# OVERCOMING EPISTEMIC COMPOSITIONALISM BY APPRECIATING KANT'S INSIGHT:

## Skepticism, Givenness, and Mind-Independence in the Transcendental Deduction

Many interpretations of Kant's first *Critique* fail to appreciate the revolutionary nature of his account of knowledge and its implications for skepticism, givenness and mind-independence, because they read Kant as holding a *compositional account of knowledge*. I contend that the reason for this is that this account is both naturally appealing in its own right, and fits an influential reading of Kant's Transcendental Deduction. On this reading, the Deduction aims to respond to a skeptical worry which issues from the empiricist version of epistemic compositionalism and which questions *the intelligibility of the claim to knowledge of our judgements*. Against this, I argue that what Kant's Deduction actually aims to address is a radicalization of this epistemic worry, which instead questions *the intelligibility of the objective purport of our judgements*. I contend that the compositional account is unable to respond to this more radical worry, thereby putting it into question both as a reading of Kant, and as an account of knowledge generally. To corroborate this, I provide a reading of the Deduction that overcomes epistemic compositionalism by thinking through its shortcomings in order to arrive at a more adequate successor account: the *hylomorphic account of knowledge,* which, I contend, is able to dissolve both the more radical and the epistemic worry. I suggest that this implies generally that the epistemic worry issuing from the compositional account is not self-contained, but must give way to Kant's more radical worry, which I argue can only be addressed within the underappreciated framework of epistemic hylomorphism.

Kant tells us that a key motivation of his epistemological project is reflection on traditional empiricism. Specifically, on what I call *Hume's Insight*: the insight that, on *empiricist* grounds, we cannot understand ourselves as entitled to certain concepts, such as <substance> and <causation>, which are essential to a conception of something as mind-independent (cf. *Prolegomena*: 257-60; *KrV*: B19/20, B127-8, A764-7/B792-5; *KpV*: 50-2).[1] Kant addresses this insight by abandoning empiricism. Concretely, he aims to show in the Transcendental Deduction that we can understand ourselves as entitled to the concepts that constitute a conception of something as mind-independent on *a priori transcendental* grounds (cf. *Prolegomena*: 260; *KrV*: A85/B117; *KpV*: 52-4).

Although this much is universally acknowledged, interpreters dispute why exactly Kant thinks that Hume's Insight needs addressing and thus what the central concern of Kant's Deduction is. One influential reading of Kant takes Hume's Insight to entail what I call *Hume's Puzzle*: since, on empiricist grounds, we cannot understand ourselves as entitled to a conception of something as

[1] I use angled brackets to indicate a concept of what the term enclosed by the brackets refers to.

mind-independent, how is it intelligible that the judgements we make, on the basis of what our sensory consciousness seems to present us with, are knowledge of a mind-independent reality? Hume's Puzzle is a version of *external world skepticism*. This reading thus takes the central concern of the Deduction to be the refutation of external world skepticism.[2]

In this paper, I move beyond this reading: I show that an interpretation focused on Hume's Puzzle cannot make sense of the Deduction as a whole, and sketch a reading that emerges as a result of thinking through the shortcomings of an interpretation focused on Hume's Puzzle. My argument turns on two related claims: (i) the Deduction's central concern, entailed by Hume's Insight, is not Hume's Puzzle, but what I call *Kant's Puzzle*; and, (ii) this finding is occluded by assuming an account of our knowledge that is both naturally appealing and can seem to be suggested by Kant himself.

Here is a preview of my argument: I argue that Kant deepens Hume's Insight into what I call *Kant's Insight*: the insight that, if, on empiricist grounds, we cannot understand ourselves as entitled to a conception of something as mind-independent, then, on empiricist grounds, we cannot understand our sensory consciousness as even seeming to present us with mind-independent objects. Kant's Insight transforms Hume's Puzzle into Kant's Puzzle: If, on empiricist grounds, we cannot understand our sensory consciousness as even seeming to present us with mind-independent objects, how is it intelligible that, on the basis of what our sensory consciousness seems to present us with, we can make judgements that so much as purport to be of mind-independent reality? Kant's Puzzle is more radical than the skepticism of Hume's Puzzle, because rather than merely questioning the intelligibility of the claim to knowledge of our empirical judgements, it questions the intelligibility

[2] Here are two influential expressions of this reading: "A major part of the role of the Deduction will be to *establish* that experience [i.e. empirical knowledge] necessarily involves knowledge of *objects*, in the weighty sense [i.e. mind-independent objects]" (Strawson 1966: 88). "[T]he transcendental deduction […] is supposed […] to give a complete answer to the skeptic about the existence of things outside us." (Stroud 1968 [2000]: 9/10; cf. 2017: 114/5) For further statements to this effect see e.g. McCann (1985: 71) and Cassam (1987: 361/2).

of the idea that our judgements even seem to present mind-independent objects, i.e. that they have objective purport.[3]

The radical difference between Hume's and Kant's Puzzles raises the following question: Why would interpreters misidentify the central concern of Kant's Deduction? I contend that the reason for this is the assumption of what I call the *empiricist compositional account of knowledge*. This account is both naturally appealing and can seem to be suggested by Kant himself. Its fundamental assumption is that *sensibility is intelligible independently of the understanding*, so that knowledge is the product of two distinct cognitive capacities: sensibility, construed as a self-standingly intelligible capacity to be presented with a mind-independent reality, and the understanding construed as a capacity to make judgements about that reality. Our judgements amount to knowledge because, being grounded in the sensory given, they are reflective of mind-independent reality. The account is 'compositional' because it invokes two separate component elements, at least one of which is independently intelligible of the other.[4] The compositional account occludes Kant's Puzzle by assuming that we can understand sensibility as by itself at least seeming to present us with a mind-independent reality. It thus makes it all but impossible to appreciate Kant's deepening of Hume's Insight, which results in Kant's Puzzle.

By uncovering Kant's Puzzle as the central concern of the Deduction I question the philosophical sustainability of the compositional account both as a reading of Kant and as an

[3] While Hume's Puzzle asks *whether* something that seems to be possible, namely empirical knowledge, can be understood to be *actual*, Kant's Puzzle asks *how* something obviously actual, namely contentful judgement, can be understood to be *possible*. That is, Hume's Puzzle expresses a *doubt* that demands *refutation* by means of a *proof* of the intelligibility of (the actuality of) empirical knowledge, while Kant's Puzzle expresses an *aporia* that demands *dissolution* by means of a *clarification* of the intelligibility of (the possibility of) contentful judgement (cf. *Prolegomena*: 275). For more on this difference in the puzzles see Engstrom (1994: 370-5) and Conant (2012: 31/2).

[4] I qualify the account as 'empiricist' because it claims that sensory operations are self-standingly intelligible, while intellectual acts depend for their intelligibility on sensory operations as what provides them with their subject matter and standard of truth. While there might be compositional accounts that privilege the intelligibility of intellectual acts over that of sensory operations or take each to be intelligible independently of the other, I only consider the empiricist version. In what follows, I drop the qualification 'empiricist', but it should always be taken to be implicit.

account of our knowledge generally. I substantiate my reading of Kant's deepening of Hume's Insight and his overcoming of epistemic compositionalism as follows: I argue that the Deduction, especially as presented in the second edition of the first *Critique* (B-Deduction), includes the attempt to think through the shortcomings of the naturally appealing compositional account in order to arrive at a more adequate successor account, which I call the *hylomorphic account of knowledge*. On this account, knowledge is due to a single capacity to know that has two aspects, each depending for its intelligibility on the other: Sensibility is the *material* aspect, by virtue of which in acts of the capacity to know *determinable* sensory matter is presented, while the understanding is the *formal* aspect, by virtue of which the capacity to know synthetically *determines* that matter. The account is 'hylomorphic' because it invokes a formal and a material aspect, each depending for its intelligibility on the other.

My project is worthwhile because, although some scholars advocate hylomorphic readings of Kant, they do not link this to the systematic and historical relationship between Hume's and Kant's Puzzles, i.e. they do not show how the hylomorphic account emerges as the result of Kant's thinking through the shortcomings of the compositional account. In filling this gap, I show: (i) that Hume's Puzzle, which issues from the compositional account and which exercises much modern and contemporary epistemology, is not self-contained but if properly understood must give way to Kant's Puzzle; and (ii) that Kant's Puzzle can only be addressed within the framework of a hylomorphic account of our mind and knowledge that is largely neglected by contemporary philosophy of mind and epistemology.[5]

[5] For versions of the hylomorphic reading see McDowell (1998); Engstrom (1994; 2006; 2016); Conant (2016); Kern (2006; 2018); Boyle (unpublished manuscript). Engstrom (1994) discusses the Deduction's relation to Hume's Puzzle (which he calls 'Cartesian skepticism') and Hume's Insight (which he calls 'Humean skepticism'). While his interpretation is congenial to mine, he primarily focuses on the aim of the Deduction, rather than on the systematic and historical relationship between the two puzzles in relation to the compositional and hylomorphic accounts of knowledge. Conant (2016) suggests an association of the compositional account with Hume's Puzzle (which he calls 'Cartesian skepticism') and of the hylomorphic account with Kant's Puzzle (which he calls 'Kantian skepticism'), but he does not explain how these two problems are systematically and historically related to each other (cf. Conant 2016:

As a last bit of stage setting, let me briefly comment on the nature of the epistemological project that I take Hume to be engaged in and Kant to respond to, and which thus is my starting point.[6] Doing this clarifies how my project relates to seemingly similar endeavors in contemporary philosophy of mind and epistemology (cf. n.23).[7]

We can distinguish two broad approaches to epistemology, which I call immanent and externalist epistemology, respectively.

Modern epistemologists, including Hume, begin with the thought that (at least) some of the judgements we make, as rational beings, (at least implicitly) purport to us to be knowledge. However, since not every judgement that *purports to be* knowledge *is* knowledge, they ask: What vindicates the status as knowledge of those judgments that are knowledge? *Immanent epistemology* aims to answer this question by giving an account that each of us can apply to ourselves, thereby enabling us to vindicate the status as knowledge of those judgments that are knowledge. Accordingly, one aim of immanent epistemology is to give an account that explains how the sensory given can vindicate some of our judgements as knowledge of a mind-independent reality. Immanent epistemology has to explain this*,* without presupposing any specific knowledge of a mind-independent reality on our part. For, it is its very aim to vindicate our having any such knowledge.[8] Immanent epistemology thus has to address Hume's and Kant's Insights. For, by

83 n.18). For the distinction between the two puzzles as 'Cartesian' and 'Kantian skepticism' see also Conant (2012). I thank an anonymous reviewer for encouraging me to clarify my argument's relation to existing hylomorphic readings.

[6] There might be interpreters of Hume who do not agree with my characterization of Hume's project. However, even if they are right, this does not matter for my endeavor, since it is sufficient that Kant sees Hume as engaged in this kind of epistemological project.

[7] I thank an anonymous reviewer for pushing me to be clearer on this.

[8] Barry Stroud explains this characteristic feature of immanent epistemology as follows: "What we seek in the philosophical theory of knowledge is an account that is completely general in several respects. We want to understand how any knowledge at all is possible – how anything we currently accept amounts to knowledge. Or less ambitiously, we want to understand with complete generality how we come to know anything in a certain specified domain [e.g. the empirical domain]." (Stroud 1989 [2000]: 101) "The demand for completely general understanding of knowledge is a certain domain requires that we see ourselves at the outset as not knowing anything in that domain and then coming to have such knowledge on the basis of some independent and in that sense prior knowledge" (ibid.: 120).

denying that we can understand our senses as by themselves presenting or even seeming to present a mind-independent reality as such, these insights seem to deprive us of the explanatory resources, namely the conception of something as mind-independent, needed to vindicate our judgements as knowledge of a mind-independent reality or as having objective purport.[9]

By contrast, most contemporary epistemology begins with the thought that human beings are just one among the animal species, so that our knowledge is a species of animal knowledge. Animal knowledge in general is the topic of *externalist epistemology*, which is informed by empirical science. Externalist epistemology aims to give an account which can be applied to sentient beings generally, rational or not, to explain how the senses of such beings enable them to have an awareness of a mind-independent reality, which externalist epistemology takes to be knowledge. Externalist epistemology's question how sentient beings are aware of a mind-independent reality presupposes specific knowledge of a mind-independent reality on the part of us as epistemologists, namely (at least) knowledge of sentient beings and the aspects of mind-independent reality that these beings are aware of. The question of externalist epistemology thus assumes that, as epistemologists, we possess the very explanatory resources the intelligibility of our possession of which Hume's and Kant's Insights question, namely a conception of something as mind-independent. Externalist epistemology thus brackets Hume's and Kant's insights. That is, unlike immanent epistemology, externalist epistemology does *not* aim to vindicate our judgements as

[9] I am not identifying Kant's epistemological project with immanent epistemology; instead I am identifying immanent epistemology, as opposed to externalist epistemology, as the kind of epistemological project that Kant responds to. As an anonymous reviewer helpfully pointed out, this is noteworthy because as I describe immanent epistemology, it can seem incompatible with the epistemic hylomorphism that it is the ultimate aim of this paper to attribute to Kant. The reason for the seeming incompatibility is that, as I describe immanent epistemology, it assumes that our judgements' status as knowledge is vindicated by the sensory given and aims to explain the possibility of this. Thus described immanent epistemology is suggestive of epistemic compositionalism, on which an independently intelligible sensory given vindicates our judgements as knowledge (cf. §1). I qualify the incompatibility as 'seeming' because, once we have adopted the prespective of epistemic hylomorphism, we can describe immanent epistemology as I do without it being suggestive of epistemic compositionalism (cf. §8). I thank the reviewer for pushing me to say more about this.

knowledge of a mind-independent reality or as having objective purport *without* presupposing any specific knowledge of a mind-independent reality on our part.[10]

I proceed as follows: First, I motivate immanent epistemology and explain why a compositional account of judgement paired with empiricism is a naturally appealing answer to its demand for a vindication of the claims to knowledge of our judgements (§1). Second, I reconstruct Hume's Insight into the limitations of this account of knowledge and the puzzle, leading to the external world skepticism, that he takes that insight to imply (§2). Third, I outline Kant's account of knowledge and the compositional reading of it (§3). Fourth, I reconstruct Kant's general aim in the Transcendental Deduction, present Quassim Cassam's reading, according to which the Deduction dissolves Hume's Puzzle, as an exemplar of how compositionalist readers interpret the Deduction, and explain how this interpretation is compatible with the Deduction's general aim (§4). Fifth, I highlight two central elements of the Deduction that compositionalist readers, like Cassam, have trouble accommodating: Kant's prevalent appeal to the notion of synthesis (§5.1), and the argument of the second stage of the B-Deduction (§5.2). Sixth, I contend that Kant's Puzzle is the deeper problem that Kant sees as emerging for the compositional account in light of Hume's Insight, and argue that the compositional reading is unable to address this puzzle, thereby putting the

[10] An example of externalist epistemology is Tyler Burge's *Origins of Objectivity*. Reflecting on how his project differs from immanent epistemology, Burge writes: "Empirical reflection on perception forms much of the basis for taking perception to be real and to be an actual objective form of representation. I have *assumed*, contrary to scepticism, the existence of a physical environment. I have taken it as empirically obvious that there are individuals with sensory systems. There is also empirical reason to believe that there is a sensory form of representation that meets conditions for being perception and that represents particulars in the physical environment as having specific physical attributes. A question is whether there is another way, an apriori way, of warranting the objectivity of perception (its representing a mind-independent environment as having specific attributes that are mind-independent). A closely related question—roughly speaking, a version of the question of philosophical scepticism—is whether there is an apriori way of warranting the claim that there is perception in this sense, and that we have it. Answering this latter question affirmatively in a way that confronts scepticism requires showing that the affirmative answer does not beg, against the sceptic, a reasonable question. [...] [A] full account of the *epistemic bases* of the claim that perception is objective and of the claim that we have perception, construed as objective, is extremely complex and difficult. These issues are beyond the scope of this book." (Burge 2010: 536) Burge also notes that Kant responds to immanent, rather than externalist epistemology (cf. Burge 2010: 154-6). I thank an anonymous reviewer for encouraging me to say more about this. For more on why externalist epistemology cannot address the question of immanent epistemology see Stroud (2000: Ch. 8-10).

intelligibility of the compositional account into question (§6). Seventh, I provide a reading of the Deduction that is able to make sense of both the second stage of the B-Deduction (§7.1) and Kant's stress on synthesis (§7.2), by overcoming epistemic compositionalism. Eighth, I contend that my reading implies that, having thus thought through the shortcomings of compositionalism, we are compelled to adopt a hylomorphic account of knowledge, which I outline briefly (§8). I conclude by sketching the distinctive conceptions of givenness and mind-independence and some of the implications for contemporary epistemology and philosophy of mind that are entailed by my reading (§9).

## 1. Immanent epistemology, the compositional account of judgement, and empiricism

Although my aim is to argue that Kant teaches us that epistemic compositionalism must ultimately give way to hylomorphism, I believe that the compositional account is a naturally appealing way to conceive of our knowledge, which we can only overcome by thinking through its shortcomings. We thus need to start by understanding this account and its general appeal, thereby understanding what makes it such a popular reading of Kant.[11] Here, I thus do two things: (i) I reconstruct the motivations for immanent epistemology, i.e. for demanding a vindication of our judgments' claims to knowledge that does not presuppose any specific knowledge on our part; and (ii) I explain why the compositional account of knowledge might seem to be an appealing response to this demand.

Philosophers have traditionally taken human beings to be rational animals.[12] As *animals*, we share certain characteristics with other animals: like them, we nourish and reproduce ourselves, we perceive and move through our environment, and we have feelings and desires. But, as *rational*,

[11] I thank an anonymous reviewer for suggesting this dialectical strategy.

[12] I do not defend this understanding of ourselves, but merely contrast two ways of articulating it. This is in keeping with my focus on Kant's project as a response to immanent epistemology whose subject is rational judgements.

we possess characteristics that set us apart from other animals: unlike them, we are able to judge, i.e. we possess the capacity to judge.

On this traditional understanding of ourselves as rational animals, our basic cognitive act is self-conscious judgement.[13] The rationality of our judgments manifests itself in the fact that our judgements are supported by reasons that we, in so judging, are (at least implicitly) conscious of as such – reasons which we are able to express in language. While a dog might bark because it smells a stranger, it is not, in doing so, conscious of the stranger's scent as indicating the stranger's presence, i.e. as a *reason* for its barking. I, on the other hand, might judge that it is 8 pm because my clock shows 8 pm and I am, in so judging, conscious of this as indicating that it is 8 pm, i.e. as a *reason* for my judgement. This comes out in my ability to respond, if asked why I judge that it is 8 pm, 'because my clock shows 8 pm'.

My judging that something is a certain way thus implies my (at least implicitly) taking a reason-based stance on how things are. That is, my judgement amounts to an (at least implicitly) self-conscious claim to knowledge, because it is based on (at least implicit) consciousness of reasons that purport to guarantee its truth. For instance, if I judge that it is 8 pm, I (at least implicitly) take myself to know that it is 8 pm, say, because I see the clock showing 8 pm, i.e. I can adduce reasons for my judgement that purport to guarantee its truth.[14]

[13] This contrasts with externalist epistemology which takes our basic cognitive act to be sensory awareness.

[14] The traditional conception's claim that our judgements (at least implicitly) purport to be knowledge does not preclude the possibility of false judgement, for it might always turn out that the reasons that we take (at least implicitly) to guarantee our judgements' truth fall short of achieving this. For instance, my clock may, unbeknownst to me, have stopped, so that its showing 8 pm does not guarantee my judgement's truth. The goal of judgement as such is truth or knowledge, so that unsuccessful, i.e. false, judgement is only intelligible by reference to successful, i.e. true, judgement or knowledge. Hence, the traditional conception understands judgement through knowledge, rather than knowledge through judgement, e.g. as the result of judgments that yield justified true belief. This connection between judgement and knowledge is also reflected in our ordinary speech: for example, when we challenge someone's judgement that *p*, by asking: "How do you know that *p*?". It would be awkward for the addressee to respond: "Oh, I don't know that *p*, I merely judge that *p*.", instead, we would expect her to adduce reasons supporting the truth of *p*.

However, the existence of disagreement in judgement might make us question the claims to knowledge of our judgements. For, the fact that I judge and thus take myself to know that *p* and that you judge and thus take yourself to know that it is not the case that *p* seems to undermine the claims to knowledge of our judgements. For, if our judgements were knowledge, they would have to be in agreement. For, as supposed knowledge, they must be answerable to how things are. The existence of disagreement in judgement thus prompts a philosophical investigation into the nature and extent of our capacity to judge as a capacity to know. It raises the question: What vindicates acts of our capacity to judge as knowledge? Disagreement in judgement (especially in philosophy) motivates, for instance, Locke's, Hume's, and Kant's projects of articulating and delimiting our capacity to judge – 'Human Understanding', 'Human Nature', or 'Pure Reason' – as a capacity to know (cf. *Essay*: Epistle to the Reader; *Treatise*: xiv/xv; *KrV*: Axi-xii, Bxv, Bxxxvi-xxxvii). Disagreement in judgement prompts these philosophers to aim to provide a philosophical account of judgement that vindicates acts of our capacity to judge as knowledge.

The first step in giving this kind of account is to understand judgement itself. *Judgement* is a subject's judging that things are a certain way, e.g. that it is 8 pm. As such, judgement is a *contentful act*. The *act* – or what the subject of judgement does – is *judging* that things are a certain way. The *content* – or what her judgement asserts – is that *things are a certain way.*

Judgement is a conceptual *act* effected by the judging subject. This comes out in the fact that we hold the subject responsible for the truth of her judgements, i.e. if the subject judges that things are a certain way, but things turn out to be otherwise, then her judgement is not as it should be (namely true), so that the subject should not have judged as she did.

Judgement asserts a *content* that represents things as being some way independently of the judging subject's act of judging that things are that way. This comes out in the fact that for a

judgement to be truth-evaluable, it must represent things as being some way independently of the act of judgement.

Now, it can seem appealing to account for the capacity to judge by giving a compositional account of it. This account emerges naturally from the following reflections: The *intellect* is our capacity to (actively) judge by means of concepts. However, the intellect does not provide for that in virtue of which those judgements are true, i.e. things being as they are. Instead, we must be given things and the way they are from elsewhere.[15] That is, we need another self-standingly intelligible capacity to provide our judgements with their subject matter and standard of truth. The *senses* are our capacity to be (passively) presented with a mind-independent reality. Thus, it is natural to take our senses to provide our judgements with their subject matter and standard of truth by presenting us with a mind-independent reality. On this picture, our judgements are *empirical judgements*, i.e. acts of judgement whose subject matter and standard of truth are presented by the senses.

I call this account of judgement the *empiricist compositional account of judgement*. It understands our judgements as the product of two distinct cognitive capacities: The senses as a self-standingly intelligible capacity to present us with a mind-independent reality, which we share with other animals, and the intellect as a capacity to make judgements about that reality, which yields judgments and is distinctive of rational animals. That the senses are intelligible independently of the intellect is the *fundamental assumption* of the compositional account.

This account is appealing because it explains both (i) that our judgements have a subject matter and standard of truth independently of the act of judgement: our judgements are given that in virtue of which they are true by operations of the senses, which are intelligible independently of acts of the intellect; and (ii) the manner in which we, as rational animals, are both like and unlike other

[15] The intellect thus described is our human, finite, or receptive intellect, which has traditionally been contrasted with the divine, infinite, or creative intellect. The latter intellect provides for its own subject matter and standard of truth by itself providing for the way things are (cf. *KrV*: B138-9, B145).

animals: like them we have the capacity to be presented with a mind-independent reality, but unlike them we additionally have the capacity to judge about that reality.

The empiricist compositional account of judgement already implies an account of what vindicates our judgements as knowledge, namely empiricism. What I call *empiricism* consists in two related theses: (i) the *epistemic thesis* that our judgements amount to knowledge because they assert that mind-independent reality is the way the senses present it as being; and (ii) the *semantic thesis* that all concepts derive their content exclusively from some instance of sensory affection.

Empiricism is appealing because for our judgements to amount to knowledge they must be reflective of reality, and to guarantee this empiricism derives both all (epistemic) content of judgements and all (semantic) content of the concepts by means of which we judge from the mind-independent reality supposedly presented by our senses by themselves. The compositional account of judgement paired with empiricism thus yields the *empiricist compositional account of knowledge*.[16]

## 2. Hume's Insight and Hume's Puzzle

Having reconstructed and motivated the compositional account of knowledge, I here outline how this account leads to a version of external world skepticism. I do this through a discussion of Hume's Insight into the limitations of this account and the skepticism that he takes that insight to imply. My reason for this approach is that Kant is explicit that it is Hume who raises the problem that motivates his first *Critique*, and an influential interpretation reads Kant, especially in the Transcendental Deduction, as specifically concerned with addressing such skepticism.

As an empiricist, Hume assumes the compositional account of knowledge (cf. *Treatise*: xx/xxi & 4). He explains that our senses yield 'impressions', which are qualitatively differentiated states

[16] For instances of this account see e.g. Evans (1982), Cassam (2007), Burge (2010), Campbell & Cassam (2014), Stroud (2015).

of sensory consciousness that seem to present sensible qualities, which would, were they actually presented, have to be qualities of mind-independent objects (cf. *Treatise*: 84, 192, 366).[17, 18] Hume further recognizes 'sensory ideas' as another kind of sensory 'perception'.[19] He distinguishes impressions from ideas by their 'force and liveliness', claiming that impressions, which he associates with the feeling of present sensory affection, are more forceful and lively than sensory ideas, which he associates with memories of past sensory affection (cf. *Treatise*: 1-3; *Enquiry*: 18).[20] For Hume, every simple sensory idea is preceded and thus caused by a simple sensory impression; ideas represent the sensory qualities that the impressions seem to present by resembling them in all but their force and liveliness (cf. *Treatise*: 3/4, 37; *Enquiry*: 19). Attaching a general term, say 'red', to an idea allows that idea to figure as a 'general idea' or concept, like <red> (cf. *Enquiry*: 17-25).[21]

As an empiricist, Hume holds that for any supposed concept to have content, i.e. to be a concept at all, it must derive its content from impressions:

> When we entertain […], any suspicion that a philosophical term is employed without any meaning [i.e. content] or idea […], we need but enquire, *from what impression is that supposed idea derived*? And if it be impossible to assign any, this will serve to confirm our suspicion. (*Enquiry*: 22)

Hume contends that in order to confirm whether a 'term' expresses a concept, we must first identify the idea connected to that term as its 'meaning' or content, and then identify the impression

[17] That impressions seem to have objective purport is evident from Hume's description of them as "the images of external objects conveyed by our senses" (*Treatise*: 647, cf. 19).

[18] Hume argues that the "ultimate cause" from which impressions arise is "perfectly inexplicable by human reason", i.e. unknowable (*Treatise*: 84; cf. xviii, 7). For the only things we are conscious of are impressions, but the causes of impressions cannot themselves be impressions, so that we cannot be conscious of the causes of impressions (cf. *Treatise*: 67; *Enquiry*: 153).

[19] Hume also distinguishes between *sensory* perceptions and *reflective* perceptions, which result from operations of the senses and acts of the understanding, respectively (cf. *Treatise*: 7/8).

[20] Hume distinguishes between simple impressions and ideas and complex impressions and ideas. Simple and complex impressions and simple ideas are passively received, while complex ideas can be actively constructed by means of imaginative combination of simple ideas (cf. *Enquiry*: 19).

[21] Hume thinks that particular ideas can – through their annexation to general terms – be "general in their representation", i.e. figure as concepts (*Treatise*: 22).

that corresponds to that idea as its cause. This impression then is the source of the content of that idea and thus of the associated term's expressing a concept. Empiricism thus entails that, if there is a term whose supposed content is an idea that lacks any corresponding impression, then there is no concept expressed by that term: it is empty and at best *merely seems* to have content (cf. *Treatise*: 65, 74/5, 648/9).

Hume argues that neither the supposed idea attached to the term 'substance', nor the supposed idea attached to the term 'causation', which both seem to have content, have corresponding sensory impressions. Consequently, he contends that these supposed concepts cannot, on empiricist grounds, be vindicated as having any content, so that the terms 'substance' and 'causation' are empty, i.e. do not express concepts (cf. *Treatise*: 16, 87-92, 219-222).

I restrict my reconstruction to <substance>, but Hume presents a parallel argument for <causation> (cf. *Treatise*: 88-92). He defines <substance> as "*something that may exist by itself*", i.e. something that continues to exist independently of our impressions (*Treatise*: 233). But, in the empiricist conception, sensory consciousness is an intermittent series of momentary impressions that seem to present sensible qualities. Given that, nothing in sensory consciousness could provide content to a supposed idea of something that continues to exist independently of one or a series of those momentary impressions. There is no impression of something continuing to exist independently of these impressions (cf. *Treatise*: 67, 187-9). "We have therefore no idea [and thus no concept] of substance, distinct from a collection of particular [sensible] qualities" (*Treatise*: 16). That is, on empiricist grounds, we cannot vindicate <substance> as contentful. This is *Hume's Insight* regarding <substance>, which applies *mutatis mutandis* to <causation>.

Hume contends that <substance> and <causation> *seem* to have content because the ideas attached to them reflect ingrained mental habits of the association of impressions. That is, they are projections of our imagination on to the objects that our impressions seem to present, thereby

making our impressions seem to present *substances* that stand in *causal relations* (cf. *Treatise*: 165-7, 220, 222, 265-7, 657; *Enquiry*: 75).

<Substance> and <causation> are constituent concepts of the concept of a mind-independent object in general, i.e. of the concept of something that continues to *exist independently* of our impressions and is the *causal ground* of them. Accordingly, Hume notes that we require contentful concepts of substance and causation in order to be able to understand the sensible qualities that our impressions seem to present as the sensible qualities of objects that continue to *exist independently* of our impressions and that are the *causal ground* of them (cf. *Treatise*: 187-199, 211-7). He sees that it is only if we are entitled to attribute content to these concepts that we can understand the impressions constituting our sensory consciousness as actually presenting *mind-independent* objects which can vindicate the claims to knowledge of our empirical judgements.

Hume's Insight thus undermines the claims to knowledge of our empirical judgments about mind-independent objects, leading to a form of external world skepticism (cf. *Treatise*: 187, 218, 657). We know that, on empiricist grounds, the supposed concepts of substance and causation are empty. But, without these concepts, impressions that seem to present sensible qualities of mind-independent objects *merely seem* to present such qualities, thus constituting at best a subjective ground for empirical judgements, which undermines those judgements' intelligibility as knowledge (cf. *Treatise*: 167, 265/6; *Enquiry*: 159). This is *Hume's Puzzle*: Since, on empiricist grounds, we cannot understand ourselves as entitled to a conception of something as mind-independent, how is

it intelligible that the judgements we make on the basis of what our sensory consciousness seems to present us with amount to knowledge of a mind-independent reality?[22, 23]

### 3. Kant's account of knowledge and the compositional reading of it

Before beginning to consider how Kant addresses Hume's Insight and Puzzle in the Transcendental Deduction, it is helpful to first briefly introduce Kant's account of knowledge and the compositional reading of it in general.

Kant introduces his account of knowledge as follows:

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[22] Stroud argues that external world skepticism is the inevitable upshot of any epistemological reflections on empirical knowledge (cf. Stroud 1984a [2000]; 1989 [2000]). He writes: "The difficulty comes in philosophy when we try to see exactly how sense-perception works to give us knowledge of the world. […] [T]he basic idea could be put by saying our knowledge is 'underdetermined' by whatever it is that we get through […] 'the senses' […]. Given the […] sensory 'basis' of our knowledge, it does not follow that something we believe about the world around us is true. The problem is then to explain how we nevertheless know that what we believe about the world is in fact true. Given the apparent 'obstacle', how is our knowledge possible?" (Stroud 1984a [2000]: 6, 8; cf. 1989 [2000]: 105, 120/1). While Stroud's external world skepticism rests on the diagnosis that what the senses present is insufficient to vindicate the intelligibility of our having empirical knowledge, Hume's Puzzle rests on the more specific insight that what the senses present is insufficient to vindicate the intelligibility of our having a conception of something as mind-independent, which in turn is necessary for vindicating the intelligibility of our having empirical knowledge. Hume's more specific insight is crucial to Kant's radicalization of it (cf. §6).

[23] Hume's Puzzle is closely related to a puzzle articulated by Berkeley, which turns on the question: Since the senses merely seems to present mind-independent objects, how is it intelligible that our supposed concepts of mind-independent objects actually are about mind-independent objects, i.e. are objective? (cf. *Principles*: §§3/4) Hume's and Berkeley's Puzzles differ in their topic, but not in the reason for the puzzlement they express: Hume's Puzzle asks about the intelligibility of empirical judgements being knowledge, while Berkeley's Puzzle asks about the intelligibility of our supposed concepts of mind-independent objects being objective. And, the reason for the puzzlement about the intelligibility of each is the same, namely that the sensory given at best constitutes a subjective ground for empirical judgements or concepts of mind-independent objects, thus failing to vindicate them as knowledge or as objective. Hume's and Berkeley's historical puzzles differ from what John Campbell and Quassim Cassam discuss under the heading of 'Berkeley's Puzzle': "[H]ow is it possible for us even to have concepts of mind-independent objects?" (Cassam 2011: 18; cf. Campbell & Cassam 2014). Campbell and Cassam address their question in the context of externalist epistemology. This comes out in the fact that they respond to 'Berkeley's Puzzle' by giving empirically informed accounts of the concept of something as mind-independent that explain how it is possible for whatever our senses provide us with to present mind-independent objects as such. However, as empirically informed, their accounts beg the question against Hume's and Berkeley's Puzzles which question the possibility of any empirical knowledge or concepts of mind-independent objects in the first place (cf. Cassam 2007: 33/4).) Cassam says as much, stating: "The object of the exercise [i.e. epistemology] is simply to explain how perceptual knowledge is possible, *given* that it is possible." (ibid.: 34, cf. 218/9) By contrast, Hume and Berkeley aim to vindicate the claim of our empirical judgements to knowledge and of our concepts to being of mind-independent objects without presupposing any specific empirical knowledge or concepts of mind-independent objects. This leads them to diagnose the impossibility, on empiricist grounds, of giving an account of empirical knowledge or concepts of mind-independent objects that would explain how it is possible for the sensory given to actually present mind-independent objects, i.e. to give an immanent epistemology. Hence, their accounts lead to a skepticism that questions the possibility of any immanent understanding of empirical knowledge or concepts of mind-independent objects at all.

> Our knowledge[24] arises from two fundamental sources in the mind, the first of which is the reception of presentations[25] (the receptivity of impressions), the second the capacity to know an object by means of these presentations (spontaneity of concepts); through the former an object is *given* to us, through the latter it is *thought* […]. Intuition and concepts therefore constitute the elements of all our knowledge, so that neither concepts without intuition corresponding to them in some way nor intuition without concepts can yield knowledge. Both are either pure or empirical. […] Only pure intuitions or concepts alone are possible *a priori*, empirical ones only *a posteriori*. If we will call the receptivity of our mind to receive presentations insofar as it is affected in some way sensibility, then […] the capacity to bring forth presentations itself, or the spontaneity of knowledge, is the understanding. (*KrV*: A50-1/B74-5; my translation & underlining; cf. B1-2, A15/B29, A19/B33)

Compositionalist readers interpret this passage as introducing the following account of knowledge: Sensibility is a self-standingly intelligible capacity for being given presentations of objects, i.e. intuitions; and the understanding is a capacity for thinking those objects through concepts which yields knowledge of them. This reading is compositional because it shares the fundamental compositionalist assumption that sensibility is intelligible independently of the understanding.[26]

In the passage above, Kant mentions 'pure intuitions or concepts' which 'alone are possible a priori', i.e. independently of any specific instance of sensory affection. For Kant, such a priori intuitions and concepts reflect what he calls the a priori forms of sensibility and the understanding.

In the Transcendental Aesthetic Kant analyses sensibility. He explains that the a priori forms of our *sensibility*, as our capacity to be given objects, are space and time. Thus, any intuition of an object, as such, is unified in accordance with these forms of our sensibility.[27] *Pure intuitions* thus

[24] I translate *Erkenntnis* as 'knowledge', rather than the more common 'cognition'. For a defense of this see Engstrom (2006: 21 n.2). I prefer 'knowledge' because it implies that *Erkenntnis* in its basic sense implies truth (cf. n.14).

[25] The German word that I translate as 'presentation' is *Vorstellung*, standardly translated 'representation'. 'Presentation' is, however, etymologically defensible and not implausible as a rendering of the term (cf. Pluhar 1996: 22 n.73). I here prefer 'presentation' because there is a tendency to reserve 'representation' for *Vorstellungen* that involve the understanding, and I want to avoid prejudging whether having a *Vorstellung* involves the understanding.

[26] The compositionalist reading of Kant overlaps with so-called non-conceptualist readings, which claim that intuitions are free from any involvement of the understanding, see e.g. Hanna (2005) and Allais (2015). However, it also underlies some conceptualist interpretations, which claim that the understanding is involved in intuition, see e.g. Gomes (2014; 2017). Lastly, it is the basis of many readings that do not take an explicit or univocal stand on this debate, see e.g. Strawson (1966), Sellars (1968), Beck (1978), Pippin (1982), Falkenstein (1995), and Allison (2004).

[27] For simplicity I gloss over the fact that there are inner intuitions presenting objects, such as subjective states, that are as such unified merely by time (cf. *KrV*: A33/B49-50).

are presentations of objects as spatial or temporal that do not depend on any specific instance of sensory affection, e.g. the intuition of a triangle which is a subject matter of geometry.

In the Transcendental Analytic Kant analyses the understanding. He explains in the Metaphysical Deduction that the a priori forms of the *understanding*, as the capacity to judge, are the a priori forms of judgement. Thus, any judgement, as such, is unified by forms of judgement. These forms, e.g. the form of subject-predicate judgement, which Kant calls 'categorical judgement', are part of the subject matter of general logic (cf. *KrV*: A70/B95; cf. A76/B102, A130-1/B169-70).

Kant contends further that the forms of judgement provide a 'guiding thread (*Leitfaden*)' to the discovery of what he calls 'categories', i.e. *pure concepts of an object in general* (cf. *KrV*: A79-80/B105, B128, B158). The *categories* correspond to the a priori forms of judgement (cf. *KrV*: A79-80/B105, B128, B158; *Prolegomena*: 303). For example, the category of substance corresponds to the form of categorical judgement. Any concept of a specific object, as such, is unified by one or more of the categories. The categories are conceptual presentations of an object in general that do not depend on any specific sensory affection: for instance, the a priori concept of substance, which is part of the subject matter of what Kant calls transcendental logic (cf. *KrV*: A76-77/B102, A130-1/B169-70).

In accordance with the basic assumption of the compositional reading compositionalist readers conceive of space and time as self-standingly intelligible forms of sensibility that are, as such, distinct from the forms of judgements and the categories, as forms of the understanding.

### 4. The general aim of the Transcendental Deduction and its dissolution of Hume's Puzzle

With Kant's account of knowledge and its compositional reading in hand, I here reconstruct Kant's general aim in the Transcendental Deduction, present Cassam's reading of it as my exemplar of

the compositionalist interpretation of the Deduction, and explain how this interpretation is compatible with the Deduction's general aim.

The Metaphysical Deduction claims that concepts, like <substance> and <causation>, which, at least in part, constitute our conception of something as mind-independent, and which according to Hume's Insight cannot be empirically vindicated as contentful, are a priori categories. While this reconceives these concepts as having their origin in the understanding, rather than in the senses, it leaves open whether and how they can be vindicated as contentful (cf. *KrV*: A66/B91, A94-5/B127-8). The Transcendental Deduction is concerned with this further task.[28]

Kant argues that for any concept, including the categories, to have content, sensibility has to be able to present something to which that concept applies (cf. *KrV*: A51/B75). Hence, he does not argue that the categories derive their content exclusively from the understanding.[29] Instead, he contends that if we can show a priori that the categories are contentful, i.e. that they are applicable to what sensibility presents, then we will have vindicated them as a priori concepts of an object in general that originate in the understanding (cf. *KrV*: A76-7/B102, B148-9, A155-6/B194-5, A220/B267, B288/9, A239/B298).

In the Deduction Kant's goal is to explain how it is possible for the categories, which originate independently of any specific operations of sensibility, to be applicable to the sensory given (cf. *KrV*: A85/B117). He aims to show that while, in line with Hume's Insight, the conception of something as mind-independent cannot be understood as contentful on *empiricist* grounds, i.e. by appeal to particular contents that the senses by themselves supposedly present, it can be so understood on *a priori transcendental* grounds, i.e. by appeal to the a priori conditions for the

[28] I thank an anonymous reviewer for pushing me to say more about the relationship between the Metaphysical and the Transcendental Deductions.

[29] Hume considers the possibility that <substance> and <causation> might be derived *exclusively* from reason, but concludes that this is impossible (cf. *Treatise*: 92, 157). Kant agrees with this assessment, which he regards as part of Hume's Insight (cf. *KrV*: A94-5/B127-8; *Prolegomena*: 257-9, 310).

possibility that the senses can present any content at all. He argues that a priori reflection on sensory presentation, i.e. intuition *in general*, via reflection on the mere *form* of intuition, shows that the categories are applicable to objects presented by intuition in general, thereby vindicating the categories as contentful and addressing Hume's Insight (cf. *KrV*: A79/B104-5, A92-5/B124-9, A146/B185, A766/B794; *Prolegomena*: 308/9). Kant contends that the contentfulness of the categories is guaranteed by the fact that the forms of intuition conform to the categories, as the concepts of an object in general.

But, if it is the goal of the Deduction to address Hume's Insight, how can compositionalist readers interpret it as centrally concerned with Hume's Puzzle? The rest of this section answers this question, sketching how compositionalist readers interpret the Deduction as a dissolution of Hume's Puzzle and explaining how this is compatible with understanding the Deduction as addressing Hume's Insight.

Hume's Puzzle questions the possibility of understanding our empirical judgments about mind-independent objects as knowledge, on the basis that we cannot vindicate the idea that our sensory consciousness actually presents mind-independent objects. Compositionalist readers argue that the Deduction includes an anti-skeptical *transcendental argument*, which aims to dissolve Hume's Puzzle by showing that sensory consciousness must present mind-independent objects, thus undermining the basis for the external world skepticism expressed by the puzzle. [30] For a representative exemplar of this interpretation, we can look at Cassam's "Transcendental Arguments, Transcendental Synthesis and Transcendental Idealism" (cf. Cassam 1987: 361/2).[31]

[30] For other readings of the Deduction along these lines see e.g. Wolff (1963), Bennett (1966), Strawson (1966), McCann (1985) and Stroud (2017).

[31] Cassam explains that a *transcendental argument* aims to show that a claim *p* about how things are with reality, which is put into question by a skeptic, is a condition for the possibility – 'satisfaction condition' – for another claim *q* about how things are with our minds – 'conceptual condition' – which the skeptic must accept (cf. Cassam 1987: 357/8). It thus aims to convince the skeptic of *p*, which she doubts, by showing her that *q*, which she accepts, is only possible if *p* is actual.

Cassam contends that the Deduction starts by articulating a conceptual truth that even Hume would accept, namely that for there to be what at least seem to be empirical judgements about mind-independent objects, the elements of sensory consciousness – i.e. impressions for Hume and empirical intuitions for Kant – must belong to a unified sensory consciousness that can serve as the basis for such judgements (cf. ibid: 359/60).[32] According to Cassam, Kant argues in a second step that for such a unified sensory consciousness to be so much as possible, sensory consciousness must display unity of a kind that is possible only if it presents mind-independent objects (cf. ibid.: 360-1). Consequently, empirical intuition must present mind-independent objects on pain of making it impossible for there to be what at least seem to be empirical judgements about mind-independent objects.[33]

While on this interpretation the argument of the Deduction purports to show that sensory consciousness must present mind-independent objects, thereby enabling us to dissolve Hume's Puzzle, it does not obviously conform with the general aim of the Deduction, namely to explain how it is possible that the categories are applicable to objects presented by intuition, thus vindicating them as contentful. However, we can bring out how Cassam's reconstruction of the Deduction can satisfy this desideratum as follows:

For Kant, the categories, which include <substance> and <causation>, are concepts of a mind-independent object in general. Therefore, the forms of judgements that at least seem to be about

[32] Hume should accept this conceptual condition, for while he denies that we can vindicate there being a single subject of our unified sensory consciousness, he does not deny that we enjoy a unified sensory consciousness (cf. *Treatise*: 635/6).

[33] Cassam notes that one might wonder, with Stroud (1968 [2000]), if it would not be enough for our sensory consciousness to *merely seem* to present mind-independent objects (i.e. for *us to believe that the senses present* mind-independent objects), as Hume admits, rather than to *actually* present mind-independent object (i.e. for *the senses to present* mind-independent objects), as the argument claims (cf. Cassam 1987: 356/7). However, as both Cassam and Stroud point out, given Kant's 'transcendental idealism', on which *how we present the objects of our senses as being* is *how the objects of our senses are*, there is no distance between these two claims (cf. Stroud 1984b [2000]: 88-90; Cassam 1987: 362/3, 2007: 211). Accordingly, they further note that both options of the choice between (a) the failure of the anti-skeptical ambition of the argument of the Deduction, and (b) 'transcendental idealism', fall short of the promise of a genuine refutation of external world skepticism (cf. Cassam 1987: 368/9; Stroud 2017: 119).

mind-independent objects must correspond to the categories. Accordingly, Kant argues as follows: In the first step he contends that, for it to be possible that there are such *empirical* judgements at all, what sensibility presents must be able to be the object of those judgements. In the second step, he argues further that for what sensibility presents to be able to be the object of judgements, it must conform to the forms of judgement. It does so by exemplifying the categories, as the concepts of a mind-independent object which correspond to the forms of judgement. For, if what sensibility presents did not exemplify the categories, then it could not be the object of judgement, because it would not conform to the forms of judgement. Hence, for it to be possible that there are what at least seem to be empirical judgements about mind-independent objects at all the forms of intuition must conform to the categories (cf. *KrV*: B143). Thus understood, Cassam's reading addresses the general aim of Kant's Deduction: it presents a transcendental argument that addresses Hume's Insight by establishing that the categories must be applicable to objects presented by intuition, on pain of making it impossible for there to even be what at least seem to be empirical judgements about mind-independent objects.

In the context of explaining the motivations of his epistemological project, Kant asserts in the second *Critique* that: "*Hume's* empiricism with regard to principles inevitably leads to skepticism" (*KpV*: 52, my translation). This diagnosis might suggest the reading I have outlined: To address 'skepticism' or Hume's Puzzle we need to abandon 'empiricism': specifically, its semantic thesis that all our concepts derive their content exclusively from some specific instance of sensory affection, in favor of the thought that concepts such as <substance> and <causation> can be vindicated as contentful independently of any specific instance of sensory affection. This reading both addresses Hume's Insight by entitling us to the conception of something as mind-independent, and dissolves Hume's Puzzle by enabling us to explain how it is possible that our empirical judgements about mind-independent objects amount to knowledge.

In what follows, I argue that while this reading does make sense of elements of the Deduction, it fails to accommodate important other aspects (cf. §5). I contend furthermore that the reason for this is its disregard of Kant's Puzzle, which is due to its assumption of the compositional account of knowledge (cf. §§6 & 7).

## 5. The compositional reading's failure to make sense of the Transcendental Deduction as a whole

Compositionalist readers like Cassam tend to discount central elements of the Deduction as misguided, because they do not fit their reading. Here, I present two such elements: (i) the notion of synthesis, and (ii) the argument of the second stage of the B-Deduction. This brings Kant's account of knowledge and the compositional reading of it into further relief and questions the ability of the compositional reading to make sense of the Deduction as a whole.

### *5.1 The notion of synthesis and the compositional reading*

Synthesis pervades Kant's argument in both editions of the first *Critique*. He explains *synthesis* as "the action of putting different presentations together with each other and comprehending their manifoldness in one cognition." (*KrV*: A77/B103; cf. B159). As such, synthesis is the characteristic act of 'the understanding in general', as the capacity to judge (*Vermögen zu urteilen*), i.e. the capacity for discursive 'knowledge through concepts' (*KrV*: A68/B93; cf. A50-1/B74-5, A77-8/B102-3). Kant explains that concepts rest on *functions*, which he takes to be "the unity of the action of ordering different presentations under a common one", i.e. concepts express functions which manifest themselves in acts of synthesis (*KrV*: A68/B93). As such, concepts are principles for acts of synthesis.

In §10, Kant states:

> The same function that gives unity to the different presentations *in a judgment* also gives unity to the mere synthesis of different presentations *in an intuition*, which, expressed generally, is called the pure concept of understanding. The same understanding, therefore, and indeed by means of the very same actions through which it brings the logical form of a judgment into concepts […], also brings a transcendental content into its

> presentations […], on account of which they are called pure concepts of the understanding that pertain to objects *a priori* (*KrV*: A79/104-5, my underscoring; cf. B130).

Kant here distinguishes two species of synthesis: 'Judgement' and 'intuition'. *Judgement* unifies a manifold of conceptual presentations in a judgement. The synthetic 'function of the understanding' manifests itself, in such acts of *judgmental synthesis*, as the forms of judgement. *Intuition* unifies a manifold of sensory presentations in an intuition of an object. The 'same function of the understanding' that manifests itself in judgemental synthesis manifests itself in *sensible synthesis* and can be expressed in terms of the categories (cf. *KrV*: A69/B94, B130, B143, A245).

This commonality of function is reflected by the isomorphism between the table of judgements and the table of categories (cf. *KrV*: A70/B95, A80/B106). These tables, which Kant introduces in the Metaphysical Deduction, express the manifestation of 'the same function' of the understanding in judgement and intuition respectively. For instance, the function of the understanding that enables the distinction of subject and properties can equally manifest itself in judgmental and in intuitional synthesis (cf. *KrV*: B128/9). In judgmental synthesis it manifests itself in accordance with the *categorical form of judgement*, which expresses the affirmation or denial of properties of a subject, in accordance with the principle that 'the subject is never the property of anything else within *this* judgement'. In sensible synthesis it manifests itself in accordance with the *category of substance*, which expresses the unification of sensory presentations into an intuition of an object that must always be conceived as the bearer of properties, in accordance with the principle that 'the subject is never the property of anything else within *any* judgement'.

In the Transcendental Deduction Kant aims to vindicate this commonality of the forms of synthesis that unify judgments and intuitions. He aims to accomplish this by showing that the *same function* of the understanding underlies both the forms of intuition, i.e. space and time, and the concepts of an object in general, i.e. the categories, which correspond to the forms of judgement (cf. *KrV*: A128, B159/60).

While compositionalist readers are, of course, aware of the omnipresence of synthesis in the Deductions of both editions of the first *Critique*, they are suspicious of this feature of Kant's account, and they argue that we should exorcise it from a convincing Kantian account of knowledge. Cassam, for instance, provides the following two reasons for exorcising the notion of synthesis: (i) synthesis does not contribute anything to dissolving Hume's Puzzle, and (ii) synthesis actually interferes with dissolving Hume's Puzzle (cf. Cassam 1987: 365-72, 2007: 136/7, 142-4).[34]

To demonstrate the superfluity of synthesis, Cassam asks: "What ensures that the sensible given is susceptible to synthesis?" (Cassam 2007: 143) For Cassam, this question presents a dilemma because to respond to it, he argues, Kant either (a) has to posit a further kind of 'proto-synthesis' that synthesizes sensory presentations into empirical intuitions that present a 'sensible given' and that are susceptible to judgemental synthesis; or (b) he has to accept that empirical intuitions present a 'characterless given' and receive their original character or form in the judgemental synthesis that yields empirical knowledge of mind-independent objects (cf. Cassam 1987: 371/2, 2007: 143). However, Cassam argues that it is unattractive to posit a further kind of synthesis, since this would raise the question in virtue of what mere sensory presentations are susceptible to 'proto-synthesis', and thus start us on a regress of syntheses. As for the other horn of the dilemma, Cassam contends that the notion of empirical intuition as presenting a 'characterless given' is incoherent, because a 'characterless given' would be nothing. For to be anything is to be some determinate way, i.e. to have some character or determination. However, the sensible given is supposed to *be* the mind-independent object that is supposedly presented in our empirical intuition and known in our

[34] The *locus classicus* of this suspicion is Strawson (1966), who aims to provide a reading of the first *Critique* that exorcises synthesis. Strawson's motivation is the following: If synthesis were a mental act of an empirical subject, then we could have empirical knowledge of it, but, for Kant, synthesis is the very condition of any empirical knowledge, so that it cannot itself be known empirically. Strawson concludes that synthesis is the mental act, not of an empirical subject, but of a mythical transcendental subject that is the object of the imaginary subject of transcendental psychology, which should be excluded from an account of what we can learn from Kant (cf. Strawson 1966: 32 & 97). See also McCann (1985: 71/2).

empirical knowledge. Cassam concludes that the alleged susceptibility of the 'sensible given' to synthesis at best constitutes a 'brute fact' or 'unargued assumption' on Kant's part, which contributes nothing to the dissolution of Hume's Puzzle (Cassam 2007: 143; 1987: 370).[35]

The second reason for Cassam's dismissal of synthesis is that synthesis is a mental act. He argues that, if the presentation or knowing of the 'sensible given' involved mental acts of synthesis, this would taint the mind-independent character of the presented or known 'sensible given', leading to idealism, on which the 'sensible given' is *mind-dependent*. This would render the account unable to dissolve Hume's Puzzle (cf. Cassam 1987: 362-72; 2007: 143, 218/9). On this idealism, the 'sensible given' would (at least in part) be a product of acts of synthesis by our minds. Thus, what we can understand our empirical intuitions to present or our empirical judgements to know would (at least in part) reflect our minds' involvement in the constitution of what we have presented to us or know, so that the 'sensible given' could at best be appearances to us, but not the things themselves.[36] Given these supposed complications, Cassam concludes that his 'synthesis-free' compositional reading provides a compelling account of empirical knowledge that remains Kantian at least in spirit (Cassam 2007: 146; cf. 144).

*5.2 The argument of the second stage of the B-Deduction and the compositional reading*

The second central element of the Deduction that compositionalist readers tend to discount is the second stage of the B-Deduction. It is generally accepted that the B-Deduction has two stages:[37] The first stage stretches from §15 to §20, the second from §22 to §26, with §21 serving as an intermediate review of what has been accomplished and a preview of what is yet to come.

[35] For a similar objection to Kant's invocation of synthesis see Van Cleve (1999: 86) and Allais (2015: 171/2).

[36] For readings that share this concern see e.g. Van Cleve (1999: 89, 104) and Stroud (2017: 119).

[37] The *locus classicus* of this reading is Henrich (1969).

Kant concludes the first stage by stating, in the title of §20: "All sensible intuitions stand under the categories, as conditions under which alone their manifold can come together in one consciousness." (*KrV*: B143) This accords with the conclusion of the transcendental argument that compositionalist readers find in the Deduction, namely that the categories must be applicable to objects presented by intuition, on pain of otherwise rendering it unintelligible that there could be what at least seem to be empirical judgements about mind-independent objects.

However, in the body of §20 Kant provides the following gloss on his conclusion:

> [A]ll manifold, in so far as it is given in *one* empirical intuition [*in* Einer *empirischen Anschauung*], is *determined* in regard to one of the logical functions of judgment, by means of which, namely, it is brought to a consciousness in general. But now the *categories* are nothing other than these very functions for judging […]. Thus the manifold in a given intuition also necessarily stands under the categories. (*KrV*: B143)

Kant here ungrammatically capitalizes the indefinite article '*Einer*' (which in German is the same word as the adjective 'one'), presumably to highlight the 'oneness' or unity (*Einheit*) of the empirical intuition (in English most naturally expressed by emphasizing the indefinite article '*an*'), as opposed to the empirical intuition being one rather than, say, two. He thus aims to emphasize that the conditions at issue, i.e. the categories, are conditions on anything's partaking in the *unity* of *an* empirical intuition. His claim is that the manifold of an empirical intuition is unified by the functions of the understanding that can be expressed in the categories, so that the intuition can present an object.[38]

This claim conflicts with the compositional reading, on which empirical intuitions constitute a supposedly self-standingly intelligible sensory component of empirical knowledge, which once the understanding subsumes it under the categories is transformed into empirical knowledge . Cassam captures this apparent conflict in the following dilemma: (a) Either Kant claims that empirical intuition essentially involves the categories, denying that empirical intuitions are what is given by

[38] This insight is due to Henrich (1969: 645). For an interpretation that questions it see Guyer (2010: 143).

the senses alone; or (b) he claims that what is given by the senses alone are empirical intuitions, denying that empirical intuition essentially involves the categories (cf. Cassam 1987: 373/4). The former option contradicts the compositional reading, while the latter goes against §20. Cassam maintains compositionalism, claiming that the B-deduction is 'quite unpersuasive' (ibid.: 373).

However, some compositionalist readers have proposed an interpretation that can bring their reading into seeming conformity with §20. According to this interpretation, we must distinguish two kinds of empirical intuition, which Kant fails to clearly separate:[39] (a) There are *thin empirical intuitions*, which present what is given by the senses alone, unified only by spatio-temporal form, not by the categories, i.e. what Cassam calls 'empirical intuition'. These thin empirical intuitions present mind-independent objects, which, as such, do not yet constitute possible objects of judgement (and knowledge); Kant first introduces them in the Transcendental Aesthetic (cf. *KrV*: A20/B34). And (b) there are *thick empirical intuitions*, which present what is given by the senses as objects of judgement, unified by both spatio-temporal form and the categories, i.e. what §20 describes as 'empirical intuition'. These thick empirical intuitions present mind-independent objects, which, as such, constitute objects of judgement (and knowledge); Kant introduces them in the B-Deduction. Distinguishing thick and thin empirical intuitions would allow the compositional reading to dissolve Cassam's dilemma. For it enables proponents of the reading to argue that when Kant claims that involvement of the categories is essential to empirical intuition, he is introducing thick empirical intuitions as a further kind of empirical intuition, thus leaving thin empirical intuitions, as the sensory component of the compositional reading, untouched.

[39] For versions of this interpretative strategy see e.g. Sellars (1968: Ch. 1), Beck (1978: 41-3), Guyer (1992: 131), Allison (2004: 81/2), Allais (2015: Ch. 7 & 11), and Vinci (2015: Ch. 6 & 7).

As evidence that Kant countenances thin empirical intuitions, compositionalist readers might cite Kant's seeming acknowledgement, in §13, that there could be empirical intuitions that do not conform to, and thus do not essentially involve, the categories (cf. *KrV*: A90-1/B122-3).

While this interpretation can bring the compositional reading into conformity with §20 and thus with the first stage of the B-Deduction, it cannot save the second stage, especially the pivotal §26. There Kant aims to show that any intuition exemplifies the categories by arguing that the principles of unity of intuition are not intelligible independently of the principles of unity expressed by the categories (cf. *KrV*: 159-161). Against this, Cassam claims on behalf of the compositional reading:

> Kant's main argument on this score must be deemed an abject failure. The most that the argument shows is the involvement of the concepts of space and time in the synthesis of apprehension [i.e. thin empirical intuition], but it is evidently a mistake to identify these concepts with the categories. (Cassam 1987: 374)

For Cassam, Kant's argument in §26 fails because, while it is undisputable that intuitions present objects in space and time, it is a mistake to try 'to identify these concepts with the categories'. For, the concepts of space and time are obviously different from the concepts of an object in general. However, even if we could make sense of some relation between these disparate concepts, any argument to that effect would contradict the compositional reading. For, space and time are the forms of unity of our sensibility, while the categories are expressions of the forms of unity of the understanding. And since, according to the compositional reading, our sensibility is a self-standingly intelligible cognitive capacity, the intelligibility of its form cannot depend on an understanding of categorial form, because, as the form of sensibility, it must be intelligible independently of the form of the understanding.

As a consequence of the incompatibility of the second stage with the compositional reading, some compositionalist readers, like Cassam, argue that an interpretation of the Deduction should primarily be based on the first edition Deduction (A-Deduction), supplemented by the first stage of the B-Deduction (cf. Cassam 1987: 362, 374). Such readers might support their dismissal of the

second stage of the B-Deduction with the following consideration: The title of §20 tells us that the first stage has shown that *all* sensible intuitions stand under the categories, while Kant's concern in §26 is with 'the way in which the empirical intuition is given in sensibility', i.e. with sensible intuition as it is given to us humans as spatio-temporally unified (*KrV*: B144). This might suggest that §§15–20 show that the categories are applicable to any object presented by sensible intuition, while §§22–26 demonstrate that they are applicable specifically to the objects presented by our human sensible intuition. But, this makes the second stage redundant. For, if the categories apply to any object presented by sensible intuition, then they apply to any object presented by of our human sensible intuitions, for anything that is true of the genus is true of the species.[40]

For compositionalist readers like Cassam, it is in the A-Deduction and the first stage of the B-Deduction that Kant aims to dissolve Hume's Puzzle, by arguing transcendentally that (thin) empirical intuition must present mind-independent objects that fall under categories, in order for what at least seem to be empirical judgements about mind-independent objects to be so much as possible. Thus, Cassam, for example, contends that the A-Deduction and the first stage of the B-Deduction aim to explain a priori *that* (thin) empirical intuitions must be such that they are able to present mind-independent objects that fall under the categories, thus dissolving Hume's Puzzle. [41] However, the second stage of the B-Deduction aims to explain a priori '*why* or *how*' (thin) empirical intuitions are able to present mind-independent objects that fall under the categories (ibid.: 372). This, however, Cassam thinks, is not a legitimate philosophical question, but must instead be answered through empirical investigation (cf. Cassam 1987: 370-2; 2007: 70 & 143).

[40] For an outline of this interpretation see Allison (2004: 160-2). Paul Guyer, who adopts this reading, comments: "[I]t is deeply problematic *whether* Kant should ever have suggested that there are two stages to the deduction." (Guyer 1992: 160 n.32, cf. 154)

[41] Cassam (2007) gives up even this limited anti-skeptical role of the Deduction, arguing, with Ameriks (1978 [2003]), that the Deduction's regressive transcendental argument shows that, assuming that empirical knowledge of mind-independent objects is possible, the categories must apply to the objects presented by intuitions (cf. Cassam 2007: Ch. 4).

Overall, compositionalist readers of Kant credit the Deduction with a promising anti-skeptical transcendental argument, but discount as misguided both synthesis and the second stage of the B-Deduction. In the remainder of this paper, I argue that the compositional reading fails to make sense of these central elements of Kant's Deduction because its compositionalist assumption blinds it to Kant's Puzzle (cf. §6). Furthermore, I contend that we can make sense of these elements if we take Kant's Puzzle seriously, by thinking our way through the shortcomings of the compositional account to an adequate successor account of knowledge (cf. §§ 7 & 8).[42]

## 6. Kant's Insight and Kant's Puzzle

To see why the compositional reading fails to make sense of the Deduction as a whole, we need to return to Hume: specifically, to Hume's Insight as the motivation for Kant's Deduction. Here, I outline Kant's deepening of Hume's Insight into Kant's Insight, which entails Kant's Puzzle, thus developing a deeper understanding of how Hume's Insight motivates Kant's epistemological project. I show both (i) that, since Kant is concerned with Kant's Puzzle, it is not his primary goal to dissolve Hume's Puzzle by means of an anti-skeptical transcendental argument; and (ii) that, as Kant's Insight undermines the intelligibility of the compositional account of knowledge, we cannot read Kant compositionally. In doing this, I do not reconstruct what Kant explicitly writes, but instead explicate the kind of understanding of the compositional account in general, and Hume in particular, that constitutes the implicit background of Kant's epistemological project.

Hume takes impressions to be states of sensory consciousness that (at least) seem to present mind-independent objects. Kant sees that this understanding of impressions implies an understanding of the concepts of substance and causation, which, at least in part, constitute the concept of a mind-independent object. For, to be able to understand states of sensory consciousness

[42] There is a debate about whether transcendental arguments are ultimately able to live up to their anti-skeptical promise (cf. e.g. the papers in Stern 1999; n.33). My aim is not to contribute to this debate, but to show that its outcome is irrelevant to the success or failure of Kant's Deduction.

as even seeming to present mind-independent objects we must possess a concept of something that continues to *exist independently* of our sensory consciousness and is the *causal ground* of the states that constitute that consciousness. However, it is Hume's Insight that, on empiricist grounds, it is impossible to vindicate <substance> and <causation>. Kant thus sees that empiricism cannot entitle us to conceive of impressions as even seeming to present mind-independent objects. For, (a) understanding impressions to seem to present such objects requires entitlement to <substance> and <causation>, and (b) empiricism is unable to entitle us to these concepts. Thus, impressions can at best be understood as mere sensations, i.e. as states of sensory consciousness which do not so much as purport to provide any awareness of anything other than themselves as modifications of sensory consciousness (cf. *KrV*: B44, B207-8, A253/B309, A320/B376-7).[43] This is *Kant's Insight*.[44]

Kant's Insight implies that, on empiricist grounds, it is impossible to account for not only our ability to know mind-independent objects – as Hume's Puzzle acknowledges – but, more disturbingly, our ability to even seem to be presented with mind-independent objects in our sensory consciousness. Put differently, it is not only unintelligible how our judgements about mind-independent objects can be vindicated as true, which would be a condition for vindicating them as knowledge, but more radically how our sensory consciousness can even seem to present us with

[43] I thank an anonymous reviewer for pushing me to further clarify this point.

[44] Hume himself misses this radical implication of his own insight, because he assumes that impressions seem to present sensible qualities, i.e. he helps himself to the concept of quality, without seeing that his own insights regarding the emptiness of <substance> also undermine his entitlement to <quality>. For <substance> and <quality> are mutually dependent concepts, i.e. we cannot understand, and thus be entitled to, one without the other: To be a substance is to be a bearer of qualities, and to be a quality is to be a property of a substance (cf. *KrV*: A186/B229-30, A414/B441). Hume assumes that complex impressions seem to present collections of sensible qualities. For Hume, we are not in a position to know that these qualities themselves do not exist independently of being presented by the senses. For they are things of a kind that would be qualities of substances if there were any substances, and we do not know that there are not any substances. Hence, our inability to vindicate the supposed concept of substance leaves untouched, Hume thinks, a supposed ability to be presented with items that we would be in a position to attribute to substances as their qualities, if we were entitled to the concept of substance. Therefore, Hume thinks, falsely according to Kant, that we can understand our supposed concepts of mind-independent objects in terms of collections of sensible qualities, *even though* we cannot vindicate the concept of substance; i.e. while our supposed concepts of mind-independent objects cannot be understood as being of mind-independent objects, they still can be understood as concepts of what seem to be mind-independent objects, but actually merely are collections of sensible qualities (cf. *Treatise*: 16).

mind-independent objects that are a potential measure for evaluating their truth, i.e. how our sensory consciousness can have objective purport. Kant's deepening of Hume's Insight into Kant's Insight undermines the intelligibility of epistemic compositionalism, which assumes that sensibility by itself provides sensory consciousness that at least seems to present mind-independent objects. It does this as follows: On empiricist grounds, operations of sensibility by themselves cannot be understood to vindicate the objective validity of <substance> and <causation> (Hume's Insight). Yet, these concepts are required to vindicate the idea that operations of sensibility can have objective purport (Kant's Insight). Hence, on empiricist grounds, it is unintelligible that operations of sensibility by themselves can have any objective purport.

The untenability of the compositional account of knowledge saddles Kant with the task of developing a successor account, which addresses both Hume's Insight and his own. We know that, on empiricist grounds, our supposed conception of something as mind-independent is empty (Hume's Insight), and Kant sees that this entails that, on empiricist grounds, sensory consciousness has no objective purport (Kant's Insight). But without sensory consciousness having any objective purport, it cannot be the basis for judgements that have objective purport. Kant's Insight thus undermines the claims of our empirical judgements to be about mind-independent objects, leading us to question the intelligibility of their objective purport. This is *Kant's Puzzle*: If, on empiricist grounds, we cannot understand our sensory consciousness as even seeming to present anything, how is it intelligible that, on the basis of what our sensory consciousness seems to present us with, we can make judgements that so much as purport to be of mind-independent reality?[45]

Kant's Puzzle suggests the following more radical strategy of the Deduction: To address Kant's Puzzle we need to abandon empiricism, but this means *not only* abandoning the semantic thesis that the categories derive their content exclusively from some specific instance of sensory affection,

[45] I thank an anonymous reviewer for encouraging me to say more about Kant's Puzzle.

as compositionalist readers claim, but *more radically* abandoning the presupposition that the senses by themselves provide sensory consciousness of a mind-independent reality, i.e. abandoning the compositional account of knowledge associated with empiricism. If Kant's actual concern is Kant's Puzzle, then it is not his primary goal to respond to Hume's Puzzle, and if Kant's Insight undermines the intelligibility of compositionalism, then we cannot read Kant compositionally.

The Transcendental Deduction is Kant's response to Hume and an articulation of the foundations of his epistemology. Therefore, the Deduction should both address Kant's Puzzle and suggest an adequate successor to the compositional account of knowledge. In the next section, I show that those elements of the Deduction that compositionalist readers tend to discount are aspects of an argument precisely to this effect.

## 7. Making sense of the Transcendental Deduction as a whole

Here, I provide a reading of the Deduction that can accommodate the elements that compositionalist readers discount, by overcoming the compositional account of knowledge (cf. §5). I develop my reading in two steps: First, I argue that part of the aim of the second stage of the B-Deduction is to think through the shortcomings of the compositional account in order to arrive at a more adequate successor account that overcomes epistemic compositionalism, dissolves Kant's Puzzle, and indirectly dissolves Hume's Puzzle. Second, I contend that once the compositional reading has been overcome, its objections to the notion of synthesis dissolve. This explains how synthesis can be central to Kant's successor epistemology.

### *7.1. The argument of the second stage of the B-Deduction as a dissolution of Kant's Puzzle*

Kant clearly thinks that both stages of the B-Deduction are necessary for it to accomplish its task. Having concluded the first stage, he writes, in §21: "in the above proposition [i.e. §20], therefore, the beginning of a *deduction* of the pure concepts of the understanding has been made" (*KrV*: B144).

The first stage is merely 'the beginning' because the B-Deduction can be read as exhibiting the following argumentative structure: Its first stage, amongst other things, invites a certain kind of objection, to which it and the A-Deduction are vulnerable on a compositional reading. And its second stage then aims to show that to preempt this objection we need to overcome epistemic compositionalism.[46]

On the compositional reading, the Deduction is vulnerable to what I call the *impositionist objection*. According to that reading sensibility is intelligible independently of the understanding. This implies that sensory presentations of objects, as what operations of sensibility by themselves provide, can be understood independently of acts of the understanding. Consequently, the categories come to appear to be forms that the mind imposes on the objects presented by our senses, in order to render them objects of judgement, but which as such have nothing to do with how the objects presented by our senses are themselves. Kant would thus not have shown that for it to be possible that there are empirical judgements at all *the categories must apply to what sensibility presents*, but merely that *we must impose the categories on what sensibility presents*. For what sensibility presents can be understood independently of acts of the understanding, so that it itself could be entirely different from how we judge it to be in our judgements whose form corresponds to the categories. This however would contradict Kant's aim, namely to show that the categories are contentful, which requires that they are applicable to the sensory given itself. For, on this picture, rather than *being applicable to* objects of our senses themselves, which would reflect the mind-independence of those objects, the categories would merely be *imposed on* such objects, thus subjectively reshaping those objects as objects of judgement, which, as such, would be reflective

[46] My reading of the Deduction along these lines is indebted to McDowell (2009; 2017) and Conant (2016). See also Kern (2018: 231/2, 235-8). Rather than being an exhaustive account of the Deduction's argument, this reading focuses on the strand of it that aims to overcome epistemic compositionalism.

of acts of our mind, rather than of the sensory given. The categories would at best appear to be contentful, i.e. they would fall within the scope of Hume's Insight.[47]

§27 – which states the result of the Deduction – provides evidence that any reading that is open to this objection cannot be what Kant is arguing for. He there points out that, if the result of the Deduction is vulnerable to the impositionist objection, that "is precisely what the skeptic wishes most, for then all our insight through the supposed objective validity of our judgements is nothing but sheer illusion" (*KrV*: B168). This shows that Kant himself realizes the threat this objection poses. Now, the source of the impositionist objection is the compositional account of knowledge. Hence, it cannot be right to read Kant both as being alive to this objection, and as holding on to the compositional account.[48] Instead, §27 suggests that it is Kant's aim to preempt the impositionist objection by proposing an adequate successor to the compositional account of knowledge.

The second stage of the B-Deduction includes the preemption of the impositionist objection. For, it establishes that the categories, as expressions of the forms of the understanding, apply to any object presented by intuition whatsoever, because the forms of intuition, space and time are not forms of unity that are intelligible independently of the forms of the understanding. The second stage thus overcomes the compositional reading's assumption that space and time are principles of unity that are intelligible independently of the categories, and thus overcomes its fundamental compositionalist assumption that sensibility is intelligible independently of the understanding.

The first stage of the B-Deduction is concerned with the relation of the understanding to a manifold of sensory presentations, abstracting from the particular form of those presentations. It shows *that* the categories must be applicable to the objects presented by any intuition that is to

[47] As we saw, this kind of objection is sometimes raised against Kant as a reason for questioning whether the Deduction achieves the dissolution of Hume's Puzzle that it seemed to promise (cf. §5.1; Strawson 1966: 96; Cassam 1987: 370; Van Cleve 1999: 89, 104; Stroud 1968 [2000]: 25, 2017: 119).

[48] Robert Pippin acknowledges that the impositionist objection goes against Kant's aims and links it explicitly to the compositional reading. However, he sees no way around reading Kant compositionally (cf. Pippin 1982: 227/8).

provide the content of our judgement. The second stage lifts the first stage's abstraction, to investigate how *our* forms of intuition relate to the forms of judgement. It shows *how* and *why* the categories do apply to objects presented by intuitions, thus explaining the contentfulness of the categories. The second stage thus reconsiders our forms of intuition, which were described in the Aesthetic, in light of what we learned in the first stage – that for intuitions to present mind-independent objects for judgement they must exhibit a unity that conforms to the categories – with the aim of preempting the impositionist objection by overcoming the fundamental assumption of compositionalism.

Contrary to the interpretation offered to compositionalist readers above, the second stage is thus not concerned with *the applicability of the categories to the objects presented by our human sensible intuition*, but with *the way in which our human sensible intuition presents objects*, i.e. with the forms of human sensible intuition, space and time, themselves (cf. §5.2; *KrV*: B144/5). Accordingly, while the first stage considers the categories as *intellectual conditions* on the presentation of objects, the second stage considers the *sensible conditions* under which such objects are presented to us for judgement.[49]

Kant says as much in §21:

> [I]n […] [this first stage], since the categories arise *independently from sensibility* merely in the understanding, I must abstract from the way in which the manifold for an empirical intuition is given, in order to attend only to the unity that is added to the intuition through the understanding by means of the category. In the sequel [i.e. the second stage] (§26) it will be shown from the way in which the empirical intuition is given in sensibility [i.e. spatio-temporally] that its unity can be none other than the one the category prescribes to the manifold of a given intuition in general […]; thus by the explanation of its [i.e. the category's] a priori validity in regard to all objects of our senses the aim of the deduction will first be fully attained. (*KrV*: B144-5, my underscoring; cf. A79/B104-5, B159)

[49] For a reading to this effect see Longuenesse (1998: 213). It might be objected that this reading seems to be contradicted by the title of §24: "On the application of the categories to objects of the senses in general." However, Kant's topic in §24 is the relation between (a) the sensible synthesis of the imagination as the function by means of which our sensibility presents mind-independent objects; and (b) the categorial synthesis of the understanding as the function by means of which such sensibly presented objects are objects of judgement. (I return to this below.)

Here, Kant states that in the second stage, he aims to show that intuition and judgement share the same principle of unity; or, what comes to the same, that the categories, which correspond to the forms of judgement, are applicable to any object presented by intuition (cf. *KrV*: A112, B138, B159, A158/B197).

The reason that Kant claims that to 'attain our aim' – to show that the categories are contentful – we need to show that the categories are applicable to 'all objects of our senses', i.e. to any object presented by intuition, is the following: The categories are contentful only if they are applicable to the objects presented by intuition. However, if the categories were not applicable to 'all objects of our senses', i.e. to any object presented by intuition, this would imply that (at least) some of those objects exhibit principles of unity that other than the categories. Consequently, rather than applying to the objects themselves that intuitions present, i.e. being reflective of mind-independent reality as such, the categories would be mere subjective impositions on those objects.

The anti-impositionist argument of the B-Deduction's second stage includes a dissolution of Kant's Puzzle. For it explains *how* and *why* the categories apply to the objects themselves that intuitions present: namely, because these objects can only be given to us in intuitions that are unified by functions of the understanding that can be expressed in terms of the categories, so that our sensory consciousness without this unity provided by functions of the understanding would be unable to present us with mind-independent objects. But if sensory consciousness did not present mind-independent objects, that would raise Kant's Puzzle.[50]

Kant aims to dissolve Kant's Puzzle by showing that the same original principle of unity underlies both space and time, as forms of intuition, and the categories, as concepts of an object in

[50] It might be objected that, since, in §13, Kant himself seemingly raises the possibility of there being (thin) empirical intuitions that do not involve the categories, he cannot be concerned with Kant's Puzzle (cf. *KrV*: A90-1/B122-3, B162). However, in §13 Kant raises this possibility in the grammatical mood of *Konjunktiv II*, which is usually used to express imagined situations that are impossible. Hence, rather than raising a genuine possibility, Kant seems to describe a merely seeming possibility, which the B-Deduction's second stage is supposed to unmask as no genuine possibility at all. For more on this see Conant (2016: 101-6).

general; or equivalently, that the categories are applicable to all objects presented by our senses because the same functions of the understanding that the categories express also unify intuitions (cf. *KrV*: B159/60). He thus seeks to establish simultaneously and reciprocally: (i) that the categories have content, i.e. apply to any object presented by intuition, because the categories are an expression of the same function that is manifest in the spatio-temporal unification of intuitions themselves (thereby responding to Hume's Insight), and (ii) that intuitions have objective purport, i.e. present objects, because their principles of unification manifest the same function of the understanding that the categories express as the concepts of an object in general (thereby addressing Kant's Insight and dissolving Kant's Puzzle) (cf. *KrV*: A112, B138, A158/B197).

The B-Deduction establishes this – as the last quoted passage promises – in §26. Kant writes:

> Space and time are presented *a priori* not merely as *forms* of sensible intuition, but also as *intuitions* themselves (which contain a manifold [of their own]), and thus with the determination of the *unity* of this manifold in them (see the Transcendental Aesthetic).[n] Thus […] a *combination* with which everything that is to be presented as determined in space or time must agree, is already given *a priori*, along with (not in) these intuitions. (*KrV*: B160/1, my underscoring; cf. B121/2, B134-5)

Kant reminds us that we can construct pure intuitions – like the intuition of a triangle – in space and time, but that such pure intuitions presuppose not only space and time as forms of intuition but also our ability to intuit space and time in general as that which we delimit in each such act of construction in intuition (cf. KrV: A223/B271, A240/B299, A713/B741). These intuitions of space and time in general – we can call them *original intuitions* because they underlie any intuition – are 'combinations', i.e. they presuppose an act of synthesis. For instance, for the original intuition of space to present all possible spatial locations as parts of one space, the capacity for 'combination' or synthesis – for unifying in apprehension the parts of a whole as one – must be in act. The original intuitions are combinations of the a priori given manifold characteristic of pure intuitions, combined in accordance with a principle of unity that enables us to apprehend this manifold as a priori determinations of space and time in general, i.e. as possible spatial locations and temporal

moments (cf. *KrV*: B40, B136n., B160-1n.). Kant notes that the relevant principle of unity is '*not* given a priori *in*' the original intuitions, but that it is 'given a priori *along with*' these intuitions (cf. *KrV*: B129-30). That is, rather than being given as the content of the original intuitions, the relevant principle of unity informs the act of synthesis that is presupposed by the unity of those intuitions (cf. *KrV*: A22-5/B37-40).

About this principle of unity Kant remarks in the second sentence of the footnote appended to the first sentence of the quoted passage:

> In the Aesthetic I ascribed this unity merely to sensibility, only in order to note that it precedes all concepts, though to be sure it presupposes a synthesis, which does not belong to the senses but through which all concepts of space and time first become possible. (*KrV*: B160-1n., my underscoring)

Kant here tells us that the principle of unity that informs the acts of synthesis presupposed by the original intuitions of space and time in general is a function of the understanding, rather than of sensibility. This is so because synthesis is the characteristic act of the understanding, which is the sole source of unity (cf. *KrV*: A68-9/B93-4, B129-30, B134n., B134-5, B159). Consequently, just as the categories, as concepts of an object in general, are expressions of the function of the understanding, so space and time, as the forms of an intuition of an object in general, are intelligible only in an act of that same function of the understanding.

Kant distinguishes these two manifestations of the same function as (a) the *sensible synthesis of the imagination*, which unifies a possible sensory manifold into a non-conceptual intuition of a mind-independent object in conformity with space and time; and (b) the *categorial synthesis of the understanding*, which unifies the same manifold into a conceptually reflected intuition of a mind-independent object in conformity with the categories as concepts of an object in general (cf. *KrV*: A77-9/B103-4, B151-2). Furthermore, he states that the function that manifests itself in the synthesis of imagination has its origin in the understanding, explaining that the imagination is "a function of the understanding" (*KrV*: marginal addition at B103) and "an effect of the

understanding on sensibility" (*KrV*: B152). Operations of sensibility that provide intuitions do so because they essentially involve an act of the understanding that unifies their sensory manifold into a non-conceptual, yet conceptualizable, intuition. So, while space and time and the categories are distinct principles of unity, both principles are manifestations of the same original function of the understanding (cf. B134n.).[51, 52]

By showing that the same original function of unity underlies both space and time, as forms of intuition, and the categories, as the concepts of an object in general, Kant shows simultaneously: (i) that the categories are applicable to all objects presented by intuitions, and thus have content, because they are an expression of the same function of unity that is manifest in the spatio-temporal unification of intuitions, thus responding to Hume's Insight; and (ii) that intuitions have objective purport because they manifest the same function of unity that is expressed in the categories as concepts of an object in general, thus responding to Kant's insight and dissolving Kant's Puzzle.

Accordingly, contrary to the compositional reading, the Deduction does not aim to establish that (thin) empirical intuitions are able to present mind-independent objects that fall under the categories, in order to vindicate (thin) empirical intuitions as a self-standingly intelligible component of empirical knowledge that can explain the claim of our empirical judgements to knowledge and dissolve Hume's Puzzle (cf. §4). Nevertheless, the Deduction still indirectly implies a dissolution of Hume's Puzzle. For, it explains how it is possible to understand our

[51] I cannot here provide a sustained reconstruction and evaluation of the argument of the second stage of the B-Deduction, doing so would require a sustained examination of Kant's treatment of synthesis and its species. For important work on this see Longuenesse (1998) and Kitcher (2011).

[52] On my reading intuitions are not unified by the categories, i.e. intuitions do not have conceptual form. For, while any principle of unity has its source in the understanding, not every such principle is conceptually reflected, as the categories are. Intuition is non-conceptual, but since the principle governing its synthesis is a manifestation of the same original function of the understanding which the categories are conceptual expression of, the categories are applicable to objects presented by intuition, and thus can be used to conceptualize them (cf. *KrV*: B121/2). For similar points see e.g. Land (2011) and Conant (2017: 113-7).

empirical judgements as knowledge: namely by understanding that such judgements manifest the same function of unity as empirical intuitions that present-mind-independent objects.

Overcoming epistemic compositionalism dissolves the objection that compositionalist readers make against the second stage of the B-Deduction. They claim that Kant errs when he attempts to represent space and time and the categories as manifestations of the same original principle of unity (cf. §5.2). This reflects their assumption that space and time are intelligible independently of the categories, based on their fundamental assumption that sensibility is intelligible independently of the understanding. However, as we saw, it is exactly this fundamental assumption that the second stage of the B-Deduction attempts to overcome.

### *7.2 The role of synthesis in the Transcendental Deduction*

Overcoming the compositional reading's fundamental assumption enables us to account for the centrality of synthesis.

The compositional reading is confronted with the alleged dilemma that either (a) the susceptibility of the 'sensible given' to synthesis leads to a regress of different kinds of syntheses, or (b) the 'sensible given' is a 'characterless given' (cf. §5.1). However, this is a problem only in light of the assumption that intuition is self-standingly intelligible, i.e. must have its very own character or principle of unity, intelligible independently of the principle of unity of judgements. However, it is this very assumption that my reading of the Deduction denies. Instead, on my reading a synthesis informed by the same *original function of unity* underlies both the unification of sensory consciousness of a mind-independent object in accordance with the *forms of intuition* and the unification of a judgement about that object in accordance with the forms of judgement. Consequently, rather than a regress of different kinds of syntheses, there is only one original function of unity informing any synthetic act of the understanding. Furthermore, as for the second horn of the dilemma, we saw that Kant agrees that a *mere* 'sensible given', i.e. what is given by the

senses by themselves, would indeed be characterless, i.e. nothing at all. This, after all, is Kant's Insight which animates Kant's Puzzle.

Similarly for the alleged dilemma regarding whether or not empirical intuitions involve the categories, which leads proponents of the compositional reading to distinguish two kinds of empirical intuition: (a) *thin empirical intuitions* that do not involve the categories, which are introduced in the Aesthetic, and (b) *thick empirical intuitions* that involve the categories, which are introduced in the Deduction. While the Aesthetic provides a preliminary understanding of intuition, intuition comes into proper view only in the Deduction, where space and time, as the forms of intuition, are shown not to be intelligible independently of the original function of the understanding, which can also be expressed in the categories.

The fundamental compositionalist assumption that (thin) empirical intuition constitutes a self-standingly intelligible sensory component of empirical knowledge is what leads compositionalist readers to focus on Hume's Puzzle to the exclusion of Kant's Puzzle, and what enables them to dismiss the notion of synthesis that is crucial to tackling Kant's Puzzle as superfluous. However, as we saw, from the standpoint of Kant's Puzzle, the compositional reading is not an intelligible account of knowledge at all. For from that perspective the problem is that there is *no* mere 'sensible given', i.e. no thin empirical intuition that presents mind-independent objects that could contribute to vindicating our judgements about mind-independent objects as knowledge. Consequently, the question is not how synthesis can have a bearing on the 'sensible given', but instead how there can so much as be a 'sensible given', i.e. how empirical intuition that has any objective purport at all is so much as possible. It is this more radical question, animating Kant's Puzzle, that Kant aims to address in the Deduction by exploiting different species of synthesis informed by the same original function of unity. Consequently, synthesis is not a mere 'brute', and unconvincing, 'fact' posited as a non-essential element in a transcendental argument responding to Hume's Puzzle. On the

contrary, it is the heart of Kant's account of the original unity of the forms of judgement and intuition, which aims to simultaneously provide a response to Hume's and Kant's Insights in order to dissolve Kant's Puzzle.

### 8. The hylomorphic account of knowledge implied by the Transcendental Deduction

The above reading entails the following two features of Kant's successor account to epistemic compositionalism: (i) Kant explains how it is intelligible that the categories are contentful in terms of their applicability to what is presented in possible operations of sensibility, thus responding to Hume's Insight, which questions how it is intelligible that our conception of something as mind-independent has any content. (ii) He explains how it is intelligible that intuitions have objective purport in terms of the essential involvement of acts of the understanding in their constitution, thus responding to Kant's Insight, which questions how it is intelligible that our intuitions have objective purport. Kant's account thus explains (i) the contentfulness of acts of the understanding, by recourse to the objective purport of operations of sensibility, and (ii) the objective purport of operations of sensibility, by recourse to contentful acts of the understanding.

However, despite this mutual dependence between operations of sensibility and acts of the understanding for their intelligibility, the account must respect the distinction between sensibility and understanding, which Kant often and prominently asserts. That is, Kant's account has to be able to affirm a distinction between sensibility and understanding, while denying that either capacity is intelligible independently of the other.

Kant manages to accommodate these seemingly opposed requirements on his account by giving a *hylomorphic account of knowledge*. That is: "Kant characterizes the distinction between understanding and sensibility as one between form and matter." (Engstrom 2006: 21) Even a cursory reading of the first *Critique* reveals the concepts of *form* and *matter* as central to how Kant frames and executes his entire critical project. He even states that the intention of his philosophy

is best captured by calling it "formal idealism", to emphasize the aspect of it that distinguishes it from "material idealism", which "doubts or denies the existence of external things" (*KrV*: B519 n.; *Prolegomena*: 375; cf. §9).

Kant explains that the concepts of 'matter' and 'form' respectively signify 'the determinable in general' and 'its determination' (*KrV*: A266/B322). That is, to be matter is to be able to be determined by some form, and to be form is to be able to determine some matter. As such, the matter and form of something essentially depend on each other for their intelligibility: to be the matter of something is to be that in it that is determined by form, and to be the form of something is to be the determination of its matter. The matter and form of something constitute a *hylomorphic unity* that grounds the intelligibility of its matter and the intelligibility of its form: that is, an *original* unity, whose elements are abstractable *aspects* of that unity, which depend for their intelligibility on that unity and thus on each other. For instance, for something to be understood as the matter of an organism, i.e. as organs, is for it to be understood to be determined as such by the form of that organism, i.e. by a specific form of living being, and for something to be understood as the form of an organism is for it to be understood as determining the matter of that organism as its organs.[53]

[53] Kant's understanding thus contrasts with the understanding of <matter> and <form> that underlies compositional readings. Such readings assume that the concepts of matter and form respectively signify 'material' and 'structure', where these two terms signify notions that are each independently intelligible, apart from the compound that their joint combination yields (cf. Cassam 2007: 123/4; Campbell & Cassam 2014: 174/5; Falkenstein 1995). On this conception, to be matter is to be material that is able to exhibit different structures, and to be form is to be structure that is able to structure different materials. As such, the matter and form of a specific thing merely accidentally depend on each other for their intelligibility: for something to be the matter of something is for it to be a quantity of a specific material that, while in this instance it happens to be structured by this structure, can also exhibit different structures, and for something to be the structure of something is for it to be a specific structure that, while in this instance it happens to structure this material, can also structure different materials. The matter and the form of something thus constitute a *compositional unity* as the *product* of material and structure. That is, a *cumulative* unity, whose elements are *components* of that unity, which can be understood independently of that unity and thus of each other. For instance, for something to be understood as the matter of a specific kind of molecule, i.e. as specific kinds of atoms, is for it to be understood as a particular kind of material that, while in this instance it happens to be structured by this type of atomic bond, can also exhibit a different structure, i.e. be structured by a different type of atomic bond, and for something to be understood as the form of a specific kind of molecule, i.e. as a type of atomic bond, is for it to be understood as a structure that, while in this instance it happens to structure these kinds of atoms, can also structure different kinds of materials, i.e. different kinds of atoms.

The difference between the compositional and the hylomorphic account thus is the following: On the compositional account operations of sensibility and understanding are distinct elements in a cognitive process that are conceptually *separable* from one another, with one sort of intellectual form (or 'structure'), i.e. concepts, being imposed on an independently available sensory matter (or 'material'), i.e. empirical intuitions. By contrast, for Kant the relevant concepts of matter and form presuppose one another, so that neither operation is intelligible apart from the other, and each is only *abstractable* from their original unity in knowing. Accordingly, the Deduction is an a priori articulation of intuition and knowledge as original unities of given sensory matter and synthetic intellectual form, in which space and time and the categories are revealed to be distinct abstractable manifestations of one and the same original principle of unity, rather than distinct separable principles of unity.

Accordingly, rather than being two distinct separable cognitive capacities that contribute two distinct components to our knowledge each of which has a distinct form, sensibility and understanding are two abstractable aspects of a single capacity to know. That is, sensibility and understanding stand to each other as matter and form: sensibility is the *material* aspect of our capacity to know, by virtue of which it is a capacity to *receive* objects; and the understanding is the *formal* aspect of our capacity to know, by virtue of which it is a capacity to *think* those objects. The Deduction thus is an a priori 'critique' that overcomes epistemic compositionalism by articulating the mutually dependent given sensory matter and synthetic intellectual form of intuition and knowledge as acts of our originally unified capacity to know (*KrV*: Bxxxvi).

This is consistent with Kant's statement in the Transcendental Aesthetic, as the analysis of our sensibility, that we "separate off everything that the understanding thinks through its concepts" (*KrV*: A22/B36). For, that we have to 'separate off' the understanding from sensibility suggests that sensibility is not as such separate from the understanding, i.e. that it is not an independently

intelligible cognitive capacity (cf. *KrV*: B160-1n.). Instead, it suggests that sensibility and understanding are aspects of a single capacity, which can only be articulated into its sub-capacities through philosophical abstraction (cf. JL: 92/3). So, while Kant's initial introduction of his account of knowledge can easily seem to confirm the compositional reading, it does not rule out what gradually emerges throughout the first *Critique*, especially in the second stage of the B-Deduction: that the ingredient capacities of knowledge are abstractable aspects of a single original capacity to know (cf. *Prolegomena*: 263).

There is much more to be said about the hylomorphic account of knowledge, not least about its ancestry in and relation to Aristotle, and about the manner in which it permeates and manifests itself in each aspect of Kant's critical project.[54] But I leave this for another occasion.

## 9. Conclusion

Kant's Transcendental Deduction systematically reconceives the notions of givenness and mind-independence. It is naturally appealing to conceive of the sensory given as being the way it is independently of any act of the mind. For, on that conception the sensory given is mind-independent, and so seems able to vindicate our empirical judgements about mind-independent reality as knowledge. It is furthermore appealing to accommodate this insight by adopting epistemic compositionalism, which assumes that the form of our reception of the sensory given is intelligible independently from the form of acts of our mind.

However, Kant – inspired by Hume – sees that, if the form of our reception of the sensory given and the form of acts of our mind were thus distinct, we would be unable to understand how our empirical judgements can so much as purport to be of a mind-independent reality. Consequently, Kant seeks to develop an account on which the sensory given exists independently of any specific

[54] For further discussion of some of these issues see the texts cited in n.5.

acts of our mind, but shares the form of acts of our mind in general. He thus aims to reconcile realism and idealism by distinguishing formal and material conditions of intuition and knowledge. His goal is to show that a *formal identity* of our mind and the sensory given, recognized in the active synthetic determination of our sensory consciousness in intuition and knowledge, i.e. a *formal idealism*, is complementary to a *material difference* of our mind and the sensory given, recognized in the passive affection of such consciousness, i.e. a *material realism*.

To substantiate this epistemic hylomorphism we would need to provide a systematic interpretation of synthesis and its original principle, which characterizes synthesis neither as the act of a mythical transcendental subject, nor as a necessary, yet uninformative, condition for the possibility of knowledge. This would require us to circle back to examine what Kant says about synthesis, especially in the Metaphysical Deduction, the A-Deduction, and the first stage of the B-Deduction. While this must be the topic of another paper, I want to end by mentioning some implications of the above for epistemology and philosophy of mind generally.

In contemporary epistemology, Kant is commonly seen as the progenitor of anti-skeptical transcendental arguments. However, as we saw, such arguments are not something that Kant would recognize as his main achievement. For, Kant is not primarily interested in responding to the epistemic skepticism that exercises much modern and contemporary epistemology; instead, he brings out how this skepticism depends on a more radical question, namely Kant's Puzzle. Furthermore, we saw that, once we appreciate Kant's Insight, this undermines the intelligibility of the compositional account of knowledge, thus making it a pressing task for epistemology to understand and develop the underexplored hylomorphic successor account.

In contemporary philosophy of mind, Kant's account of knowledge is often discussed in terms of debates in the philosophy of perception, such as the conceptualism vs. non-conceptualism

controversy[55], or the dispute between representationalist and relationalist accounts of perception[56]. However, since these debates generally presuppose the compositional account of knowledge, Kant's hylomorphism does not fit with (and arguably even undermines) them.

For example, whether Kant is a conceptualist or non-conceptualist regarding sensory consciousness turns on the question whether the understanding is involved in intuitions as operations of sensibility (cf. Gomes 2014: 4/5). However, as we saw, while there is a sense in which Kant takes the understanding to be essentially synthetically active in intuition, this activity is not of the conceptual nature at issue for the contemporary conceptualist (cf. pp. 40/1 & n. 53).

Similarly, whether Kant conceives of sensory consciousness in relational or representational terms hangs on the question whether intuitions essentially involve representational properties or non-representational relations to objects (cf. Gomes 2014: 15). However, as we saw, for Kant intuition essentially involves both: form that can be expressed in concepts which, given received matter, enable us to represent objects; and matter that results from sensory affection which, given synthesizing form, relates us to objects: i.e. intuition is both contentful and relational.[57, 58]

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[55] For conceptualist readings of Kant see e.g. McDowell (1998) and Abela (2002); for non-conceptualist readings see the texts cited in n.26.

[56] For relational readings of Kant see e.g. Allais (2015) and Gomes (2017).

[57] This gloss echoes the title of McDowell (2013): "Perceptual Experience: Both Contentful and Relational".

[58] Anil Gomes argues that Kant could be read as holding that the properties of intuition essentially involve *both* representational properties and non-representational relations to objects. However, he conceives of the relational and representational 'components' of intuition as intelligible independently from each other, rather than as mutually dependent, thus falling short of the hylomorphic reading (cf. Gomes 2014: 18/19).

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