25] *Prol.* 4: 333.
[26] A 320/B 376-7; A 68/B 93; *JL* 9: 91.

hinges on the relation between an *intuition* and the object known through such intuition.[27] Divine or infinite intuition can be understood as *productive*, or as the ground of the actuality of its object. Infinite intuition is that "through which the existence of the object of intuition is itself given".[28] Finite intuition, on the other hand, is not productive but 'sensible', i.e. receptive. Unlike infinite intuition, it is "dependent on the existence of the object" and is "possible only insofar as the representational capacity of the subject is affected".[29]

It does not belong to the very concept of a faculty of knowledge that it has 'two stems', as Kant refers to sensibility and understanding; rather, Kant thinks it belongs to the concept of a knower merely that it be possessed of an *understanding*. Even in our case, where we possess both sensibility and understanding, Kant refers to the understanding as *the* faculty of cognition. As an infinite faculty of knowledge could not even be given objects, it does not have two stems – it is an understanding that is itself a faculty of intuition. Kant gives a functional characterization of the understanding that is generic between the finite and infinite cases – it is an active faculty that produces representations from itself.[30] As such, an infinite understanding produces intuitions spontaneously (i.e., through its own activity), and thus is a faculty of intellectual intuition.

Intuitions for a finite faculty such as ours are, however, not generated spontaneously but depend on affection, and are thus sensible and receptive. This is why a finite power of cognition must have two stems, both a spontaneous faculty that can cognize objects, and a receptive capacity to be affected or *given* objects:

> Our cognition arises from two fundamental sources of the mind, the first of which is the reception of representations…the second the faculty for cognizing an object by means of these representations; through the former an object is **given** to us, through the latter it is **thought** in relation to that representation[.] (A50 / B74)

[27] Heidegger (1990: 15 fw.) rightly emphasizes this point.
[28] B 72.
[29] B 72.
[30] A 51/B 75.

As our understanding is finite, it must receive its object from outside itself, and thus from sensibility. As a spontaneous faculty, a finite understanding still produces representations through which it cognizes objects. Unlike an infinite faculty, it does not produce singular, immediate representations of objects (intuitions), but rather mediate, general representations that Kant calls 'concepts'. Furthermore, they are what Kant calls 'discursive', general, or common concepts (*conceptus communis*), or marks – they are partial representations of sharable or repeatable features of objects through which the object is cognized.[31] Thus Kant characterizes the cognition of finite – human – understanding as "cognition through concepts, not intuitive but discursive."[32]

Classically, God's knowledge has been characterized as an "*actus purus*" or pure act. As such, it is something to which the distinction between "potency" and "act" does not apply.[33] In our case, i.e., *qua* finite knowers, such a distinction is constitutive of what knowledge is. Our power of cognition requires what Kant calls a "determining ground", or an enabling condition that makes possible the transition from potency to act, and this "determining ground" is our being sensibly affected so as to be given objects.[34] The transition from potency to act can be illustrated by the fact that our understanding *grows* – our cognition is learning, or cognition that

[31] For the characterization of concepts as 'discursive' or common see B 133-34n., the discussion of common concepts as marks can be found in *JL* 9: 58. For an excellent discussion of discursive concepts as *conceptus communis* or marks, see Klaus Reich (1992: 34 fw.).
[32] A 68/B 93.
[33] See Aquinas *ST* I, Q. 14, Art. 1, Resp. 1. Andrea Kern (2019: 165) offers a characteristically incisive discussion of the significance of the act/potency distinction for understanding finite knowledge.
[34] The fact that the distinction between "potency" and "act" applies to our power of knowledge explains why Kant variously characterizes it both as a faculty (*facultas* or *Vermögen*) and as a power (*vis* or *Kraft*). Kant follows Christian Wolff and Alexander Baumgarten in distinguishing between 'faculty' as the ground of a power insofar as it resides wholly within a substance, and 'power' as the faculty in act, which is only possible when the determining ground or correlative object of the power is present. See Baumgarten *Metaphysica* §216, §220; Kant *R* 3585.

comes to be from a state of ignorance.[35] Unlike an infinite or intuitive understanding, we do not know 'everything all at once', but come to know through experience and reasoning. This fact about our knowledge growing, and in particular about our coming to know one thing through another (as when we know the conclusion of a syllogism through knowing its premises), has earned our knowledge the appellation 'discursive'.[36]

One way to capture this sense that our knowledge *qua* discursive grows or comes to be is to say, with Kant, that our cognition is *synthetic*. It doesn't involve a working on or in a singular representation, but involves a *combination* or *synthesis* of representations.[37] It involves the bringing of concepts to bear on given representations so as to cognize them.[38] This act of combining or uniting representations is what Kant calls a *judgment*, and it is the characteristic act of our understanding such that "the understanding in general can be represented as a faculty for judging."[39] Kant describes judgments as

> functions of unity among our representations, since instead of an immediate representation a higher one, which comprehends this and other representations under itself, is used for cognition of the object, and many possible cognitions are brought together into one. (A69 / B94)

This is not the most perspicuous characterization, but I will try and unpack it a bit. As we have seen, Kant distinguishes concepts and intuitions in terms of their generality and how they relate

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[35] English allows us to use the same term, namely 'understanding', both for our faculty of knowledge and for that which is the product of our faculty. Where I speak here of our understanding growing I do not, of course, mean that the faculty grows, but that that which our faculty is productive of grows.

[36] From *discursus*, i.e. to run to and fro. For a classic discussions in the tradition, See Aquinas *ST* Q.14.A.7. Stephen Engstrom (2001: 12 fw) stresses this aspect of discursivity in his discussion of the two-stem doctrine, to which I am indebted.

[37] And even when it does operate in its analytic capacity, working on a representation to bring out and order the representations contained within it, this possibility always presupposes a prior synthesis combining the various representations contained within the given representation into *one* representation, held in *one* consciousness.

[38] The above discussion provides us resources to distinguish two basic senses in which our cognition may be characterized as *discursive*. Cognition may be discursive because it is *synthetic*, i.e., involves combining representations in a judgement; and second, cognition may be discursive when it involves *inference* or *reasoning*, i.e., when we "know one thing through another". I return to the different senses in which cognition may be said to be 'discursive' in the following chapter.

[39] A 68/ B 93.

to objects – concepts are general and relate to objects mediately, intuitions are singular and immediate. The picture here seems to be that the act of judgment through which the understanding cognizes an object consist of subsuming a *given intuition* under a higher, more general representation – concept. The given representation has now been combined with and falls under a general one – a predicate. The given representation is combined with and *determined by* the predicate it falls under – the predicate is now a *mark*, part of the content of, the given representation – and the very same mark that is now part of the representation is itself a feature or accident of the object cognized through this representation. If Socrates is our subject, then in the judgement "Socrates is pale" he is brought under the concept <pale>, combined with the concept, and now *determined as* pale - the more general mark <pale> is now thought in the representation <Socrates>. Hence Kant's characterization of the basic act of the understanding as combining a manifold so as to determine an object, and his claim that our cognition consists of "the determination of the object".

This picture is useful insofar as it elucidates finite cognition as the determination of a given representation. But it is oversimplified and somewhat misleading, for it makes it seem as if a judgment can relate a concept and an intuition – the intuition serving as the given subject, the concept a general representation functioning as a predicate that is combined with the subject in cognition of the object. As Kant makes clear, however, judgements do not involve relating a concept and an intuition, but rather always involve relating two concepts.[40] However, as essentially general representations, considered from a merely logical point of view there is a certain degree of freedom in what is to be considered the subject concept in a judgment – that which is brought under another concept and thereby determined – and that which is to play the

[40] B 141.

role of the predicate which determines the subject.[41] The judgment "all bodies are divisible" can, as Kant often points out, be just as easily rendered as "something divisible is a body". The fact that concepts can always play this predicative role is what makes them of potential use in the understandings' acts of cognizing given representations. However, this essentially predicative character of concepts has as a consequence that all of our cognition amounts to the determining or thinking of representations through predicates. All our knowledge of objects is therefore through predicates that jointly constitute their concept:

> We know any object only through predicates that we can say or think of it...Hence an object is only a something in general that we think through certain predicates that constitute its concept. In every judgment, accordingly, there are two predicates that we compare with one another, of which one, which comprises the given cognition of the object, is the logical subject, and the other, which is to be compared with the first, is called the logical predicate. If I say: a body is divisible, this means the same as: Something *x*, which I cognize under the predicates that together comprise the concept of a body, I also think through the predicate of divisibility. (*R* 4634, c. 1772-73)

Here we find a more fleshed out explanation of Kant's claim in the above passage from the *Prolegomena* that because our understanding is discursive it thinks through concepts, and "hence through mere predicates, among which the absolute subject must always be absent."[42] Because a finite understanding knows appearances by determining them in acts of judgments, the representations which it produces (concepts) are the sort of thing essentially suited to function as the predicate in a judgment – this is the only way they can further the understandings' function of knowing objects by determining them. Therefore, our cognition of individuals and kinds

[41] I want to stress that this freedom or arbitrariness between subject and predicate in such a judgement is only present at the level of a logical conception of judgement. From such a perspective, there is nothing about either term of a judgement *as such* that determines whether it should be thought in subject or predicate position; it is no violation of a logical or grammatical rule for either term to serve as subject or as predicate, because concepts are such that they are *essentially suited to function as predicates*. However, in a 'real' judgement or exercise of the understanding, if one term of a categorical judgement is brought under the category of substance and one of accident this arbitrariness disappears, and the representation brought under the category of substance can only be thought of as subject and never as a predicate (B 128-9).

[42] *Prol* 4: 333.

(Aristotelian primary and secondary substances) are representations that are themselves collections or sets of the various marks or concepts that have been predicated of them, as determinations, in acts of judgement.

Before moving on, I want to say that this discussion of discursivity also should help ward off some well-known criticisms of Kant's discursivity thesis. Peter Strawson, for example, claims that Kant's discursivity thesis is just the uncontroversial and rather uninteresting truth that experience requires "a duality of general concepts, on the one hand, and particular instances of general concepts, encountered in experience, on the other."[43] Further, Strawson criticizes Kant for construing this 'logical' point in psychological terms and using it as the basis for dividing the mind into distinct stems. But as we have seen, the fact that our cognition is discursive is not something that is a simple truism which follows from some generic sense of knowledge. Rather, it is a consequence of the *finite* character of our cognition; it follows from a substantive view about the character of a faculty of knowledge *as such* (namely, that it is spontaneous, producing representations through its own activity), and from an appreciation of the fact that a finite cognitive faculty must be sensibly affected to transition from potency to act. It is from an appreciation of the spontaneous *and* receptive aspects of a finite cognitive faculty that the 'two-stem' doctrine emerges and not, as Strawson claims, from a confusion of the logical and psychological.[44]

2.2 The Role of Essence in Employing the Category of Substance

In the discussion of Aristotle above, we saw how all acts of predication and all determination depends on substance. Sometimes this is explicit, as when what is playing the role

[43] Strawson (1966: 20).
[44] The logical and the psychological are not as distinct for Kant as they are for Strawson; but the response here to Strawson's criticism of the two-stem doctrine can be stated without wading into those deeper waters. I return to Kant's understanding of the relation of the logical to the psychological in Chapter Five.

of the subject in a judgment is a substance; and sometimes implicit, as when an accidental unity such as 'the walking' is the subject of a judgment and points beyond itself to the thing that walks. We further saw how making sense of this dependence of predication and determination on substance led us to articulating the principles of substance that make it suitable to serve as a subject, where being a subject requires being both a 'this' and a 'what'. A substance's being a 'this' is accounted for in terms of its having matter, and its being a 'what' made sense of first and foremost in terms of it having a form or essence. It is only by being a determinate particular that it can undergo further determination, and this determinacy requires it to have a form or essence.

Kant states that the categorical form of judgment is most fundamental even among the twelve basic forms of combination or synthesis represented in the table of judgments, and similarly the category of substance is the most basic or fundamental of the pure concepts of the understanding.[45] And as we have discussed, a substance having an essence – its being a 'what'— is a precondition for it being further determined by an accident. The idea of substance as a *kind*, that is substance as having a nature or essence and not merely as a bare particular, therefore has an important role to play in our ability to employ the category of substance in experience. We can see this by briefly attending to how Kant characterizes the transition from the logical function of categorical judgments to a conception of substance with suitably rich determinations that it can be employed in experience.[46]

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[45] *Mrongovius* 29: 769.

[46] For the most detailed discussion of how this works I know of, see Stephen Engstrom (2018). The discussion that follows regarding the role that a representation of essence plays in distinguishing substance and accident is largely in agreement with that found in Daniel Warren (2015), although I had arrived at a similar view prior to reading his paper. However, the view I present here differs from Warren's in some significant ways. Briefly, Warren takes it that 'essence' is a concept that can function to really determine objects of experience; he thinks that we are in fact in possession of cognition of the real essence of material substances, and this explains both why we can apply the category of substance to objects of outer sense and why we cannot do so in an entirely unproblematic manner to the self. I have already argued at length that Kant denies we are in fact able to cognize the real essence of anything given in experience, and in Chapter Five I argue that our representation of the real essence of substance is not a concept that can determine objects of experience but is rather an *idea of reason*.

Kant famously argues that the categories are derived from the twelve basic logical functions of the understanding.[47] The category of substance, in particular, is derived from the categorical form of judgment. From the basic form of synthesis represented by a judgment like "S is P" we are able to derive the concept of something that "must always be considered as subject and never as mere predicate."[48] Kant claims that this ancient characterization of substance as that which is always thought of as subject provides us a *nominal* definition of the category – it picks out a unique characteristic that will apply to all and only things falling under the category of substance. However, it doesn't tell us whether there are or could be any such things, nor does this characterization offer an account of the nature of the 'must' in 'must be thought of as subject'. As we have already seen, the nature of the 'must' in 'must be thought of as subject' cannot stem from the fact that any attempt to employ such a concept in the predicate position would violate a rule of logic or grammar. Concepts are a kind of representation that are essentially such that they can always function in the predicate position, for it is only as predicates that concepts can further the understanding's function of cognizing given representations by determining them in acts of judgment. Kant's favorite way of illustrating this point is by noting that the categorical judgment "all bodies are divisible" is just as easily rendered as "something divisible is a body". In a real employment of the understanding, however, the subject term – here <all bodies> – would be brought under the category of <substance> and <divisible> under that of accident. But how, we might ask, is it determined which of the representations in the judgement be thought of as substance and which as accident?

In the Schematism chapter, Kant shows how the categories relate to certain time determinations in order that they be applicable to objects of experience. The schema of substance

[47] A 79/B 105.
[48] B 129.

is that of permanence or persistence through time.[49] The schema of substance as permanence provides a feature which representations must have if they are to be thought under the category of substance. But this is not and cannot be the entire story of how the category of substance is brought to bear on experience. To show that this is the case, let's return to the question posed above: Why, in a real employment of the understanding, is the concept <body> brought under the category of substance and not <divisible>? If we ask which is represented as *permanent*, the time determination provided by the schema of substance won't be any help in answering this question. This is because *being divisible* is a necessary (though non-essential) property of bodies; divisibility will be found wherever bodies are found, and divisibility persists as long as bodies do. This shows that the time determination provided by the schema is not of itself sufficient to distinguish between a substance and its properties or necessary accidents.[50]

What is required is a way for us to represent the *dependence* of what will appear in the predicate position on that which appears in the subject position and is subsequently brought under the category of substance. In his metaphysics lectures, Kant spells out in more detail the role that the idea of a power plays in understanding how an *accident* or *mode* depends on substance; he thinks that the way in which we need to spell out the dependence of accidents on substance, the inherence of accidents in substances, and the way in which accidents are modes must all be done in terms of the powers of a substance:

> With a substance we can have two relations <*respectus*>: in relation to accidents…it has power insofar as it is the ground of their inherence; and in relation to the first subject without any accidents, that is the substantial. Power is thus not a new accident, but rather the accidents…are effects produced by the power.
> […]

[49] A 144/B 183.
[50] This point about necessary accidents is also discussed in Warren (2015).

> [P]ower is the relation <*respectus*> of the substance to the accidents, insofar as it contains the ground of their actuality[.] (*Metaphysik Mrongovius* 29: 770-71, c. 1782-83)

I will say more about this notion of power as the ground or relation of a substance to its accidents in section four below. But it is sufficient to note here that divisibility is a passive power of substance and is grounded in the possibility of suffering or being acted on in a certain way. Kant refers to the fact that a substance is capable of being acted on as receptivity (*receptivitas*).[51] The important point to note is that divisibility points to a power grounded in the nature of substance. As noted, it indicates a passive power, but as Kant makes clear the passive powers of a substance always presuppose an active power as the ground of their possibility.[52] If we think of divisibility as grounded in the fact that a substance is extended in space, as Kant does, then the divisibility of body will be grounded in an active power of substance, namely the primitive repulsive force through which it occupies space.[53]

In a well-known passage in the first *Critique*, Kant indicates that *action* is the empirical criterion of substance through its connection to *power*:

> Where there is action, consequently activity and power, there is also substance….[T]he empirical criterion of substance…seems to manifest itself better and more readily through action than through the persistence of the appearance. (A 204-5/B 249-50)

The application of <substance> and <accident> comes into play through the presence of activity or the power of a substance in act. The distinction between substance and accident goes through an understanding of the distinction between that which *has a power* and the exercises or realization of the power. Thus, for example, some sort of inchoate understanding of <body> as that which bears a power and of <divisibility> as grounded in the powers of substance is

[51] *Mrongovius* 29: 823.
[52] "The possibility of acting is [a] faculty <*facultas*>, and of suffering receptivity <*receptivitas*>. The latter always presupposes the former." *Mrongovius* 29: 823.
[53] *MAN* 4: 496 fw.

involved in an explanation of why the concept <body> is thought under the category <substance> and the concept <divisible> under the category <accident> in a real employment of the understanding rather than *vice versa*.

This brings us to the concept of essence, or – what is the same in a substance that is *actual* – nature.[54] The real essence of a substance is the ultimate ground of the powers and accidents it has.[55] It is the first real ground "of all determinations" of a thing.[56] A diversity of accidents are understood as belonging to one substance because they are related to the various powers of a substance, and the powers of a substance are understood as powers of an individual substance because they are thought of as grounded in its nature or essence. The idea of a power leads us to the representation of substance insofar as it leads us to think of the bearer of that power. But the conception of substance it leads us to is richer and more determinate than that of a mere subject, it is substance as essence i.e., as a kind of thing with internal principles that structure and ground the accidents and powers which we are acquainted with in experience. The notion of essence, therefore, plays a crucial role in our application of the category of substance to experience. We find this claim in the following of Kant's Metaphysics lectures from the academic year 1782-83:

> All objects of experience have their nature, for without this no experience is possible. Experience is not an aggregate of perceptions, but rather a whole of perceptions connected according to a principle. Consequently there must be a principle in every thing, according to which the perceptions are connected and this is nature. (*Mrongovius* 29: 934)

Here is how I think we should spell out this passage, making use of resources introduced above. Because human cognition is discursive, it is cognition through predicates and thus through

[54] *Mrongovius* 29: 820.
[55] *L2* 28: 553.
[56] *L2* 28: 553.

accidents.[57] As we saw Kant state above, one consequence of this is that "an object is only a something in general that we think through certain predicates that constitute its concept."[58] What accounts for my experience of objects not as a mere bundle of predicates or accidents but as an *object* is partly my positing that the object has a nature or real essence through which the predicates are related and ordered, something that functions as the inner unifying ground of the qualities and powers of the object I encounter in experience and which in turn constitute my concept of the object.

2.3 Predicates are Accidents

In (§2.1) above, we saw how Kant thought of discursive cognition as essentially predicative. In predication, one *determines* given representations by enriching or 'adding to' given representation a 'real property', 'real predicate', or 'reality'. The notion of determining given representations is so central to discursive cognition that Kant can define such cognition as "the determination of the object."[59]

Kant claims that through predicates one cognizes only accidental features of objects. Above, I discussed how there is a long philosophical tradition of thinking that through predicates one cognizes only accidental (in the sense of nonessential) features of a thing, for essences are not predicated of substances. We find support for attributing to Kant the idea that through predicates one represents only accidents by looking at how Kant explains what a 'determination' is in some of his metaphysics lectures.[60] It turn out that 'determination' is something of a term of art for Kant – it doesn't mean exactly the same thing as *mark* or even *concept*, for example, and

[57] *Prol*. 4: 333.
[58] *R*, 4634.
[59] B 141.
[60] In what follows I will be attending to the sense of determination proper to substance and the empirical knowledge of substance we have in experience. There are other, perhaps related, sense of determination one finds e.g. in mathematics, such as determinate spaces and determinate magnitudes. Thanks to Daniel Sutherland for pushing me to clarify the sense of 'determination' I am interested in.

not everything that can function as the logical or grammatical predicate in a judgement counts as a determination. 'Determination' is rather a term for an *accident*, i.e., a reality or real property, something that is a positive way in which a substance exists. As accidents, determinations are one and all *synthetic* – they are features the cognition of which expands the given representation of which they are predicated. They thus represent a growth or increase in our knowledge because representing a substance as *determined* 'adds something' to the subject concept:

> E.g., a body is extended. It is not yet determined by this. A learned human being is determined, for learnedness does not lie in the concept of human being. (*Mrongovius* 29: 819, c. 1782-83)

> [N]egative predicates are not accidents, nor are logical predicates…e.g., triangle is not a substance and three corners not an accident…Insofar as a thing is determined positively, accidents inhere in it. (*Mrongovius* 29: 770, c. 1782-83)

> Anything one likes can serve as a **logical predicate**, even the subject can be predicated of itself; for logic abstracts from every content. But the **determination** is a predicate, which goes beyond the concept of the subject and enlarges it. (A 596/B 627)

I will note here that while Kant's conception of *determination* is in some ways continuous with contemporaneous notions of *determination*, Kant's use is not identical to that found in his rationalist predecessors. For example, Baumgarten defines *determination* in a way that allows *privations* and *negations* to count as determinations:

> What is posited in something to be determined (marks and predicates) are determinations. Either a determination is positive and affirmative – which, if it is truly [affirmative], is a reality; or negative – which, if it is truly [negative], is a negation. (*Metaphysica*, §36)

We see here both a continuity of usage with Kant (determinations are *predicates*), and a discontinuity, as Baumgarten does not directly link *determination* with *reality* in the same way Kant does, and so does not think of determination as the predicative act through which *realities* are 'added' to the subject. But, if anything, the fact that their use diverges in this way strengthens

the view of determination I am attributing to Kant, for it shows that the view of determinations found in Kant's lectures is, indeed, his own.[61]

In addition to these positive characterizations of 'determination' in Kant, we find – in an admittedly quite early lecture from *Metaphysics Herder* – the denial that *essentialia* (marks constituting the essence of a substance) are determinations, as well as the claim that *essentialia* are a condition of the possibility of determining a substance:

> The relations of a substance to the accidents inhering in it is that of a real ground or power…The *essentialia* are not determinations…for without them a thing cannot be thought. It follows from this that a thing must be determined relative to them [the *essentialia* or essence], and so they are not determinations[.] (*Herder* 28: 25, c. 1762-64; my translation)

These together fit with what I have called the 'classical view'. For a substance to function as a real subject of predication it must have a nature or essence; so, while the unity or identity of a substance and its essence is a *precondition* of determination in a predicative act, the attribution to a substance of its essence does not itself involve predication, combination, or determination. Judgments – acts that involve combining distinct or separable entities – are a kind of cognition or knowledge limited to the accidents of a substance. If knowledge of essences is to be possible it will have a radically different form.

I think we should understand Kant as accepting the Aristotelian view that there are two basic act types through which an object can be known: predication, which combines representations so as to cognize accidental features of objects, and intellection or *noesis*, which involves the grasping of essences. Kant's denial that we can cognize the essences of objects of

[61] I am not in a position to discuss why Kant comes to think of *determinations* as positive, and as 'realities'. But, if the reader will permit some brief speculation, I think the story will have to center Kant's connection of *determination* with a 'real' and not merely 'logical' exercise of the understanding, and with his thought that real exercises of the understanding have a *modal character*. As such, the basic kind of assertoric judgement represents its objecting as *existing* in a certain manner, and so the predicate it ascribes to the subject will represented through the modality of 'actuality'.

experience follows from the fact that he does not think any material exercise of our faculties is an instance of this second type of intellectual act (*noesis*). As finite knowledge is essentially discursive, the only act through which we can have material knowledge of objects is through acts of combination or predication.[62] As such, the unknowability of essences is a direct consequence of the predicative character of our cognition.

[62] This does not, of course, mean that *all* finite knowledge for Kant has this predicative structure: as I say here, only *material exercises* of our faculties in experience has this structure, and therefore the restriction of our knowledge of essences is limited to the essences of objects given in experience. For Kant – as for Aristotle – non-predicative knowledge has an important role to play in our lives as human beings. In particular, Kant allows for non-predicative knowledge of the form of our faculties and capacities, and of their objects, in both mathematics and in transcendental philosophy.

Chapter Four: Four Kinds of Discursive Cognition

The previous chapter was concerned with the nature and limits of *empirical* cognition, i.e., cognition of the accidents and states of objects represented as substances, as well as the causal relations such objects stand in with one another and the laws governing such causal interactions. This cognition involves the representation and determination of objects whose being is *prior to* the subject's representations and which can function as the subject of cognition in part because they sensibly affect the subject. I noted two ways in which we might take cognition to be *discursive*. First, we may say that our cognition is discursive in that it is *synthetic*. As finite knowers, we do not know everything about an object 'all at once' through apprehending a single representation. Rather, our knowledge involves *combining* representations in acts of judgement. Second, our knowledge is discursive in that it involves reasoning or is *inferential* – we know one thing 'through another', as when we know the conclusion of a syllogism through knowing its premises, or when I know that a piece of yellow metal is gold because it dissolves in *aqua regia*.

This characterization allows us to consider four possible ways in which cognition may be discursive:

(1) It is synthetic cognition that is *predicative* (e.g., "Socrates is pale")
(2) It is synthetic cognition that is *non-predicative* (e.g., "a triangle has three sides")
(3) It is cognition that moves from grounds to consequences or effects (e.g., "the interior angles of a triangle add up to 180 degrees")
(4) It is cognition that moves from effects or consequences to grounds (e.g., "this is gold because it is soluble in *aqua regia*")

The first sense of discursive cognition as cognition that is synthetic because it is predicative was the topic of much of the proceeding chapter. And, as we have seen, Kant holds a version of the classical doctrine concerning the limits of knowledge that combines representations predicatively: it is limited to features that fall 'outside' the essence of the object known.

In this chapter, I turn my attention to senses (2) – (4) of discursivity outlined above. My aim is to attain a deeper understanding of discursive cognition in Kant – and of the classical doctrine – by attending to the sort of knowledge each sense of discursivity affords. I proceed as follows. I begin (§1) by turning my attention to mathematical cognition. Mathematical cognition is particularly significant because Kant argues that in mathematics we do have knowledge of the real essence of mathematical objects. One might worry that this poses a general problem for the view articulated in the previous chapter, where we found a direct argument from the predicative character of finite cognition to the unknowability of real essences. However, not only is our knowledge of real essences in mathematics not a potential *counterexample* to the conclusions of the previous, it actually strengthens them. As I will argue, our knowledge of real essences of mathematical objects is possible because as cognition from the *construction* of concepts, mathematical cognition is non-predicative, and thus discursive in sense (2) above. Further, as cognition that proceeds from real definitions that are afforded by our grasp of the essences of mathematical objects, this cognition is discursive in sense (3) – it moves from ground to consequence. As I further argue, Kant thinks our cognition can reach this degree of perfection with respect to mathematical objects because we have a kind of 'maker's knowledge' of them. Considerations of mathematical cognition thus further illuminate the *limits* of our knowledge of objects *given* in experience, in a manner analogous to the way that considerations of infinite knowledge illuminate the structure of finite knowledge.

Then (§2), I turn to cognition that is discursive in sense (4) above. My interest here is in understanding why Kant thinks there are limits to the sort of knowledge one can attain when one's knowledge moves from effects back to their causes. My intention is to bring to the surface the general picture of knowledge and its object that allows Kant to infer *from* the fact that we are

first acquainted with the effects of a thing *to* the conclusion that its absolutely inner principles are unknowable to us.[1] Finally (§3), I return to the question of whether the argument for the unknowability of things in themselves that has been presented so far constitutes a 'short argument' to epistemic humility.

1. Knowledge of Real Essences in Mathematics

Mathematical cognition constitutes the body of knowledge readily available to us that most clearly contrasts with the empirical cognition of substance in experience examined in the previous chapter. While it is essentially finite knowledge – it is dependent on and constitutes knowledge of the form of our capacity to be given objects – it shares several key features with divine or infinite knowledge. First, it involves intuitions that are non-sensible, i.e. do not involve being affected by the object known through intuition.[2] Second, mathematical cognition involves representations that are 'genetic', or 'productive,' or otherwise the *ground* of the object known.[3] Finally, mathematical cognition involves knowledge of the real essence of mathematical objects.[4] In all these respects mathematical cognition shares features with divine or non-finite cognition, which also involves non-sensible intuitions that an understanding spontaneously generates out of itself, and which are the ground of the actuality or being of the objects known through such intuitions.[5] And – what amounts to another way of stating that point – in all three respects it stands in contrast with empirical cognition, which involves *sensible* intuitions; is dependent on the prior actuality of its object; and is restricted to accidental features of the object of knowledge. A key difference with infinite knowledge is that mathematical cognition is not,

[1] As we have seen, Kant regularly makes inferences of this sort; for example, "we can infer the inner principle only from the properties known to us; *therefore the real essence of things is inscrutable to us*." (*L2* 28: 553, italics in original).
[2] A 714/B 742 fw.
[3] A 714/B 742 fw; see also *JL* §106, Ak 9: 144.
[4] *MAN* 4: 468.
[5] *Pölitz* 28: 1052.

strictly speaking, cognition of *existing objects* or cognition of *substance*, but rather constitutes cognition of the *form of appearances*.

1.1 The Role of Construction and Real Definitions in Mathematical Cognition

Kant is famous for making two claims concerning the nature of mathematical cognition. First, against the Leibnizian and Wolffian view that mathematical truths are derivable via syllogistic reasoning from definitions alone, Kant held that mathematics is a body of *synthetic a priori* judgements. Second, Kant held that the content of mathematical judgments was essentially dependent on intuition.[6] Both of these famous features of Kant's conception of mathematical cognition are grounded in what he takes to be *constitutive* of mathematics as a distinct style of reasoning: mathematical cognition is distinctive in that it is cognition from the *construction* of concepts.[7] Kant claims that the fact that mathematics involves the construction of concepts constitutes the essence of mathematical cognition and serves to distinguish it from other modes of *a priori* knowledge such as philosophical cognition, which he characterizes as discursive.[8] Such a view is opposed, for example, to that of Leibniz, for whom the method of mathematics could and should be employed in metaphysics, and for whom mathematics was distinguished by its subject matter, that is, by its concern with quantities and geometrical figures.

[9]Kant defines construction as "the exhibition of a concept through the (spontaneous) production of a corresponding intuition."[10] To construct the concept <triangle>, then, is to

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[6] Daniel Sutherland (2005) has articulated what I take to be the most compelling account of the way in which intuition is required for the content of mathematical cognition.

[7] In the following discussions of definitions and constructions in mathematics I have benefited from the following papers in ways that would be difficult to adequately represent in citations: Katherine Dunlop (2012), Jeremy Heiss (2014), and Tyke Nunez (2014). Thanks to Tyke for extensive conversations about his paper and these issues in Kant more generally.

[8] A 714/B 742.

[9] See Donald Rutherford (1995: ch. 4) for a discussion of Leibniz's views on method in mathematics and metaphysics. Daniel Sutherland (2005: 145fw) emphasizes the way in which mathematics for Kant is distinguished by its method rather than its subject matter.

[10] 8: 192; A 713/B 741.

produce an a priori intuition of a triangle.[11] There is an intimate connection between (a) being in possession of a mathematical concept such as <triangle>, (b) having a real definition of <triangle>, and (c) constructing an intuition corresponding to the concept <triangle>. For to have the concept <triangle> is just to be in possession of the schema of the pure sensible concept <triangle>, and the schema of <triangle> is at the same time both the real definition of <triangle> and a procedure for producing an intuition corresponding to the concept <triangle>.[12] The fact that having a mathematical concept is equivalent to having its definition is accounted for by saying that mathematical concepts are *made* as opposed to *given* concepts.

> In mathematics we do not have any concept prior to the definition, as that through which the concept is first given . . . Mathematical definitions can never err. For since the concept is first given through the definition, it contains just that which the definition would think through it. (A 731/B 759)

Kant claims that the fact that mathematical knowledge proceeds from the construction of concepts explains the advantages it has over other sciences, including why it has proceeded on such sure footing.[13] For the fact that mathematics involves made concepts whose definitions are procedures for constructing or producing objects that are instances of a concept immediately secures the objective validity of the concept and real possibility of its objects.[14] In this it avoids two intimately related problems that can beset even apparently quite rigorous intellectual inquiry. The first of these, most famously associated with Leibniz's critique of Descartes' ontological proof, is that while one believes one is reasoning and drawing consequences from the essence or possibility of a thing, that (putative) thing in fact contains a contradiction such that it has no

[11] Throughout, I use angle brackets to indicate that a concept is being mentioned.
[12] Kant treats mathematical definitions as procedures for constructing intuitions in a number of places, for example saying in a letter to Rienhold that for geometrical concepts "the definition is…at the same time the construction of the concept". (*Cor.* 11: 42).
[13] A 135-6/B 174-5.
[14] A 136/B 175; *JL* §106 9: 143.

being or essence and nothing valid can be deduced from it. As Leibniz puts this point in a discussion of Descartes,

> [T]o make this demonstration [the ontological argument—AP] rigorous, the possibility [of God] must first be proved. Obviously we cannot build a secure demonstration on any concept unless we know that this concept is possible, for from impossibles or concepts involving contradictions contradictory propositions can be demonstrated. This is an a priori reason why possibility is a requisite in a real definition. (*On Universal Synthesis and Analysis,* or *The Art of Discovery and Judgment*, 1970 p. 231)

In the same piece Leibniz praises Euclid's definition of circle as "afford[ing] a real definition, for such a figure is evidently possible."[15] Clearly, then, the question of whether or not a definition was *real* and exhibited a *really possible thing* was a common concern to Leibniz and Kant.[16] The second worry, and one perhaps more commonly associated with Kant, is that while one may take oneself to be engaging in serious intellectual inquiry, without knowledge that the object or subject matter of inquiry is really possible one's concepts will be without determinate sense or meaning. One consequence of this is that one can be led to construct contradictory arguments which seem to have equal claim to be true – what Kant calls 'antinomies'. Either way, there is a genuine concern that, given the importance definitions play in a demonstrative science, the definitions one reasons from need to be real, where this means something like a definition that 'indicates something with genuine being or a genuine possibility of existing'.

The fact that mathematical definitions are 'genetic' or 'constructive' is therefore what accounts for the fact that they are *real definitions* – they immediately bring about their object and therefore 'hook up' with real possibility in the right way. Kant discusses nominal (which he

[15] *On Universal Synthesis and Analysis*, p. 230 I owe this reference to Heiss (2014).
[16] Which is not, of course, to say that both understood real possibility in the same manner. For Leibniz, a lack of logical contradictions is sufficient for establishing the real possibility of a thing and thus for establishing that it has being in some way, even if not as something actual. This conception of metaphysical possibility as describing that which is not internally contradictory and therefore all to which "existence is not repugnant" goes at least as far back as Scotus, but Kant argues that it constitutes at most a *negative* criterion of real possibility.

sometimes calls logical) and real definitions at length in his various metaphysics and logic lectures. Nominal or logical definitions are those that indicate the logical essence of a thing – the constituent concepts or marks that are contained in our concept of the thing – and the criteria for adequate logical or nominal definitions is that they serve the function of sorting things into kinds and are sufficiently rich to distinguish kinds from one another.[17] Kant states that we can only have nominal, never real, definitions of *given* concepts. These include a priori given concepts such as <space> or <virtue>, as well as all empirical concepts. The best that we can hope to do with given concepts is derive their definitions from *attributes* – i.e. necessary but non-essential features of the object or kind that are grounded in their essence.[18]

Real definitions, on the other hand, present us not merely with the essence of a concept or a logical essence, but with the essence of a *thing*, and therefore are equivalent to knowledge of the real essence of a thing.[19] As we have seen, Kant states that real essences constitute 'the possibility of a thing' and are the primary inner principles in virtue of which the thing has its various properties and powers.[20] Real definitions, Kant says, are therefore "ones that suffice for the cognition of the object according to its inner determinations, since they present the possibility of the object from inner marks."[21] They are able to do so because they "are derived…from the essence of the thing[.]"[22] Kant states that "all mathematical definitions are of this sort."[23]

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[17] *JL* §106, Ak 9: 143-4.
[18] As we saw in Chapter One, this is also a view common in scholastic philosophy: We do not have knowledge of the form or essence of substance, but we can have knowledge of a substance *per accidens* when we know it through a property (in the technical sense of a proprium) or group of properties that pertain to it alone. For an example, see Duns Scotus, *QMet*, 2.2-3, 116.
[19] *JL* §106.
[20] For essence as principle of possibility see *MAN* 4: 468, *JL* §106; for the characterization of essence as the inner ground of properties and powers see *L2* 28: 553 fw.
[21] JL§106.
[22] JL §106.
[23] JL §106.

Thus far we have seen that Kant holds that mathematical definitions are real definitions, and that being in possession of a mathematical concept and thus having a real definition of mathematical objects constitutes knowledge of the real essence of the objects of mathematical cognition.[24] And it is in fact distinctive and constitutive of mathematical cognition that it proceeds via the method of construction and thus via *a priori* and certain demonstrations that involve an individual that is representative of its kind.[25] Other features of mathematical cognition that have been taken to be constitutive are grounded in this formal feature of mathematical knowledge. For example, the fact that mathematics is concerned with quantity and not quality – something taken by Leibniz to be definitive of mathematics – is grounded in the fact that only quantity admits of *a priori* construction.[26] What accounts, I think, for the role of construction and real definitions in mathematical knowledge is that it is only be being in possession of a real definition – and we have seen why synthetic or constructive definitions are real – that one can prove things with the appropriate *generality* requisite for mathematical knowledge. That is, it is only because one reasons from the definition, which is equivalent to the real essence and to the procedure for constructing an instance of the concept, that one can be sure that what one proves applies to all of the sort of figure one is reasoning about – that the angle sum property, for example, holds of all triangles. This is why real definitions are capable of "standing at the head of all judgments about an object".[27] Mathematical knowledge, as Kant puts it,

[24] More precisely, such definitions are derived from the real essence of the object. But the objects themselves are given being by being defined, i.e., constructed. I sometimes emphasize the fact that these definitions are derived from real essences when I want to emphasize that they are *real* and not merely nominal definitions, and sometimes that the essences are constituted by being defined when I want to emphasize the fact that mathematical concepts are *made* and *constructed.* (I do not think *made* and *constructed* are synonymous. Rather, constructing a concept is a particular way of making one, namely an *a priori* way of making a concept by exhibiting it in intuition; alternatively, construction is how an *a priori sensible concept* is made.)
[25] A 714/B 742.
[26] A 714-15/B 742-43.
[27] A 727/B 755.

> cannot do anything with the mere concepts, but hurries immediately to intuition, in which it considers the concept *in concreto*, although not empirically, but rather solely as one which it has exhibited a priori, i.e., constructed, and in which that which follows from the general conditions of the construction must also hold generally of the object of the constructed concept. (A 716/B 744)

While purely discursive, philosophical knowledge proceeds from *given* concepts, mathematical cognition proceeds from construction, and therefore allows one to reason from features that pertain to the schema or procedure for constructing an instance of the concept alone. Kant believes that the ability to have insight into features of the essence of objects of mathematical knowledge explains why mathematics "considers the universal in the particular"[28] and can treat an intuition – and therefore a representation of an *individual* – as representative of the universal or general concept of which the intuition is an instance, and thus explains why one can prove things that hold with strict generality of all instances of a concept while reasoning from individuals or particulars.

1.2 Construction, Insight, and Maker's Knowledge

Mathematical cognition involves real definitions which are derived from knowledge of real essences. Kant is explicit in both published works – including the *Critique of Pure Reason* – and lectures spanning several decades that knowledge of real essences and the ability to produce real definitions is only possible when the object is one falling under a *made*, not a *given* concept.[29] Examples of given concepts include all empirical concepts such as <gold>, along with a priori given concepts such as <space> and <virtue>. As we have seen, all mathematical concepts are *a priori* made concepts. Examples of *a posteriori* made concepts include scientific instruments such as <a ship's clock>.[30]

Kant provides three basic criteria that a real definition must meet:

[28] A 714/B 743.
[29] *JL* §106, A 727/B 755 fw.
[30] *WL* 24: 915.

> **Exhaustiveness** signifies the clarity and sufficiency of marks; **boundaries**, the precision, that is, that there are no more of these than are required for the exhaustive concept; **original**, however, that this boundary-determination is not derived from anywhere else and thus in need of a proof, which would make the supposed definition incapable of standing at the head of all judgments about an object. (A 727/B 755 fn.)

The first of these, **exhaustiveness**, is the requirement that the definition must contain all the marks contained in a concept's intension. In the *Jäsche Logik*, Kant further indicates two ways in which the marks of a concept can be exhaustively presented. The first of these is *extensive exhaustiveness*, and involves the mere presentation of the marks of the concept. The second is *intensive exhaustiveness*, and involves the ordering of marks in relations of subordination and superordination, showing which of the marks of the concept are more and less fundamental.[31] **Boundaries** is the requirement that a definition not include more marks than those that genuinely belong in the intension of a concept. The final criteria, that of **originality**, ensures that the definition itself determine its boundaries and can stand "at the head of all judgments about an object". I think the best way to understand originality is as the claim that real definitions must present the absolutely fundamental inner determinations from which it will be evident why these and only these marks included in the definition are there.[32] A real definition must contain an explanation or make evident to reason why the concept has the intension and boundaries it does. This last point, on originality, helps make sense of why Kant thinks that real definitions are derived from the real essence of a thing. For the real essence of a thing is the collection of *essentialia* or most fundamental marks of a thing in virtue of which it has the properties and powers it does. It therefore is capable of determining the boundaries of a kind, and knowledge of it can function as the basis from which all judgments about the kind could be derived.

[31] *JL* 9: 61-2.
[32] For further discussion of these criteria on real definitions see Nunez (2014: 2-6).

Jaako Hintikka (1974) has argued that Kant's claims that "reason has insight only into what it itself produces according to its own design"[33] places Kant within the 'maker's knowledge' tradition in modern philosophy. This tradition – commonly associated with Hobbes, Vico, and Francis Bacon – holds that 'higher' knowledge (demonstrative knowledge or *scientia* depending on the author) is possible only of what one oneself – or perhaps of what finite rational thinkers or human beings – produces or brings about.[34]

It is easy to find in Kant's critical works endorsement of the maker's knowledge principle that 'higher' knowledge – what Kant most commonly refers to as *insight* or *Einsicht* – is possible only of "that which we ourselves can make and bring about in accordance with concepts."[35] I think Kant's use of insight or *Einsicht* to describe the sort of cognition maker's knowledge affords is significant. In a number of passages in the *Logik*, Kant provides a scale of degrees of cognition from lowest to the highest or most perfect. *Insight* or *Einsicht* is described as one of the highest degrees of perfection our cognition can attain; to have insight into a thing is to know it through reason or a priori.[36] The totality of Kant's remarks about *insight* as a degree of cognition show that Kant is using 'a priori' in its older sense as meaning 'from causes' or 'from grounds'.[37] Insight is a cognitive state that involves what Kant calls a 'synthesis of subordination', by which I order the marks of a concept in relations of ground to consequence such that I see how the less

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[33] B xiii.
[34] Perhaps the most famous statement comes from Vico's *New Science*, where he argues that our attaining the highest degree of knowledge is possible if we shift our focus from the natural world to that of civil society: "[T]he world of civil society has certainly been made by men, and…its principles are therefore to be found within the modifications of our own human mind. Whoever reflects on this cannot but marvel that the philosophers should have bent all their energies to the study of the world of nature, which, since God made it, He alone knows; and that they should have neglected the study of the world of nations and civil world, which, since men had made it, men could hope to know." (*New Science*, §331).
[35] *KU*, Ak 5: 383.
[36] *JL* 9: 63.
[37] Further discussions of 'insight' that connect it to cognition from grounds or causes can be found at *BL* 24: 152, *DW L* 24: 730, *WL* 24:840. For a sustained defense of the idea that Kant holds the older, 'from grounds' notion of apriority see Houston Smit (2009). I discuss the account of apriority in Kant's logic as cognition that seeks to relate marks to the essence of the object of cognition in a manuscript "Kant on Apriority as a Degree of Representation".

fundamental are grounded in and consequences of more fundamental marks, and in doing so come to have rational insight into how properties of the object of knowledge are related to one another and, in the ideal case, related to and grounded in the essence of the thing.[38] It therefore involves knowledge of causes or grounds.

Kant's famous claims in the B Introduction to the *Critique* that reason has *insight* only into what it can make and bring about, and therefore that "we can know a priori of things only what we ourselves put into them" should be read as commitments to the Maker's Knowledge Principle.[39] Mathematical cognition requires reasoning from real definitions which are derived from a representation of real essences, and this is possible only because mathematical concepts are made and are themselves productive of instances of objects that fall under such concepts. This dissertation has argued at length that we should think of 'things in themselves' as the real essence of objects experience – those objects considered as essential or substantial being. And we have seen that such knowledge of objects of experience is not possible because as *given* objects, we can know them only by *thinking* them, i.e., by predicating concepts of them in acts of judgement.

To that pair of claims, we can now add that Kant believes such knowledge of essences is possible only where we have maker's knowledge of the object known. In a *Reflection* from the 1790's we find Kant making this claim explicitly, writing that "[w]e can only cognize things in accordance with what they are in themselves…and in general *a priori* insofar as we make them ourselves."[40] Not surprisingly, we find Kant invoking similar considerations to explain God's knowledge of creation:

[38] *BL* 24: 136, 24: 236.
[39] B xviii.
[40] *R* 6342.

> God cognizes all things as they are *in themselves* immediately and *a priori* through an intuition of the understanding; for He is the being of all beings and every possibility has its ground in him. (*Pölitz* 28: 1052)

Here we see exemplified both the claim that knowledge of things as they are in themselves is not predicative (here it is had through an *intellectual intuition*, the sort of intuitions had by an infinite or intuitive understanding), and Kant's commitment to the Maker's Knowledge Principle. Kant's explanation of why God knows things as they are in themselves is that God is the ground of the 'being of all beings' – this is the principle that underwrites the explanation of God's knowledge of things in themselves in terms of every possibility having its ground in God. The Maker's Knowledge Principle is evidently, then, not one that only holds for finite knowledge, but for knowledge *simpliciter*: Any knower, finite or infinite, can have 'higher' cognition of a thing (have insight or a priori cognition; know it as it is in itself or have knowledge of its real essence) only insofar as one is either (1) the ground of its possibility, or (2) the ground of its actuality, i.e. brings it about as far as its existence is concerned.[41]

1.3 Mathematical Cognition is Non-Predicative

We have seen that mathematical cognition proceeds from real definitions, which are derived from real essences. It therefore is cognition that proceeds from grounds to consequences – it moves from essences of mathematical objects to their propria, or features that are grounded in, though not part of, the essence.[42]

At the start of this chapter, I distinguished four different ways in which cognition may be said to be discursive. First, we have two basic ways of characterizing cognition as discursive:

[41] The Maker's Knowledge Principle also explains why we can have substantive *a priori* knowledge of objects as appearances – our intellect is the ground of the possibility of its object considered *merely* as appearance. But we are not the ground of either the *existence* of objects of experience insofar as they are objects of theoretical cognition, *or* the ground of the *possibility* of objects of experience as they are in themselves.

[42] For a discussion of mathematical cognition – and synthetic a priori cognition generally – as involving essentialia and propria, see *ÜE* 8: 231 fw. Lanier Anderson (2005: 47 fw.) offers a discussion of the way in which *propria* figure in mathematical cognition in a way that explains the irreducibly synthetic character of mathematical cognition.

first, as synthetic, in that it proceeds by combining representations; and second, that it is *inferential*, proceeding from one cognition to another. Each of these basic senses of discursivity can be further divided. Synthetic cognition can be predicative (cognition that determines given representations through acts of predication), or non-predicative; inferential cognition can proceed from grounds to consequences, or from consequences back to grounds. This provides a somewhat more fine-grained approach to the topic than one would find if one simply said that discursive cognition is that which essentially involves the use of both singular and general representations, or concepts and intuitions.

Kant does not deny that mathematical cognition is discursive. He is committed to the essentially discursive character of finite cognition, and so he is *eo ipso* committed to the fact that mathematical cognition is discursive. The fact that mathematical cognition consists of a body of synthetic judgements is enough to indicate that it is discursive in the sense of cognition that involves combining representations. However, Kant does insist that mathematical cognition cannot *simply* be characterized as discursive. He frequently characterizes mathematical cognition as *intuitive* in contrast with *discursive*:

> All our cognition is either from concepts or from the construction of concepts. The first is called discursive, the second intuitive, and hence all our rational certainty [is] discursive or intuitive, too. Rational certainty, insofar as it is intuitive, is mathematical certainty. (*WL* 24: 857, c. 1780-82; cf. *JL* 9:23)

'Intuitive' is predicated both of cognitive and representational states – judgments, beliefs, and concepts – as well as of principles, proofs, and demonstrations.[43] Sometimes 'intuitive' as opposed to 'discursive' is applied to indicate that the judgment or proof is not derived from another judgment, i.e. an 'intuitive' cognition is opposed to a mediate one or '*judicium*

[43] For discussion of intuitive proofs see *WL* 24: 894, for intuitive principles see *Hechsel* §88.

discursivum' arrived at by reasoning and inference.[44] The most significant way in which 'intuitive' *as opposed to* 'discursive' is used, however, is when it is predicated of a judgment or cognition that involves the *construction* of concepts. Where this is the case, Kant states that we make an 'intuitive use' of concepts, where this entails the concept being "exhibited *a priori* in pure intuition, i.e. constructed".[45] As discussed above, *a priori* construction is simultaneously (a) the exhibition or genesis of a particular instance of a concept, (b) the representation of the real essence of the object constructed, and (c) the real definition of the constructed concept. This is why mathematical cognition, which essentially involves construction, is able to consider the universal – the concept – in the individual brought about, and also why one can prove things that hold generally or universally of the concept or kind as a whole even while one reasons with particulars or individuals.

As such, mathematical cognition differs from empirical cognition in two respects. First, while construction is a *synthetic activity*, it is *non-predicative.* Consider the simple case of constructing the concept <triangle>. To the genus <plane figure>, one adds the differentia <three sided>. This formation of a new concept <<three sided>, <plane figure>> is a *synthetic activity* – it involves the combining of independent or separable representations into a new representation. But it does not involve *determining a given representation*; the representation <triangle> did not exist prior to the combination of its constituent marks. There is nothing in the construction of the concept that stands as a subject term being brought under a predicate term; there simply is no subject in view prior to the synthetic activity that constructs the concept, and so in this activity there is no representation that is *determined* through a predicate.[46] Second, mathematical

[44] *BL* §319.
[45] A 721/B 749.
[46] Even here, however, the picture of our knowledge of essences is somewhat different from the problem of our knowledge of the *essential being* of substance. For as the product of 'synthetic activity', mathematical essences

cognition proceeds from grounds – in this case knowledge of the real essence of mathematical objects and the real definitions of such objects this knowledge makes possible – to their consequences. Empirical cognition, as we have seen, is cognition from the *effects* of the object known.

I think this clarifies the aspects of discursivity that lead to epistemic humility – to the unknowability of things in themselves. These are (1) when the synthetic activity characteristic of discursive cognition is *predicative*, and thus, as we have seen, cognition that knows its object *per accidens*, and (2) when this cognition proceeds from effects back to their cause or ground. Both of these aspects of discursivity are found in empirical cognition. And, as empirical cognition – and in particular the attribution to a *substance* of an *accident* – is the most basic kind of discursive cognition, it is natural that an account of discursive cognition prioritize predicative cognition and cognition from effects of consequences. But this examination of mathematical cognition emphasizes that it is not discursivity *as such* that explains the unknowability of the inner principles of objects of experience; it is that empirical cognition is *predicative*, and proceeds from effects to consequences. And this, of course, leaves open the possibility that non-predicative cognition in mathematics and in philosophy need not be limited in the same way.

In this section we have seen how mathematical knowledge involves cognition of real essences and the use of real definitions, as well as how such knowledge is afforded because the individual has a kind of 'maker's knowledge' of mathematical concepts and objects. To the extent that finite knowers like ourselves can know the real essence of a thing, they must be

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involve representations that are in some sense 'distinct' and separable (e.g. <plane figure> and <three sided>). Part of the reason that essences cannot figure in *aphopantic* judgement is that they are *simples* – they do not have distinct or separable parts that can be synthesized. So, while the synthetic activity productive of mathematical concepts is not *apophantic judgement*, the fact that such synthesis is possible indicates a potential disanalogy with the essential being of substance. This thought that essences have such a simple unity is one we find in German rationalism. Beyond the more obvious example of Leibniz's reflections on the simplicity of substance, Baumgarten (*Metaphysica* §73) states that *essentialia* "are in themselves inseparable", and this simple unity or inseparability of essences explains why "*every being is* transcendentally *one*."

understood in some sense to have produced or brought about the object known. Only by doing so can they reason from the inner ground or principles of the thing – from its essence – to its properties and other necessary features. It is in some ways a curious thing for finite being to be able to have *theoretical* knowledge of an object in this way. As we have seen, it shares some features with traditional conceptions of divine knowledge, and this explains why Kant does not describe it simply as discursive knowledge, but also as *intuitive* rational knowledge. In the following section we return to empirical cognition or experience, and thus to knowledge that is both synthetic and a posteriori or knowledge from effects or consequences. We will see that such synthetic a posteriori knowledge that knows powers through their acts and substances through their powers cannot have knowledge of the real essence of such objects.

2. The Limits of Knowledge from Effects

Empirical cognition is *a posteriori* both in the sense of being dependent on experience and in the classical sense of being knowledge from effects or consequences. Kant thinks that knowledge that is a posteriori or discursive in the sense of being 'from the effects' is such that it knows only *accidents*, not *essentialia* or the real essence of the object known in experience: "[A]ll real properties by which we cognize bodies are mere accidents for which we lack a subject – even impenetrability, which must always be conceived only as the effect of a force."[47] The purpose of this section is to articulate what Kant sees as the connection between characterizing something as an *effect* or *consequence* and characterizing it as an *accident*. The discussion will in some ways be quite abstract, centered on Kant's understanding of the Scholastic framework of 'substance', 'faculty', 'power', 'act', and 'accident'. We will see how Kant understands the relation between a substance and its modes and accidents in terms of the notion of a power, and in turn understands powers as irreducibly relational features of substances. Thus, to characterize

[47] *Prol* 4: 334.

a thing in terms of its powers and their acts is to characterize it in fundamentally different terms from a characterization in terms of its essence, absolutely inner determinations, or as it is 'in itself'.

2.1 Substance as a Metaphysical and Explanatory Framework

Before we turn to the more abstract discussion of the relation between substance and accident, however, it may be worthwhile to pause and consider the example Kant provides of an accident in the above passage. In this passage Kant states that all properties by which we cognize bodies are 'mere accidents', even that of *impenetrability*. This is a particularly significant example of an accident, for earlier in the *Prolegomena* Kant had claimed that the concept <impenetrability> was that on which the concept <matter> is based.[48] Impenetrability is not, therefore, just any accident—it is that which forms the basis of the concept of matter, which in turn stands as the highest genus under which every object of outer sense falls.[49] Kant's point, then, is that even the most fundamental features through which we cognize objects given in experience must be understood as accidents and therefore as acts of a power or effects of a force.[50] Kant states that the fact our knowledge of substance goes through powers and our knowledge of powers is had through their acts is itself explanatory of the fact that we do not know the essence of things: "We can infer the inner principle only from the properties known to us; *therefore the real essence of things is inscrutable to us*[.]" To better understand Kant's

[48] *Prol*. 4. 295.
[49] Longuenesse (1998: 151 fw.) discusses the various ways in which matter can be considered the highest genus of objects of outer sense.
[50] In the *Metaphysical Foundations of Natural Science* Kant expands on this claim that impenetrability is the effect of a force, subjecting it to conceptual analysis in order to see how it must be understood as the combined effect of a primitive attractive and primitive repulsive force (*MAN* 4: 509-11). These two primitive forces are thus contained in the concept <impenetrability> and essential to impenetrability as a real property; given the significance of <impenetrability> for the concept <matter> they are also part of the essence of matter and make matter itself possible. If the proceeding discussion is correct, however, they must ultimately be judged as only comparatively essential or inner properties of material substance. For a discussion of comparative real essences see *Mrongovius* 29: 821.

reasoning here, I propose we look more carefully at the metaphysical framework in which he articulates his account of substance. The terms he makes use of – 'essence', 'faculty', 'power', 'act' – show Kant to be steeped in a metaphysical tradition descended from scholastic Aristotelianism. This tradition, as mediated through that of German rationalism, provides conceptual resources with which Kant could presuppose his reader was intimately familiar.

Kant uses the vocabulary of 'faculty', 'power', and 'act' across his discussions of the metaphysics of corporeal nature and of the mind. We have already seen that Kant uses the term 'power' to indicate "the relation…of the substance to the accidents, insofar as it contains the ground of their actuality."[51] Accidents, then, are determinate ways in which the powers of a substance are *actualized*. This shows that Kant understands the *act* of a power in a more expansive sense than that of an action, if this is understood as an event or temporally extended process. The table holding up my laptop when I set it down is an act of a power; as is my judging that the table will hold the laptop, as well as my knowledge that tables are the sort of things on which to set my laptop. In all three cases the acts are actualizations of a power. In the case of the table, this power is the repulsive force of matter. In the case of my judging the table will hold the computer and my knowledge of what tables are, the power in question is that of the understanding. While Kant describes judging as an act, he does not think that means it need be understood as a temporally extended process or event – to describe a judgment as an act of synthesis or combination is not *as such* to say that an event has occurred, but rather to say that a judgment has a kind of unity that is explicable only in terms of its form rather than its given content or matter.[52] Even though the term 'act' here does not refer univocally to a process or

[51] *Mrongovius* 29: 770-71.
[52] Stephen Engstrom (2013: 47 fw.) states the broader point that Kant's conception of judgement is not *as such* a process or event nicely but makes what seems to me the needlessly strong claim that judgment *cannot* be such a process or event for Kant.

event, there is something common across all cases that explains the use of the same terms. To ascribe a power to something is to identify a ground in the substance in virtue of which (in the right circumstances, at least) it has the various accidents we come to predicate of it.[53]

This notion of a power being the ground of its acts 'in the right circumstances' deserves to be spelled out, for it is central to the distinction between 'power' and 'faculty'. As 'power' is the relation of a substance to its accident insofar as it is actual, 'faculty' "contains the ground of the possibility of an action".[54] This distinction between 'faculty' and 'power' is one that is found both in Wolff and in Baumgarten. In his *Metaphysica*, Baumgarten describes power as that through which accidents inhere in a substance.[55] He goes on to state that if a substance has a power (*vis*), there must be a ground of that power within the substance—if the power is *active* the ground for it is called *faculty* or *facultas*, and if the power is passive *receptivity* or *receptivitas*.[56] Baumgarten notes that "positing a faculty or receptivity does not posit action or suffering."[57] The actuality of action or suffering requires "the complement of the faculty to act"[.][58] In Kant's notes on Baumgarten's text we find him writing that "the internal principle of the possibility of action is faculty" and that power is "faculty together with its determining ground".[59] This explain why the very same thing can be now considered a faculty or *Vermögen*, and now a power or *Kraft.* The understanding, for example, can be considered both under the conditions in which it can act (i.e., when it is sensibly affected by objects) in which case it is a

[53] So, to use a now well-worn example, to say that *aqua regia* has the power to dissolve gold is to say that, in the right circumstance (i.e., in the presence of gold), it will act on gold in so as to dissolve it.
[54] *Mrongovius* 29: 824.
[55] *Metaphysica,* §197. Baumgarten means this in the strong sense that substance is the *cause* of its accidents, and not just the ground of inherence: he claims (§51) that the essence is the *ratio sufficiens* of *attributa* and of some accidents (it will not be the *ratio sufficiens* of relations). Thanks to Daniel Moerner for pushing me to distinguish between a stronger and weaker sense of 'inhere', which will be of more importance in the following chapter.
[56] *Metaphysica,* §216.
[57] *Metaphysica,* §220.
[58] *Metaphysica,* §220.
[59] *R*, 3585.

power, and independently of such conditions (i.e., in an absolutely *a priori* manner) and thus can be considered as a faculty.[60]

This talk of faculties and powers takes place, of course, within the analysis of substance offered by the scholastic-Aristotelian tradition. For to talk of a power or faculty is always in some sense to talk of the substance that is the bearer of this power. As discussed in the previous chapter, Kant claims that the empirical criterion of substance is 'act', which leads to the representation of 'power' and through 'power' to 'substance'.[61] It does not, however, merely bring us to a conception of substance as a 'this' or particular, but also as a 'what' – a particular that has an essence or bears a form. The notion of 'essence' or 'form' here isn't simply the positing of yet another power or faculty among those a substance possesses. Rather, what is posited here is an inner principle which can function as the explanatory ground of the powers and accidents of the substance and unite these various powers into *one* substance. We find a nice example of the role such an appeal plays in this tradition in the following passage from Suárez's *Metaphysical Disputation XV: On the Formal Cause of Substance*:

> [t]here is required a form to rule, as it were, over all those faculties and accidents and to be the source of all the actions and natural changes of…the subject in which the whole variety of powers and accidents is rooted and unified in a certain way. (Suarez, *Disp*. 15§1p6)

Suàrez is here invoking the idea of substance and substantial form as a kind of terminus of explanation in a two-fold sense: first, the form of the substance is invoked as the ultimate explanation of how the various powers and accidents of a substance constitute a unity, and second, it is invoked as the first explanatory principle from which emanates the powers and accidents of the substance.

[60] My discussion here is indebted to that found in Matthew Boyle (2020).
[61] A 204/B 249.

Kant stays true to the conception of substance and essence as a final point in the explanation of the powers and accidents of a substance, writing that essence is "the first inner ground of all that belongs to the possibility of a thing,"[62] and "the first inner real ground of the determinations of a thing".[63] These characterizations show that Kant stays with the traditions commitment to the framework of substance, essence, and power as that which provides the structure of explanation in metaphysics and the sciences. For example, Kant often remarks that the reduction of powers to more fundamental and basic ones is central to natural philosophy, saying that "[a]ll natural philosophy occupies itself with the reduction of powers to a single basic power which we cannot further explain".[64] In the Appendix to the Transcendental Dialectic, he describes how this explanatory project of reducing powers of a substance to more basic ones stems from a logical maxim of reason that posits the idea of a fundamental power which accounts for the "systematic unity of a substance's many powers".[65] Even though our investigation of "nature's inner recesses" proceeds "through observation and analysis of the appearances",[66] i.e. through observation and science, in philosophy we are able to provide both a broad outline of the form of scientific inquiry, and we can also mark a distinction between the kinds of questions such inquiry can and cannot answer.[67] Natural philosophy proceeds via the reduction of powers to more basic ones, and thus to powers that are *comparatively* inner or

[62] *Mrongovius* 29: 820, *L* 28: 553.
[63] *Mrongovius* 29: 821; cf. *MAN* 4: 468.
[64] *Mrongovius* 29: 772.
[65] A 648-51/B676-79.
[66] A 278/B 334.
[67] In the Amphiboly chapter of the *Critique of Pure Reason* Kant states that while we cannot specify *a priori* the *matter* of scientific inquiry nor place any restrictions on how far such inquiry can progress, it is essential to the purpose of *Critique* that we specify what sort of questions are and what (putative) sort of questions are not answerable through the method of natural science: "Through observation and analysis of appearances we penetrate to nature's inner recesses, and no one can say how far this knowledge may in time extend. But with all this knowledge, and even if the whole of nature were revealed to us, we should still never be able to answer those transcendental questions which go beyond nature." (A 278/B 334).

comparatively essential. But no method of inquiry that proceeds in this manner will afford us cognition of the *absolutely* inner nature or real essence of substance.[68]

2.2 Powers are Essentially Relational

The features of substance we cognize in experience are one and all accidents, and Kant understands accidents as the act or effect of a substances various powers. Our understanding of substance moves from acts or effects to powers which we characterize in terms of their effects, and our understanding of substance *qua* kinds is through the powers we take to be characteristic properties of the substance. When Kant remarks that it is because our knowledge moves from act to power to substance we are unable to know the real essence of substance, one point he is making is that powers are of the wrong *metaphysical type* to characterize the essence of a thing. Kant holds – along with many other prominent modern philosophers, such as Locke – that powers are *relational* properties of substances. To characterize something as a power is therefore to characterize it as "a phenomenon and accident".[69] This may seem a somewhat puzzling characterization, for above the notion of a 'power' was introduced as a feature internal to a substance in virtue of which – given the right circumstances – certain things can be truly predicated of it. I think this explains why Kant speaks of powers as *internal relations*: they are *internal* because they are identifiable as the ground within a substance of its accidents and modes, i.e. things truly predicable of it, and they are *relations* because they are active in a substance only *in the right circumstances*, i.e. in the presence of what Kant calls their 'determining grounds'. Recall how, above, the faculty/power or *Vermögen/Kraft* distinction was introduced. Faculty was characterized as the ground of the *possibility* of relation of a substance to its accidents, and power the ground of the *actuality* of the relation of a substance to its

[68] *Mrongovius* 29: 821.
[69] *L1* 28: 261.

accidents. We do not here have two really distinct things, but rather two ways of characterizing the same thing. The difference is that power is faculty plus what Kant calls its *determining grounds*, namely the conditions that enable it to be in act. To characterize something as a power is thus not to characterize it *in itself*, if by this we mean in terms of its absolutely inner determinations or essence, i.e. its absolutely inner principles of *possibility*, but always with the addition of whatever enabling conditions must be present for it to be in act.

Kant characterizes that which is *absolutely inner* in things as that "which has no relation whatsoever (as far as its existence is concerned) to anything different from itself."[70] The fact that powers require a 'determining ground' distinct from the substance explains why powers are only *comparatively*, and not *absolutely inner*. And, as we saw in Chapter Two, this characteristic feature of the absolutely inner – that it does not require anything distinct from the substance – is a consequence of a more fundamental way of characterizing the absolutely inner: it is that which constitutes the *essence* of the thing, the substance considered as *substantial being*. To know a substance through its actions or effects is, therefore, to know it only *per accidens*, and not to know it as it is 'in itself'.

2.3 Is the Possible Prior to the Actual?

I believe one may feel that a kind of terminological sleight of hand is going on in the above characterization of powers as irreducibly relational and thus of the wrong metaphysical 'type' to characterize something as it is in itself, or in terms of its real essence or absolutely inner characteristics. For if we admit that a faculty and a power are not two distinct things but rather the same thing considered in two ways, why should we think there is something left over to know once we come to know what the substance does? The thought that there is something 'left over' seems like a metaphysical claim that we need (perhaps paired with a substantive view

[70] A 265/B 321.

about what *explanation* looks like) to underwrite Kant's inference *from* the fact that we know a power through its acts or effects *to* the claim that the inner principle or ultimate ground of this power is unknown and unknowable.

The worry that there is a certain confusion or even 'trick' going on is likely to be particularly acute if we approach this topic with a broadly Aristotelian conception of the priority of possibility (or capacity) to actuality (or activity). On the Aristotelian view, as most famously developed in *Metaphysics Theta*, actuality or activity (being-in-*energeia*) has priority over possibility or being-in-capacity both in the order of being and in the order of knowing.[71] Both what is possible and my understanding of what is possible go through and are constrained by what is actual – to use a well-known example, wheat begets wheat, and I can say (truly) "that is a field of wheat" even in the dead of winter because I have previously seen the field when it is ready to harvest. If one is operating with this conception of the relative priority of the actual to the possible, the complaint that we fail to know something *qua* faculty or essence because we fail to cognize a thing as a mere possibility seems unmotivated and even borderline incoherent.

As a number of historians of philosophy have noted, this Aristotelian conception of the priority of the actual to the possible (and with it conceptions of philosophical terms of art such as 'essence', 'existence', and 'creation') underwent a fundamental transformation in medieval Islamic and Christian philosophy as various thinkers sought to accommodate Aristotelianism to a conception of divine creation that fit with the Abrahamic religions.[72] With some notable exceptions (such as Descartes and Spinoza), philosophers influenced by Avicenna and Duns

[71] My understanding of this is indebted to Jonathan Beere (2009). The discussion of the priority of being-in-*energeia* in particular can be found on p. 285 fw.

[72] This is a major topic discussed by James Conant (2020: replies, Section IV fw.). Conant cites Charles Khan (1976) and Stephen Menn (2003) as examples of historians particularly interested in these changes. The manner in which 'existence' and 'essence' change in the Arabic and Latin philosophical traditions is also a major interest (and ultimately complaint) of Heidegger's; Heidegger discusses this in Chapter Two of *The Basic Problems of Phenomenology*.

Scotus, among others, developed a conception of essences as possible beings that are logically prior to the created world, upon which God could confer actuality in a free act of creation.[73] Such a conception of creation lends itself to a view on which the actual is a sphere within the realm of, and posterior to, the possible. What is possible is prior to what is actual both in the order of being (for God contemplates *possibilia* prior to actualizing some subset of them) and in the order of knowledge, at least if by this we mean *scientia* or 'higher' knowledge.

This reversal of the relative priority of the possible to the actual also enabled a fundamentally new conception of metaphysics. The Aristotelian tradition up to Aquinas takes as its point of departure Aristotle's claim that 'being' has many senses and thus a mere analogical unity. Metaphysics therefore proceeds by identifying and studying the core or 'focal' sense of being – e.g., substance – an understanding of which will be operative in an understanding of all other senses of being. But the new conception of the priority of the possible to the actual makes it the case that metaphysics can be a science of being because *being* can now be understood in univocal manner – it is that "to which existence is not repugnant" as Scotus put it, i.e. the study of that which is free from all contradiction and is possible as such.[74] Metaphysics as *scientia possibilium* or transcendental thought studies its subject matter in two ways: first, there is a negative articulation of being as that which is free of contradiction; and second, there is a positive articulation of being which is given through a study of the *transcendentalia* or propria of being (one, true, good, etc.).[75]

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[73] This is, of course, a serious oversimplification, one which glosses over all manner of disagreement amongst such philosophers regarding the kind of being such essences have, whether and if so how they depend on God, how we should think of the act of creation, etc. There is no space here to treat such topics, but see Conant (2020: replies, section IV) for a compelling account of how we should think about the terrain of influential views here.

[74] *Ordinatio* IV, d.8, q.1, n.2.

[75] For a discussion of the significance of Scotus on the tradition of metaphysics as transcendental philosophy, including Leibniz and German rationalism generally, see Ludger Honnefelder (2003). The most in-depth study of the tradition of which I am aware, and to which I am indebted for what little I understand of the medieval portion of it, is Jan Aertsen (2012).

This tradition of transcendental philosophy, which includes Scotus, Suárez, Leibniz, Christian Wolff and Alexander Baumgarten, conceives of metaphysics or first philosophy as articulating the first principles of human knowledge. When we resolve our cognition to its most fundamental principles, we arrive at 'being' as the first principle of our cognition. And, as was said above, the most basic way in which we can give sense to or articulate the abstract concept 'being' is as that which is possible; hence the reason Kant's contemporary J.N. Tetens could write in 1775 that

> general transcendent philosophy which is called fundamental science, ontology…has nothing to do with really existing objects, but concerns itself only with what is possible or necessary in all kinds of things in general. (*On the Universal Speculative Philosophy*, §13)

The above discussion suffers from the kind of crude exposition that necessarily accompanies painting such a large and diverse tradition with such broad strokes. To the extent I have a justification for such an exercise, it is that my purpose here is not principally exegetical. It is, rather, only to get two ways of thinking about the relation between the possible and the actual in view, and to state that a certain conception of the relation of possibility to actuality can lend itself to a certain conception of the subject matter of metaphysics.

To try and make the above reflections somewhat more concrete, let us consider an example already mentioned above: Leibniz's reflections on the significance of real definitions in evaluating Descartes' ontological argument. In evaluating Descartes' argument, Leibniz's chief concern is that the definition of God may not be a *real* definition, because "the possibility [of God] must first be proved", and Descartes has failed to show that God is really possible.[76] Leibniz's concern is that the definition of God may be a composite concept built "through the

[76] *Universal Synthesis and Analysis*, p. 231.

joining together of incompatible concepts."[77] What Leibniz means by the incompatibility of concepts is that they may be *logically contradictory*, and by compatible concepts those free of logical contradiction. The ontological argument is meant to proceed in such a way that if God is possible, then God is necessarily actual. As Descartes puts this point in the *First Replies*, as long as we have a proper conception of God

> [W]e shall be unable to think of its existence as possible without also recognizing that it can exist by its own power; and we shall infer from this that this being does really exist and has existed from eternity, since it is quite evident by the natural light that what can exist by its own power always exists. (*CSM* 2: 85)

Leibniz's concern, then, is to show that the concept of God is not logically contradictory; if this succeeds, we will have shown that God is possible, and so from God's aseity, we will have shown that God necessarily exists. But what, we may ask, underwrites the inference from our concept of God being logically consistent to what we might today call the metaphysical possibility of God? It comes from the commitments articulated above: 'being' is a univocal notion; 'being' is that which is not self-contradictory, and so the logically and metaphysically possible are identical: *to be* is *to be* (logically) *possible*. This is why Leibniz can characterize metaphysics both as "the science of intelligibles" and as the "science which has being, and consequently God, the source of being, for its object". For if being is defined as the possible, and if *possibilia* are objects of divine understanding, then the negative characterization of being as that which is free from contradiction is in service of a positive characterization of being as that which is intelligible and representable by the divine understanding.[78]

[77] *Universal Synthesis and Analysis*, p. 230.
[78] This characterization of Leibniz's conception of the subject matter of metaphysics is indebted to Rutherford (1995: 71 fw.).

The above reflections should indicate that, in the philosophical environment in which Kant was working, it would have been natural to think that the 'highest' or 'most perfect' way in which one could know a thing would be to know it as a *possibilia.* As a further example of this point, we can note that in his *New Essays on Human Understanding*, Leibniz characterizes *a priori* knowledge both as cognition from the essence (and therefore possibility of a thing), and as rational knowledge that a thing is real, i.e. possible. Knowledge is *a posteriori*, therefore, when we cannot know a thing is possible through reason alone, and so "experience comes to our aid by acquainting us *a posteriori* with the reality (when the thing actually occurs in the world)".[79] But this is, of course, a 'lower' kind of knowledge, one that has no rational insight into the nature of a thing, but requires experience to show us that something is *possible* by showing us it is *actual*. Knowledge of the actual here comes to be equated with empirical knowledge, and this is deficient precisely because it is not had via rational insight into the possibility of a thing, i.e. of its essence. We find a number of similar characterizations of *a priori* cognition and the *a priori*/*a posteriori* distinction in Kant's critical writings. For example, in the B Preface Kant states:

> 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). (B xxvi fn.)

Similarly, in the *Metaphysical Foundations of Natural Science* Kant claims that "to cognize something *a priori* is to cognize something from its mere possibility."[80]

It would be a mistake, however, to place Kant within this tradition of metaphysics as a science of the possible without commenting on the deep ways in which Kant criticizes and breaks from this tradition. Kant rejects one of the deepest commitments of this tradition, namely that the contours of the metaphysically possible can be discerned from, or are simply identical to,

[79] *NE*, 294.
[80] *MAN* 4: 470.

that of the logically possible. Kant's distinction between logical and real possibility is directed precisely at this metaphysical traditions' view that logic and ontology could coincide in the most general science of being as that which is *possible*, where the relevant sense of possibility here merely requires being free from logical contradictions.

Kant argues that while logical possibility is a negative criterion for determining whether something is really possible, no sort of inference can be made from (mere) logical possibility to real possibility. Rather than its principles articulating the most general principles of being, what Kant calls 'pure general logic' articulates the laws of the understanding and is not object-directed in a way that it could serve as the foundation of general ontology. Transcendental logic, which takes the place of general ontology in the critical philosophy, is object directed in the right way, but it merely articulate principles of appearances, not of being in general.[81] But it – like other a priori sciences such as logic and mathematics – is dependent on empirical cognition of the actual both for its initial possibility and its objective reality. As such, even absolutely *a priori* cognition is in a sense parasitic on the more fundamental or basic acts of the understanding, namely the empirical cognition of existing objects. As Jim Conant compellingly argues, these central tenants of the critical philosophy should be understood as a critique of the conception of metaphysics as the science of the possible and as a return to a sort of Aristotelianism that prioritizes the actual as the first principle of our understanding of the real modalities.[82]

I think one can appreciate Kant's Aristotelianism here while still acknowledging that the conception of the highest form of cognition (cognition of essences qua *possibilia*) found in the

[81] "The Transcendental Analytic accordingly has this important result: That the understanding can never accomplish a priori anything more than to anticipate the form of a possible experience in general, and, since that which is not appearance cannot be an object of experience, it can never overstep the limits of sensibility, within which alone objects are given to us. Its principles are merely principles of the exposition of appearances, and the proud name of an ontology, which presumes to offer synthetic a priori cognitions of things in general in a systematic doctrine…must give way to the modest one of a mere analytic of the pure understanding." (A 247/B 303).
[82] Conant (2020: 387) makes this point explicitly, and it is also found throughout Conant (2020: replies, section V).

longer tradition of transcendental philosophy is playing a role in making sense of what it would be to know a thing *in itself*. It is characteristic of Kant's approach to the history of metaphysics to view metaphysical doctrines – especially those which cannot be dismissed as merely anachronistic claims of one particular figure, but which have exerted a real pull on major figures in the tradition – not as something to be debunked and discarded, but rather to be *understood*, where what it means to *understand* a metaphysical doctrine in the relevant sense requires seeing it as expressive of some kind of explanatory demand that has its origins in the nature of human reason. As such, I think we should understand Kant's attitude towards the account of the principles and proper object of human reason developed in this longer tradition of transcendental philosophy as articulating principles of the kind of object cognition of which would *satiate reasons desire to seek after grounds or causes*. To know an object as a mere possibility, and not through its effects in experience, would be to know it, so to speak, from its inner principles outwards. This would be to know it in an unconditioned manner from its absolutely inner principles – it would be to know it in such a way that one has rational insight into the ground of every possible accident or determination the thing might have *through the grounds or causes* of these determinations. Further, as knowledge from ultimate causes it would involve knowing not merely *that* the object of knowledge would have certain observable and knowable features if encountered in experience, but *why* the object of knowledge has those features in the first place.[83] Kant can maintain his Aristotelian approach to the priority of the actual to the possible in our cognition while acknowledging that reason, in its guise of seeking grounds beyond the realm

[83] Knowledge of essences as grounds of all the determinations of a thing is thus a kind of knowledge that satisfies reasons desire to know the conditioned objects given in experience through their ultimate explanatory grounds. The idea that a priori knowledge or demonstration is explanatory in this manner is one that was common in Kant's time; Crusius, for example, writes that "[a] demonstration a posteriori is one from which is known only that a thing is—for example, by experience… A demonstration a priori is one from which is known why a thing is—for example, where we deduce the attributes of things from definitions, or draw out the effect from the causes and determining reasons." Cited in Robert Adams (1994: 110).

of possible experience, desires to know an object from its essence, and thus from its mere possibility.

3. Is This a 'Short Argument' to Epistemic Humility?

In Chapter Two, I discussed how the approach to understanding the distinction between objects of experience and things in themselves I develop here in terms of the distinction between substantial and accidental being may be thought of as part of a family of views that have come to be known as *metaphysical two-aspect* interpretations of Kant's distinction and epistemic humility. This approach – associated most prominently with Rae Langton, Daniel Warren, and Lucy Allais – shares with more traditional two-aspect views the thought that 'objects of experience' and 'things in themselves' are the same things considered in two different manners.[84] Unlike more traditional two-aspect views such as those of Gerold Prauss and Henry Allison, the distinction between appearances and things in themselves is not understood primarily in terms of the standpoint one adopts while considering an object.[85] Rather – as befits their characterization as a *metaphysical* interpretation – they characteristically distinguish these between two sorts of *properties* a substance might have. On Langton's reading the distinction amounts to one between intrinsic and extrinsic or relational properties, on Warren's between those determinations that are and those that are not *absolutely* inner, and on Allais's reading the distinction is one between essentially manifest qualities and intrinsic natures.[86]

The approach articulated here differs from existing metaphysical two-aspect views in a number of respects. For example, my understanding of Kant's distinction does not amount to a distinction between two different sorts of properties a thing may be thought to have, but to a distinction between a *thing* and its *accidents* or *determinations*. That is a difference in how I

[84] These approaches are developed in Rae Langton (1998), Daniel Warren (2001) and Lucy Allais (2014).
[85] See Prauss (1974), Allison (1983/2004).
[86] See Langton (1998: 34 fw.), Warren (2001: 52 fw.), Allais (2014: *passim*).

understand Kant's *distinction*. There is also a significant difference in the kind of approach I take to understanding Kant's *epistemic humility.* This approach to epistemic humility has been developed over the last two chapters, and so this is an appropriate place to reflect on that account, and in particular on whether it is susceptible to what I understand as the most significant objection to metaphysical two-aspect views, namely that they offer us 'short arguments' to humility.

The charge that metaphysical two-aspect views offer 'short arguments' to humility was first made by Karl Ameriks.[87] Ameriks' entitles a 'short argument' for epistemic humility any argument that "ignore[s] and make[s] strangely pointless large sections – indeed, the obvious central sections – of Kant's works."[88] A short argument is therefore one that bypasses the arguments for the transcendental ideality of space and time in the Aesthetic, as well as the arguments of the Deduction and Dialectic. This is because metaphysical two-aspect views typically proceed via 'first-order' metaphysical speculation rather than the particular approach Kant takes in the *Critique*.[89] I think Ameriks is right that a suitable approach to understanding Kant's idealism and epistemic humility cannot make the core arguments of the *Critique* 'strangely pointless' as they appear if (for example) one could arrive at the same conclusion Kant reaches merely by thinking about the nature of intrinsic and relational properties.

The approach to understanding why we cannot know things as they are in themselves I take in this dissertation does not constitute a short argument to epistemic humility in the way Ameriks finds objectionable. For the argument presented here for why we cannot know things in

[87] See Ameriks (2003) for the critique of Langton; the first discussion of 'short arguments' can be found in Ameriks (1992). Ameriks' arguments are chiefly addressed to Langton, but the basic argument has also been employed by Eric Watkins against Daniel Warren. See Watkins (2002).
[88] Ameriks (2003: 138).
[89] This is most true of Langton, although I think it can also be made to apply to Allais and Warren, but I will need to make a case for this in Chapter One where I offer a survey of the various extant approaches to Kant's idealism and denial that we know things in themselves.

themselves takes as its starting point the fact that we are finite and as such *discursive knowers* – we know objects by *thinking them*, and cognitive thought as Kant understands it is *essentially predicative*. If, as I have argued, things in themselves are things considered solely with respect to their essences, and if as I have also tried to show the thought of what a thing is with respect to its essence would be a non-predicative act of the mind, then we reach the conclusion that things in themselves are unknowable purely through reflection on the nature of a finite faculty of knowledge. This fits exactly with the conception of method of the *Critique* Kant articulates in the following passage:

> Should you be so inclined, cast another cursory glance at the whole and note that what I am doing in the Critique is not at all metaphysics, but rather an entirely new and hitherto unattempted science, namely, the critique of a [faculty of] reason that judges a priori. Others, such as Locke and also Leibniz, have admittedly touched on this faculty, but always muddled together with other cognitive powers[;] yet it has not even occurred to anyone that this [faculty] may be an object of a formal and necessary, and indeed quite extensive, science, which (without departing from this restriction to merely assess the only pure cognitive faculty) demands such a multiplicity of subdivisions and simultaneously – which is marvelous – derives from its [the faculty's] nature all objects to which it extends and can enumerate them and prove their completeness through their interconnection in a whole faculty of cognition. This absolutely no other science is capable of doing, namely unfolding a priori out of the mere concept of a faculty of knowledge (if it is sufficiently determinate) all objects and everything that one can know of them [...]. Logic, which would most closely resemble this science, is in this respect infinitely beneath it. For though it [logic] pertains to every use of the understanding whatsoever, it cannot indicate to which objects and how far intellectual cognition will extend[.] (Letter to Garve 7, August 1783; Ak. 10:340)[90]

It is true that my approach in these two chapters has not been the one most commonly pursued. I have not, for example, had anything to say about the transcendental ideality of space and time in my argument for why we do not know things in themselves. But this is partly because Kant is interested in the *Critique* in working with a more determinate conception of a faculty of cognition than I have. The fact that space and time are *a priori* forms of intuition is downstream

[90] I offer a more extensive discussion of this passage in Chapter Five.

from the fact that our intuition is sensible, which in turn is grounded in the fact that our cognition has two stems, and this in turn is grounded in the fact that our cognition is finite. I have mostly sought to articulate the limits of finite knowledge from the more abstract vantage point of a discursive faculty; the particular arguments Kant makes in the Aesthetic, for example, are not therefore made 'strange and pointless' on my reading but rather involve a further specification of the form our sensibility takes, a specification required by Kant's task of explaining how the synthetic *a priori* knowledge we have in mathematics and natural science is possible.

Over the past two chapters I have attempted to make sense of Kant's argument in the *Prolegomena* that a discursive faculty of knowledge knows substances only through their accidents, and thus is incapable of knowing the *Substantiale* or absolute subject. In order to unpack this argument, I have first made the case that Kant is engaging with a doctrine of classical Aristotelian philosophy. This 'classical doctrine' is that the intellect has two sorts of operations. First, the intellect can know objects by judging them, that is by combining a subject and something predicable of it. But knowledge of essences is not had in this way; such knowledge involves a separate kind of act by which the intellect apprehends or 'touches' or 'contacts' simple essences. Kant thinks that properly appreciating the finite and therefore discursive character of our cognition requires appreciating that our intellect is not, in fact, capable of this second operation. Our cognition takes place through judgment, that is through acts of combining representations. But, as I have argued, while we cannot cognize the real essence of objects given to us in experience, we still must represent objects of experience as having a real essence in order to account for the possibility of experience. In the following Chapter I say more about how Kant arrives at the rich metaphysics of substance that has been

presented in the dissertation thus far and spell out in detail the kind of representation a real essence is, arguing that it is an *idea* in Kant's technical sense.

Chapter Five: Critique and the Metaphysics of Substance

The previous chapters have sought to locate core aspects of Kant's critical philosophy in relation to the Aristotelian tradition. I have argued that Kant's account of theoretical cognition, his distinction between appearances and things in themselves, and his denial that we know things as they are in themselves are all deeply intertwined with the metaphysics of substance as developed in this tradition.

Locating central doctrines of the critical philosophy with respect to the metaphysical tradition in this way is likely to give the reader pause, for Kant is known as one of the great *critics* of metaphysics, and his *critique* of metaphysics – whatever that may end up being – rests on his account of the conditions of possible cognition of objects and his restriction of theoretical cognition to things as they appear to us. If this critique of metaphysics rests on core doctrines of the metaphysical tradition – e.g., the way this tradition thinks about substance and essence – we may worry about the very coherence of the Kantian project.

However, it was never Kant's intention to do away with metaphysics, but rather to establish the conditions under which it could be placed on the path to a secure science. Kant's complaint is not that prior philosophers have *practiced* metaphysics, but that their metaphysics is guilty of *dogmatism*. 'Dogmatism' is a charge Kant levies against philosophy that proceeds by employing philosophical concepts "without first inquiring in what way and by what right it has obtained them", and thus proceeds with the constructing of philosophical doctrine "**without an antecedent critique of its own faculties**."[1] Kant's example in the B Preface of someone who practices dogmatism is Wolff, who Kant criticizes for making *general ontology* and not *critique*

[1] B xxxv. Bold in the original.

first philosophy.[2] Kant's issue with Wolff is, then, simply that his metaphysics proceeds without first undertaking *critique*; and Kant states that metaphysics is *critical* (i.e. not guilty of *dogmatism*) if it is first preceded by a critique of one's rational faculties.[3] The *Critique of Pure Reason*, then, is a work of first philosophy undertaken as a preparation for metaphysics. As a foundational investigation of our faculties so as to make *doctrinal* philosophy possible, the work is not *itself* a completed scientific metaphysics, but rather a preliminary investigation that will make such a metaphysics possible: "[i]t is a treatise on the method, not a system of the science itself[.]"[4]

However, Kant's treatment of the topics of *special metaphysics* in the Dialectic (i.e. rational psychology, cosmology, and theology) have helped give the impression that the *Critique* shows metaphysics as a *whole* to be an illegitimate enterprise. And, if one thinks one of the central lessons of the *Critique* is that metaphysics cannot be practiced in a cognitively significant manner, then one will be pushed to claim that when Kant characterizes what he is doing as 'metaphysics', this is only because he has transformed any positive conception of metaphysics into what we today call epistemology or philosophy of science.[5] Patricia Kitcher offers a nice recent example of the view that Kant reimagines metaphysics as epistemology:

> [T]rue metaphysics concerns a priori concepts and principles that are required for empirical cognition. More bluntly, true metaphysics is *a priori* epistemology. (Kitcher, 2011: 6)

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[2] B xxxvi-xxxvii. For Wolff, *general ontology* constituted 'first philosophy' and was something of a 'propaedeutic' to *special metaphysics* (i.e. rational psychology, cosmology, and theology). Kant's view, then, is that transcendental logic is true 'first philosophy', and it makes possible doctrinal metaphysics. Kant similarly claims that Wolff's practical philosophy is guilty of dogmatism because it "does not judge at all about the origins of all possible practical concepts" (*GMS* 4: 391). *Critical* practical philosophy, then, will also be distinctive in that it provides a foundation for doctrinal metaphysics of morals by showing how the basic concepts of practical philosophy have their origin in practical reason.

[3] B xxxv.

[4] B xxiii.

[5] For further characterizations of the project of the *Critique* as epistemological see Henry Allison *Kant's Transcendental Idealism*, 2nd ed., p. 4. For influential readings of the work as a contribution to the philosophy of science see Hermann Cohen *Kants Theorie der Erfahrung* and Michael Friedman *Kant and the Exact Sciences*.

As I hope is already clear, I think such a view is far too hasty in rejecting the idea that the *Critique* is a work of metaphysics in a somewhat more traditional sense.[6] Kant's denial that the *Critique* itself constitutes a system of metaphysics is chiefly motivated by the thought that it is not a *finished* and *complete* system, but rather a work solely concerned with enumerating the "principles to be followed" in the construction of such a system.[7] In addition to enumerating the principles of scientific metaphysics, the *Critique* "catalogs the entire outline of the science of metaphysics, both in respect of its boundaries and in respect of its entire internal structure."[8] As such, "[t]ranscendental philosophy is the propaedeutic of metaphysics proper."[9]

Furthermore, the thought that critique is a kind of *a priori* epistemology because it is concerned with 'principles that are required for empirical cognition' does not by itself further our understanding of how the project Kant is undertaking differs from the prior metaphysical tradition, for it had been characteristic of the metaphysical tradition prior to Kant to describe metaphysics as an investigation of the principles of human knowledge. Alexander Baumgarten, for example, defines metaphysics as "the science of the first principles in human knowledge."[10] Metaphysics can be thought of as an investigation of the first principles of human knowledge by the tradition because the basic principles of our knowledge just *are* basic principles of being. For

[6] As I hope becomes clear in what follows, I don't think a view like Kitcher's is *simply* wrong. Part of what we undertake in critique is surely concerned with human knowledge and its conditions, and I don't object to someone calling it 'epistemology' if they so choose. But part of the reason for this is that metaphysics has *always been* something that concerns itself with the 'principles of knowledge', as I discuss more below.
[7] A 82/B 108. On occasion Kant will illustrate this point by saying that while the term metaphysics *proper* belongs to "the whole of…philosophical cognition from pure reason in systematic interconnection", the term metaphysics "can also be given to the entirety of pure philosophy including the critique." (A 841/B 869).
[8] B xxiii.
[9] *Mrongrovius* 29: 752.
[10] *Metaphysica,* §1. Similar characterizations of metaphysics can also be found in Descartes ("the principles of knowledge, i.e. what may be called 'first philosophy' or 'metaphysics" (*Principles* IX B 16), and in Scotus's claim that metaphysics is the science of being because 'being' is the first principle of human cognition.

example, when Descartes claims that metaphysics studies the first principles of knowledge he offers the following gloss on what these principles are:

> [T]he principles of human knowledge [include] the explanation of the principle attributes of God, the non-material nature of our souls and all the clear and distinct notions which are in us. (*Principles* IX B 14)

If the *Critique* is a work of metaphysics – or at least a work that provides a systematic account of the fundamental concepts and principles of metaphysics, and which details in outline a future system of metaphysics – and if it cannot be distinguished from prior metaphysics by its interests in the principles of human knowledge, in what does its originality lie? In **Section One** of this chapter, I argue that the project of critical metaphysics is distinct from the prior tradition because it understands metaphysics as the *self-cognition of our faculties* in a way that comprehends the possibility of *material exercises of these faculties*, i.e. the possibility of *experience*. As self-cognition of our faculties, critical metaphysics is further distinguished by its reliance on logic as the guide to its basic principles, for in logic we have an already existing *formal self-cognition of our faculties*. However, 'critical metaphysics' is not simply another term for epistemology, for the principal aim of the project is the derivation of *formal principles of the proper objects of our faculties*. As a science whose ultimate aim is *a priori* cognition of objects, critical metaphysics is just as much the heir to traditional ontology as something that anticipates contemporary epistemology and philosophy of science. Kant's claim that "[a]ll true metaphysics is drawn from the essence of the faculty of thinking itself" is a statement of the view that the principles, objects, and structure of metaphysics have their seat in our faculties.[11]

But if what is distinctive about critique is that it is able to trace the fundamental concepts and principles of metaphysics to their origins in our faculties, then this simply raises anew worries about the manner in which I have situated Kant's critical philosophy in relation to the

[11] *MAN* 4: 472.

metaphysical tradition. For if Kant shares so much metaphysics with the tradition, we may be inclined to think that his metaphysics is something he *inherits* from the tradition, despite whatever claims he makes as to its origins. Furthermore, we might wonder whether Kant is in fact able to derive his metaphysics from our faculty of cognition – there is a certain skepticism that naturally meets the claim that such a rich metaphysical system can genuinely be said to originate in principles of the possibility of experience.

In **Section Two** of this chapter, I bring these worries into focus by offering an account of the metaphysics of substance I think Kant is committed to in his critical philosophy, and which I have relied on throughout this dissertation. I argue that Kant is committed to a rich metaphysics of substance: substances are active, they are bearers of powers, and their accidents and powers are ordered in real relations of ground and consequence such that some are regarded as more fundamental than and as the grounds of the possibility of others. Perhaps most importantly, Kant is committed to the thought that we can only appreciate substances as perduring subjects of accidents if we represent them as bearers of a *fundamental power*, and as such having an essence or formal nature. Kant is therefore committed to a broadly Aristotelian conception of the nature of substances as real metaphysical subjects: a condition of something being a real subject of predication or accidents is that it have a nature or essence.

In **Section Three**, I look at interpreters of Kant who think his conception of substance is incompatible with the project of critical metaphysics for just these reasons. Colin McLear has recently argued that, despite what he claims, Kant cannot in fact derive the category of substance from the logical function of categorical judgements.[12] He argues that the categorical judgement can at best function as a model of substance insofar as substance is that which neither inheres in nor is predicated of anything else – substance insofar as it *subsists*, to introduce a bit of classical

[12] See McLear (2020).

terminology. But it cannot be the origin of the category insofar as part of the content of the category is that substance is that in which accidents inhere – substance insofar as it *substands*.[13] Even apart from the constructive aspects of his paper, McLear performs a valuable service by making explicit an assumption I think can be found throughout much the Kant literature: despite his claim that the categories are arrived at through their 'completely coincidence' with the table of judgements, the basic metaphysical concepts Kant employs (i.e. the categories) are not in fact 'drawn from the faculty of thinking'. McLear argues that the content of Kant's conception of substance must originate in pure apperception – it is my experience of myself as a genuine *subject of thoughts* that is the origin of the category of substance. The most common way to account for the source of the metaphysical concepts Kant employs is, however, to say that he has inherited them from the tradition. Although these interpreters would not necessarily be happy with the name, I will use the term *dogmatism* to describe those who attribute such a family of views to Kant. The core of the charge of dogmatism Kant makes against Wolff is that he has not shown how the basic concepts of metaphysics originate in our faculties; he merely helps himself to these concepts to engage in systematic or doctrinal metaphysics without worrying about their origins. And, while the interpreters I am labeling 'dogmatists' clearly care about the origins of these metaphysical concepts in some sense, they do not think they originate in our faculties in a critical way.[14]

In **Section Four**, I show that dogmatists are right to worry that Kant's metaphysics cannot be accounted for in critical terms, for existing accounts that try to derive the category of substance in a critical spirit are not satisfying. I examine two leading advocates of a critical

[13] The terms 'subsist' and 'substand' were introduced to identify two characteristic features of substance: it exists *per se*, meaning at minimum it does not inhere in another (substance 'subsists'), and it is the subject of accidents i.e. (substance 'substands'). For a discussion of this distinction see Robert Pasnau (2011: 103).
[14] See B xxxv above; cf. *Mrongovius* 29: 772.

approach to Kantian metaphysics: Béatrice Longuenesse and Stephen Engstrom. Longuenesse strongly identifies the categories with the logical functions of subordinating sensible particulars under common concepts.[15] In doing so, however, she denies much of the metaphysics of substance I outline in Section Two. Engstrom is similarly concerned with showing how the categories are in fact derived from the logical functions of judgement. Focusing on the category of substance, Engstrom shows how certain kinds of 'logical' priority Kant grants to the subject concept in a categorical judgement are the basis for a 'real' or 'metaphysical' priority a substance has to its accidents. But the account Engstrom offers can at best be only a partial one, for while it models a certain asymmetry between substance and accident, it does not get us all the way to the thought that substance is a real subject of inherence. As such, it does not answer the kind of worry someone like McLear raises, namely that the metaphysics required to spell out the thought that substances *substand* is too rich to have its origins in the form of our cognitive faculties.

In **Section Five**, I try and draw a lesson from the above dialectic between dogmatic and critical approaches. The failure of critical approaches stems from a mistaken conception of what a properly critical account of the relation between pure general and transcendental logic, or the logical function of judgements and the table of categories, requires. Both Longuenesse and Engstrom think a critical approach to this topic requires Kant be able to have a story of how whatever content there is in the category of substance is already present in *some way* in the corresponding logical function of judgement. A virtue of the dogmatist is that they force us to confront the fact that there is no story to be told about how one gets from logical function to category. But this need not force dogmatism on us – rather, it should push us to think more deeply about what the relation between a category and its corresponding logical function *is*. I

[15] 1998: 27.

argue that, rather than thinking the categories are something we arrive at by *adding* something to the logical functions of judgement, we should think of the logical functions as themselves *abstracted from* the categories. Such a reading frees us from having to answer the kind of puzzles McLear raises about the very possibility of deriving the categories from the logical functions of judgement in the first place. And, I argue, it puts us in a position of appreciating how the metaphysics of substance I have relied on throughout the dissertation can, in fact, be 'drawn from the faculty of thinking'.

Finally, in **Section Six**, I show how this abstractionist approach to the relation between pure general and transcendental logic provides us the resources for spelling out in a critical way the metaphysics of substance I have relied on in this dissertation. The abstractionist view depends on an appreciation of Kant's 'organicist' approach to our faculties. On the organicist view, we cannot appreciate the significance of any one principle of the possibility of experience in abstraction from its relation to the form of our cognitive faculties as a whole. And this frees us to look beyond the categorical form of judgement to *reason* if we want to account for the full richness of Kant's metaphysics of substance in a critical manner.

1. Critical Metaphysics as Self-Cognition of our Faculties

Kant's critical philosophy is distinctive in thinking that the self-cognition of our faculties constitutes genuine 'first philosophy', and will provide us with the principles and outline of scientific metaphysics. Kant's criticism of dogmatism is not a criticism of metaphysics *as such*; it is, rather, a critique of the thought that what was known in his day as 'general ontology' or *metaphysica generalis* is genuine first philosophy. As we have seen, Kant thinks of the project undertaken in the *Critique of Pure Reason* not as a complete system of critical metaphysics, but rather as a propaedeutic to such a system. It is an undertaking that will be able to articulate the

fundamental principles of such a system and anticipate the general structure of the science in advance of its completeness. As the self-cognition of our faculties, one way in which critique paves the way for doctrine or systematic metaphysics is by showing how the basic concepts of metaphysics – the categories – originate in our faculties; this is what it means to say that "all true metaphysics is drawn from the essence of the thinking faculty".[16] I discuss this understanding of metaphysics as the self-cognition of our faculties below; before I turn to this, however, I think it will be instructive to look at how the structure of transcendental logic as presented in the *Critique of Pure Reason* relates to a standard treatise on metaphysics from Kant's time. In seeing how the structure of transcendental logic mirrors that of the standard works in metaphysics from Kant's day, we may get a better sense of the thought that critique and transcendental logic offer us a new foundation for metaphysics, and are thereby a kind of fundamental reformulation of traditional first philosophy.

If we look at standard treatises on metaphysics from Kant's time, we find the primary division drawn is between general ontology (*metaphysica generalis*) and special metaphysics (*metaphysica specialis*). General ontology concerns the most fundamental principles of being in general. In a standard treatise – for example Wolff's *Ontologia* or Baumgarten's *Metaphysica* – this consists first in a treatment of the transcendentals or universal predicates of being. Although neither Wolff or Baumgarten are 'category theorists', the term they employ for the most general predicates of being (*transcendentalia*) originates in the thought that certain predicates hold of being in general because they are *propria* of being, and so 'transcend' the categories

[16] *MAN* 4: 472. Kant is clear on at least some of the significance of this project of tracing the fundamental concepts of metaphysics back to the activity of the understanding – for one, it has a justificatory aspect, showing a certain entitlement to the categories as genuine universal predicates of appearances. However, this is not the sole upshot of this method. It also serves at least the following functions: (1) it shows which a priori concepts are primitive (i.e. categories) and which derivative (i.e. predicaments or predicables), and (2) allows us to give a genuine account of the content of the categories.

(Baumgarten, for example, treats 'one', 'true', and 'perfect' as *propria* of being and thus as transcendentals; the thought that these are *propria* of being also explains why Leibniz thinks, e.g., 'being' and 'one' are convertible terms).[17] After the transcendentals are treated, one treats of the universal disjunctive predicates of being, one of each pair of which holds of all things (Baumgarten offers 'necessary and contingent', 'simple and composite', and 'substance and accident' as examples of universal disjunctive predicates of being). This then serves as a foundation from which one can treat the topics of *special metaphysics*, which is not concerned with the most general predicates of being, but with particular *kinds* or *domains* of being. Special metaphysics is standardly thought to have three topics: cosmology, rational psychology, and rational theology.

This gives us a sense of the *outline* or *structure* of a treatise on metaphysics in this tradition. And, I think, any close reader of the *Critique* should recognize the structure of such a course in metaphysics, for it clearly parallels that of the *Critique* (with the Transcendental Analytic taking the place of *general ontology*, and the Transcendental Dialectic treating the topics of special metaphysics in the Paralogisms, Antinomies, and Transcendental Ideal). But I think the connection between the projects that Wolff, Baumgarten, and Kant are engaged in is deeper than the claim that there is a parallel in the structure of their writing may suggest.

What I have in mind here as a deeper line of continuity between their projects can be shown by the fact that, as stated above, Wolff and Baumgarten conceive of metaphysics as "the science of the first principles in human knowledge."[18] First philosophy for Wolff and

[17] Kant alludes to this understanding of the transcendentals as propria of being—which far predates Wolff and Baumgarten— in §12 of the Analytic of Concepts when he discusses the 'transcendental philosophy of the ancients' and their famous proposition '*quodlibet ens est unum, verum, bonum*' (B 113). What I say here about Leibniz does not, of course, mean that he doesn't have other arguments for the necessity of simple unities or *ens per se* – it is just to say that the claim 'being' and 'one' are *convertible* is a consequence of the fact that 'one' is a proprium of being.
[18] Baumgarten, *Metaphysica* §1.

Baumgarten is what Kant would call a 'material' or 'doctrinal' science, meaning – to put it somewhat crudely – it is about 'things' or 'objects'. And the conception of metaphysics as the sciences of the first principles in human knowledge deeply shapes how Wolff and Baumgarten understand the *objects* which constitute the subject matter of metaphysics. As discussed at the end of the last chapter, they understand metaphysics as the science of the possible – a science demarcated by the fact that it is not about *nothing*, where <nothing> is "something involving a contradiction".[19] The reason metaphysics can be understood as the science of the possible – where being 'possible' involves being free from contradiction – is because the subject matter of metaphysics must be the object of some *intellectual faculty*, and as such *representable*:

> That which is not nothing is SOMETHING: the representable, whatever does not involve a contradiction, whatever is both A and not-A is POSSIBLE.
> (Baumgarten, *Metaphysica* §8)

For Wolff and Baumgarten, then, one can simultaneously treat of the most fundamental predicates of being and the most fundamental principles of knowledge – for *to be* is, on their view, to be *representable* or *knowable*.[20] There's a level of continuity, then, with Kant's project: Both, we might say, take it that 'first philosophy' proceeds by giving the most general possible characterization of the proper objects of an intellect.

Kant's break with the rationalist tradition is not, then, that first philosophy studies *ens cogitabile* – it would be that Kant thinks we cannot just study the proper object of *an intellect generically conceived*, such that its form, and its objects, are the same in the divine and human case. We must, rather, offer a characterization of the first principles of a *human* or *finite* intellect,

[19] Baumgarten, *Metaphysica* §2. In a work in progress ("The Function of Kant's Table of Nothing"), I argue that the Table of Nothing at the close of the Transcendental Analytic functions as a criticism of this very conception of transcendental philosophy as a science whose subject matter can be delineated through its opposite, namely the concept <nothing>.

[20] Such a view also explains why, as we saw in the previous chapter, Leibniz characterized metaphysics as the "science of intelligibles".

an intellect that must be *given* objects, and which knows given representations by *thinking them*, i.e., by predicating concepts of them in acts of judgement. While Baumgarten may claim that metaphysics studies the first principles of 'human knowledge', one complaint we might offer in a Kantian spirit is that Baumgarten has not taken seriously the way in which 'human' (or 'finite') characterizes the *form* of knowledge.[21] And, as we cannot study some generic notion of an intellect, we cannot equate being for the object of such an intellect with 'being in general' or 'being *qua* being'. We must, rather, study the principles of the human intellect and its objects; as such, first philosophy cannot study being 'as such' or in general, but being for the *human being* – or being *as appearance*, as Kant refers to objects whose formal character is that they are possible objects of knowledge for a finite knower.

The project so described is one we find in the Transcendental Analytic - the task of the analytic in brief is to isolate the understanding and articulate the absolutely a priori cognition we can have of objects through reflecting on our faculties.[22] The articulation we find in the analytic of the form of a possible experience – i.e., cognition, or the determination of an object in an predicative act – is simultaneously the most general possible articulation of the form of appearances, i.e. of objects that can be formally characterized as *knowable*. As such, the Analytic portion seems clearly the heir to general ontology – both in the sense that it articulates the most fundamental principles of the proper object of our faculties, and in the sense that it stands as genuine 'first philosophy' in the manner of general ontology in Wolff or Baumgarten. Kant is quite explicit in stating that the Analytic portion of transcendental logic is the heir to general ontology, stating that while classical metaphysics aspired to a science of being qua being, "the

[21] The fact that Baumgarten does not take seriously that finite knowledge has its own distinct form would then explain why he thinks the first principles of human knowledge are non-sensible (*unsinnliche*) or purely intellectual (*Metaphysica*, §1) – the failure to appreciate the finitude of human knowledge leads to a failure to appreciate that such knowledge involves a moment of receptivity.
[22] B 87.

most the understanding can achieve a priori is to anticipate the form of a possible experience."[23] As such

> the proud name of an Ontology that presumptuously claims to supply, in systematic doctrinal form, synthetic a priori knowledge of things in general…must, therefore, give place to the modest title of a mere Analytic of pure understanding. (A 247/B 303)

When we turn to the Transcendental Dialectic, we find that it, too, has deep parallels with the conception of 'special metaphysics' found in Wolff and Baumgarten. Here, the relation between the two is more immediately evident, for the three major sections of the dialectic – the Paralogisms, Antinomies, and Transcendental Ideal – treat of the three divisions of special metaphysics, i.e. rational psychology, cosmology, and theology. Further, the arguments in the Analytic are foundational for the Dialectic in a manner we might think analogous to the Wolffian conception of the way in which general ontology is foundational for special metaphysics.[24]

Kant's aim in the dialectic is for the most part negative; his overall project is to show how these are not genuine rational bodies of knowledge, but are collectively a kind of pseudo-rational inquiry that fails to be a science because they fail to demonstrate the real possibility of their objects. However, Kant's aim here is not wholly negative, for he wants to understand both why we are led to engage in such speculative metaphysics as 'a natural disposition' and why metaphysics has taken the particular shape it has. This latter point Kant accomplishes in the dialectic by showing exactly why there are three branches of special metaphysics, and why these branches have the topic they do. It turns out that it is no mere historical accident that metaphysics has developed in the way that it has. While the details of his arguments need not concern us at the moment, Kant shows that the branches of special metaphysics have their origins in the three

[23] A 247/B 303.
[24] To take but one example, consider how the Table of Categories serves as a guide to the table of 'transcendental predicates' of the soul (e.g. that the soul is simple) at A 344/B 402.

basic forms of syllogistic inference: categorical, hypothetical, and disjunctive. Each form of inference generates a particular idea of reason—the categorical syllogism the idea of the soul, the hypothetical syllogism that of the world as a whole, and the disjunctive the idea of God as the *ens realissimum*. The project of a critique of reason thereby provides us insight into the origin of these branches of metaphysics, and it shows that these origins lie in a certain inferential and explanatory activity that is characteristic of reason as a faculty. The Dialectic then, also has as its project the tracing back of certain fundamental ideas of metaphysics to their origins in the activity of our faculties. This explain why a critique of reason – even when it takes the specific form of a reflection on why a certain kind of metaphysics is not possible – is something Kant can characterize as reason's self-knowledge of its own form.

This project of tracing back fundamental concepts of metaphysics to their seat in our faculties is, of course, the project of the central argument of the Analytic. In the Table of Judgements, Kant presents the twelve primitive logical functions of our understanding. These function as the 'guiding thread' to the presentation of the categories, or the basic forms of thought through which we can think or relate to objects. As such, the categories are both formal concepts of an object and – as Kant establishes – universal predicates of appearances, and therefore constitute the fundamental concepts of any scientific metaphysics.[25] The exact nature of the 'derivation' here, and the exact character of the relation between the categories and logical functions of judgement, will be directly addressed below. Here, however, I am simply interested in gaining clarity on how Kant understands critique and critical metaphysics as involving the self-cognition of our faculties; and why he thinks that *pure general logic* has such an important guiding role to play in that project. For Kant states that it is due to the 'complete coincidence' of

[25] Kant states that the categories are the basic concepts of metaphysics for they are indispensable "as supplying the *complete plan of a whole science*…and as dividing it systematically *according to determinate principles*" (B 109, italics in original).

certain logical forms and the fundamental ideas and concepts of metaphysics that critique is possible as first philosophy:

> In the **metaphysical deduction** the origin of the a priori categories in general was established through their complete coincidence with the universal logical functions of thinking[.] (B 160)

We see, therefore, that transcendental logic as a whole – in both its analytic and dialectical forms – is meant to completely correspond or 'coincide' with principles of pure general logic.

It is fair to wonder why logic should here be afforded this special place. If critique is first philosophy, why can we help ourselves to anything at all in our investigation? And, even if we can help ourselves to some existing body of knowledge, why should it be *logic*? Kant's answer is that logic has such a pride of place in the activity of critique because of what logic *is*. Logic, as Kant understands it, is not a substantive body of truths about being in general, or the study of abstract consequence relations obtaining independently of our thinking. Rather, logic is an investigation of the form of our faculties – and to the extent that critical metaphysics is itself a self-cognition of our faculties, it has (pure general) logic standing before it as an already existing guide to the formal character of reason and the understanding.

One of the clearest articulations of this conception of the method and aim of critical metaphysics Kant provides can be found in the following passage from a 1783 letter to Garve:

> Should you be so inclined, cast another cursory glance at the whole and note that what I am doing in the *Critique* is….an entirely new and hitherto unattempted science, namely, the critique of a [faculty of] reason that judges a priori. Others, such as Locke and also Leibniz, have admittedly touched on this faculty, but always muddled together with other cognitive powers[;] yet it has not even occurred to anyone that this [faculty] may be an object of a formal and necessary, and indeed quite extensive, science, which (without departing from this restriction to merely assess the only pure cognitive faculty) demands such a multiplicity of subdivisions and simultaneously – which is marvelous – derives from its [the faculty's] nature all objects to which it extends and can enumerate them and prove their completeness through their interconnection in a whole faculty of cognition. This absolutely no other science is capable of doing, namely unfolding a priori out

> of the mere concept of a faculty of knowledge (if it is sufficiently determinate) all objects and everything that one can know of them [...]. Logic, which would most closely resemble this science, is in this respect infinitely beneath it. For though it [logic] pertains to every use of the understanding whatsoever, it cannot indicate to which objects and how far intellectual cognition will extend[.] (To Garve, 7 August, 1783; 10:340)

Here Kant describes the project undertaken in the Critique as a 'formal and necessary' science that most closely resembles logic. Kant's characterization of logic here as pertaining 'to every use of the understanding whatsoever' indicates he has in mind the affinity between the critical project and *pure general*, rather than particular, logic.[26] And his characterization of the project of the critique as deriving from 'the faculty's nature all objects to which it extends' indicates that he specifically has in mind *transcendental logic* as presented in the *Critique*, for transcendental logic – in particular the Analytic portion of transcendental logic – achieves "a formal a priori knowledge of all objects".[27] Kant indicates that logic is closest to a critique of reason, while being 'infinitely below it', for it can say nothing about the objects to which it applies. This is because pure general logic "abstracts from all content of the knowledge of the understanding and from all differences in its objects, and deals with nothing but the mere form of thought."[28]

If they do not share an object, in what way can logic be most similar to critique of reason? I submit that the similarity lies chiefly in the fact that both are a kind of self-knowledge, investigating the formal principles of our faculties. Kant consistently describes pure general logic in this way, saying it is "a science of the form of our cognition through the understanding, or of thought:"[29]

[26] A 'particular logic' is, as its name suggests, one concerned with a particular use of the understanding, where this notion of 'particular use' is understood in terms of the domain of objects it is concerned with (A 52/B 76).
[27] A 130.
[28] A 54/B 78.
[29] *JL*, 9: 13.

> Logic is thus a self-cognition of the understanding and of reason, but not as to their capacities with regard to objects, but merely as to form. (*Jäsche Logic*, 9: 14)

Similarly, Kant states that critique involves the self-knowledge or self-cognition of our capacities: "the philosophy of pure reason…investigates the capacity of reason with a view to all pure knowledge a priori."[30] Like pure general logic, critique is a science in which reason is concerned "merely with itself, with tasks which spring wholly from its own womb and which are set for it not by the nature of things but by its own [nature]."[31]

As a science of our faculties, both pure general logic and critique involve a kind of self-knowledge or self-cognition of our faculties. However, while logic is not able to make any sort of claim about its objects (for it has no objects, and is a *merely* formal science), critique is able to "derive from its nature all objects to which it extends". As I have said, here I think it is most illuminating to think that by critique Kant here has specifically in mind the enumeration of the formal principles of objects of experience in the Transcendental Aesthetic and especially the Analytic portion of transcendental logic, for it is in the Analytic that we achieve "a formal a priori knowledge of all objects".[32] We arrive at such formal a priori knowledge of objects in transcendental logic through a self-cognition of our faculties, and an investigation of the principles of possible experience – for "the a priori conditions of a possible experience in general are at the same time conditions of the possibility of objects of experience."[33] If we keep in mind here the initial claim I made that the analytic portion of transcendental logic is the heir to general ontology or *metaphysica generalis*, then we can see how in the critical philosophy ontology becomes a kind of self-cognition of our faculties. Like general ontology in Baumgarten and

[30] A 841/B 869.
[31] B 23.
[32] A 54/B 78.
[33] A 111.

Wolff, transcendental logic is concerned with giving an account of the most general principles and predicates of objects; and, like general ontology, it views this task as identical to giving an account of the fundamental principles of the faculty whose object ontology studies. However, unlike general ontology, transcendental logic does not investigate some generic notion of a faculty of knowledge, but a specifically human, finite form of knowledge. And, as such, it does not ultimately amount to an investigation of being qua being, but being insofar as it is a possible object of experience or cognition for a finite knower, i.e. *being as appearance*.

This discussion of critical metaphysics and its relation to more traditional metaphysics has in many ways been quite compressed. Hopefully, however, it has put is in a better position to understand Kant's claim that "all true metaphysics is drawn from the essence of the faculty of thinking itself"[34] and therefore understand what critical metaphysics and a critical approach to metaphysics is. As stated above, we do not go far enough in understanding what is distinctive of critical metaphysics if we merely say that it is concerned with principles of cognition or human knowledge – such a characterization of metaphysics was accepted by Descartes, Wolff, Baumgarten and others. Rather, what is distinctive about critical metaphysics is that it is first and foremost the self-knowledge or self-cognition of our *human, finite* faculties. In this, it is a branch of knowledge most similar to pure general logic. And as pure general logic is already a systematic science of the self-cognition of the understanding and reason, critical metaphysics is able to avail itself of a formal study of our faculties in order to derive its first principles and anticipate the structure that a scientific metaphysics as a whole will take. We have seen examples of this in derivation of the fundamental concepts of critical metaphysics – the categories – from the logical functions of the understanding, as well as in Kant's demonstration of how the objects of special metaphysics are generated by the basic forms of syllogistic inference. Where critical

[34] *MAN* 4: 472.

metaphysics differs from logic is that it is not a *merely* formal science, and as such has objects – both *phenomena* as the proper objects of the understanding, and the ideas of God, the world, and the soul as the proper objects of reason. Where critical metaphysics differs both from logic and traditional ontology is (1) that it *has objects* (thus, unlike pure general logic, it is not *merely formal*), (2) that it is concerned with knowledge of the form of *finite* knowledge, and thus appreciates the receptive dimension of human knowledge and the predicative character of finite thought, and (3) that it explicitly derives the proper object of our faculties from the nature of our faculties themselves.[35] In what follows, I label 'critical' any approach that shares at least the first two of these features: (1) it views critical metaphysics as a kind of self-knowledge or self-cognition of our faculties, and (2) it views the formal articulation of our faculties in logic as the guide for the derivation of the principles and structure of metaphysics. The last point about the relative priority of our faculties to their objects is where I take Kant's distinctive idealism to lie; that idealism is contentious enough that I will not invoke it when distinguishing between critical and dogmatic approaches to Kant's philosophy.

2. Outline of the Critical Metaphysics of Substance

An orienting problem for this chapter is that appreciating how rich Kant's metaphysics of substance is can make it very hard to see how it *could* be arrived at critically – i.e., arrived at through the self-cognition of our faculties, in a way that takes pure general logic as the guide for

[35] It is interesting (although beyond the scope of my present discussion) to compare Kant's understanding of the method of critical philosophy with the philosophical investigation of our faculties Aristotle undertakes in De Anima. As we have seen, Kant begins from an articulation of our faculties, and draws out the proper objects of our faculties from the faculties themselves—our faculties are first both in the order of knowledge and in the order of being to their objects. Aristotle seems to take the exact opposite approach, stating that an examination of the thinking or perceptive or nutritive power must begin from an understanding of its 'correlative object' (*antikeimena*)—this methodological statement is made at *De Anima* II.4. However, it is possible that Aristotle here merely thinks that the proper or correlative object of our faculties is more readily knowable to us than our faculties, and this is why we must start here—he may end up having a view not entirely dissimilar to Kant's about the priority of our faculties to their objects in the order of being. For a reading of Aristotle that is close to Kant on this last point see Sean Kelsey (n.d.: ch. 6).

arriving at the basic principles and structure of metaphysics. In this section I would like to get clear about the features of Kant's metaphysics of substance that may seem particularly difficult to account for in critical terms.

When Kant first introduces the category of substance, he indicates that it is derived from the categorical form of judgement. From the basic form of combination represented by a judgment like "S is P" we are able to derive the concept of something that "must always be considered as subject and never as mere predicate."[36] To refer back to some terminology introduced above, the account of substance we find here is that of substance as *subsisting*, i.e. as a *per se* being that neither inheres in nor is predicated of anything else. Kant claims that this ancient characterization of substance as that which is always thought of as subject provides us a *nominal* definition of the category – it picks out a unique characteristic that will apply to all and only things falling under the category of substance.[37] While they provide unique identifying characteristics of their definiendum, nominal definitions are distinguished from real definitions because they fail to demonstrate the (real) possibility of their objects. Kant states that the schema of substance is able to enrich the nominal definition by demonstrating its real possibility. The Schematism chapter accomplishes this by "specify[ing] *a priori* the instance to which the…[category] is to be applied."[38] In being able to indicate a priori the real possibility of its fundamental concepts, transcendental philosophy is able to achieve what so far only mathematics

[36] B 129.
[37] Kant's claim that this is the nominal definition of substance echoes Leibniz's nominal definition of substance: "It is indeed true that when several predicates are attributed to a single subject and this subject is attributed to no other, it is called an individual substance; but this…explanation is merely nominal." According to Leibniz, a real definition of substance shows how the predicates attributed to the subject must be contained in the subject either 'explicitly or virtually' (*Discourse on Metaphysics*, §8). Leibniz's definition of substance in terms of the containment of predicates provides the philosophical background for the understanding of categorical judgements found in Wolff and Baumgarten; this will be discussed in more detail below.
[38] A 135/B 174-75.

had accomplished, i.e. provide definitions that demonstrate the real possibility of their object.[39] The schema of substance is as follows:

> The schema of substance is permanence of the real in time, that is, the representation of the real as a substrate of empirical determinations of time in general, and so as abiding while all else changes. (A 143/B 183)

As is the project of the Schematism, the category is shown here to be really possible by demonstrating that it has a relation to features that can be given in intuition, namely a particular time determination – here a reality or being that remains one and the same across time while undergoing changes in its states or determinations.

Although the schema is said to specify 'a priori the instance to which the category is to be applied', I think it is a mistake to understand these time determinations as themselves constituting the story of how we apply the categories of substance and accident in experience. Nor, for that matter, should we understand the asymmetries in time-determination spelled out in the schema the full account of the metaphysical relation between substance and accident – substance and accident will, of course, have a certain asymmetric priority relation, and a consequence of that will be that some accidents will be 'transient' in a way in which the substance they inhere in is not, but these temporal asymmetries are consequences of a more fundamental distinction. The key to giving an account of both the application of the category of substance to experience and of the metaphysics of the substance-accident relation is through the concepts of activity and power:

> Where there is action, consequently activity and power, there is also substance….[T]he empirical criterion of substance…seems to manifest itself better and more readily through action than through the persistence of the appearance. (A 204-5/B 249-50)

[39] A 135-6/B 175.

For a detailed account of why the time determinations given in the schematism are not sufficient for distinguishing between substance and accident, and therefore why activity and power are the empirical criterion of substance, I refer the reader to Chapter Three, section 2.2 above. The core thought is that Kant thinks some accidents – for example bodies being divisible – are necessary, and therefore present whenever the substances of which they are accidents are present. There is, therefore, no way to account for the substance-accident distinction with regard to necessary accidents by viewing some as transitory and some as permanent. Rather, this distinction is spelled out through the thought that accidents are the act or effect of a power, and powers require a bearer—and therefore substance.[40]

When Kant spells out the relation between substance and accident, it is invariably in terms of the notion of *power*. The fundamental relation between substance and accident is *inherence*. However, Kant cautions that there are ways in which thinking of accidents as inhering in substance, and thus as there being a *relation* between substance and accident that are potentially misleading. If we think of the inherence relation as similar to the relation that holds between cause and effect, and thus one that holds between two really distinct entities, we can be led to ascribing a reality to accidents that they do not in fact have. This is the source of the doctrine of 'real accidents', or accidents that are a *res* and can exist independently of substance and be transferred between substances.[41] This is why Kant reminds us that accidents are better thought of as *modes* than things with independent existence. Keeping this in mind, it is still

[40] A 204/B 249.

[41] The doctrine of real accidents was initially developed in detail by Scotus in his thinking about transubstantiation—he required an account of how sensible accidents can remain while the substance they inhere in changed—but was put to work by a number of scholastic philosophers including Suárez in the explanation of natural change and motion. It was generally taken to be only accidents from the category of quality that were 'res' or real, and the paradigm examples of such accidents are *heat* and *motion.* The doctrine of real accidents received sustained criticism in early modern philosophy, perhaps most notably by Descartes. For a discussion of the doctrine of real accidents and Descartes' critique of it see Stephen Menn (1995a). The doctrine is also a frequent target of Kant's; see for example A 126-27/B 229-30.

however the case that the substance-accident relation *is* a relation, and that understanding this relation requires thinking about the metaphysics of powers:

> With a substance we can have two relations <respectus>: in relation to accidents…it has power insofar as it is the ground of their inherence; and in relation to the first subject without any accidents, that is the substantial. Power is thus not a new accident, but rather the accidents…are effects produced by the power.
> […]
> [P]ower is the relation <respectus> of the substance to the accidents, insofar as it contains the ground of their actuality[.] (*Mrongovius* 29: 770-71, c. 1782-83)

The thought that accidents are the *act* or *activity* of powers, and the relation of an inherence is a relation between a power in act and the bearer of that power, is a way of spelling out the thought that there must be something internal to substances in virtue of which they have the accidents they do. Kant has various ways of spelling this out, saying that insofar as we posit an active ground within the substance to explain its accidents we think of substances as having a faculty or *Vermögen*, and insofar as the accident is brought about by another substance then the substance is receptive, or has a capacity to be affected.[42] Despite how baroque the metaphysics can be, this characterization of accidents as *modes* or *states,* and therefore as acts of a power, is always in service of the intuitive thought that the sort of accidents a substance has are grounded in facts about the *kind* of thing the substance *is*, and in coming to know what sort of thing a substance is we try and relate its features to more fundamental facts about it.[43]

As accidents are acts or actualizations of a power, Kant states that when we first encounter a substance, we are liable to think that its powers are diverse as number of accidents we predicate of it:

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[42] *Mrongovius* 29: 824, R 3585. Cf. Baumgarten's *Metaphysica*, §197, §216, §220.
[43] This notion of substance as the ground of inherence of accidents is what was above termed substance as *substanding*. This notion of substanding comes in weaker and stronger varieties; on the weaker notion, substance substands because simply because it is a ground of inherence. On the stronger one, substance is a ground of inherence because substance is the *cause* of its accidents. When Kant speaks of substance as the ground of its accidents, he frequently means in this stronger sense: substance is the *cause* of its accidents. I take it this is what is intended by the thought that a real subject is that "*through which* the accidents exist" (*NG* 2: 02; *R* 4412, *D* 28: 672).

> At first glance the various appearances of one and the same substance show such diversity that one much assume almost as many powers as there are effects[.] (A 649/B 677)

But the thought that the accidents of substance are in some way grounded in more fundamental facts about the sort of thing it is compels us to try and reduce the powers of a substance to more fundamental ones, and ultimately to *a* fundamental power, and in doing so gain insight into the nature of the substance. Kant thinks this reduction of the powers of substance to more basic ones is fundamental to the kind of inquiry that takes place in the sciences, such that "[a]ll natural philosophy occupies itself with the reduction of powers to a single basic one[.]"[44]

The thought that substances have a basic power, and that we can understand the sort of thing a substance is by reducing the variety of ways it manifests before us to a single power, is essential to the kind of enterprise we undertake in the natural sciences. This idea that substances have a fundamental power goes hand in hand with the thought that substances have a *real essence* or *formal nature*. For the thought of a real essence or formal nature is the thought of the fundamental inner determinations of a substance from which flow, or emanate, or can otherwise be understood to follow the various active and passive powers, faculties, attributes, and accidents of a substance.[45]

> [A] real essence is the first ground of all determinations of a thing. For an essence is either logical or real. We posit a logical essence through the analysis of concepts. The first ground of all predicates thus lies in a concept; but that is not

[44] *Mrongovius* 29: 772.

[45] Kant characterizes powers as the ground of the *actuality* of the accidents of a substance, and characterizes essences or natures as the ground of the possibility of these accidents. His thinking is that powers are irreducibly relational metaphysical concepts, involving both the inner nature of a thing and its determining grounds or enabling conditions that allow it to be in act. As such, to characterize something in terms of its powers is to characterize it in terms of its effects. It is therefore appropriate that in the natural sciences we occupy ourselves solely with the powers of things, for we are dealing solely with objects we cognize in experience, and therefore as they stand in relation both to us and to other substances. However, we still posit a nature or essence in these substances as absolutely inner marks—the sorts of things that would characterize the substance 'in itself', in abstraction from all relation to other beings and thus from any determining ground that would allow its powers to be in act. While the concept of a fundamental power and a real essence or nature are therefore not identical, the positing of a fundamental power involves the positing of a real essence or nature that is itself the ground of this power.

> yet a real essence. E.g., that bodies attract belongs to the essence of things, although it does not lie in the concept of the body. Accordingly, the logical essence is the first inner ground of all that which is contained in the concept. But a real essence is the first inner ground of all that belongs to the thing itself—If I have the logical essence, I still do not have the real essence. Predicates belonging to the real essence, but only as a consequence, are called attributes; what on the other hand belongs to essence as a ground is called an essential property. The real essence is not the essence of the concept, but rather of the thing. E.g, the predicate of impenetrability belongs to the existence of body. Now I observe through experience much that belongs to its existence; e.g. extension in space, resistance against other bodies, etc. Now the inner ground of all this is the nature of the thing. (*L2* 28:553)

The thought that substances have a fundamental power, and therefore a real essence or nature, is something we must posit in substances in order for natural science to be possible. But it is also something we require in more mundane everyday experience. The observable states and accidents of a substance of course undergo change; for us to understand the substance as remaining numerically identical through these changes there must be something about the substance that (i) abides through these changes in its states, and (ii) is an internal principle or rule that explains these changes in its states. As Kant puts it, "the unity of each substance requires that there be only one basic force."[46] As such, Kant claims that the sheer diversity of accidents a substance may have requires us to posit that the substance has a nature for otherwise experience itself would be impossible:

> All objects of experience have their nature, for without this no experience is possible. Experience is not an aggregate of perceptions, but rather a whole of perceptions connected according to a principle. Consequently there must be a principle in every thing, according to which the perceptions are connected and this is nature. (*Mrongovius* 29: 934)

[46] *Mrongovius* 29: 882. As I think is evident in the context of his discussion, Kant here is stating that our idea of a basic force is something we require to represent a substance as a genuine unity. As an *idea*, Kant is not making an assertion about whatever ultimate metaphysical structure objects of experience have; that would violate epistemic humility, for it would require we have some sense of what the structure of things as they are in themselves *is.* Rather, Kant is making a claim about how reason demands we represent the fundamental metaphysical structure of objects of experience as they are in themselves.

Furthermore, at a deeper metaphysical level, powers are fundamentally relational entities. We are therefore led to posit something in the substance that would characterize it 'in itself', not merely relationally. Therefore, we must posit something that remains even when all the accidents are stripped off and set aside. When we do this, Kant says we consider the substance as *Substantiale*.[47] As I argued at length in Chapter One, when we set aside the accidents in this way we are not doing so to arrive at the concept of a bare substratum, but rather precisely to consider the substance *as essence*, i.e. as a real metaphysical subject that is the ground of its accidents, which governs and unites the various powers of the substance, and which accounts for the substance remaining identical while undergoing changes in its accidents.

Let us recap. I have tried to lay out here what I think the core of Kant's critical metaphysics of substance consists of in. Kant thinks of substance as both subsisting and substanding – both a being that exists *per se* and so is not predicable of and does not inhere in another, and as a real subject in which accidents inhere. In order to spell out what it means to think that accidents 'inhere' in a substance, Kant thinks we need some grip on the notion of a power. Once we have the thought that accidents are acts or actualizations of the powers of a substance in view, we must think the substance has some inner or fundamental powers that explain and unite its accidents, for otherwise experience would be a mere 'aggregate of perceptions'. As such, we posit a real essence or formal nature as the internal governing principles of the substance. It is this constellation of concepts – 'activity', 'power', 'faculty', 'basic power', 'essence', and 'nature'– that will most concern us in what follows, for they seem to be the concepts least amenable to the critical project of deriving metaphysics from the self-cognition of our faculties in a way that uses logic as a formal cognition of our faculties as a

[47] *Mrongovius* 29: 771; cf. *Prol*. 4: 333.

guide. In the next section, we will turn to commentators who are convinced that such a critical derivation is not possible.

3. Is Kant a Dogmatist?

As I have argued, the critical approach to metaphysics is distinguished by the thought that metaphysics involves the self-cognition of our faculties, and as such it takes logic as a guide as far as its principles and structure are concerned. A paradigm instance of this approach to metaphysics is in Kant's arrival at the fundamental concepts of metaphysics – the categories – through their 'complete coincidence' with the logical functions of judgment. In this section I would like to consider what I think is an orienting premise of much current work on Kant today, which is that Kant is what he himself would think of as a *dogmatist*—someone whose metaphysics does not originate in critique and the self-cognition of their faculties. As our focus is on Kant's metaphysics of substance, we will be interested primarily in the claim that Kant's conception of substance is one arrived at dogmatically.

I begin with a recent paper by Colin McLear in which he denies that Kant conception of substance has its origin in the logical function of categorical judgements.[48] Despite Kant's claim to have established "the origin of the a priori categories…through their complete coincidence with the universal logical functions of thinking,"[49] McLear argues that Kant's conception of substance must have another source. I focus on Mclear's paper because he confronts head on the difficulties in spelling out how a critical metaphysics is possible, and in doing so articulates what often functions as a hidden premise in so much work on Kant. As such it will be valuable to look at his arguments in some detail.

[48] McLear (2020).
[49] B 160.

McLear's thought that the Metaphysical Deduction cannot offer a genuine account of the origins of the category of substance is driven by reflections on the two characteristic features of substance introduced above: that substance *subsists* (i.e. does not inhere in and is not predicated of another), and that substance *substands* (i.e. it is a subject in which accidents inhere). It is, of course, universally acknowledge that Kant does not think the entire story concerning the content of the category of substance is offered in the metaphysical deduction – as we have seen, he further enriches the category by relating it to particular time determinations in the Schematism, and he further argues that activity and power as the causality of a substance are the empirical criterion of substance. However, McLear thinks there is a basic feature of the category of substance that is presupposed by the Schematism and Principles, but which cannot be accounted for solely in terms of the logical function of categorical judgement. This feature is the thought that substance *substands*.

McLear's concern is not whether Kant succeeds in *justifying our entitlement* to employ a concept of substance part of the concept of which is that it substands; rather, he is concerned with the *origin* of the content thought in the category in the first place. His thought is that whatever content the category may have must be directly (or as he puts it 'analytically') derived from its corresponding logical function.[50] The categorical form of judgement he thinks at most functions as a model of the concept of substance as *subsisting*, i.e. as that which is always thought of as subject and never as mere predicate. As McLear conceives it, the notion of substance as substanding adds two characteristic features to the concept of substance that cannot be accounted for solely in terms of the logical function of categorical judgement:

Inherence: the concept of substance as substanding is of a real and not merely logical subject; it is therefore the thought of a subject in which accidents *inhere*, which is a distinct relation from

[50] McLear's claims about analytic containment can be found at McLear (2020: 3, 9fw.).

the kind of logical containment relation that result from the logical act of relating subject and predicate.

Asymmetry: the relation between a substance and its accidents is an ontological dependence relation, and therefore should be understood as a kind of real asymmetric dependence relation.[51]

McLear does not, unfortunately, provide much in the way of a detailed argument for why the concept of substance as substanding cannot be derived from the categorical form of judgement. However, I think the worry here is a relatively intuitive one, and bringing out some of the differences between the metaphysical relation of inherence and the logical relation of containment will motivate this worry. As Kant's characteristic way of distinguishing between logical and real subjects is in terms of the kind of relations the subject and predicate or substance and accident stand in in each case, we can bring out the difference between these relations by focusing on the different ways in which subject term and predicate term are related in either case.

First, let us look at some defining features of *logical subjects* and the *merely* logical unity of subject and predicate. One of Kant's core thoughts is that the representations our understanding produces – concepts – are such that they are essentially suited to function as predicates in a judgement, for it is only as predicates that concepts can further the understanding's function of cognizing representations by *determining them* in acts of predication. From a merely logical perspective, then, the categorical judgement involves two representations that are on a par, and there is a certain arbitrariness about which is to serve as the subject and which the predicate.[52] This is because Kant offers a functional characterization of our faculties and representations based on the contribution they make to cognition, and the contribution concepts make to cognition is that of a predicate through which given representations are determined. Hence Kant states that:

[51] McLear (2020: 4 fw.).
[52] B 128-29.

> In every judgment, accordingly, there are two predicates that we compare with one another, of which one, which comprises the given cognition of the object, is the logical subject, and the other, which is to be compared with the first, is called the logical predicate. (*R*, 4634, c. 1772-73)

Given the fact that logically speaking all concepts are on a par, any concept can function as either subject or predicate in a judgement. This means that the predicate can already be something contained in the subject, or it can be a negative predicate, or it can even be the subject term itself.[53] The unity of subject and predicate from a merely logical perspective is wholly derived from or parasitic on the unity of the act of judgement that combines these terms, and the relation between subject and predicate is representable wholly in terms of containment relations obtaining between concepts – relations of subordination and superordination representable, at least in principle, in a Porphyrian tree. While the conceptual containment relation is in general asymmetric, it need not be. For while predicating the subject term of itself – for example "a bachelor is a bachelor" – represents a kind of limiting case of the categorical judgement, it still counts as a categorical judgement from a logical perspective; but as the contents of the subject term are not enriched in such a predication (the subject concept <a bachelor> contains no additional marks after the judgement) the subject and predicate term remain identical and we have no contained in/contained under ordering.

Now let us turn to the case of a real subject – i.e. a substance – and its accidents. For none of the distinguishing features of logical judgement I have brought out above hold in such a case. First, accidents express realities – i.e. *real*, *positive determinations* of substances. As such, negative predicates such as <non-red> are not accidents, for they are not realities.[54] Second, as *determinations* of substances, an accident must be distinguishable – at least conceptually – from

[53] A 596/B 627; *Mrongovius* 29: 769.
[54] "The determinations of a substance…are called *accidents*. They are always real, because they concern the existence of substance. (Negations…assert the non-existence of something in a substance.)" (A 186/B 229).

the substance of which it is predicated, and so neither the substance itself nor anything that is a condition of the possibility of representing the substance can be considered an accident. Kant's way of putting this is that as *determinations*, accidents 'add' something to the substance, and so are one and all *synthetic*.[55] Furthermore, in every case the relation of substance to accident is that of an asymmetric dependence relation, and unlike the logical dependence relations that can arise between subject and predicate, the relation that a substance has to its accidents is not accountable purely in terms of containment relations among concepts or representations, or in terms of the unity of a judgement. Rather – as discussed in more detail in the previous section – the relation between a substance and its accidents must be understood in terms of the metaphysics of powers.

With these observations in mind, I think we should sympathize with McLear's worry that the thought that substance *substands* cannot be derived from the logical function of categorical judgement: the relation between substance and accident is a *real* relation, and real metaphysical relations cannot be derived from logic.[56] As the content of the category of substance cannot be derived analytically from the logical function of judgement, and as it is presupposed by the schema of substance and therefore cannot be derived from relating the category to a priori forms of intuition, McLear thinks the only way we can account for the origin of the content thought in the category is through pure apperception. It is my experience of myself as the subject of thought, and of particular occurrent thoughts as depending on me qua thinking subject, that gives content to the category of substance such that the thought that substances substand can be thought in the category:

> If, as Kant says, I am conscious in apperception of my own existence, then I am conscious of myself as the subject of the thought "I exist". In being conscious of myself as the subject of the thought "I exist" I am conscious of that thought as possessed by and thus dependent upon myself. Moreover, if what I have argued so

[55] A 596/B 627; cf. *Mrongovius* 29: 770.
[56] McLear, (2020: 10 fw.).

> far in this paper is correct, in Kant's view there is no other form of representation (i.e. either purely intellectually, or in inner or outer sense) in which such a relation between subject and property or state could be presented. Apperception, as the vehicle through which a subject becomes aware of their mental states as states of a particular subject—viz. themselves—is thus also the only possible means by which a cognizer could grasp this real relation of dependence (as opposed to the merely grammatical relation between subject and predicate) between a metaphysical subject and a property or accident. (McLear, p. 28)

The details of Mclear's account, and the manner in which he situates it historically in relation to Leibniz's account of the origins of metaphysical concepts in our experience of ourselves as thinking subjects and in Kant's pre-critical philosophy, need not concern us for now.[57] For my principal interest in McLear's essay is in the way he makes explicit something I think is largely presupposed – and hence unargued for – in the Kant literature, namely the thought that Kant does *not* in fact succeed in showing how the fundamental concepts of metaphysics have their origins in our cognitive faculties, and thus that Kant's metaphysics is in some deep sense *not* a critical metaphysics.[58]

Once one has the thought that Kant's metaphysics cannot be derived through the self-cognition of our faculties in a way that takes logic as the source of its principles, one is free to make all sorts of hypotheses about the origins of Kant's metaphysics. McLear's argument that it is in pure apperception may be somewhat novel, but it is part of an approach which I have

[57] I will return in Section Five to McLear's thought that the full metaphysics of substance as substanding must be derivable from the logical function of categorical judgement if Kant's critical project is to be successful, and McLear's sense of what is required for the category to be *derived* from the logical function.

[58] I think it is fair to wonder why I have labeled McLear a 'dogmatist', even though on McLear's reading we do arrive at the category of substance in some sense 'through ourselves' – he claims that it is through pure apperception that we arrive at a representation of something that *substands* and is a real ground of accidents because through apperception we appreciate ourselves as a genuine subject of thoughts. McLear's view is dogmatic here not simply because he fails to follow the argument structure Kant lays out in the *Critique*, but because he introduces an element of *material* or *objectual* awareness into his account of how one arrives at the categories – it is because I experience *myself* as a *real metaphysical ground* that I come to a concept of substance. But such material elements are only meant to enter metaphysics at the point of *doctrine*; they have no place in the activity of reflecting on the form of our faculties that constitutes *critique*.

labeled 'dogmatism', and this approach is not at all a unique one.[59] By far the most common version of the dogmatic approach is to account for Kant's understanding of substance—and for his metaphysics generally—as something he has inherited from the tradition. A few examples of this kind should suffice. Karl Ameriks, for example, claims that:

> Kant borrows from Leibniz…the ideas that a substance is something that ultimately exists on its own, i.e. is a subject or bearer and in no way an accident, and that 'substances in general must have an intrinsic nature which is therefore free of [i.e. not dependent on] all external relations.' (Ameriks, 2003: 214)

Ameriks here states that Kant 'borrows' from Leibniz fundamental aspects of his metaphysics of substance. My objection is not to Ameriks establishing a line of philosophical influence; it is, rather, that on such a reading Kant must be either deeply confused or dishonest about the character of his project. As I have tried to argue, Kant thinks of critique as *first philosophy* and as foundational for metaphysics. If at the very heart of Kant's critical enterprise he is in fact merely helping himself to some metaphysical doctrine, then the whole critical enterprise is, in fact, dogmatic.

Of course, this sort of explanation of key philosophical context and doctrines in terms of the intellectual and historical context of a given philosopher might be seen as a virtue *precisely because* it discounts a philosopher's professed self-understanding of their own work. Eric Watkins, for example, has argued that appreciating the historical context of Kant's philosophy is valuable for just this reason. Kant's thinking, he claims, arose from

> a constellation of factors that were established in different ways by Leibniz, Wolff, and Baumgarten. Leibniz's philosophy provided many of the main elements of Kant's basic metaphysical framework (e.g. the concept of substance, the intuition that there must be simples, the idea that physics requires metaphysics, etc.). (Watkins, 2006: 305)

[59] Similar claims about the source of Kant's thinking about substance in our awareness of ourselves as subjects of thought can also be found in Julian Wuerth (2014).

Watkins maintains that it is only be appreciating how Kant's philosophy arose from an attempt to think through positions and problems internal to the German rationalist tradition in light of his interest in Newtonian mechanics that we can understand Kant's intellectual development and his core philosophical commitments – for example, how he thinks of substance. And, he claims, contextualizing Kant's views in this way improves our understanding of his philosophy, for in contextualizing his philosophy we are no longer "forced to accept at face value the Critical Kant's claims to have initiated a completely novel and allegedly revolutionary way of thinking[.]"[60]

Again, I do not wish to dispute that situating philosophers within their broader intellectual and historical context is a substantial contribution to the history of ideas, or that it can shed considerable light on a philosopher's own project. I have in many ways attempted to do just that in this dissertation: to show how we can find a deeper appreciation of Kant's philosophy by seeing it as engaged with the broadly Aristotelian tradition. However, such a 'debunking' project only makes sense if one has either judged the philosophical project as understood by the author who undertook it to be a failure, or if one thinks the historian of philosophy should not engage historical texts as something that *can be* true or false; if one thinks philosophical systems are merely contingent products of historical circumstance, and so not something it makes sense to evaluate as contributions to our understanding of "philosophical problems" that transcend their particular historical context.

I do not accept this. As I understand it, the goal of the historian of philosophy, as opposed perhaps to the historian of ideas, should be to acquire a kind of 'stereoscopic vision' in which the philosophical system can be appreciated simultaneously as a product of contingent human activity *and* as the attempt to achieve a genuine insight into how things are that transcends the

[60] Watkins, (2006: 311).

conditions of its production. At a minimum, this requires we see whether a system of philosophy is consistent with standards its author would accept – and it is clear that Kant simply would not accept that the basic metaphysical concepts he employs are something he inherited from Leibniz.

4. Critical Approaches

So far, we have seen a number of readers of Kant who think the project of a critical metaphysics is unable to give an account of Kant's metaphysics of substance. Sometimes this is brought out through the explicit claim that this metaphysics is too rich in conceptual resources to be derivable from our faculties. More often, this takes the form of a project of explaining the metaphysics we find in the critical philosophy by locating it within specific philosophical traditions, and claiming that Kant 'inherits' or 'borrows' his metaphysics from the tradition. Occasionally – as in the case of Watkins – this is part of a self-conscious attempt to debunk Kant's claims to philosophical originality. Whatever specific form this takes, I have argued this is an approach to Kant's philosophy he would reject as *dogmatic*. To ascribe to Kant a dogmatic conception of the basic principles of his metaphysics – for example, his understanding of the category of substance – is not simply to find some particular argument of the critical philosophy wanting. Rather it is to show the critical philosophy and the project of a critical metaphysics *as a whole* to be failure. If I am right in locating the basic project of critical metaphysics in a self-cognition of our faculties that takes pure general logic as its guide, then all the approaches to this philosophy outlined in the previous section show its execution to be a failure.[61]

[61] Skepticism that the 'critical' approach could succeed in deriving the fundamental concepts of metaphysics from logic may also have its source in a general skepticism that Kant's table of judgements succeeds in isolating all and only the basic forms of judgement. Strawson (1966: 74 fw.), for example, offered an influential critique of the table of judgements that denied this. He notes that Kant's table includes both hypothetical and disjunctive forms as distinct and primitive relations, whereas modern logic has shown that they are definable in terms of one another with negation. What logical forms count as primitive are, then, up to the logician. But if Kant is mistaken in thinking he has isolated the primitive forms of judgement, he is also mistaken in thinking these forms of judgement could serve as a guide to the fundamental concepts of metaphysics; a reader of Kant interested in the origins of the basic

In this section, I examine two interpreters of Kant that offer what I take to be a genuinely critical approach to understanding Kantian metaphysics: Béatrice Longuenesse and Stephen Engstrom. Longuenesse and Engstrom share the thought that Kant's metaphysics involves the self-knowledge of our faculties, that logic is an extant formal cognition of our faculties, and that as such logic provides a guide for the derivation of the principles and structure of metaphysics. While it is clear that I think this approach is the right way to offer a systematic interpretation of Kant's philosophy, I am also sympathetic to those who think such an approach cannot be successful, for I do not think such an approach has yet succeeded. It is certainly the case that the interpreters I have labelled 'dogmatists' by and large evince a deeper appreciation of Kant's metaphysics as outlined in section two of this chapter than the 'critical' interpreters I discuss here, and as we have seen it is partly this appreciation of the richness of Kant's metaphysics and its obvious deep connections to the tradition that motivate dogmatic approaches to Kant's philosophy. As I will show below, neither Engstrom nor Longuenesse show that it is possible to derive this metaphysics in a critical way; as such, there is still work to be done for those who think Kant has a robust non-dogmatic metaphysics.

4.1 Longuenesse on the Categories and the Logical Use of the Understanding

Béatrice Longuenesse is perhaps the most influential proponent of the critical approach in contemporary Kant studies. She argues that the entirety of transcendental logic and Kantian metaphysics – by which she understands the doctrine that the categories are universal predicates of appearances – must be understood in terms of the logical functions of judgement and the derivation of the categories from these functions. Longuenesse argues that the status of the categories as universal predicates of appearances can be secured by identifying the "laws of the

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metaphysical concepts he employed is therefore free to look anywhere they like for an alternative explanation of their source – say, for example, in the metaphysics textbook he lectured from.

mind" that are the source of the pure concepts of the understanding with the "logical use of the understanding" that subordinates sensible representations under common concepts.[62] This requires an identification of the categories with the logical use of the understanding:

> [T]he pure concepts of the understanding are…nothing other than the very functions of the understanding that generate *these very rules* [i.e. the rules of the 'logical use' of the understanding—AP]. (1998: 27)

So much for her critical bona fides: the logical functions are 'laws of the mind' and so part of a formal self-cognition of our faculties, and the categories as universal predicates of appearances are these same logical functions at work in reflective judgement's activity of bringing sensible representations under common concepts.

In keeping with this general project of identifying the categories with the logical functions of judgement in their role as rules for reflecting or bringing sensible representations under common concepts, Longuenesse approaches the category of substance by trying to offer an account of why, in a *real* categorical judgement, one of the terms is thought as subject and so reflected under the category of substance, and one functions as predicate and so is reflected under the category of accident.

The point of departure for her – as it was for us in Chapter 3.2 – is Kant's claim in the B deduction that as regards the 'logical use of the understanding' both subject and predicate are on a par. This is why, from the perspective of merely formal or pure general logic, the judgement 'all bodies are divisible' can be just as easily rendered as 'something divisible is a body'.[63] However, in a real use of the understanding the concept <body> is brought under the category of substance and "thereby determined that its empirical intuition in experience must always be

[62] This is anyway part one of a two-stage argument, the second step of which is showing that the categories are not merely functions for subordinating concepts but conditions on something being sensibly given to us.
[63] Certain complications with this example – namely that the two judgements are not *as such* equivalent, for one cannot return to the original judgement without involve a change in the *quantity* of judgement as Kant would understand it – are discussed below.

considered as subject and never as mere predicate."[64] The challenge of understanding the category of substance, then, lies in understanding why one representation is brought under *substance* instead of *accident* in such a judgement. As we have seen, the essentially predicative character of concepts rules out the thought that there is any rule of logic or grammar that explains why one of the concepts is brought under the category of substance and not the other.

Longuenesse approaches this question by examining Kant's expanded definition of the categorical judgement found in a passage from the *Duisburgscher Nachlaß* where Kant is clearly working through this question.[65] Kant's expanded definition of categorical judgement is: "To everything *x*, to which the concept A belongs, there also belongs the concept B". In the passage from the *Duisburgscher Nachlaß* she considers, Kant distinguishes three different ways in which concepts can be related in a judgement. First, they can be related in what might call a merely logical way. In such a case the '*x*' falls out of the picture, and we compare A and B according to principles of identity and contradiction. The second case involves an empirical judgement that relates A and B to the object=*x* in such a way that neither 'A' nor 'B' refer to a substance, for example in the judgement "no *x* who is learned is ignorant". Finally, in the third case we have an empirical judgement where one of the terms refers to substance, such as "no *x* which is a body is indivisible". As we are interested in the real distinction between substance and accident, I will only discuss the second and third case.

In the second case, Longuenesse picks up on two points Kant makes: (1) both the predicates 'A' and 'B' can be true or 'synthetically valid' of *x*, so neither can be contained in the representation *x* as neither A nor B nor are necessarily included or excluded from *x*, but (2) they cannot both be true of *x at the same time*, so there is an implicit reference to a temporal condition

[64] B 129.
[65] The passage she draws from is *R* 4676, c. 1773-75. The relevant text from Longuenesse I am reconstructing is from (1998: 325-333).

in the judgement, and the judgement is really elliptical for the thought that "no x who is learned is at the same time ignorant".[66]

In the third case, where one of the terms used refers to a substance (such as "no *x* which is a body is indivisible") neither of these two conditions hold. Longuenesse notes that there is no implicit reference to a temporal condition here: divisibility is a necessary feature of bodies, so there is no need to invoke temporal conditions when explaining why 'indivisible' cannot be predicated of body. Second, she argues that the concept <body> is brought under the concept <substance> because <divisible> is already contained in the concept body as an analytic mark, and so the concept <body> is the sufficient ground for the predication in much the same way that a substance is meant to be the ground or condition of the possibility of its accidents:[67]

> *x* which is thought under the concept of body cannot cease at any time to be opposed to the concept indivisible, *because it cannot cease to be thought under the concept of body, which has 'divisible' as one of its analytic marks.*
> (Longuenesse, 1998: 329, italics in original)

I think Longuenesse provides a compelling reading of the remark from the *Duisburgscher Nachlaß* she is concerned with, and it is clear that in this passage Kant is trying to think through why a certain concept can function as a representation of substance even though concepts are, considered as to their logical form, essentially suited to figure as predicates in a judgement. However, I think relying on this passage as the key to understanding the problem of *why* one representation is reflected under the category of substance the other of accident is mistaken for two reasons.

First, the passage – and Longuenesse, for that matter – does not offer any sort of *explanation* of why the one concept is reflected under the category of substance. Longuenesse

[66] (1998: 328).
[67] Longuenesse's example here does not seem correct; Kant notes at *MAN* 4: 503 that 'divisible' is a synthetic (albeit necessary) mark of body. But we can set this point aside for the time being.

follows Kant in this passage in identifying certain differences that hold between judgements that merely relate accidents and those that relate substance and accident. But we were not *as such* interested in the question of whether, *given* that a concept is brought under the category of substance, its relation to an accident will be different from the relation that holds between two accidents. That is, Longuenesse has merely identified differences between these two sorts of judgements; she has not offered anything in the way of an explanation of our orienting question, which is why <body> is brought under substance and <divisible> under accident. The fact (if it is a fact) that judgements that relate substance and accident do not have any implicit reference to temporal conditions or that they involve a containment relation between the subject and predicate terms would be a *consequence* of one of the terms being thought of as substance, but does not explain it.

Second, any attempt to explain why <body> is brought under the category of substance in terms of (1) temporal conditions (or lack thereof), and (2) conceptual containment is doomed to fail. As for the first point, I have already argued that no reference to temporal conditions will be sufficient for distinguishing between substance and accident. This is because Kant recognizes both necessary and contingent accidents; in the former case the accidents persist as long as the substance does, and in the second case these need not be the case. If Longuenesse is correct and only judgements that do not involve a temporal condition on the relation between subject and predicate are genuine relations of substance and accident, then categorical judgements can only relate substance and necessary accidents. But this is simply not the case. As for point two, any attempt to make sense of why <body> is brought under the concept of substance and <divisible> under that of accident in terms of conceptual or analytic containment relations is doomed to fail. Modelling the substance-accident relation on conceptual containment relations fits with the

treatment of categorical judgements found in Wolff, Baumgarten, and the broadly Leibnizian tradition, but is quite at odds with Kant's critical treatment of the subject. Wolff and Baumgarten treat categorical propositions as stating what the substance is 'in itself', i.e. as predication *nulla adjecta conditione*. What is properly predicable of a thing *in itself,* however, is simply the *essentialia* and *attributa* – the essence and those features that follow directly from the essence. They consider predication of modes or relations therefore to be *hypothetical* judgements—they do not simply present that which is predicated absolutely of the subject, but what is predicated of the subject given certain further conditions. However, Kant's claim that the categorical judgement in its most basic real exercise is as *synthetic* cognition is a rejection of the thought that categorical propositions can only be concerned with the essence or attributes of things – the categorical judgement in the basic sense relates *substance* and *accident*, and *accidents* are *positive, synthetic determinations* that attribute realities to a substance by further determining the subject concept. We simply cannot get Kant's critical project into view if we think he is modelling categorical judgements on the Wolffian-Leibnizian thought that in all categorical judgements the predicate is somehow contained in the subject.[68]

The text from the *Duisburgscher Nachlaß* Longuenesse centers her reading on is dated to 1773-75. In his work on the development of the analytic/synthetic distinction, Lanier Anderson has dated the emergence of Kant's mature understanding of the analytic/synthetic distinction to

[68] Michael Kremer raised what seems to me a fair question regarding my reconstruction of Longuenesse here. Namely, I seem to be attributing to Longuenesse a view that is so obviously confused about a fundamental aspect of Kant's philosophy – namely that he thinks the treatment of judgement in terms of containment relations found in Leibniz and Wolff mistaken – that it would be shocking for such an astute reader of Kant (and I hope it is clear I share a high estimation of her work) to make it. I do not *as such* have a response to this worry. All I can say is that this is, to the best of my understanding, the view she puts forth. But I do think that a possible explanation for the problem she runs into is that she is attempting to answer why a representation might be brought under the category of substance instead of accident while *denying* that Kant has the rich metaphysics of substance I have attributed to him in this dissertation. I think there simply is no explanation available to her; as I have tried to argue, we need the notions of <power> and <essence> to explain how and why we represent something as a substance. Her view could, then, be taken as a kind of *reductio* of the thought that we can make sense of how we apply the category of substance in experience without appreciating Kant's actual metaphysics of substance.

1772-73.[69] If Anderson is correct, this is when Kant first articulates the full understanding of irreducibly synthetic judgements that will be central to the critical project. But it was still quite some time before he developed his full mature theory of synthetic judgement. It is then perhaps not surprising that we find in a passage dated to 1773-75 reflections on what is distinctive of judgements that relate a substance to an accident that rely on thoughts about categorical judgement that have their home in the logic of Leibniz and Wolff. It is, however, a mistake to make so much rest on a view that seems opposed to how Kant's thought will develop.

Part of the reason Longuenesse is driven to this view is that she denies there is the rich metaphysics of substance I have outlined in Section Two above. The core of her denial is that there is no more to Kant's understanding of substance than the logical form of bringing sensible representations under concepts outline above, and thus there simply is no metaphysical dimension of substance beyond this certain role in reflective judgement:

> [T]he concept of substance has no other meaning than that of being the referent of the term *x* to which all concepts of real determinations are attributed in judgement. Outside this relation to accidents, there is no substance, just as outside their relation to substance there are no accidents. Accidents just are the manner in which substance exists, and substance just is what the accidents reveal it to be. (*Kant and the Capacity to Judge*, p. 331)

As I sketched above, I think some understanding of the notion of a *power* and the *bearer of a power* is required for us to apply the categories of substance and accident in experience. This is why Kant claims that it is *activity* that leads us to *substance* through the concept of a *power*, and thus why activity and power are the empirical criterion of substance rather than any temporal condition.[70] Longuenesse thinks that having a genuinely critical approach to Kant requires denying a certain kind of metaphysics is present in the critical philosophy. But as I have argued, this metaphysics is central to understanding the most basic exercise of our cognitive faculties,

[69] See Anderson (2014:195 fw.).
[70] A 204-5/B 249-50.

and some of this metaphysics must be brought in to explain how it is we are able to apply the categories of substance and accident in experience. As such, the metaphysics I outlined in section two above is required to give a full account of the possibility of experience, and so we should hope that it is possible to give a non-dogmatic account of its origins.

4.2 Engstrom's Logical Approach to the Category of Substance

In his recent paper "The Category of Substance" Stephen Engstrom has undertaken the project of showing just how the category of substance is derived from the logical function of judgement, and how the transition is made from the pure category to its schema. Engstrom's starting point is an understanding of critique along lines outlined above: it is a self-cognition of the form of our faculties in such a way that it is meant to explain how any particular material exercise of these faculties (i.e. experience) is possible. First, as a power of knowledge, we are entitled to understand actualizations of our power of cognition as *spontaneous.*[71] As spontaneous activity of a power of knowledge, such activity is guided by an at least implicit understanding that all knowledge must agree with itself. Finally, insofar as we are concerned with the theoretical knowledge of a finite being, we must understand that material exercises of our power of knowledge are dependent on us being affected by things. Our faculty of knowledge, while spontaneous, does not generate its objects, and is dependent on receiving its object from a source outside itself. The representations our faculty of knowledge produces are therefore not objects but concepts – general, mediate representations. As mediate knowledge that cognizes objects

[71] Kant characterizes the understanding as *spontaneous* at e.g. A 51/B 75, although this is a characterization that is famously found throughout the Kantian corpus. I think it is clear that by 'spontaneous' here Kant means a faculty that produces representations through its own activity; Engstrom tends to stress that as self-conscious spontaneous activity, knowledge is therefore self-determining and self-sustaining, which seems to me to capture the spirit of spontaneous knowledge for Kant, even if it goes beyond the thinner notion of spontaneity as activity productive of its own representations that I have relied on in discussing the form of finite cognition.

through concepts, our faculties are discursive. Logic is the formal self-cognition of this discursive activity:

> Logic reflects on the form of this discursive cognitive activity with a view to articulating the understanding's function of securing the unity of knowledge in the face of the diversity of representation that knowledge contains through its dependence for its actualization on affection by the object. (2018: 244)

As such, Engstrom demonstrates a critical approach to logic – it is the self-cognition of our faculties. He further has a critical approach to metaphysics: it is the self-cognition of our faculties insofar as it articulates necessary conditions of the possibility of *material* exercises of our faculties. As an investigation of principles of the possibility of material exercises of our faculties, critical philosophy is "self-conscious cognitive activity…[that] leads directly from logic to an immanent metaphysics."[72] This is not, however, an understanding of critique or Kantian metaphysics simply as "a priori epistemology" as Patricia Kitcher put it. For this self-cognition of our faculties makes possible a formal characterization of the *objects* of our faculties – i.e. *appearances*, objects whose formal characterization is as knowables.

With such a conception of the method of critical metaphysics in mind, Engstrom endeavors to show how this transition from logic to metaphysics is possible by looking at how the fundamental logical function of judgement – the categorical judgement – can lead directly to substance, the fundamental concept of critical metaphysics.[73]

As becomes clear from his presentation, Engstrom thinks the categorical judgement can serve as a model or basis for substance because there is a certain priority of the subject concept to the predicate concept 'built in' to the categorical form of judgement. First, there is the fact that the function of the copula is noncommutative. While it is true that Kant thinks a categorical

[72] Engstrom, (2018: 242).
[73] For the characterization of the logical function of categorical judgements and the category of substance as preeminent see *Mrongovius* 29: 679.

judgement like "all bodies are divisible" can have its subject and predicate concept reversed and be rendered as "all divisibles are bodies", this is only a *valid* inference if we restrict the quantity of the subject term and render it "some divisibles are bodies". However, from the judgement "some divisibles are bodies" we can only infer "some bodies are divisible". We cannot, then, return to our original judgement "all bodies are divisible". This shows that some instances of the categorical judgement at least (those whose quantity is 'universal affirmative') the subject and predicate term are not substitutable *per se*.[74]

The second way in which the categorical judgement can function as a model for the category of substances lies in the 'logical preeminence' Kant affords the subject concept to the predicate concept in such a judgement. While the full details of Engstrom's account need not concern us, I think we can object to Engstrom's account in a similar to our objection to Longuenesse. First, the textual evidence for attributing the 'logical priority' of the subject to the predicate is somewhat thin. Kant does, at times, characterize the subject term as having a 'logical preeminence' to the predicate.[75] However, I think it is clear that, despite using the term 'logical preeminence', Kant is actually describing the priority of the category of substance to its accidents when we *consider the category* 'logically', i.e. as a formal concept independent of its relation to sensibility. Kant's claim is that when we give the most abstract possible characterization of the category of substance, all we can represent is something that has a certain 'logical preeminence' in that it can only be thought of as subject. This is not, of course, the same as Kant's claiming that *in pure general logic* the subject term has a certain 'preeminence' to the predicate. And this is not a merely terminological complaint; as I have stressed repeatedly, from a purely or 'merely' logical perspective *subject* and *predicate* are on a par. To the extent that we

[74] Kant makes this point concerning conversion rules of universal affirmative judgments at *JL* §53. Engstrom's discussion of this point can be found at (2018: 245 fw.).
[75] For example, at A 242-3/B 300-1.

can speak of a 'logical preeminence', this is only *given* that one of the terms is actually being used as a subject; merely considered as concepts they are general representations and thus predicates, and so any preeminence of the subject term must be explained by a logical *use* of the term.

This last point – that in a *genuine act of predication*, there is a logical preeminence afforded the representation *used as a subject* – is correct, even if there is *antecedent to this use* no logical preeminence.[76] Further, the kinds of asymmetry Engstrom points to in this logical *use* really do show how the categorical judgement can model some of the characteristic features of judgements that relate substance and accident. The noncommutative character of the copula shows a kind of logical notion of something that, once thought of as subject, can never be thought of as predicate. As such, we can see how the logical function models the thought that substance *subsists*, i.e. is not predicated of another. And the thought that the categorical judgement can be analyzed into two acts such that the consideration of the subject is a condition of the possibility of the predicate further enriches this thought of subsisting with the thought that the subject term – and so substance – stands in a kind of asymmetric relation to accidents, as the condition of their possibility.

However, I do not think that this account is sufficient on two fronts. First, continuing the criticism developed above, we can make a similar point to the one made against Longuenesse: Engstrom's discussion does not provide resources for an account of why in a *real* categorical judgement one of the concepts is reflected or brought under the category of substance and one under accident. It merely picks out various kinds of priority that the subject term will have *given* a certain use of the understanding. Perhaps this is enough for Engstrom; and, if so, having given an account of that is still a genuine accomplishment. But I agree with Longuenesse that an

[76] This is one point that I think Kant makes in the *R*, 4634, which I discussed in more detail in Chapter Three.

understanding of the category of substance should also go some way to explaining why, in a real exercise of our faculties in experience, the subject term is brought under that of <substance> instead of <accident>.

Second, I do not think this account will go far in assuaging the worries of some of our dogmatists. For someone like McLear, for example, did not think there was any real problem in the thought that the categorical judgement could be a model for the thought that substance *subsists*. Furthermore, the kind of containment relations that result from a (synthetic) categorical judgement already model a certain kind of asymmetry between subject and predicate. The worry was that this is a *merely logical* asymmetry, and the thought that substance *substands*, i.e. is a real subject in which accidents inhere, is the thought of a real metaphysical dependence relation. Metaphysical relations, however, cannot simply be derived from logical relations. For both these reasons, I think a critical metaphysics of substance must be able to offer an account of the metaphysics involved in thinking that substance *substands*. In the following section, I sketch an approach to the relation between the logical functions of judgement and the categories that I avoid some of these problems, which I call the *abstractionist* approach. Then, I indicate how this approach can help us see the way towards a genuinely critical account of Kant's metaphysics of substance.

5. The Abstractionist Model

The above dialectic between those who think Kant has a genuinely critical account of how the categories can be traced back to their origins in our faculties and those who think Kant a dogmatist should help us appreciate just how difficult it is to give a non-dogmatic account of the basic concepts of Kant's metaphysics. But, further, I think it shows that both the critical camp and the dogmatists have a shared conception of what a critical account must *look like*. What they

share is the thought that a critical derivation is wedded to the idea that, once we have a conception of judgement proper to pure general or *merely* formal logic in view, we must thereby *already* have in view – in some sense – everything there is to be found in the category. The only thing they differ over, we might say, is whether in fact we can make sense of the capacity for logical thought as already containing the category, in some 'inchoate' or 'proleptic' sense. McLear, again, has the merit of getting clear on this assumption: he thinks proponents of the critical approach must believe the category of substance is 'analytically contained' in the logical function of judgement – i.e., whatever content there is in the category must already be present in the logical function of judgement.[77]

And, in fact, some commentators who I think it is fair to call critical are obviously wedded to such a view – at least if we replace talk of the 'content' of the category (by which, again, McLear means *subsisting* and *substanding*) with talk of the abilities or capacities our possession of the concept of substance must bring with it. I think it is fair to attribute such a view to Engstrom, in the sense that it is the most straightforward way to understand his idea that our capacity to make a categorical judgement 'models' the concept of substance from which it originates. Henry Allison is also someone who has such a view. Consider the following claim about the sort of abilities presupposed by our capacity to make or form a categorical judgement:

> [I]t seems clear that the exercise of the categorical function requires the concept of a subject of which properties may be either affirmed or denied, and therefore, a capacity to distinguish between a subject and its properties. Correlatively, the subject of a categorical judgment (the object judged about) is always conceived of as a bearer of properties. (Allison, 2004: 148)

Allison's claim here is that once we have in view a capacity for *merely logical* judgement, we thereby already have in view a capacity to distinguish between a property and its bearer. Having

[77] McLear, (2020: 10).

this ability to distinguish between a property and its bearers is, however, just what it is to have the concepts of substance and accident.

There is, of course, something appealing in such a view, in that it thereby becomes very easy to explain how the category of substance could be 'derived' from the logical function of categorical judgement. But as we have seen above, no such capacity to distinguish subject and its properties is presupposed by the categorical judgement. As concepts are essentially suited to function as predicates, Kant states that "in every judgement there are two predicates that we compare with one another"[78], and while one will serve the *role* of the logical subject in a categorical judgement, from a merely logical perspective which representation serves that role is arbitrary.

5.1 Addition or Abstraction?

Given how thin the capacity for judgement is when considered from a merely logical point of view, we should be suspicious of any account that thinks either the capacity to distinguish between an object and its properties is present in the mere capacity to form a categorical judgment, or that the logical function already in some sense 'contains' all the content in the category of substance. Peter Strawson seems to appreciate this point when he claims that Kant must have 'added' something to the logical functions of judgement:

> [T]he categories are derived by adding to the forms of logic the idea of applying those forms in making true judgments about objects of awareness (intuition) in general[.] (Strawson, 1966: 77)

Strawson is absolutely right here in his thought that a merely logical conception of judgement leaves something out. What Strawson gets right is that we *do not* have the capacity to represent something as subject and something as its properties in place merely by being able to combine representations so as to make a categorical judgment. Our capacity to do this just *is* our

[78] *R,* 4634.

possession of the concepts of substance and accident, and this is only in view when we are considering our making true judgments about objects of intuition (i.e. appearances).

There is, however, something misleading in the way Strawson puts this point. For Strawson's point seems to require that the capacity for judgement or logical thought can be in view as a self-standingly intelligible capacity we could be in possession of independently of our capacity for object-directed thought. His insight would then be that having such a capacity does not thereby bring with it any richer abilities to distinguish an object and its properties. But this reverses the claim Kant makes about our capacity for object-directed thought and our capacity for 'merely' logical thought. Kant does not claim that we arrive at the categories by *adding* something to logical thought as a self-standingly intelligible capacity. Rather, we arrive at the forms of judgement and inference by *abstracting from* our ability to make true judgements about objects:

> [G]eneral logic…abstracts from all content of the knowledge of the understanding and from all differences in its objects, and deals with nothing but the mere form of thought. (A 54/B 78)

Kant's claim here that pure general logic studies the *mere* form of thought, and that this 'mere form' is arrived at by abstraction from the 'knowledge of the understanding and from all differences in its object' indicates the kind of parasitic relation such a logic stands in to the form of thought studied in transcendental logic. If the preceding reflections on the categorical form of judgement as studied in such a logic are correct – in particular the sense of arbitrariness in what plays the logical role of subject and what of predicate – then the very thing we call logic (with its concern with truth, the relation between subject and predicate, the way the terms related in a judgement can be further determined when this judgement figures as the premise in a syllogism, etc.) is not intelligible independently of the object-directed thought studied in transcendental

logic. *Merely* formal logic must draw both its understanding of what a true judgement is, and of the various forms of *genuine combination* articulated in the table of categories (of which the category of substance is but one example) from this richer form of thought and judgement which is articulated in transcendental logic.[79] I take it that this is what Kant has in mind when says, in §19 of the B Deduction, that

> I have never been able to satisfy myself with the explanation that the logicians give of a judgment in general: it is, they say, the representation of a relation between two concepts. Without quarreling here about what is mistaken in this explanation, that in any case it fits only **categorical** but not hypothetical and disjunctive judgments...I remark only that it is not here determined wherein this **relation** consists. (B 140-41)

Kant's claim is that logicians (what we might call *merely formal* logicians, who have not appreciated the possibility of a transcendental logic) have failed to give a proper account of the *logical form* of judgement.

This remark is puzzling, because Kant had claimed that the work of the logicians "seems to all appearances to have been finished and completed"[80] by Aristotle, and part of the work of the logicians Kant *helps himself to* is the table of the form of judgements. Kant's claim, then, must not be that they had made a mistake in compiling the 'outward form' of such judgements. Rather, it is that they had misunderstood the *nature* of the form of these judgements, or what accounted for the fact that in the judgements they had compiled, the terms are connected or

[79] This 'abstractionist' view of the relation of thought to the categories is deeply influenced by Jim Conant, although I am not making any claim as to whether he will agree with how I present things here. I am thankful for the opportunity to discuss this view with him over a number of years – in courses, conversation, and in talking though his *Logical Alien* replies in manuscript, where one can find the view articulated in some detail. For much of the time I have known Jim I have resisted the abstractionist view I put forth here precisely because it seemed to deny a sense of genuine priority of the logical functions of judgement to the categories. I became attracted to this abstractionist view in writing this chapter as I came to appreciate just how deep the challenges are that face any standard view on which the categories are *derived from* the logical functions. As such, my presentation of the abstractionist view is not so much driven by a positive desire to tell a story that differs from Engstrom or Longuenesse as the realization that there *must be* some other story, because I do not think their accounts can work.

[80] B viii.

related in the determinate ways they are. Kant offers the following account of how we should understand the relation of terms in a judgement:

> If…I investigate more closely the relation of given cognitions in every judgement…then I find that a judgment is nothing other than the way to bring to given cognitions the **objective** unity of apperception. That is the aim of the copula **is** in them: to distinguish the objective unity of given representations from the subjective…Only in this way does there arise from this relation a judgement, i.e., a relation that is objectively valid, and that is sufficiently distinguished from the relation of these same representations in which there would be only subjective validity, e.g., in accordance with laws of association. (B 141-42)

Kant's claim is that a genuine account of the *logical form* of a judgement is a combination of representations that is *objectively valid.* Objective validity is meant as a point of contrast with an arbitrary or subjective composition of terms – as, for example, two predicates are related in a categorical judgement when considered from the perspective of merely formal or pure general logic. Such a subjective or arbitrary uniting of terms is what Kant elsewhere calls a *composition* of terms; and its contrast is a genuine *connection* or nexus, such as that which holds between substance and accident.[81]

The complaint against the logicians, then, is that the primary or originary sense of judgement – the sense we must grasp in order to understand the logical form of judgement – is that of the objectively valid judgement of experience.[82] It is only with objectively valid judgements of experience in view that we get a relation of two terms out of which 'arise...a judgement'. The logical forms of judgement are then parasitic on objectively valid judgement, for Kant claims here that one can only understand what a judgement is by first understanding the case where terms are combined in a relation that is non-arbitrary. Part of the claim that the

[81] B 201-202.
[82] I am here using the term Kant introduces at *Prol* 4: 297-99 for objectively valid judgement; the contrast case there are judgements of perception.

logical forms are abstracted from the categories is, then, intended to do justice to Kant's account of the logical form of judgement in terms of the objective validity of judgement.[83]

5.2 Abstractionism and the Organic Unity of our Faculties

The abstractionist picture of the relation between the forms of judgement and the categories, and more generally of the relation between pure general and transcendental logic, is one which grants a certain explanatory priority to the empirical use of our faculties in experience. It takes material exercises of our faculties – e.g., the ascription to a substance of an accident – as the characteristic acts of the understanding, and views knowledge of the form of experience and of our faculties in pure general and transcendental logic as posterior to experience in that it involves reflecting on the form of thought at greater degrees of abstraction. It therefore takes seriously Kant's claim that the understanding has a certain teleological and quasi-organic unity; its point of departure is Kant's thought that "[e]verything grounded in the nature of our powers must be purposive."[84] Such an organic conception of the nature of our faculties is introduced by Kant in the Preface to the *Critique*:

> [P]ure speculative reason is, in respect of principles of cognition, a unity entirely separate and subsisting for itself, in which, as in an organized body, every part exists for the sake of all the others as all the others exist for its sake, and no principle can be taken with certainty in one relation unless it has at the same time been investigated in its thoroughgoing relation to the entire use of pure reason. (B xxii)

[83] Though I am not in a position to argue this at length here, I think the abstractionist claim must be compatible with the thought that along some other dimensions, the table of judgements has priority to the table of categories. Certainly it is compatible with one thing I take to be true – that there is a certain heuristic priority, in that the formality of pure general logic (the fact that it abstracts from all relation to the object) allowed for pure general logic to become a science prior to transcendental logic. And, as such, pure general logic is available as a kind of 'blueprint' for transcendental logic, for both are sciences in which we achieve a self-cognition of the form of our cognitive faculties – just at different levels of abstraction. Still, I also think there must be some further, not merely pedagogical or heuristic sense in which the forms of judgement are prior to the categories. That I am entitled to hold the abstractionist view *and* recognize that, along some dimensions, the functions of judgement are genuinely prior to the categories is not something I am yet in a position to defend.

[84] A 642/B 670.

That our faculties have such a functional or organic unity has been an operative assumption in a number of the key claims of this dissertation – and it is a methodological assumption that underwrites nearly all of the core philosophical arguments Kant provides in the *Critique of Pure Reason*. To take but one example that has been central to my project here, we arrive at the claim that concepts are *predicates* by asking ourselves what *functional role* the representations our understanding produces must play in order to further the end of cognizing given representations, and then offer an account of the nature of concepts in terms of that role.

Kant does not merely say that we must approach our faculties as a quasi-organic unity; he states that no principle uncovered in our investigation can be fully understood until we have appreciated "its thoroughgoing relation to the entire use of pure reason".[85] In regard to our current discussion, the lesson we should take from this is that we cannot achieve a full understanding of either the nature of the categorical form of judgement or the category of substance independently of an understanding of how these forms of thought contribute to the end of cognition as a whole.

6. Substance and the Aim of Cognition

The end of our power of knowledge is not the production of discrete bits of knowledge; we are not ultimately in the business of judging *x,* then *y*, then *z*, and so on, where *x*, *y,* and *z* have no real connection to one another. We aim not merely at cognition but at *Wissen*, i.e. at the transformation of cognition into science. Reason is the faculty that makes such an end possible through its organization of cognitions of the understanding in a systematic unity:

> Under the government of reason our cognitions cannot at all constitute a rhapsody but must constitute a system, in which alone they can support and advance reasons essential ends. (A 832/B 860)

[85] B xxii.

Particular cognitions of the understanding support this end by providing judgements that can figure as the major or minor premises in a syllogistic inference. As such, building on Kant's claim that an understanding of the principles of our faculties is had by way of understanding their 'thoroughgoing relation' to the use of our faculties as a whole, this section will indicate how an appreciation of the role that categorical judgements play as material for inference in the categorical syllogism contributes to our understanding *both* of the categorical function of judgement *and* of the category of substance. My discussion here will be schematic – the intention is merely to indicate how an organicist approach to our faculties allows us to appreciate that we must look beyond the understanding to *reason* to get a full account of the ultimate significance of the category of substance

6.1 Syllogistic Inference as a Model for the Substance/Accident Relation

Traditionally, forms of judgement and predication have been distinguished in the service of the theory of the syllogism. While Kant's Table of Judgements are not presented in the *service* of a theory of syllogistic inference or reasoning, the Table is useful towards that end in that we distinguish the basic types of syllogistic inference according to the types of judgements that figure in these inferences as premises. Kant identifies three ways in which terms can be related in a judgment; forms of relation are "a) of the predicate to the subject, b) of the ground to the consequence, and c) between the cognition that is to be divided and all of the members of the division."[86] This allows a distinction between judgements that relate two concepts (categorical judgement), two judgements (hypothetical judgement), and several judgements (disjunctive judgement); on the basis of this distinction in relations of judgement, we arrive at a typology of categorical, hypothetical, and disjunctive syllogism. A full understanding of the categorical form of judgement, then, involves an understanding of the kind of syllogistic inference that categorical

[86] A 73/B 98.

judgements characteristically figure in – part of the purpose of the understanding is that it serve the role of providing material for inference, so on an organicist view of our faculties, an understanding of the categorical form of judgement will involve attending to this further purpose.

As we have seen above, the categorical form of judgement cannot provide a model of substance as *substanding* or as a real ground of accidents. The categorical syllogism, on the other hand, *can* provide such a model: It is in syllogistic inference that we fist come to a logical relation of subject and predicate that can model the relation of substance and accident. This is because, in syllogistic inference, we find subject related to predicate as *condition* to *conditioned*:

> I can draw the proposition "Caius is mortal" from experience merely through the understanding. But I seek a concept containing the condition under which the predicate (the assertion in general) of this judgment is given (i.e., here, the concept "human"), and after I have subsumed [the predicate] under this condition, taken in its whole extension ("all humans are mortal"), I determine the cognition of my object according to it ("Caius is mortal"). (A 321-2/B 378)

Here, we see why the predicate 'mortal' holds of the subject 'Caius' by bringing Caius under the predicate 'human', and understanding the general principle that all humans are mortal. Caius is determined as 'mortal' because of the sort of thing Caius *is*; the predicate here follows or is caused by the subject term because of the subject terms being the sort of thing it is. And this just *is* a model of what it is for an accident to be caused by the principles of a substance: an accident follows from or is caused by the substance being an instance of the kind of thing it is, which is to say that the nature or essence of the substance is the real ground of the actuality of its accidents.

6.2 Power is a Predicable

The organicist approach to our cognitive powers allows us to see that we must look to the role of categorical judgements in syllogism to gain a full understanding of the categorical function of judgement, and thus of the category of substance. Similarly, the organicist model tells us a full understanding of *one* category may not be available in isolation; as such, we may

help ourselves to further a priori concepts of the understanding in spelling out what the content of the category is, and what sort of abilities or capacities are presupposed by our employing a category in experience.

As I have argued above, our application of the categories of *substance* and *accident* in experience is mediated by the concept of a *power* and *its bearer*. The concept <power> is what Kant calls a *predicable*, or derivative a priori concept:

> [T]he categories, as the true primary concepts of the pure understanding, have also their pure derivative concepts. These could not be passed over in a complete system of transcendental philosophy, but in a merely critical essay the simple mention of the fact my suffice….[I] entitle these pure but derivative concepts of the understanding the *predicables* of the pure understanding[.]…If we have the original and primitive concepts, it is easy to add the derivative and subsidiary, and so to give a complete picture of the family tree of the understanding…[t]his can easily be carried out, with the aid of the ontological manuals[.](A 82/B 108)

Kant's claim here is rather straightforward: power is a predicable of the categories of *substance* and *cause*: power is "the causality of a substance". For a non-organicist view, this poses a problem: Kant's account of the substance-accident relation depends on the concept of a *power*, and Kant's account of how we apply the category of substance to experience is through the concept of a power and its bearer, and yet Kant claims that the categorical function of judgement is not the source of the predicament 'power'. So, for such a reader, they either have to deny that the categorical form of judgement is a guide to the category of substance, or deny the centrality of the concept of <power> to Kant's understanding of substance. On the organicist view, however, there is no such problem. The organicist already accepts that a full understanding of the principles of the understanding will involve their relation to all other principles of our faculties.

6.3 Fundamental Power and Essence as Ideas of Reason

We have seen how Kant understands the substance-accident relation in terms of the notion of a power and its bearer, and that the concept of a power is a *predicable* derived from

combining the categories of causality and substance. This notion of the powers of a substance is intimately related to two more fundamental notions of Kant's metaphysics of substance – the idea of a fundamental power, and the idea of the essence of a substance. Below I discuss how these ideas originating in reason's activity of undertaking a regress of the conditioned to its conditions so as to supply *insight* into the nature of things. This shows a strategy of locating fundamental aspects of Kant's metaphysics of substance in the activity of our faculties; and it indicates how a further upshot of the organicist approach to our faculties is that it can account for Kant's conception of substance by looking beyond the mere form of categorical judgement.

As noted in Section Two, Kant claims that upon initially encountering a substance we are liable to ascribe to it as many powers as it has accidents – the thought being that for every determination we cognize, there is a power in the substance that grounds this accident. But such thinking obviously affords us no insight into the substance, nor does it give us any feel for why the substance is a coherent unity and not merely a bundle of accidents. The act of understanding a substance and so having insight into its nature involves the reduction of these powers to more basic ones. In fact, this act of reducing powers to more basic ones is so fundamental to our activity of understanding substance that "[a]ll natural philosophy occupies itself with the reduction of powers to a single basic one[.]"[87]

Kant thinks this project of reducing powers to one another presupposes the *idea* that for each substance there is a fundamental power. By *idea*, Kant means a kind of representation that is the product of reason and goes beyond the limits of possible experience. As the concept of an idea of reason will be important in what follows, I will say a bit both about reason as a faculty and the representations it produces.

[87] *Mrongovius* 29: 772.

Kant generally describes reason as the faculty of connecting the particular and the universal, or in other words as the faculty of inference.[88] Although he does note the existence of inferences from a single premise, which he refers to as 'inferences of the understanding',[89] the sort of inferences proper to reason are all *syllogistic* inferences consisting of a universal rule or principle as the major premise, a minor premise asserting the condition for applying the rule holds, and a conclusion through which the particular is cognized according to the rule.[90] Kant recognizes three basic forms of syllogistic reasoning: categorical, hypothetical, and disjunctive syllogisms. As discussed in Section One, he argues that each form of syllogism gives rise to a corresponding *idea*: the categorical syllogism gives rise to the idea of the thinking subject, the hypothetical gives rise to the idea of the world as a whole, and the disjunctive syllogism to the concept of the highest being.

Kant states that *ideas* are concepts of reason that go beyond the possibility of experience.[91] Although a study of the ways in which reason's ideas give rise to transcendental illusion comprises the bulk of the discussion in the Transcendental Dialectic, Kant states that the ideas of reason have a positive role to play in the unification and systematization of experience and so in the possibility of scientific knowledge as a rational system of cognitions. The most basic way in which ideas serve this function is by positing the unconditioned that would function as the grounding principle through which the conditioned cognitions of the understanding could be known.[92] In addition to these three 'proper ideas' of reason, there are also more specific concepts of the unconditioned that serve a regulative role in the various domains of inquiry that

[88] A 300/B 356.
[89] A 299/B 355.
[90] A 304/B 360-61.
[91] A 311/B 367.
[92] A 330/B 386 fw.

they in some way make possible. For example, Kant argues that the concepts of a biological species, Newtonian absolute space, and a pure chemical element are all ideas of reason.[93]

Returning to the idea of a fundamental power, Kant states this idea is required both as an orienting and thus regulative representation that guides our investigation of substances in the natural sciences, and as a representation that allows us to think substance as a perduring unity in ordinary experience. We require this notion of a fundamental power because *we* cognize substances only through their accidents, and so for us "an object is only a something in general that we think through certain predicates that constitute its concept".[94] As such, we must posit a fundamental power within the substance that can – in the manner of a substantial form – account for the overall unity of the substance, for "the unity of each substance requires that there be only one basic power."[95]

In the chapter of the Transcendental Dialectic concerned with the regulative use of ideas, Kant shows how to give a critical account of the idea of a fundamental power. This critical account traces the idea to the fact that, as knowers, we are interested not merely in the production of specific cognitions, but in the production of systematic knowledge, or *Wissen*:

> [W]hat reason uniquely prescribes and seeks to bring about concerning…[cognition] is the **systematic** in cognition, i.e., its interconnection based on one principle. This unity of reason always presupposes an idea, namely that of the form of a whole of cognition, which precedes the determinate cognition of the parts and contains the condition for determining a priori the place of each part and its relation to others. Accordingly, this idea postulates complete unity of the understandings cognition, through which this cognition comes to be not merely a contingent aggregate but a system interconnected in accordance with necessary laws. (A 645/B 673)

[93] For biological species see A 317/B 374 fw., for Netownian absolute space MAN4: 563, and for chemical elements A 645/B 673 fw.
[94] *R*, 4634.
[95] *Mrongovius* 29: 882.

This logical principles of seeking a systematic unity of cognition generates the idea of a completed systematic unity of all cognition connected according to laws. As this representation is an *idea*, it guides us in bringing particular cognitions into systematic order. But as it is not a constitutive or transcendental principle, it makes no claim as to the character of the object of knowledge. Nevertheless, this logical principle is one that we must assume holds of objects in order to think that objects will actually be amenable to being ordered and organized in a way that would allow us to have systematic knowledge of them. As such, we so to speak 'project' this logical principle concerning the systematic unity of cognition on to objects, taking them to have a fundamental principle within themselves that unites and orders all of their accidents and powers according to laws. This idea of a fundamental principle uniting the accidents and powers of substance is the idea of a fundamental power:

> Among the different kind of unity according to concepts of the understanding belongs the causality of a substance, which is called "power". At first glance the various appearances of one and the same substance show such diversity that one must assume almost as many powers as there are effects…Initially a logical maxim bids us to reduce this apparent variety as far as possible…The idea of a **fundamental power**—though logic does not at all ascertain whether there is such a thing—is at least the problem set by a systematic representation of the manifoldness of powers. The logical principle of reasons demands this unity as far as it is possible to bring it about, and the more appearances of this power and that power are found to be identical, the more probably it comes that they are nothing but various expressions of one and the same power, which can be called (comparatively) their fundamental power. (A 649/B 677)

Although the idea of a fundamental power is only regulative or hypothetical, these transcendental-logical principles of the knowability of objects of experience are converted into principles of such objects: we are easily and naturally led to take them as principles governing the inner possibility of things. However, all we are strictly speaking in a position to say regarding substances is that we must think of them as *if* they are governed by a fundamental power.

Kant here shows how to critically account for the idea of a fundamental power by first considering the logical principle that reason strives for systematicity in cognitions and showing how this generates the idea of a complete science where all cognitions are connected to one another according to laws. As objects of cognition themselves must be organized according to fundamental principles or laws in order to be amenable to such systematic knowledge, we form the idea that in each substance the various powers and accidents we encounter are governed by a single internal principle, i.e., a fundamental power. This is strictly speaking a regulative idea we have of substance that we must presuppose if we are to think substance is ultimately knowable, but in a manner that is quite natural to us and characteristic of reason, this merely hypothetical or regulative representation is taken to be an *objective* principle governing the possibility of the substances we encounter in experience.

This concept of a fundamental power is in a sense the concept of an essence or formal nature – more precisely, I think it is the concept of an essence or formal nature thought under the modal category of actuality. As I discussed in some detail above, Kant distinguishes between power as the ground of the actuality of the accidents of a substance and faculty as the ground of the possibility of these accidents. The distinction between the two is that Kant thinks of powers as irreducibly relational, involving both something intrinsic to the substance and the enabling conditions that allow it to be in act – what he calls the 'determining ground' of the power. Similarly, while a fundamental power is the idea of something that is the ground of all the derivative powers and accidents of a substance, the idea of an *essence* is the idea of the absolutely inner determinations of a thing that are the ground of the possibility of all its powers and accidents: "essence is the first inner **principle** of all that belongs to the possibility of a thing," and similarly "[a] property on which the inner possibility of a thing rests as a condition, is

an essential element thereof."[96] This may seem like just a quasi-scholastic obsession with distinctions, but I think there is something intuitive and significant at work in the distinction between faculty and power. For Kant thinks that we know and name – and thus characterize – powers wholly in terms of their effects; as such, to characterize a thing in terms of its powers is to work so to speak from the outside of the substance in, from that which is 'most knowable to us' to that which is 'most knowable by its nature'. This means that even the idea of a fundamental power is still going to characterize a substance in terms of its most basic effect, albeit one that grounds and explains all the others. This is appropriate for natural science, where we are in the position of characterizing substances as we find them in the world, and we encounter them through the way the affect us. However, the characterization of something purely in terms of its effects is not a kind of knowledge or characterization that will ultimately satisfy reason. As Kant sees it, the supreme principle of reason is as follows

> [T]o find for the conditioned knowledge obtained through the understanding the unconditioned whereby its unity is brought to completion. (A307/B 364)

As such, even were we to obtain cognition of a fundamental power, we could still seek for a characterization of this power that is not in terms of its effects, but rather wholly in terms of the inner marksof a thing that are the *ground* of this power. Such absolutely inner marks or features would be constitute the essence of the thing. To seek to cognize a thing in this way – not in terms of its effects, but wholly in terms of its inner principles, is to seek to know the thing 'in itself', i.e., to know it from the intelligible principle that is the ultimate ground of all its accidents and effects. This would be the desire to know what Kant calls the 'true subject' – the intelligible

[96] *MAN* 4: 468 and 4: 511. This characterization of essence as the principle of the possibility of a thing is one that is also found in Leibniz: "Essence is fundamentally nothing but the possibility of the thing under consideration. Something which is thought possible is expressed by a definition; but if this definition does not at the same time express this possibility then it is merely nominal, since in this case we can wonder whether the definition expresses anything real—that is, possible[.]" (*NE,* 294).

being "which remains after all accidents (as predicates) have been removed – and hence the *Substantiale* itself." As Kant states, however, the desire to cognize a substance as *Substantiale* is the desire to "cognize determinately, like an object that is given, what is only an idea."[97] The thought of substance as substantial and as an essence is therefore just as much an idea of reason as the thought that substances have a fundamental power is.

7. Conclusion

In this chapter I have sought to indicate how a genuinely non-dogmatic account of the rich metaphysics of substance I have attributed to Kant in this dissertation might proceed. I also hope to have shown how Kant's rich metaphysics of substance serves to explain how we in fact employ the category of substance in experience. If I have been successful in this, I will have achieved one of the major aims of this dissertation as set out in the Introduction: to show the deep connection between Kant's immanent metaphysics of experience and his transcendental account of the unknowability of things in themselves. For, as we have seen, in order for us to represent objects of experience *as substance*, and thus in order to predicate properties or accidents of them in experience, we must represent them as *substantial beings*, and therefore as something that has being 'in itself'. We thereby see how empirical cognition of *Substanz* in experience both generates and is guided by our idea of *das Substantiale*.

[97] *Prol.* 4: 333.

Bibliography

Works by Kant:

Citations to Kant's works are to the volume and page number of the *Akademie Ausgabe* (1902—), except in the case of the first *Critique*, where I follow the usual practice of giving pagination as in the first ("A") and second ("B") editions. I use the following abbreviations for other works by Kant:

Dohna=*Metaphysik Dohna*
GMS= *Grundlegung zur Metaphysik der Sitten*
Herder=*Metaphysik Herder*
Hechsel=*Hechsel Logik*
JL=*Jäsche Logik*
KU= *Kritik der Urteilskraft*
L1=*Metaphysik L1*
L2=*Metaphysik L2*
MAN= *Metaphysische Anfangsgründe der Naturwissenschaft*
Mrongovius=*Metaphysik Mrongovius*
MSI= *De mundi sensibilis atque intelligibilis forma et principiis* (Inaugural Dissertation)
NG= *Versuch, den Begriff der negativen Größen in die Weltweisheit einzuführen*
OP=*Opus Postumum*
Prol= *Prolegomena zu einer jeden künftigen Metaphysik*
Pölitz= *Philosophische Religionslehre Vorlesung Pölitz*
R=*Reflexionen*
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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