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# Hume’s Scepticism and Kant’s Transcendental Deduction

Paul Tulipana<sup>1</sup> and Dustin King<sup>2</sup>

<sup>1</sup>University of California Los Angeles, Los Angeles, CA, USA and <sup>2</sup>Independent Scholar

**Corresponding author:** Paul Tulipana; Email: [ptulipana@ucla.edu](mailto:ptulipana@ucla.edu)

## Abstract

Kant’s aim in the Transcendental Deduction is to prove that the a priori categories of the understanding necessarily apply to objects of experience. He claims that he will do this simply by explaining how they could so apply. But the idea that a mere explanation of this possibility should provide a defence of the categories’ actual (let alone necessary) applicability is surprising. We argue that it can be understood by attending to the source of the scepticism that the *Critique’s* Analytic is supposed to overcome: Hume’s inability to explain causal knowledge in the *Enquiry*.

**Keywords:** David Hume; Transcendental Deduction; scepticism

## I.

In the section of the *Critique of Pure Reason* on the principles of a transcendental deduction, Kant offers his most widely discussed expression of the Deduction’s anti-sceptical aim.<sup>1</sup> He has already introduced the categories, the pure concepts which he takes to provide the understanding with its foundational rules for the representation of objects. But it is still unclear why the discovery that we do or even must think about the objects of our experience in certain ways should imply anything about what those objects themselves are or must be like. The possibility thus arises that the world we experience does not necessarily conform to the categories – that the objects composing it could ‘appear to us without necessarily having to be related to functions of the understanding, and therefore without the understanding containing their a priori conditions’ (A89/B122).<sup>2</sup> Insofar as we take it that the pure understanding is the source of concepts such as Cause and Effect, in other words, we need to be convinced that our attempts to apply those concepts to objects in experience amount to more than mere imposition. Absent this conviction, we may come to see their application as unwarranted. Kant explains:

For appearances could after all be so constituted that the understanding would not find them in accord with the conditions of its unity, and everything would then lie in such confusion that, e.g., in the succession of appearances nothing would offer itself that would furnish a rule of synthesis and thus correspond to

the concept of cause and effect, so that this concept would therefore be entirely empty, nugatory, and without significance. (A90/B123)

In this way, scepticism about knowledge that depends on the application of the categories may arise. We may come to see ourselves as having no better warrant for making causal judgements, for example, than we do for making judgements about the workings of fate (A84/B117). We may come to deny that we know such ordinary things as *boats float downstream* and *the sun melts wax*. To address this scepticism, Kant writes, we need only to ‘make comprehensible’ how the categories ‘relate to objects’: how as ‘subjective conditions of thinking [they] should have objective validity’ (A89-90/B121-2). We need, in other words, to explain how the categories could apply to objects. Doing so is the avowed aim of the Transcendental Deduction, which Kant defines as an ‘explanation of the way in which concepts can relate to objects *a priori*’ (A85/B117). He also emphasizes that providing an explanation of this possibility is *all* the Deduction aims to do: in it, he writes, he does not intend to ‘accomplish more . . . than to make comprehensible [the] relation of the understanding to sensibility and by means of the latter to all objects of experience, hence to make comprehensible the objective validity of its pure *a priori* concepts’ (A128).

The Deduction therefore aims to give an anti-sceptical defence of the claim that the categories apply validly to objects in experience by providing an acceptable explanation of how they could. This can seem surprising. If we want a convincing anti-sceptical defence of the idea that the categories apply to objects, we might have supposed, we need more than an explanation: we also need an argument that the proposed explanation is the correct one. And Kant does believe that we should be convinced by the Deduction that the categories validly apply – indeed he thinks that we should be convinced of the modally stronger claim that the categories ‘are related necessarily and *a priori* to objects of experience’ (A93/B126). However, he never makes it clear how the explanation that the Deduction provides is supposed to establish this.

Our aim in this essay is to explain how it does. Our main claims are that the sort of scepticism that exercises Kant in the *Critique* is grounded entirely in an inability to explain how synthetic *a priori* knowledge is possible and that therefore providing an explanation of the possibility of such knowledge is the best and most direct way to address the scepticism. We begin our exposition in section 2 by mentioning some established approaches to interpreting the Deduction and rehearsing some well-known obstacles to accepting them. In section 3, we show how scepticism grounded in the inability to conceive of an explanation of something’s possibility can arise in a kind of epistemic situation that is widely prevalent in human life. We also suggest that Hume’s scepticism about objective causal knowledge in the *Enquiry Concerning Human Understanding* arises in this way. In section 4, we turn to the *Enquiry* to defend the latter conclusion. In section 5, we argue that Kant sees Hume’s scepticism in this way and that he sees the positive part of the *Critique* as addressing it. On Kant’s account, we argue, the possibility of synthetic *a priori* knowledge in general and causal knowledge in particular depends on the possibility of *pure* synthetic *a priori* knowledge of principles like ‘every event has a cause’. Thus, his main aim in the *Critique* is to explain the possibility of such knowledge. The Deduction handles the deepest and most difficult part of the explanation: explaining how the categories could validly apply to objects. In section 6, we return to the secondary literature, arguing that our view

makes better sense of the Deduction's text than a paradigm traditional interpretation, according to which Kant's aim in the Deduction is to deductively prove that the categories validly apply to objects. In section 7, we address some potential objections. In section 8, we argue that our reading dissolves Dieter Henrich's famous problem about the 'two-step' structure of the Deduction. We conclude in section 9 with some brief general remarks on the attractions of our account.

## 2.

Many of Kant's interpreters have disregarded or denied his claim that the Deduction is simply an explanation of possibility. They think that the text of the Deduction must encompass, in addition to such an explanation, one or more arguments defending it.<sup>3</sup>

One prominent picture of the Deduction project, perhaps the most popular in the last half-century of Anglo-American philosophy, has its seminal formulation in Peter Strawson's *Bounds of Sense* (Strawson 1966: 85-8). Strawson argues that in the Deduction, Kant's main aim is to refute scepticism about empirical knowledge by showing that possessing such knowledge is a necessary condition of being self-conscious. Kant aims to accomplish this, Strawson continues, by deriving a theory of human cognition from a supposedly self-evident characterization of self-consciousness. Because the derived theory entails the necessary applicability of the categories, the latter claim is secured *en route*. Strawson presents this interpretation of the Deduction's argument as the only way to explain how Kant's avowed explanatory aims connect to his anti-sceptical ones (1966: 87-8). Many of Kant's interpreters have been convinced that he must be more or less right in this. Thus similar interpretations have been defended in the 1960s by Robert Paul Wolff and Jonathan Bennett; in the 1970s by Dieter Henrich; in the 1980s by Henry Allison and Paul Guyer; and in recent years by Dennis Schulting; among others.<sup>4</sup>

An alternative picture holds that the Deduction does not consist in a single argument, but rather in several arguments working in tandem. The Deduction's text is sometimes taken by advocates of this approach to be organized along the lines of *Deduktionschriften*, a common eighteenth-century legal practice in which one adduces a variety of considerations or proofs in support of a controversial claim. The arguments that constitute the Deduction on this interpretation aim to show that relevant alternative views of human cognition (Hume's view is often cited) cannot explain this or that manifestly obvious feature of human cognitive life. Thus some interpreters have thought that there are arguments against Humean associationism on the basis of manifest facts about self-consciousness in §§16-17 and others on the basis of manifest facts about our capacity to represent objects in the later sections of the Deduction's first half. Versions of this approach can be found in recent work by Patricia Kitcher and Derk Pereboom.<sup>5</sup>

There are however well-known obstacles to understanding the Deduction in these ways. Namely, if arguments of the sort suggested above are to be found in the Deduction, they are both difficult to recover from the text and also repeatedly misleadingly characterized by Kant. Kant is thus routinely accused by these interpreters of failing to clearly express the Deduction's supposed argument or arguments;<sup>6</sup> or of mischaracterizing, misunderstanding, or obscuring the nature of those arguments.<sup>7</sup> Many interpreters also conclude that the arguments they attribute

to Kant are unlikely to convince a sceptic.<sup>8</sup> In section 6, we discuss some of these accusations in more detail. First, however, we introduce our alternative interpretative strategy. We begin by reflecting on a number of ordinary contexts in which explanations of something's possibility are particularly interesting or salient.

### 3.

It is ubiquitous in human life to encounter something that is manifestly actual and yet to be puzzled about how it is possible. The limits of human skills (a gymnast doing an Amanar vault or a soccer player bending a free kick into the corner of a goal), natural places and phenomena (Delicate Arch at Arches National Park in Utah or the Aurora Borealis), and technological feats (an airplane lifting off or live video chats on mobile phones) provide everyday examples. The same phenomenon appears regularly in scientific inquiry, in criminal investigations, and in many other contexts. In encounters like these, we will say, we find ourselves in 'how-possibly' situations.

In how-possibly situations, we begin with an initial sense of the facts. This sense involves both background and foreground beliefs. Our foreground beliefs will generally be settled by what we take ourselves to be immediately encountering. In watching an airplane lift off, for example, we believe in the foreground that *the airplane lifted off*. In seeing the Aurora Borealis, we believe that *there are dancing ribbons of light in the night sky*. We can call our foreground belief's object a 'puzzling fact', a fact that manifestly obtains but that we cannot explain.

In how-possibly situations, we will often be disposed to hold firm to our sense of the facts, and to the idea that our foreground belief is true and that our experience justifies it. In the airplane case, most of us remain confident that the airplane lifted off even though we cannot explain how it did. In the Aurora Borealis case, most of us remain confident that there are dancing ribbons of light in the night sky, even though we cannot explain how they came to be there.

In these cases and others like them, our inability to explain a puzzling fact's possibility may give rise to one or more epistemic emotions: wonder, surprise, curiosity, confusion, and so on. In some cases, these emotions will move us to search for an explanation of how the puzzling fact is possible. In cases where we cannot dispel our puzzlement through inquiry, we may become sceptical.

As we use the term, 'scepticism' about some claim (or kind of claim) refers to the denial that we know that the claim (or any claim of the kind) is true, even though we are inclined to think that we do. Other things being equal, the more difficult we think it will be to find an adequate explanation for some manifestly actual fact's possibility, the more puzzled we will be by it,<sup>9</sup> and the more puzzled we are by it, the more inclined we will be to become sceptical – to decide that we do not really know that it obtains. This is because acute puzzlement has a tendency to produce or maintain epistemic distress in us, and becoming sceptical is a way of mitigating this distress.

We can develop these ideas further by reflecting on cases. We begin with the airplane scenario. As we have noted, in this scenario, most of us hold firm to our sense that our belief that the airplane lifted off is true and that our experience justifies it. Many of us also do not know how this is possible. But few of us feel distressed about it. Normally, we feel mild wonder or curiosity instead. Part of what explains this is our background attitudes about how difficult it would be to get an explanation of

possibility. What matters here is usually difficulty in principle, not in practice. In this case, we know that someone can explain how the airplane lifted off, and so we have no doubt that we could, in principle, learn the explanation.<sup>10</sup>

Consider next a case from natural history.<sup>11</sup> Before flowering plants emerged roughly 130 million years ago, the seed-bearing plant world was dominated by plants with cone-like structures. Nearly modern flowers appear suddenly in the fossil record. As of now, nobody knows how to explain how their sudden appearance is possible. If an inquirer into their appearance knows this, there is an important sense in which the fact that they appear should strike her as more acutely puzzling than the fact that an airplane lifted off: since there is no one who can explain the puzzling fact to her, it will be more difficult in principle for her to get an explanation. However, in this kind of case, many inquirers can (or know that someone can) envision several *candidate explanations* of its possibility: a group of extinct seed ferns might have been the ancestors of flowering plants, an unknown group of gymnosperms from the Triassic period might have been, and so on.<sup>12</sup> If an inquirer is aware of such candidates and she has no special reason to doubt that one of them, or another one like them, will bear out, her puzzlement still need not be very acute and, other things being equal, need not cause her much epistemic distress. In fact, most researchers carry on with their work believing that we know that flowers did appear in the fossil record, expecting that somebody will eventually explain how this is possible, and perhaps hoping for professional reasons that it will be them.

As the number of epistemically available candidate explanations approaches zero, however, a puzzling fact can begin to seem even more acutely puzzling, inspiring stronger forms of epistemic distress. During the nineteenth century, no one, including Darwin, could envision *any* candidate explanation of flowers' sudden appearance in the fossil record. The developments in the record that suggested the above-cited candidates emerged recently. In Darwin's time, the record showed nothing remotely like modern flowers either before or after their sudden appearance. Darwin thus took flowers' appearance to pose such a problem for his theory of evolution by natural selection that he called it an 'abominable mystery', a clear expression of the epistemic distress that can characterize an interested encounter with an acutely puzzling fact.

In certain exceptionally puzzling cases, we will not only be unable to envision any candidate explanations and know that no one else can either, we will also have reason to doubt that there are any *possible* candidates. It is typical of the locked-room murder mystery genre to present examples of cases like these. Thus *The Big Bow Mystery* by Israel Zangwill – widely acknowledged as the first full-length member of the genre – begins one morning with Mrs. Drabdump unable to wake her lodger, Mr. Constant. Fearing that something terrible has happened, she enlists a neighbour, Mr. Grodman, to break down the door, which is locked from the inside. Once in the room, she is confronted with a perplexing mystery. Mr. Constant was evidently killed by a slash to his throat with a razor. On the one hand, the facts seem to rule out suicide: the apparent strength and direction of the slash precludes him having inflicted the wound upon himself, and there is no sign of the razor. On the other, they seem to rule out murder: the door and windows to the room are closed and locked from inside, and the chimney is too narrow for a person to climb. Constant's dead body thus appears to have been the result of neither suicide nor murder. But the only possible ways to explain how he could have been killed are that he killed himself or that someone else

killed him. In this way, the manifestly obvious fact that he was killed is rendered acutely puzzling: it not only lacks an explanation, it seems incapable of being given one. A strong form of epistemic distress naturally attends inquirers in situations of this kind. Thus the coroner's report: 'Gentlemen, I am aware that this sounds impossible and contradictory. But it is the facts that contradict themselves. . . . There is nothing for it . . . but to return a verdict tantamount to an acknowledgement of our incompetence to come by any adequately grounded conviction whatever as to the means or the manner by which the deceased met his death' (Zangwill 1895: 53-4).

The coroner's idea that there is nothing else for it is, of course, too hasty. In any how-possibly situation, our goal as inquirers is to see how the possibility of a puzzling fact can be explained. In the exceptionally puzzling cases that we are considering, we will often have the mistaken sense that there are no possible candidate explanations because we have one or more false background beliefs. In these cases, we will need to adjust something in the background. Part of what makes the cases seem so puzzling is that it often requires a great deal of insight and imagination to see what needs adjusting and how. In the *Big Bow Mystery*, it turns out, the investigators need to adjust their belief that Constant was killed before anyone entered the room on the morning Mrs. Drabdump discovered his body. Because of this belief, they have overlooked an important candidate explanation: that Constant was alive when Grodman broke down the door and Grodman slashed his throat before Mrs. Drabdump saw him.

In the most vexing how-possibly situations, however, we will also have strong reason to think that no adjustments in the background could possibly bring a new candidate to light. We might, for example, have what looks to us on careful reflection to be airtight a priori arguments for both the claim that we have accounted for every possible candidate explanation of a certain puzzling fact, and for the claim that none of them can explain the fact's possibility. An inquirer in this kind of situation might naturally experience so much epistemic distress that scepticism would seem almost inevitable.

This, we want next to argue, is just the situation that Hume finds himself in at the end of Section 4 of the *Enquiry*. For Hume, the puzzling fact in question is the existence of causal knowledge.<sup>13</sup> What we have tried to accomplish so far is just to situate the Humean predicament at one end of a spectrum that includes many familiar, everyday situations in which the most epistemically salient feature is the absence of an explanation of possibility. When such situations induce enough epistemic discomfort to inspire scepticism, we now add that discomfort is most naturally relieved simply by providing the missing explanation.<sup>14</sup> The inquirer will then be left with no reason to be sceptical.

We note in closing that what we have been describing is only one route to scepticism about a particular claim or kind of claim. Another is by practising scepticism as a discipline, governing all of one's epistemic conduct in accordance with a principle like 'everything is incomprehensible' or 'appearances and thoughts must be set into opposition'. Academic and Pyrrhonian sceptics are classic examples of this kind of *principled* scepticism. When someone is driven to scepticism about some particular claim or kind of claim on the basis of more local considerations, such as their inability to explain a puzzling fact, by contrast, we will call them an *ordinary* sceptic. Our claim is thus that Hume is an ordinary sceptic about objective causal knowledge. We turn next to the *Enquiry* to support this claim.

## 4.

Though he does not use the term, Hume finds it puzzling that we have causal knowledge. Questions about how such knowledge is possible arise early in the course of his *Enquiry* investigation into ‘the nature of that evidence which assures us of the real existence of any matter of fact, beyond the present testimony of our senses, or the records of our memory’.<sup>15</sup> He observes quickly that in coming to believe that some unobserved and unremembered matter of fact obtains we rely on the concept of Cause and Effect (EHU, 4.4). He characterizes Cause and Effect as a relation of necessary connection between objects. He then raises a question about how we can know that things stand in this relation – of how causal knowledge is possible. We need, he writes, to ‘satisfy ourselves, concerning the nature of that evidence, which assures us of matters of fact’, and to do this ‘we must enquire how we arrive at the knowledge of cause and effect’ (EHU, 4.4).<sup>16</sup>

Hume’s primary aim in this part of the *Enquiry* is therefore explanatory.<sup>17</sup> He wants to try to explain causal knowledge’s possibility by reflecting on various candidate explanations of how we arrive at it. He thinks that there are exactly three possible candidates, each of which involves inference.<sup>18</sup> One appeals to what he calls ‘a priori’ inference, i.e., reasoning about objects in advance of observing relations of constant conjunction; another appeals to inference from observations of those relations, positing a ‘deductive’ relation between them; third appeals to inference from observations of those relations, positing a ‘probabilistic’ relation between them. The majority of the *Enquiry*’s Section 4 is dedicated to showing that none of these candidates is acceptable.

In Part 1, Hume gives a series of examples to show that a priori inference cannot account for causal knowledge’s possibility: we cannot infer that two stones will be magnetically attracted one to the other just by looking at stones; we cannot infer that submersing our heads in a certain liquid will suffocate us just by looking at the liquid; we cannot infer how a moving billiard ball will cause another to move on impact just by looking at two billiard balls; and so on (EHU, 4.6-11). Therefore this explanation ceases to be a candidate.

In Part 2, Hume turns to attempts to explain causal knowledge’s possibility by appealing to inference from observed relations of constant conjunction. He subdivides these into explanations that appeal to ‘demonstration’ and those that appeal to ‘probabilistic’ inference. According to the first explanation, what makes causal knowledge possible is that constant conjunction logically and therefore necessarily implies causation. Hume denies this, writing that it is evident that ‘an object, seemingly like those which we have experienced, may be attended with different or contrary effects’ (EHU, 4.18). If this is possible, then its contrary is not necessary; thus there is no logical implication here and this explanation also ceases to be a candidate.<sup>19</sup> The final explanation appeals to probabilistic inference. Probabilistic inference, however, requires recognizing causal relations and therefore presupposes the very form of knowledge we might have hoped it would explain. This is a vicious circularity (EHU, 4.19).<sup>20</sup> Therefore this explanation ceases to be a candidate as well.

This all looks to Hume like an airtight argument that there are no possible explanations of objective causal knowledge’s possibility. He thus remarks in EHU 4.22 that he has examined ‘all the sources of our knowledge’ and concluded that each of



them is 'unfit' to account for it.<sup>21</sup> To the extent that one finds this situation distressing, one will feel pushed to ordinary scepticism about objective causal knowledge.

## 5.

Hume acknowledges feeling pushed in this direction by calling his own account 'sceptical'. The tag is apt. He denies that we know something that we ordinarily think we know, namely, that objects stand in relations of necessary connection.

Hume's purpose in the first part of Section 5 is to explain in a surprising way the pattern of thought that we ordinarily call causal inference. As we have seen, his reflections in Section 4 are prompted by a desire to account for knowledge of unobserved matters of fact. Early in that section, he isolates (as it were extensionally) the pattern of thought in virtue of which we arrive at this knowledge. On our ordinary understanding of the pattern, it is an inferential one involving appeal to our knowledge that certain kinds of objects stand in relations of necessary connection. His subsequent reflections show to his own satisfaction that such knowledge is not possible. This raises the question of what exactly is going on in the pattern. On his final account, its instances are in fact movements of thought that begin from an observation and progress to a belief about an unobserved matter of fact through a feeling of expectation that arises in us when we have repeatedly seen objects of particular kinds conjoined. In such movements, the mind is moved by custom or habit: once we are used to seeing one sort of thing follow another, we come to expect that where the latter is present, the former will inevitably follow (see EHU, 5.5).<sup>22</sup>

One might express the resulting position in one of two ways. First, one might say that the concept of Cause and Effect does not comprehend anything and that causal knowledge is therefore impossible. Second, one might say that it comprehends something unexpected and that causal knowledge is therefore possible and comprehensible, but that it has a surprising nature. Hume gives several indications that he wants to go the second way. He often writes as though whatever relational concept we deploy in the movements of thought that yield our beliefs about unobserved matters of fact just is the concept of Cause and Effect. He writes, for example, that the 'transition of thought from the cause to the effect proceeds not from reason. It derives its origin altogether from custom and experience' (EHU, 5.20). In subsequent sections of the *Enquiry* he allows himself free use of the concept of cause (e.g., EHU, 6.4, 7.6, 7.10) and of the idea of causal knowledge (EHU, 7.16). This suggests that he may not want to describe himself as a sceptic about causal knowledge, despite the fact that he is clearly a sceptic about knowledge of objective necessary connections.

Kant, however, does describe Hume as a sceptic about causal knowledge. Because he holds firm to the idea that causal knowledge is knowledge of objectively necessary connections between objects, to him, Hume's so-called solution amounts to nothing more than the claim that Cause and Effect does not comprehend anything: 'to substitute subjective necessity', he writes, 'that is, custom, for objective necessity, which is to be found only in a priori judgements, is to deny to reason the ability to judge an object, that is, to cognize it and what belongs to it; it is . . . to reject the concept of cause as fundamentally false and a mere delusion of thought' (CPrR, 5: 12;



see B4-5). He thus holds that on Hume's account 'the concept of cause is itself fraudulent and deceptive'; that so far as it is said to be acquired, it is 'acquired surreptitiously and not rightfully', and that properly speaking it cannot be acquired at all, since 'it demands a connection in itself void, chimerical, and untenable before reason, one to which no object can ever correspond' (*CPrR*, 5: 50-1; see B128).

In the run-up to the Transcendental Deduction, Kant claims that Hume felt forced to treat the concept of Cause and Effect as acquired from a subjective feeling of expectation because he could not envision an explanation of the possibility of causal knowledge in the more familiar sense. He also suggests a candidate that Hume did not consider: that the human understanding partly constitutes the objects of experience through the application of pure a priori categories such as Cause and Effect:

Since [Hume] *could not explain at all how it is possible* for the understanding to think of concepts that in themselves are not combined in the understanding as still necessarily combined in the object, and it never occurred to him that perhaps the understanding itself, by means of these concepts, could be the originator of the experience in which its objects are encountered, he thus, *driven by necessity*, derived them from experience. (A95/B127; our italics)

In Kant's view, then, Hume is sceptical about ordinary causal knowledge claims: the claim that we know that boats float downstream, the claim that we know that the sun melts wax, and so on. Indeed, as the above-quoted passage suggests, he thinks that Hume's worries should drive him to scepticism about *all* synthetic a priori knowledge, including all metaphysical, mathematical, and pure natural scientific knowledge.<sup>23</sup> Kant holds that the way to explain how such knowledge is possible – the candidate explanation that Hume failed to envision – grounds it in pure synthetic a priori knowledge of transcendental principles. Ordinary causal knowledge claims, in particular, are to be grounded in a pattern of inference that relies both on the sort of empirical observations that Hume discusses and on the pure synthetic a priori knowledge of the principle that every event has a cause – the transcendental principle of causality. Kant elaborates this idea in his discussion of Hume in the *Discipline of Pure Reason*: 'That the sunlight that illuminates the wax also melts it', he explains, 'though it hardens clay, understanding could not discover let alone lawfully infer from the concepts that we antecedently have of these things, and only experience could teach us such a law'. But, in addition to the empirical observation that 'wax that was previously firm melts', I can also 'cognize *a priori* that something must have preceded (e.g., the warmth of the sun) on which this has followed in accordance with a constant law'. Although we can '*determinately* cognize neither the cause from the effect nor the effect from the cause *a priori* and without instruction from experience', we can cognize the transcendental principle of causality this way (A765-6/B793-4). For this reason, Kant thinks that if he can explain how the pure synthetic a priori knowledge of such transcendental principles is possible, he will have given the ordinary (Humean) sceptic about causal knowledge everything that he wanted.<sup>24</sup>

The *Critique* thus begins with the elaboration of a how-possibly situation. The puzzling fact is that we have pure synthetic a priori knowledge – knowledge of the principle that every event has a cause, of arithmetical and geometrical principles, and so on. In the Introduction, Kant emphasizes that in his estimation we do *in fact* have

such knowledge. He writes that ‘it is easy to show that in human cognition there actually are . . . pure *a priori* judgements. If one wants an example from the sciences, one need only look at all the propositions of mathematics; if one would have one from the commonest use of the understanding, the proposition that every alteration must have a cause will do’, suggesting that such everyday examples prove ‘the pure use of our cognitive faculty as a fact’ (B4-5). In the Doctrine of Method, similarly, he writes that we ‘are actually in possession of synthetic knowledge *a priori*, as is shown by the principles of understanding’ (A762/B790; see also B14 ff., 20, 127-8, *CPrR*, 5: 12). His point is that it is manifestly obvious that we know that every event has a cause, that we know that the interior angles of a triangle add up to two right angles, and so on. Against the assumed backdrop of Hume’s arguments, however, we also have exceptionally strong reason to think that we cannot explain how this knowledge is possible.

Explaining how pure synthetic *a priori* knowledge is possible is thus the most significant aim of the positive part of the *Critique*. Kant emphasizes this in the Introduction as well. Immediately after introducing the fact of pure synthetic *a priori* knowledge, he introduces the problem of explaining its possibility, calling it the ‘general problem of pure reason’ (B19). A bit later, he explains the idea of a critique of pure reason in these terms: such a critique aims to show that the ‘amplification of our knowledge’ through pure reason is possible (A11/B25).

Kant also repeatedly emphasizes that the central and most challenging part of explaining the possibility of pure synthetic *a priori* knowledge is explaining how the world of our experience could conform to the understanding’s pure categories (A766/B794; see also *CPrR*, 5: 53-4). As we began the essay observing, this is what Kant intends to explain in the Transcendental Deduction.

## 6.

We have now presented our account of Kant’s anti-sceptical strategy. We have claimed that the sort of scepticism that Kant aims to address in the *Critique* – which he sees as Humean scepticism – is grounded entirely in a perceived inability to explain how synthetic *a priori* knowledge is possible.<sup>25</sup> We have argued that an explanation of the possibility of pure synthetic *a priori* knowledge is therefore all that is needed to address the sceptic. We now turn to contrasting the textual merits of our view with one of the most thorough and interesting recent attempts to read the Deduction as a deductive proof, Henry Allison’s account in *Kant’s Transcendental Deduction*.

We agree with Allison that Kant’s aim in the Deduction is to address the worry that our attempts to apply the categories to objects in experience amount to mere imposition. On Allison’s view, Kant sees this worry as grounded in the recognition of the mere logical possibility that there would be a ‘lack of cognitive fit’ between the categories and sensibly given material (Allison 2015: 200; see also 436).<sup>26</sup> He therefore attempts to address it by proving deductively that what does not conform to categories cannot be apperceptible, and that what is not apperceptible is ‘nothing to me’ as a cognizing being. In this way, the scenario in which the categories do not legitimately apply to the sensibly given material that they purport to comprehend is ‘epistemically null’ (2015: 436). We suggested above that in attempting to locate this

proof, Allison is repeatedly forced to conclude that Kant leaves its central steps implicit. Let us now develop this claim.

Allison holds that the Deduction's anti-sceptical argument occurs in its second half. In the first half, he argues, Kant has proved that whatever is brought to the transcendental unity of apperception (TUA) must be thinkable with the categories. To resolve scepticism about the applicability of categories to the objects of our experience, then, he must prove that any cognitive activity that could result in human experience would necessarily involve bringing given material to the TUA. Given the first half's result, this would show that whatever is anything to me, qua cognizing human being, must conform to the categories.

Allison thus sees the proof in the second half as comprising a series of reflections on the necessary conditions for representing temporally and spatially structured objects. In §24, he argues, Kant aims to show that representing a determinate time – the time it has taken to read this essay, say, or next Friday noon – requires locating it in a single all-inclusive time, and that this in turn requires bringing a manifold of representations of determinate times to the TUA. In §26, he aims to show that whatever is a necessary condition for representing a determinate time is also a necessary condition of perception and ultimately of experience. But when we turn to the text, neither argument is in evidence.

In §24, Kant asserts that just as the understanding can think the unity of the manifold given in intuition in general through the categories a priori, it can cognize the unity of the manifold given in our sensible form of intuition through them a priori. He calls the activity of the understanding in doing the latter the 'transcendental synthesis of the imagination'. Allison suggests that Kant's aim in this section is to connect the idea of this synthesis to the TUA via deductive proof, but that he 'fails to provide' the proof, leaving it 'implicit in [his] typically cryptic account' (Allison 2015: 385). He proposes to make this argument explicit on Kant's behalf, first by closely connecting the notion of the transcendental synthesis of the imagination to the idea of time determination, and then, relying on material from the Transcendental Aesthetic, by arguing that reflection on the nature of time shows that time determination must involve bringing a manifold of representations of determinate times to the TUA.

Leaving aside questions about both the validity of Allison's interpolated argument and its fit with the Aesthetic, two general points should be made here. First, Kant never explicitly refers us back to the Aesthetic in these paragraphs, and it is hard to imagine that he would leave this critical step of the Deduction's argument implicit without providing any indication of where we should look to fill it in. Second, Kant explicitly does just two things in this part of the text. First, he claims that the understanding can cognize the unity of the manifold given through our sensible form of intuition through the categories a priori. Second, he names the activity of the understanding in doing so and explains why he chooses the name he does. In other words, what he does explicitly is introduce a novel theoretical structure. This is exactly what we would expect, and we would not expect any more, in reading §24 as part of an attempt to explain the possibility of the categories' applicability to objects. (Consider, by way of analogy, how someone might introduce the idea of a *laminar flow airfoil* as a specific determination of the already-explained idea of an *airfoil* in an attempt to explain how a certain plane can take off.) The discussion in this section

becomes notably more cryptic when we impose on it the demand that it contain a deductive proof establishing the legitimacy of the explanatory structure it posits.

Similar points apply to Allison's second step, the supposed proof in §26 that whatever is necessary for time determination is also necessary for perception and experience. The section's central claim is that, in perception, we bring sensibly given material to the TUA – that 'the unity of the synthesis of the manifold [i.e., of sensibly given material in perception] . . . can be none other than that of the combination of the manifold of a given intuition in general in an original consciousness, in agreement with the categories, only applied to our sensible intuition' (B161). Expecting a deductive proof, Allison again finds that Kant 'offers no argument' (Allison 2015: 415) in this claim's defence. In our view, the claim stands in no need of proof. Its purpose is to express that the unity currently under consideration can be easily recognized as an example of the TUA, a theoretical structure that Kant already introduced in abstractly explaining his account of human cognition in the first half. The fact that this account can credibly explain the possibility of pure synthetic a priori knowledge is for Kant sufficient credential for its acceptance. He is not, therefore, trying in §26 to *prove* that the applicability of the categories is the 'necessary condition of the apprehension or perception of appearances in space and time' (2015: 414). He makes this point himself when he describes his aim in this section explicitly in terms of explanation, writing that in it 'the possibility of cognizing *a priori* through categories whatever objects may come before our senses . . . is to be *explained*' (B159-60; our emphasis).

## 7.

We turn next to some potential objections. One concerns the pride of place that we give to addressing Humean scepticism in our view of the Deduction's aim. It may be observed in this connection that Kant emphasizes near the beginning of the A-edition Introduction that the *Critique* is a critique of *reason*, not a critique of 'books and systems' (Axi).<sup>27</sup> True to this idea, Hume is rarely mentioned in the *Critique*'s argument, featuring instead mainly in the framing materials near the book's beginning (in the B-edition) and end (in both editions). One might wonder whether these observations are reasons to doubt an interpretation according to which the Deduction's central aim is to provide the key step in an argument addressing Humean scepticism. Two points warrant clarification here.

First, although the Deduction clearly does not present a direct response to Hume's particular arguments, it nevertheless presents the critical step in a direct response to Hume's *problem* – i.e., the problem of explaining the possibility of synthetic a priori knowledge – and doing so is its aim and its *raison d'être*. In the *Prolegomena*, Kant is clear that the *Critique* is addressed to the same problem that Hume raises. He describes it as presenting 'Hume's objection . . . in a general manner' (P, 4: 260), and later identifies it as 'the *elaboration* of the Humean problem in its greatest possible amplification' (4: 261).<sup>28</sup> He even writes that the Transcendental Deduction had 'appeared impossible' (4: 260) to Hume, suggesting that in his mind Hume was interested precisely in offering a Transcendental Deduction of the concept of causality – in offering an explanation of how the concept could apply to the objects of experience. Where Hume failed to do this, however, the *Critique* succeeds 'in the

solution of the Humean problem not only in a single case but with respect to the entire faculty of pure reason' (4: 260).

Second, for Kant, there is no gap between addressing the Humean problem and addressing Humean scepticism. The problem is to explain the possibility of synthetic a priori knowledge. So as long as the problem is outstanding, ordinary scepticism about causal knowledge can seem unavoidable (see *CPrR*, 5: 52-3). But since the scepticism is *ordinary* – since the lack of an explanation of possibility is its sole source – addressing the problem simply is addressing the scepticism. As soon as Kant has explained the possibility of synthetic a priori knowledge, he has 'overthrown' scepticism (*CPrR*, 5: 53-4).

A second source of concern is the idea that Kant's method of addressing Humean scepticism – providing an explanation of possibility – is not the most direct, and therefore not the best, way to address it. Would it not be more direct and therefore better, the objection goes, to simply demonstrate the falsity of the proposition that we do not have causal knowledge?

In fact, we find the suggestion that Kant's anti-sceptical method in the Deduction is indirect in the views of other interpreters who, like us, see it as attempting to answer a 'how-possibly' question. In Stephen Engstrom's 1994 essay, 'The Transcendental Deduction and Skepticism', for example, he writes that the Deduction 'removes skepticism . . . by indirect, even doubly indirect means' (1994: 375). On his view, to address the sceptic directly, Kant would need to demonstrate that the sceptical proposition is false. In the Deduction, he does not attempt a direct response of this kind;<sup>29</sup> rather he aims to address the sceptic by 'doing away with' his empiricism and in this way 'removing' his scepticism's cause. Engstrom's Hume mistakenly assumes that we cannot know how pure concepts could apply to objects in experience; this mistaken assumption drives him to empiricism about the concept of Cause and Effect; and the empiricism, in turn, causes his scepticism. Kant's aim in the Deduction is therefore to show that the initial assumption is mistaken by means of a dialectical argument which attempts to reconcile an apparent tension between claims of reason – the ordinary claim that we have the right to apply the categories to objects external to the understanding, and Kant's own claim that the categories have their origin in the understanding (1994: 376).

In our view, this makes the dialectical situation out to be more complicated than it is. Engstrom sees Kant and Hume as set to different tasks: Hume aims to give an empirical derivation of the concept of Cause and Effect; Kant aims to dialectically remove a mistaken empiricist assumption. In our view – and, we think, on Kant's own<sup>30</sup> – Hume's and Kant's tasks are the same: both aim to answer a 'how-possibly' question by explaining the possibility of a certain kind of knowledge. For Engstrom, Hume mistakenly assumes that no rationalist answer to the 'how-possibly' question is possible. In our view, he argues for the claim (see again EHU, 4.6). In this way, for us, Kant and Hume are prepared to consider the same sorts of candidate explanations. Our Kant thinks that Hume overlooks an attractive rationalist candidate explanation because of a false background belief about the role of the understanding in constituting the objects of experience. In this way, he thinks, Hume is driven – not first to empiricism and then to scepticism – but to a particular sceptical empiricist stance directly. For Engstrom, Hume specifically wants an empirical derivation of Cause and Effect; for us, he simply wants an explanation of the possibility of causal

knowledge. On Engstrom's view, then, Kant cannot give Hume exactly what he wants. In our view, he can. Engstrom thus sees Kant's response to Hume as indirect, whereas we see it as direct.<sup>31</sup>

We have been arguing that the most direct way to address ordinary scepticism is to give the sceptic the explanation whose absence drives her to scepticism in the first place. What the ordinary sceptic *wants*, in the first place, is just such an explanation. This may not be the case with a principled sceptic. But Hume is no principled sceptic. What he wants, first and foremost, is an explanation of the possibility of causal knowledge. No response to his scepticism could address it better or more completely than simply providing one.

## 8.

So far, we have attempted to explain and defend the idea that, in the Transcendental Deduction, Kant aims to address ordinary scepticism about synthetic a priori knowledge, most notably causal knowledge, by providing a satisfying explanation of how pure synthetic a priori knowledge is possible. In addition to making sense of Kant's otherwise puzzling remarks about the aim and character of the Deduction cited near the beginning of the essay, this interpretation puts us in position to solve one of the most significant puzzles in recent scholarship on the Deduction. The puzzle in question originates in Dieter Henrich's influential essay, 'The Proof-Structure of Kant's Transcendental Deduction' (Henrich 1969). It runs as follows. Kant concludes §20 of the Deduction by asserting that the categories apply to all objects of intuition in general. He proceeds in §21 to claim that he has thus made a 'beginning' toward a transcendental deduction (B144). He concludes the Deduction's argument in §26 by asserting that the categories apply to all objects of experience. However, objects of experience are simply objects as they are given to our specific, spatially and temporally structured form of intuition. Thus the intermediate conclusion is a more general version of the final conclusion and transparently entails it. But why does Kant need half of the Deduction to instantiate the former?<sup>32</sup>

Many solutions have been proposed for this puzzle. Our interpretation suggests that it is based on a false presupposition. To see this, suppose (falsely, in our view) that in the Deduction, Kant attempts to provide one or more local deductive arguments which he intends individually or jointly to defend his explanation of the objective validity of the categories against a principled sceptic. If this is correct, then by the end of the Deduction's first half, it should be supposed that Kant has deduced the claim that the categories apply to all objects of intuition in general (objects understood simply as given things), and that he will expect his sceptical interlocutors to be satisfied in accepting this conclusion on the basis of the foregoing argument. But then there appears to be nothing left to the project of defending the Deduction's final conclusion besides the drawing of a trivial inference. The picture changes significantly, though, when we suppose instead that the Deduction is not concerned with giving one or more deductive arguments, but rather with simply articulating an explanation of possibility.

These points are anticipated by Scott Edgar in his 2010 paper, 'The Explanatory Structure of the Transcendental Deduction'. Our understanding of the goals and structure of Kant's explanation, however, differs from Edgar's.

In our view, in the Deduction's first half, Kant explains in the abstract a way in which the categories could apply, and apply necessarily, to objects in experience. His explanation involves the surprising idea that given objects are partly constituted by the action of the understanding. In apprehending objects, Kant explains, the understanding actively brings together manifolds of given material, synthesizing and unifying them through acts of combination. The understanding's rules for objective combination are the categories. Thus in the apprehension of objects, the understanding presupposes that the manifold elements on which it operates are necessarily combinable in accordance with the categories.<sup>33</sup> In the second half, Kant goes on to explain that when we consider how things are given to us in space and time in particular, this structure is realized in a particular way: the understanding's presupposition is that each of the elements of any spatiotemporally given manifold must be able to be combined with each other element in determinate relations of direction and distance. Each half has an important contribution to make to the overall explanation: the first half presents a novel account of object apprehension in the abstract and the second half connects that account to the results of the Transcendental Aesthetic to show how such apprehension is realized when the objects in question are temporally or spatially structured.

Edgar, by contrast, sees the Deduction's second half as motivated by a desire to limit the pretensions of traditional metaphysics. He suggests that by §21, Kant has completed its 'positive task' – that he has explained everything that he needs to explain for his immediate purposes (Edgar 2010: 298). In our view, this is incorrect. We take it that understanding the abstract structures that are deployed in the first half of Kant's explanation are insufficient for understanding the possibility being described.<sup>34</sup>

We note in this connection that explanations of possibility often employ a 'two-step' approach, first explaining a puzzling process or event in general or abstract terms and then pointing to those features of the particular context that account for the particular way that the already-explained structures are realized. The goal of the first, more abstract part is often to introduce a set of theoretical structures that its audience needs to understand in order to appreciate the subsequent, concrete explanation.

Suppose for example that we wanted to explain how a particular sort of airplane lifts off the ground – say, the Northrop N-1M. A natural place to start would be to explain how airfoils work in the abstract. We might note that when moving through fluids, a body of a certain shape will produce aerodynamic force with a component that is perpendicular to the direction of motion (lift). In many contexts of explanation, this would be helpful but insufficient, since in having noted it, we will not yet have said anything about how the particular features of the N-1M account for the fact that it realizes the abstract structure of a functional airfoil. We will thus need to point to those features next, perhaps noting relevant characteristics of the N-1M's wing.

In giving any explanation, what counts as *helpful* information depends on the motives, interests, capacities, and background knowledge of one's audience. Explaining the physics of airfoils might be helpful to a high school student who is puzzled about how an N-1M could lift off, but it would be pedantic or irrelevant to an experienced aircraft designer and unfathomable to a young child. From the



perspective of the designer, who already understands the underlying physical theory, an interesting explanation might focus entirely on the unique features of the N-1M, highlighting how its design solves standard problems in distinctive or surprising ways.

What counts as *enough* information in a given explanation is settled by the particular how-possibly question being asked. In the mouth of an expert, the question 'How can the N-1M possibly lift off?' might simply be a question about how its pitch is stabilized, given that it lacks a tail. In the mouth of a high school student, it might be a question about how something so heavy could fly at all. Having understood the abstract theory, the student might next become interested in the aircraft designer's question; a 'two-step' approach to explanation would then be in order.<sup>35</sup>

In the Deduction, Kant will have explained how human cognition works in a helpful and adequate way if, having read it, his intended audience can understand how the categories, as subjective rules of thinking, could have objective standing in experience. Kant rightly supposes that we will need to have his underlying model of cognition explained in the abstract before he explains how it is realized in its application to objects given in time and space. On his view, thinking incorrectly about how human cognition works in the abstract is a central impediment to seeing how pure synthetic a priori knowledge is possible. He thinks that in order for us to be convinced that ordinary attempts to apply the categories (notably Cause and Effect) to objects in experience amount to something more than mere imposition, what is most pressing is that we recognize the role of the understanding in the apprehension of given objects. Thus he abstracts initially from those aspects of human cognition that concern the particular forms of our faculty of intuition, only taking them up in the second half.

This picture of the relationship between the Deduction's two halves fits well with Kant's own account of its structure in §21. He writes there that the way in which he has established that the categories apply to all objects in the first half involves a kind of abstraction. So far:

... the beginning of a **deduction** of the pure concepts of the understanding has been made, in which, 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. (B144)

In the first half, human intuitions are treated merely as representations containing a given manifold – a point from which he cannot abstract (B145). Abstracting away from other features of human sensibility allows him to focus on explaining the role that the understanding plays in unifying given manifolds in objective cognition without any complicating discussion of the sensible side of human cognitive constitution. When he moves to the second half, Kant says, his goal will be to explain how features of that sensible side realize the model of category-governed objective cognition presented in the first half:

In the sequel (§26) it will be shown from *the way in which the empirical intuition is given in sensibility* that its unity can be none other than the one the category prescribes to the manifold of a given intuition in general according to the preceding §20; thus by the *explanation* of its *a priori* validity in regard to all objects of our senses the aim of the deduction will first be fully attained. (B144-5; our emphases)

## 9.

We conclude by claiming that it as a notable virtue of our view that it makes it easy to see the importance of Kant's anti-sceptical project in the *Critique*, and that it renders his anti-sceptical method familiar. The causal and mathematical knowledge claims that Kant seeks to defend are, as he observes, perfectly ordinary ones and extremely central to much of human inquiry. We need to be able to explain why these claims are valid where for example claims about the workings of fate are not. His strategy in addressing the sceptic is also the one that we most often use in addressing ordinary scepticism: giving an explanation of how a puzzling fact is possible. Kant gives his explanation in the *Critique's* Analytic. The Deduction presents its deepest and most difficult part. Although the explanation itself is deep and surprising, there is nothing esoteric about his goals or his methods.

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## Notes

- 1 Not all of Kant's interpreters have seen the Deduction as aiming to address scepticism. See for example Ameriks 1978; Hatfield 2003; Edgar 2010: 309-12; Allais 2011: 102-7.
- 2 References to the *Critique of Pure Reason* are given by pagination in the first (A) and second (B) editions. References to the *Critique of Practical Reason* (CPrR) and the *Prolegomena to Any Future Metaphysics that will be able to Come Forward as a Science* (P) are given by the just-indicated abbreviations followed by volume and page number in the Berlin Akademie edition. Our translations follow those in The Cambridge Edition of the Works of Immanuel Kant.
- 3 We are currently aware of three exceptions to this interpretative tendency: Edgar (2010), Engstrom (1994), and Goldhaber (2024). Thanks to an anonymous reviewer for pointing us to Edgar and Goldhaber.
- 4 See Wolff (1963); Bennett (1966); Henrich (1976/2004); Allison (2004); Guyer (1987); and Schulting (2012). Ameriks offers a more thorough survey (1982: 11-12), citing dozens of interpreters.
- 5 Kitcher (2011); Pereboom (1995). The approach came to prominence in the wake of Henrich (1989).
- 6 Allison, for example, writes that the Deduction 'suffers from numerous ambiguities involving key terms such as 'object', 'necessity', 'subjective validity', as well as considerable unclarity concerning crucial issues, including the analyticity of the apperception principle, the relation of the two steps of the proof, the interpretation of the note to B160-1, the status of judgements of perception in light of the definition of judgement as involving objective validity in §19, the role of the categories with respect to perception and experience, as well as other issues . . .' (2015: 434). If this passage is especially self-aware, frank, and comprehensive, though, it is far from unusual. Schulting thus suggests that 'Kant's analysis in the Transcendental Deduction does not manifestly show the rigorous mode of syllogistic reasoning' that is inherent in it (2012: 40), and Bennett simply describes the Deduction as a 'botch' (1966: 100).
- 7 In one especially blunt case, Wolff, referring to Kant's description of the Deduction's text in terms of explanation rather than justification, claims that Kant 'mixes up the regressive and progressive methods

of exposition. [In the Deduction, he] is not going to show *how* appearances stand under unchanging laws; he is going to show *that* they do and must' (1963: 161). See also Guyer (1987: 75); Pereboom (1995: 17).  
 8 See Wolff (1963: 161-4); Allison (1983/2004: 13); Guyer (1987: 146-7); Pereboom (1995: 27); Allison (2015: 435).

9 Relevant other things include how important we think it is to explain its possibility and how interested we are in doing so. Habituation also merits notice here, as repeated exposure to something can dull feelings of puzzlement.

10 It is of course possible that someone would feel very distressed in this case if, for example, understanding the explanation was a matter of high professional interest for them, or if they thought that the only way to overcome their crippling fear of flying was to understand how airplanes lift off.

11 For a discussion of the material in this paragraph, see Crepet (2000); for the material in the next, see Friedman (2009).

12 A 'candidate explanation' is a way that we might be able to explain something. Candidate explanations are always serious, in the sense of being worth taking seriously in the course of inquiry. Nothing counts as a candidate if it is an obvious non-starter. If we find that a given candidate is unable to explain what we want to explain, it ceases to be a candidate.

13 In the Humean case, unlike the earlier ones, the puzzling fact is that we have a certain kind of knowledge. Near the beginning of this section, we defined 'scepticism' as the denial that we know that some claim or kind of claim is true, even though we are inclined to think we do. We do not mean this to provide a rigid schema into which one can insert a puzzling fact and return a sceptical position. (If we did, it would suggest that we think Hume's scepticism is of the second order – that he denies that we know that we have causal knowledge. We do not.) Rather, we mean it to provide a criterion of what counts as a sceptical attitude. In most cases, the natural way to apply the criterion is to say that if you deny that we know that the puzzling fact obtains, even though we are inclined to think we do, then your attitude is sceptical. In cases where the puzzling fact is *our knowledge of x*, the most natural way to apply the criterion is to say that if you deny that we have knowledge of *x*, your attitude is sceptical.

14 This goes for other emotional responses as well. Getting an explanation of how something is possible tends to dispel wonder, surprise, and curiosity, as well as more painful emotions like distress and confusion. This is because, in how-possibly situations, these emotions have their grounds in the inquirer's lack of an explanation.

15 References to the *Enquiry* are given by the abbreviation EHU, followed by chapter and paragraph number. Our edition is *An Enquiry concerning Human Understanding and Other Writings* (Cambridge Texts in the History of Philosophy), ed. Stephen Buckle (Cambridge: Cambridge University Press, 2007). Here see EHU, 4.3.

16 We thus hold that, in these pages, Hume is offering a sceptical argument about causal knowledge (for similar views, see Flew [1961], Kemp Smith [1941], Stove [1973], Stroud [1977]). Other interpreters advance non-sceptical interpretations of these arguments (see Garrett [1997]; also Owen [1999]).

17 Many interpreters emphasize this point. See, e.g., Stroud (1977: 46) and Baier (1991: 65).

18 We cannot, after all, directly observe necessary connections between objects. See EHU, 7.9.

19 For helpful discussion, see Stroud (1977: 47 ff.).

20 There has been much discussion about whether Hume's aim in pointing out this circularity is to show that inductive inference has no evidentiary value or to show something weaker (for the latter view, see e.g. Beauchamp and Rosenberg [1981: 41]; Arnold [1983]; Broughton [1983]; Baier [1991]; for helpful discussion see Garrett [1997: 83-91]). What matters to us is just that the argument is part of an attempt to push us to scepticism about causal knowledge by showing that no pattern of human inference can account for it. This is compatible with both the stronger and the weaker interpretations of the argument.

21 His argument that his taxonomy is complete is that no explanation of how causal inference works that is surprising and subtle enough to have escaped his own notice could be accepted. After all, he reasons, even children can make valid causal inferences, and they are clearly incapable of reasoning subtly about the grounds of these inferences (EHU, 4.23). This argument is not especially good. Its explicit premise seems true, but it is an enthymeme, and its inexplicit premise – that in order to make valid inferences, one needs to be capable of grasping the rational grounds for those inferences – is implausible. Children are for example capable of valid mathematical inference (e.g., of solving multiplication problems) without understanding the rational grounds of those inferences, say, in number or set theory.

22 We find the foregoing interpretation of Hume to be plausible and attractive. However, our main claims do not require that the reader accept it. What matters is that this is how Kant reads Hume.

23 We note that here Kant accuses Hume not simply of being unable to explain how we know that objective causal relations obtain, but of being unable to explain how we know that objective necessary combinations in general do. This is because, to Kant's mind, Hume's problem threatens the *bona fides* not only of causal knowledge but of synthetic a priori knowledge as a whole. Thus near the beginning of the *Prolegomena*, he writes that Hume fails to 'completely set out his problem', explaining that 'the concept of the connection of cause and effect is far from being the only concept through which the understanding thinks connections of things *a priori*'; rather, metaphysics consists wholly of such concepts' (P, 4 :260-1). And as the first *Critique's* Introduction makes clear, even framing Hume's problem as a threat to metaphysical knowledge gives it too narrow a scope. Although Hume 'among all philosophers came closest' to seeing the importance of explaining the possibility of synthetic a priori judgement, he 'still did not conceive of [his puzzle] anywhere near determinately enough and in its universality, but rather stopped with the synthetic proposition of the connection of the effect with its cause' (B19-20).

24 An anonymous reviewer posed the question of whether the sceptic's denial that we can have causal knowledge would subsequently render the explanation of its possibility valueless to her. We think it would not. Ordinary sceptics are normally still interested in the explanations the lack of which initially drove them to scepticism. Becoming sceptical may provide them with some psychological relief, but it does not (or at least does not usually) *eradicate* the desire for understanding.

25 We therefore disagree with McCann that the 'variety of scepticism with which Kant was most concerned is Cartesian scepticism' (McCann 1985: 71).

26 The problem that the Deduction aims to solve is, on this account, clearly not the Humean one: Allison claims that it is 'in a sense a problem of [Kant's] own making' (Allison 2015: 9).

27 Thanks to Stephen Engstrom for raising this issue.

28 Kant sometimes suggests that Hume's own way of presenting his problem is simply inchoate and unsystematic (see, e.g., A760-1/B789-90). Thinking about matters in these terms, we might see Kant as clarifying Hume's thought by offering a more careful and thorough exposition of his problem.

29 Engstrom argues that Kant thinks that there is no need to directly address the sceptic, because he thinks that the sceptical proposition is self-refuting (1994: 374).

30 As we noted above, Kant claims that a transcendental deduction of the concept of Cause and Effect 'appeared impossible to' Hume and had 'never even occurred to anyone but him' (P, 4: 260). On Engstrom's reading, these claims do not make sense: Engstrom's Hume was never in a position to see that a dialectical removal of his mistaken assumption was needed, much less that it was impossible.

31 Goldhaber (2024) presents a similar case. Like us, he views the Deduction as centrally concerned with providing an explanation of possibility. But, like Engstrom, he does not see it as a direct response to Humean scepticism. Rather, he argues, Kant provides it as a 'friendly offer' to the sceptic, to tempt her with the promise of respite from the psychological and cognitive turmoil that go with her inherently unstable position. According to us, however, Kant does not hope that his explanation will get a grip on the sceptic by offering relief from the *symptoms* of living with an undesirable epistemic situation. Rather, he wants to show that there is no such undesirable situation by giving the sceptic what she wanted in the first place: an explanation of causal knowledge's possibility. It is because Kant's methods are direct in this way, we think, that he can reasonably say that he has 'overthrown' scepticism and 'eradicated total doubt' (CPR, 5: 53). It is not clear how a friendly offer would do either.

32 For a similar statement of the puzzle, see Allison (2015: 327-8). Allison's own strategy is to deny that the conclusion of the first half is a more abstract version of the final conclusion. His thought is that, insofar as the categories are to legitimately apply to objects of *perception*, we must think of them as functioning not only to provide rules for the unification of the manifold of intuition in thinking objects but also to provide rules for unification in cases that do not involve conceptualization at all (2015: 418-9). In this way, the categories play a different role in perception than the one that Kant proves in the first half that they play in thought; they have two distinct 'epistemic functions' (2015: 329). This thought depends on the idea that, for Kant, 'we can have perceptions without concepts' (2015: 416), a claim which in turn depends on some highly contentious interpretative claims about Kant's view of the nature of space. For a summary of the debate about space, see Onof and Schulting (2015).

33 We mentioned in section 1 that Kant thinks that, by explaining how the categories could validly apply to the objects we experience, we show not only that they do so apply, but that they must: that they 'are

related necessarily and *a priori* to objects of experience' (A93/B126). So far we have argued that the sceptical context provided by Hume's arguments can account for the connection between seeing an explanation of something's possibility and accepting its actuality. Nothing has yet been said about its necessity. We are now in a position to explain. In the Deduction, Kant explains how the categories could apply to objects. From within the how-possibly situation that the Humean arguments engender, this explanation relieves all relevant forms of pressure to scepticism. Since the particular explanation that Kant gives involves reconceiving the objects of experience in such a way that the categories *necessarily* apply to them, seeing how the categories could apply to objects gives us reason to think that they do necessarily.

34 We leave disagreements with Edgar over the content of Kant's explanation for a later day.

35 Thanks to Daniel Warren for helping us see the need to clarify this point.

## References

- Allais, Lucy (2011) 'Transcendental idealism and the Transcendental Deduction'. In D. Schulting and J. Verburgt (eds.), *Kant's Idealism: New Interpretations of Controversial Doctrine* (Dordrecht: Springer), 91–107.
- Allison, Henry (1983/2004) *Kant's Transcendental Idealism*. New Haven: Yale University Press; second edition, 2004.
- (2015) *Kant's Transcendental Deduction*. Oxford: Oxford University Press.
- Ameriks, Karl (1978) 'Kant's Transcendental Deduction as a regressive argument'. *Kant-Studien*, 69, 1–4, 273–87.
- (1982) 'Recent work on Kant's theoretical philosophy'. *American Philosophical Quarterly*, 19, 1–24.
- Arnold, N. Scott (1983) 'Hume's skepticism about inductive inferences'. *Journal of the History of Philosophy*, 21, 31–55.
- Baier, Annette C. (1991) *A Progress of Sentiments*. Cambridge, MA: Harvard University Press.
- Beauchamp, Tom L., and Alexander Rosenberg (1981) *Hume and the Problem of Causation*. Oxford: Oxford University Press.
- Bennett, Jonathan (1966) *Kant's Analytic*. Cambridge: Cambridge University Press.
- Broughton, Janet (1983) 'Hume's skepticism about causal inferences'. *Pacific Philosophical Quarterly*, 64, 3–18.
- Crepet, William L. (2000) 'Progress in understanding angiosperm history, success, and relationships: Darwin's abominably "perplexing phenomenon"'. *Proc Natl Acad Sci*, 97, 12939–12941.
- Edgar, Scott (2010) 'The explanatory structure of the Transcendental Deduction and a cognitive interpretation of the first "Critique"'. *Canadian Journal of Philosophy*, 40, 285–314.
- Engstrom, Stephen (1994) 'The Transcendental Deduction and skepticism'. *Journal of the History of Philosophy*, 32, 359–80.
- Flew, Antony (1961) *Hume's Philosophy of Belief*. London: Routledge & Kegan Paul.
- Friedman, W. E. (2009) 'The meaning of Darwin's "abominable mystery"'. *American Journal of Botany*, 96, 5–21.
- Garrett, Don (1997) *Cognition and Commitment in Hume's Philosophy*. Oxford: Oxford University Press.
- Goldhaber, Charles (2024) 'Kant's offer to the skeptical empiricist'. *Journal of the History of Philosophy*, 62, 421–47.
- Guyer, Paul (1987) *Kant and the Claims of Knowledge*. Cambridge: Cambridge University Press.
- Hatfield, Gary (2003) 'What were Kant's aims in the Deduction?' *Philosophical Topics*, 31, 1–2, 165–98.
- Henrich, Dieter (1969) 'The proof-structure of Kant's Transcendental Deduction'. *The Review of Metaphysics*, 22, 640–59.
- (1976/2004) 'Identity and objectivity: an inquiry into Kant's Transcendental Deduction'. In D. Henrich (ed.), Repr. in his *The Unity of Reason* (Cambridge: Harvard University Press, 2004), 123–208.
- (1989) 'Kant's notion of a deduction and the methodological background of the first Critique'. In Eckart Förster (ed.), *Kant's Transcendental Deductions* (Stanford: Stanford University Press), 29–46.
- Kemp Smith, Norman (1941) *The Philosophy of David Hume: A Critical Study of Its Origins and Central Doctrines*. London: MacMillan.
- Kitcher, Patricia (2011) *Kant's Thinker*. Oxford: Oxford University Press.

- McCann, Edwin (1985) 'Skepticism and Kant's B-Deduction'. *History of Philosophy Quarterly*, 2, 71–89.
- Onof, Christian, and Dennis Schulting (2015) 'Space as form of intuition and as formal intuition. On the note to B160 in Kant's *Critique of Pure Reason*'. *Philosophical Review*, 124, 1–58.
- Owen, David (1999) *Hume's Reason*. Oxford: Oxford University Press.
- Pereboom, Derk (1995) 'Self-Understanding in Kant's Transcendental Deduction'. *Synthese*, 103, 1–42.
- Schulting, Dennis (2012) *Kant's Deduction and Apperception: Explaining the Categories*. Basingstoke: Palgrave Macmillan.
- Strawson, P. F. (1966) *The Bounds of Sense: An Essay on Kant's Critique of Pure Reason*. London: Routledge.
- Stove, D. C. (1973) *Probability and Hume's Inductive Scepticism*. Oxford: Clarendon Press.
- Stroud, Barry (1977) *Hume*. London: Routledge & Kegan Paul.
- Wolff, Robert Paul (1963) *Kant's Theory of Mental Activity*. Cambridge, MA: Harvard University Press.
- Zangwill, Israel (1895) *The Big Bow Mystery*. Chicago: Rand, McNally & Co.

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