

Knowledge and Sensory Knowledge in Hume's *Treatise*
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If we carry our enquiry beyond the appearances of objects to the senses, I am afraid, that most of our conclusions will be full of scepticism and uncertainty. (*T* 1.2.5.26n12.2App)¹

1. INTRODUCTION

Despite the wealth of attention paid to Hume's empiricism, there is little dedicated to his views on the relationship between sense perception and knowledge. This gap in the literature is owed, in no small part, to a broader issue: namely that Hume's positive views on knowledge do not feature prominently in his writings. Commentators are focused on what Hume is focused on.

In this paper, I will argue that Hume's *A Treatise of Human Nature* makes clear that he holds that there is sensory knowledge. Specifically, I will argue that Hume holds that there are relations of impressions that both constitute sensory knowledge and are its objects. All one needs to do is sense and, if the objects of one's senses are of the right sort, one thereby knows. For example, when I see that two patches of red in my immediate visual field resemble one another, I thereby know that they do. Or, at least, so Hume would maintain.

While there is direct textual evidence for these interpretative claims, it requires contextualization. To that end, I will first argue for an interpretation of Hume's positive position on knowledge that is appropriately situated relative to his broader system. I will argue that Hume's position has three components:

- (i) every instance of knowledge must be an immediately present perception (i.e., an impression or an idea);
- (ii) an object of this perception must be a token of a knowable relation;

and (iii) this token knowable relation must have parts of the instance of knowledge as relata (i.e., the same perception that has it as an object).

I call the conjunction of these three claims and the further claim that any perception that satisfies them is an instance of knowledge the *Constitutive Account*. Given Hume's relatively sparse positive claims about knowledge, establishing that the Constitutive Account is his view is no easy task, and it will occupy much of my attention in what follows.

After giving my case for attributing the Constitutive Account to Hume in section 2, I will defend my interpretation against an alternative and several objections in section 3. This discussion also serves to locate the Constitutive Account relative to Hume's other commitments. In section 4, with the help of some important passages from the *Treatise*, I will apply the Constitutive Account to sense perception in order to argue that Hume holds that there is sensory knowledge. Given what has come before, this means that, on my interpretation, Hume holds that some impressions are instances of knowledge because they have tokens of the knowable relations as both parts and objects.

2. HUMEAN KNOWLEDGE: ITS OBJECTS, STANDARDS, AND NATURE

The texts where Hume expounds upon his positive views on knowledge are few and far between. They amount to a series of glimpses of an underlying picture that Hume never fully reveals. They consist of one small section of the *Treatise* explicitly dedicated to the topic (section 1.3.1; '*Of knowledge*'); the subsequent section, which finds Hume briefly discussing sense perception and its connection with knowledge; and a smattering of other passages throughout the rest of his corpus.² My focus will be on these two sections—*T* 1.3.1 and *T* 1.3.2—since Hume indicates that they are where his positive account is to be found. These two sections provide sufficient evidence to attribute the Constitutive Account to Hume.

In *T* 1.3.1, Hume's primary concern is with giving an account of 'the objects of knowledge and certainty' (*T* 1.3.1.2). These objects are what candidate instances of knowledge are about—they are the knowable things. If I know that $1+1=2$, then the object of my instance of knowledge is that $1+1=2$. What Hume writes about these objects reveals what his standards for knowledge are, which are those conditions that candidates for knowledge must satisfy if they are to be instances of knowledge. The standards that Hume uses to demarcate knowledge act as our only bridge to his position on the nature of instances of knowledge, given that he writes nothing explicitly about the latter.

It is a common view that the objects of knowledge are propositions. This is, in fact, Hume's view, but I will not use proposition-talk as shorthand in what follows because my argumentation will require explicit discussion of the idiosyncrasies of Hume's position on the knowable propositions.³

Hume begins *T* 1.3.1 by reminding us of his view that there are 'seven different kinds of philosophical relation' (*T* 1.3.1.1): resemblances, identities (over time), relations in space and time, proportions in quantity or number, qualitative relations, contrarieties, and causal relations.⁴ Hume first introduces philosophical relations in an earlier section. In that section, *T* 1.1.5, Hume argues that when we 'compare' any two (collections of) things in any dimension, there is a perception immediately present to our minds that has a token philosophical relation as its object.⁵ Hume's repeated use of the term 'compare' in this context is noteworthy, as when he describes philosophical relations as 'any particular subject of comparison' (*T* 1.1.5.1). Hume indicates that the relevant sort of comparison is a minimal one that does not require us to be introspectively aware of what we compare.⁶ Simply by having two (collections of) things present to mind, one thereby compares them in Hume's sense.⁷

In *T* 1.3.1.1-2, Hume argues that there is a distinction between two classes of these seven kinds of philosophical relations. One class consists of the objects of a kind of perception that Hume calls ‘probability’, and the members of this class are identities (over time), relations in space and time, and causal relations.⁸ When I think that my laptop is on top of my desk, I have in mind a token relation of contiguity in time and place. The other class of relations consists of ‘the objects of knowledge and certainty’ (*T* 1.3.1.2), and the members of this class are resemblances, proportions in quantity or number, qualitative relations, and contrarieties.⁹ These are the knowable relations.¹⁰ When I think that three pencils are greater in quantity than two, I have in mind a token proportion in quantity or number.

On Hume’s view, a relation is a knowable relation if, and only if, the intrinsic properties of its relata are the sole determinants of whether it holds or not.¹¹ Given that the probability relations are those relations that are *not* knowable relations, and given that Hume’s justification of this condition reveals the basis for his position on knowledge, this condition undergirds the distinction between the two classes of relations. But what justifies this condition? Here is Hume’s answer:

These relations may be divided into two classes; into such as depend entirely on the ideas, which we compare together, and such as may be chang’d without any change in the ideas. ‘Tis from the idea of a triangle, that we discover the relation of equality, which its three angles bear to two right ones; and this relation is invariable, as long as our idea remains the same. On the contrary, the relations of *contiguity* and *distance* betwixt two objects may be chang’d merely by an alteration of their place, without any change on the objects themselves or on their ideas; and the place depends on a hundred different accidents, which cannot be foreseen by the mind. ‘Tis the same case with *identity* and

causation. Two objects, tho' perfectly resembling each other, and even appearing in the same place at different times, may be numerically different: And as the power, by which one object produces another, is never discoverable merely from their ideas, 'tis evident *cause and effect* are relations, of which we receive information from experience, and not from any abstract reasoning or reflection. There is no single phenomenon, even the most simple, which can be accounted for from the qualities of the objects, as they appear to us; or which we cou'd foresee without the help of our memory and experience. (*T* 1.3.1.1)

So long as we have two things in mind, we can 'discover' whether a knowable relation holds of them or not—no other information needed. Having the intrinsic properties of the relata in mind is sufficient because the relations hold in virtue of them alone. By contrast, we cannot foresee whether probability relations hold 'without the help of our memory and experience' of other facts. This is because the intrinsic nature of the relata of probability relations does not determine whether the relations hold or not.

The reason that Hume justifies the condition undergirding the distinction between the two classes of relations in this way is that he holds that we must be able to determine 'without any possibility of error' (*T* 1.3.1.5) whether or not two beings bear a relation to one another, if we are to know whether or not they do. There must be no possibility that a knower is in error about what she knows. Hume repeatedly indicates that this is his underlying view when he uses the term 'infallible' in connection with knowledge and when he uses 'certainty' interchangeably with 'knowledge'.¹² Hume expresses the same view in different terms when he indicates that knowledge is a form of *scientia*, which is a variety of knowledge that Descartes and other predecessors held to be maximally epistemically certain.¹³ As Frederick Schmitt argues, by all

indications, Hume's view is that the relevant sort of certainty *just is* 'infallibility or the impossibility of error.'¹⁴

If a relation's holding depends on its extrinsic properties, then one could have its relata in mind and yet still be wrong about whether it holds or not. One must rely on one's fallible 'memory and experience' in determining whether a probability relation holds or not. By contrast, for a relation to qualify as a knowable relation, it must be 'discoverable' from the perceptions of the relata alone, in the sense that if one has the intrinsic properties of the relata in mind, then one cannot be mistaken about whether the relata bear the relation to one another. The rest of the world need not cooperate. Thus, the aforementioned condition undergirds the distinction between the knowable and probability relations because Hume maintains that one has knowledge of something only if one cannot err about it being as one thinks it is. In this fashion, Hume's justification of the condition that filters the knowable relations from the rest reveals his standards for knowledge.¹⁵

Hume holds that the knowable relations are also the metaphysically necessary relations.¹⁶ Hume identifies the relations that are discoverable *a priori* with the necessary relations because of his endorsement of the Conceivability Principle, which is the claim that 'whatever we conceive is possible' (*T* 1.4.5.10).¹⁷ Hume argues that, for any two things and for any given probability relation, we can conceive *either* that they bear the relation to one another *or* that they do not.¹⁸ Given the Conceivability Principle, it follows that it is possible for the probability relations to hold or to fail to hold between any two things.¹⁹

Seeing as Hume holds that one must be certain about whether a relation holds or not if one is to know it, and this certainty is attainable only if one is aware of the intrinsic properties of its relata, it follows that, for Hume, candidates for knowledge must provide certain awareness

about what the intrinsic properties of the relata are, and they must do so at the time that one knows the relation. It is not enough for one to be certain that, *were* a given pair of things to have so-and-so intrinsic properties at some time, then, simply in virtue of these properties, a relation *would* hold or not between the things at that time. There must be no room for errors of misrepresentation.

The only things in Hume's system that he holds we cannot misrepresent are those that are 'immediately present' to the mind. Anything that is distinct from one's representations of it could be misrepresented, but there is no such gap with immediately present things. As a consequence, if one is to know a relation, then the intrinsic properties of its relata must be immediately present to the knower at the time that they are known. Since Hume holds that *one's perceptions* are the only things that can be immediately present, they are the only things that have intrinsic properties that can be immediately present.²⁰ Hume explicitly relies on the former view when he argues that we are reduced to making inferences about things that are *not* perceptions on the basis of the probability relation of cause and effect:

The only existences, of which we are certain, are perceptions, which being immediately present to us by consciousness, command our strongest assent, and are the first foundation of all our conclusions. The only conclusion we can draw from the existence of one thing to that of another, is by means of the relation of cause and effect, which shows, that there is a connexion betwixt them, and that the existence of one is dependent on that of the other. The idea of this relation is deriv'd from past experience, by which we find, that two beings are constantly conjoin'd together, and are always present at once to the mind. But as no beings are ever present to the mind but perceptions; it follows that we

may observe a conjunction or a relation of cause and effect betwixt different perceptions, but can never observe it betwixt perceptions and objects. (*T* 1.4.2.47)²¹

There are several other passages where Hume asserts or makes use of his view that one's perceptions are the only things that can be immediately present.²² Indeed, Hume makes a similar claim about impressions earlier in the same section:

For since all actions and sensations of the mind are known to us by consciousness, they must necessarily appear in every particular what they are, and be what they appear. Every thing that enters the mind, being in *reality* a perception, 'tis impossible any thing shou'd to *feeling* appear different. This were to suppose, that even where we are most intimately conscious, we might be mistaken. (*T* 1.4.2.7)

Yet, to be clear, Hume's view that we cannot misrepresent immediately present things does not extend to *all* of the properties of perceptions. It only extends to those properties of perceptions that are immediately present, and these properties are those that they 'appear' to have. As Hume asserts in the passage quoted in my epigraph, '[a]s long as we confine our speculations to the *appearances* of objects to our senses, without entering into disquisitions concerning their real nature and operations, we are safe from all difficulties, and can never be embarrass'd by any question' (*T* 1.2.5.26n12.2App). Since Hume holds that perceptions are what appears to the mind, the properties that perceptions *appear* to have are properties that perceptions *actually* have, regardless of what else exists.²³ These properties are intrinsic properties. And they are the properties explicitly referenced by Hume at the start of the section '*Of knowledge*' when he refers to 'the qualities of the objects, as they appear to us' (*T* 1.3.1.1) as the ones that are relevant to determining whether two things bear a knowable relation or not.

Such a clarification is necessary because there are cases where Hume seems to indicate that there are violations of his view about the infallible access provided by immediate presence. Consider Hume's discussion of how we can mistake ideas for impressions in dreams (*T* 1.1.1.1), his discussion of how we can mistake bundles for unities (*T* 1.4.6), or his discussion of how we can mistake calm passions for reason (*T* 2.3.3). Each of these cases is one where the misattributed property is *not* an intrinsic property of the perception or perceptions at issue. For instance, the distinction between ideas and impressions is a distinction between entities that are copied and those that are not. Since what it is to be copied is to bear a cluster of extrinsic relations to other things, mistaking an idea for an impression is *not* a mistake involving the intrinsic properties of the perceptions at issue.²⁴

The preceding line of reasoning directly supports a core component of the Constitutive Account that I attribute to Hume. On this interpretation, Hume's position is that

- (i) every instance of knowledge must be an immediately present perception;
- (ii) an object of this perception must be a token of a knowable relation;
- and (iii) this token knowable relation must have parts of the instance of knowledge as relata (i.e. the same perception that has it as an object).

Since Hume holds that only perceptions are immediately present to the mind, he holds that all relations have numerically distinct relata, and he must hold that the intrinsic properties of the relata of known knowable relations must be immediately present to the mind, it follows that he also must hold that any known knowable relation must have relata that are parts of the knower's immediately present perceptions.²⁵ This is the main part of (iii). Two of the other components of the Constitutive Account have already been covered: namely, (i) and (ii). The rest of (iii) is all that is left; that is, all that remains to be shown is that Hume holds that an

immediately present perception that is an instance of knowledge is *the very same perception* that has, as parts, the relata of the knowable relation that it has as an object.²⁶ The preceding argumentation does not rule out the possibility that a knower's instance of knowledge is *distinct from but co-occurrent with* what she knows (the object of her instance of knowledge).

Suppose, for purposes of a *reductio*, that Hume were to hold that it is *not* the case that every instance of knowledge *k* must be the very same immediately present perception whose parts are the relata of the token knowable relation that *k* has as an object. It follows that Hume would hold that it is possible that there is some instance of knowledge that is distinct from its object. Whether such an instance of knowledge is either another perception or something else entirely, Hume would hold that it would be conceivable that it exists and its object does not. After all, Hume endorses both the Separability Principle and the Conceivability Principle. The Separability Principle is the view that 'whatever objects are different are distinguishable, and that whatever objects are distinguishable are separable by the thought and imagination' (*T* 1.1.7.3). For any two numerically distinct things, one can *conceive* of them as separate—it is conceivable that one exists and the other does not.²⁷ Given the Conceivability Principle, it follows that it would be *possible* that one exists and the other does not (and vice versa). Therefore, if there were some instance of knowledge *k* that was distinct from its object, then it would be possible that *k* exists but it is not the case that its object exists. But if this were possible, then it would be possible that a knower could be in error about whether the known—a token knowable relation—holds or not.²⁸ Since Hume denies that the latter is possible because a knower must be certain about what she knows, it follows that Hume must hold that every instance of knowledge *k* is the very same immediately present perception whose parts are the relata of the token knowable relation that *k* has as an object.²⁹

Consider the case of an idea of the resemblance holding between a patch of crimson and a patch of scarlet. If one is to know this resemblance, on Hume's view, it must be a relation between the parts of the very idea one has of it. If the patches were distinct from the idea, then their resemblance could fail to exist when the idea exists. It would be an error to have an idea of them resembling when it is not the case that they resemble. Since knowing precludes any possibility of erring, such an idea would not be an instance of knowledge.

Although my arguments for both parts of (iii) are derived from *T* 1.3.1 and Hume's principles (which are independently supported by the texts), they are also directly supported by the texts. Hume's endorsement of these components of the Constitutive Account is the best explanation of his assertions in *T* 1.3.1.1 that knowable relations 'depend entirely on the ideas', that they remain 'invariable, as long as our idea remains the same', and that they are 'discoverable merely from their ideas'. Hume makes similar claims elsewhere, as in *T* 1.3.3.2: 'All certainty arises from the comparison of ideas, and from the discovery of such relations as are unalterable, so long as the ideas continue the same.'³⁰ Claims like these are true only if the Constitutive Account is. If the Constitutive Account were false, then a knower's ideas of knowable relations remaining the same would be no guarantee that the relations themselves 'continue the same' or not (i.e. hold or not). The Constitutive Account being Hume's position provides the only explanation of what Peter Millican describes as Hume's 'slide between *what is implied by the properties of the objects themselves* (independently of further information about their relative situation etc.) and *what is implied by the ideas of the objects themselves* (independently of other ideas).'³¹

Admittedly, the passages I have presented so far do not find Hume asserting that every instance of knowledge must be a *perception*. Hume uses the term 'idea' but not 'impression'.

However, there is nothing about the content of Hume's position that precludes impressions from being instances of knowledge. Impressions can have the knowable relations as objects in precisely the same way that ideas can, and Hume's justification of the standards of knowledge is perfectly general in that it does not turn on any of the features distinctive of ideas. Nonetheless, with the preceding argument for attributing the Constitutive Account to Hume in hand, I will provide specific textual evidence for the possibility (and actuality) of Humean sensory knowledge in section 4. This will be the last piece of the puzzle. First, though, I must respond to some objections.

3. ANSWERING OBJECTIONS AND SIZING UP THE COMPETITION

3.1 - What about general knowledge?

A natural concern about the Constitutive Account is that it severely restricts what can be known. One might think that an expansion of the domain of the knowable is warranted since, in some cases, it seems that in virtue of knowing whether a token knowable relation holds of one thing, I would also know something about other things of the same sort. This objection can be expressed in terms of what Hume calls 'adequate representation'. If my idea of a particular right triangle is an adequate representation of all other right triangles, then it seems that whatever I know about this triangle in virtue of it being a right triangle is merely one case of the knowledge that I have about all right triangles whatsoever. In the following passage, Hume defines this sort of adequacy and he explicitly links it to our attainment of knowledge, thereby potentially undermining the attribution of the Constitutive Account to him:

Wherever ideas are adequate representations of objects, the relations, contradictions and agreements of the ideas are all applicable to the objects; and this we may in general observe to be the foundation of all human knowledge. (*T* 1.2.2.1)

While this objection seems troubling, it falls victim to the argument from the preceding section. For all those cases where a perception is an adequate representation of something distinct from it, if any are possible, then Hume must hold that the perception and what it adequately represents could exist separately, and so the argument from the prior section would be applicable. Given Hume's Separability and Conceivability Principles, the first could exist while the second does not, and vice versa. If such a perception could be an instance of knowledge (that has a knowable relation between the parts of what it adequately represents as an object), then Hume would be forced to allow that one could know that a relation holds—the relation that holds between the parts of the adequately represented and distinct thing—despite it being possible that it is not the case that the relation holds. Yet, this cuts against the position on knowledge Hume espouses in *T* 1.3.1. It follows that no instance of knowledge could, for Hume, double as general knowledge of anything distinct from it.

For all those cases where the things adequately represented by a perception are knowable relations but are not distinct from it, then Hume can allow that one knows them but not in virtue of the adequacy of that perception. In such a case, one would know because the knowable relation in question would hold between parts of the perception that adequately represents it.

In what sense, then, are we to understand Hume's claim that adequate representation is 'the foundation of all human knowledge'? Since Hume's account of abstract ideas is how he accounts for general thought in all domains, we must consider how this account interfaces with his position on knowledge.

Contrary to Locke, Hume argues in *T* 1.1.7 that there are only particular perceptions with fully determinate properties.³² Hume denies that there are any perceptions that are general in their representational capacities in virtue of having indeterminate properties. This negative

position is paired with a positive attempt to explain how, nonetheless, our ideas can be general representations. In brief, Hume's story is as follows.³³ Upon perceiving many particular ideas that resemble in some respect (or several), the mind begins to apply a linguistic term to them and thereby associates them with one another. Contact with such a term generally causes the mind to think of one of the particular ideas that it associates with the term. Typically, this idea is pertinent to the context at hand and its role is to stand, as an exemplar, for all the ideas that are similar to it in the relevant respects. So, for instance, if I hear the false claim that all right triangles are isosceles, my mind will immediately generate a counterexample in the form of an idea of a right triangle that is not isosceles.

If there is a sense in which Hume maintains that an idea of a particular right triangle—that has a known knowable relation holding between some of its parts—adequately represents all right triangles, including those that are distinct from it, then this idea must be an exemplar associated with others like it via a shared term. As previously discussed, it is clear why this sort of associative disposition would neither qualify as nor provide knowledge as Hume defines it in *T* 1.3.1. Hume classifies the knowable relations as the objects of knowledge because awareness of the intrinsic properties of their relata alone provides the knower with certainty about whether they hold or not. Since there is nothing barring the mind from misclassifying ideas and erroneously associating them with terms that do not apply to them, we cannot be certain that the objects of our immediately present ideas are similar in the relevant respects to the objects of those distinct ideas associated with them via a term. Thus, the association of other ideas with our present instances of knowledge via a term should be understood as a *fallible effect* of our knowledge. Nonetheless, it is undoubtedly beneficial that our minds develop these habits since there is very little immediately present to our minds at any given time. This is why Hume asserts

that adequate representation is ‘the foundation of all human knowledge.’ When the mind is functioning properly, adequate representation magnifies the relevance and usefulness of the knowledge it previously had.

3.2 - A competitor: the Assurance Account

Hume gives an explicit definition of knowledge in a passage outside of *T* 1.3.1 and the subsequent section. Those who reject the attribution of the Constitutive Account to Hume could rely on this passage to justify an alternative interpretation. Unfortunately, *T* 1.3.1-2 lack a correspondingly explicit definition—in fact, this definition is the *only* explicit definition of knowledge Hume gives in his entire corpus. In this subsection, I will examine the most plausible version of this sort of alternative interpretation. By addressing this passage and related texts, I will add further credence to my preceding claims about how we should understand Hume’s views on the possibility of general knowledge. The passage containing the explicit definition is as follows. I will call it the *Definition Passage*.

Those philosophers, who have divided human reason into *knowledge* and *probability*, and have defin’d the first to be *that evidence, which arises from the comparison of ideas*, are oblig’d to comprehend all our arguments from causes or effects under the general term of *probability*. But tho’ every one be free to use his terms in what sense he pleases; and accordingly in the precedent part of this discourse, I have follow’d this method of expression; ‘tis however certain, that in common discourse we readily affirm, that many arguments from causation exceed probability, and may be receiv’d as a superior kind of evidence. One wou’d appear ridiculous, who wou’d say, that ‘tis only probable the sun will rise to-morrow, or that all men must dye; tho’ ‘tis plain we have no farther assurance of these facts, than what experience affords us. For this reason, ‘twou’d perhaps be more

convenient, in order at once to preserve the common signification of words, and mark the several degrees of evidence, to distinguish human reason into three kinds, viz. *that from knowledge, from proofs, and from probabilities*. By knowledge, I mean the assurance arising from the comparison of ideas. By proofs, those arguments, which are deriv'd from the relation of cause and effect, and which are entirely free from doubt and uncertainty. By probability, that evidence, which is still attended with uncertainty. (T 1.3.11.2)

In this passage, Hume explicitly asserts that knowledge is ‘the assurance arising from the comparison of ideas’ and he attributes a similar definition (*‘that evidence, which arises from the comparison of ideas’*) to ‘those philosophers, who have divided human reason into *knowledge and probability*.’ Given that Hume is one such philosopher and the latter definition is similar to the former, it seems that Hume means to be expressing a similar definition with both, as well as his endorsement of it, or so the defender of the alternative interpretation could argue. Call this interpretation the *Assurance Account*.³⁴

But what is the relevant sort of assurance like? In the other *Treatise* passages where it is clear that Hume is using ‘assurance’ in connection with knowledge, he uses it to refer to dispositions rather than perceptions.³⁵ From these texts, we can gather that it is a cluster of dispositions to think, to act, and to affirm *as if* one has the relevant knowable relation(s) immediately present to the mind. Consider the following passage in which Hume discusses the assurance that a geometer has in geometrical propositions and principles:

Our ideas seem to give a perfect assurance, that no two right lines can have a common segment; but if we consider these ideas, we shall find, that they always suppose a sensible inclination of the two lines, and that where the angle they form is extremely small, we

have no standard of a right line so precise as to assure us of the truth of this proposition.

‘Tis the same case with most of the primary decisions of the mathematics. (*T* 1.3.1.4)

This passage and an earlier passage indicate that Hume maintains that geometers *seem* to have ‘perfect assurance’—or ‘infallible assurance’ as he describes it in the earlier passage (*T* 1.2.4.30)—in universal geometrical claims like the view that ‘no two right lines can have a common segment’. Hume does not deny that geometers have assurance in these universal claims. Hume’s concern is with whether this assurance is actually—and not merely seemingly—‘perfect’ or ‘infallible’. In this passage, the reason Hume expresses for his concern is the fact that there are cases of two straight (‘right’) lines where the geometer does not have a perception of them lacking a common segment because the geometer’s ideas are not up to the task. Both the eye and the mind’s eye cannot represent the lines in the necessary fashion when the angle between them is not ‘sensible’. Hume argues that once the geometer inspects ‘most of the primary decisions’ of geometry, which come in the form of universal claims like this one, she finds that there is not a precise enough ‘standard’ to justify her assurance in them. Hume’s concern is with epistemic certainty, not psychological certainty.³⁶

This entails that the geometer’s assurance in the universal claims of her science could not be identical to perceptions of token knowable relations holding (or failing to hold) between their parts, whatever else it is like. If members of this species of assurance were perceptions of token knowable relations holding (or failing to hold) between their parts, then there would be no possibility that she finds herself, upon reconsideration, incapable of evaluating the truth or falsehood of the universal claim when instantiated to cases like the case at hand. Hume is clear that the problem generalizes to all ideas of right lines ‘where the angle they form is extremely small’. As we have seen, perceptions of token knowable relations holding (or failing to hold)

between their parts provide the mind with infallibility about whether those relations hold (or not). Therefore, the geometer's assurance in the universal claim that 'no two right lines can have a common segment' could not be a perception of this sort because her assurance in this claim when it is instantiated to those cases that are beyond her faculties could *not* be a perception of this sort.

What, then, is the geometer's assurance in claims like the view that 'no two right lines can have a common segment'? In answering this question, it is important to note that Hume does not deny that there are cases in geometry where we have perceptions of token knowable relations holding (or failing to hold) between their parts.³⁷ The geometer's ideas of perpendicular straight lines, for instance, are perceptions of two straight lines lacking a common segment that fit the bill. The problem cases—such as those involving figures with 'prodigious minuteness'—are those where geometers have generalized and extrapolated beyond the good cases. The consequences of this extrapolation are manifold. Geometers are willing to affirm and rely on their universal propositions and principles even for those cases that they have not verified. Geometers are confident in using their propositions and principles in demonstrations without hesitation.³⁸ Together, these habits are the geometer's assurance—an assurance they take to be 'perfect' or 'infallible' despite lacking the relevant ideas. But the existence of the good cases is crucial because it is the basis of their confidence. As Hume asserts in the Definition Passage, the relevant sort of assurance arises from 'the comparison of ideas.' Given my preceding analysis of Hume's position in *T* 1.3.1.1-2, as well as his use of the same terms there, it is clear that the relevant comparisons are ideas of tokens of the knowable relations. It is my contention, then, that Hume holds that the species of assurance connected to knowledge is a cluster of dispositions to think, to act, and to affirm *as if* one has the relevant knowable relation(s) immediately present to

the mind. If Hume endorses the Assurance Account, he holds that knowledge just is this species of assurance.

A statement Hume makes in the *Treatise* about assurance and demonstrations underscores the divide between the Assurance Account and the Constitutive Account. There, Hume asserts that ‘the assurance of a demonstration proceeds always from a comparison of ideas, tho’ it may continue after the comparison is forgot’ (*T* 1.3.4.3). Throughout his corpus, Hume maintains that there are only two ways to achieve knowledge: via intuition or via demonstration.³⁹ A typical demonstration is the mental analog of a multi-premise argument and its conclusion is an idea of a token of a knowable relation.⁴⁰ It is a linked series of idea comparisons. If demonstrations generate knowledge and the Assurance Account is the correct interpretation, then ‘the assurance of a demonstration’ to which Hume refers in *T* 1.3.4.3 is knowledge. In this passage, Hume contrasts a demonstrator at the time that she concludes a demonstration with someone who has concluded a demonstration in the past but has forgotten the demonstration. Crucially, Hume states that the assurance ‘may continue after the comparison is forgot’, which means that if the Assurance Account is correct, then Hume holds that a knowable relation may be *entirely absent* from one’s mind, and yet one can still have assurance—and thus knowledge—of it. If Hume holds the Constitutive Account, then he denies that the relation between an object of an instance of knowledge and that instance could be like this. The Constitutive Account is defined by the claim that any known knowable relation *is itself* a part of the instance of knowledge that has it as an object.

Why should we favor the Constitutive Account over the Assurance Account? As Hume indicates in *T* 1.3.4.3, the assurance arising from having an idea of a knowable relation can remain, and generally does remain, after that idea fades. This sort of delay makes room for the

possibility of error. After all, at any time when one has assurance but no longer has an idea of the things at issue, one could be mistaken about whether a token knowable relation holds between them or not. One could demonstrate some arithmetical claim, forget the demonstration, and nonetheless have assurance in it. Since Hume is clear in *T* 1.3.1 that there must be no possibility that a knower is in error about what she knows, he must deny that this assurance is knowledge and thus the Assurance Account could not be his position on knowledge. Indeed, this is the very reason that the passage about the geometer's 'perfect assurance' is found in *T* 1.3.1. Hume is contrasting the geometer's assurance with knowledge, hence his descriptions of geometry as never attaining 'a perfect precision and exactness' and as having first principles 'drawn from the general appearance of the objects; and that appearance can never afford us any security'. In the very next passage, *T* 1.3.1.5, Hume concludes that '[t]here remain, therefore, algebra and arithmetic as the only sciences, in which we can carry on a chain of reasoning to any degree of intricacy, and yet preserve a perfect exactness and certainty.'

This interpretation of Hume's position on the species of assurance connected to knowledge is congruent with my response to the challenge of general knowledge. In the preceding subsection, I argued that the sense in which Hume means us to understand his claim that adequate representation is 'the foundation of all human knowledge' is as a reference to how we associate relevantly similar ideas of token knowable relations via common terms and thereby know in some derivative sense those token knowable relations that are *not* immediately present to the mind. My present contention should be understood as the claim that the species of assurance connected to knowledge is a cluster of dispositions that includes such associations. In fact, in the problem cases previously discussed, where the geometer has unjustified assurance, the geometer mistakenly associates ideas with a term (or a sentence composed of terms) that are

not similar in the relevant respects. Cases of misclassification like these undergird my claim that these associations should be, at best, understood as fallible effects of our knowledge. The defender of the Constitutive Account can grant that the mind is generally reliable in generating the relevant sort of assurance only from perceptions of the knowable relations of the right sort and in applying this assurance to the good cases. Yet, for Hume, knowledge is a matter of certainty, not mere reliability. In this way, only the Constitutive Account respects Hume's standards for knowledge.

Further credence is lent to this interpretation by the fact that it conforms to how many commentators interpret Locke's use of the term 'assurance' in connection with knowledge. Locke's influence on Hume in this domain, as elsewhere, was significant. As Samuel C. Rickless and Keith Allen note, Locke does not explicitly use 'assurance' to refer to knowledge in the strict sense, although he does use it to refer to habitual knowledge, as well as sensitive knowledge.⁴¹ Of the former, Locke asserts that

In his adherence to a Truth, where the Demonstration, by which it was at first known, is forgot, though a Man may be thought rather to believe his Memory, than really know, and this way of entertaining a Truth seem'd formerly to me like something between Opinion and Knowledge, a sort of Assurance which exceeds bare Belief [...]. (*E* IV.i.9)⁴²

This conforms to how Hume describes the assurance that 'may continue after the comparison is forgot' (*T* 1.3.4.3). As for sensitive knowledge, it is disputed whether it is knowledge in the strict sense by Locke's lights, but Rickless maintains that it is not *because it is assurance*, and assurance, for Locke, is 'a kind of less-than-certain judgment [...] founded in the highest possible degree of probability.'⁴³ Rickless argues that what 'leads Locke to give such assurance the name of 'knowledge' (even though assurance is not the same as knowledge, strictly

understood) is that, *for practical purposes*, there is little or no difference between assurance and (strict) knowledge.’⁴⁴ This seems to be precisely Hume’s position, as he makes the same point at the end of his discussion of geometry in *T* 1.3.1.6 when he asserts that generally the shortcuts the mind takes in geometrical reasoning when it lacks ideas of knowable relations ‘cannot lead us into any considerable error.’

3.3 - *Further objections considered*

Now I will consider three further objections. First, if the Constitutive Account is Hume’s position and Humean knowledge is *not* the assurance arising from ideas of tokens of the knowable relations, then it seems the Definition Passage must be interpreted as misleading or, worse, as containing a false definition. This is a significant interpretative cost to pay. However, a close inspection of the relevant lines of the Definition Passage reveals another option.

Consider, in particular, the latter half of the passage. Hume states that he plans to ‘mark the several degrees of evidence, to distinguish human reason into three kinds, viz. that *from knowledge, from proofs, and from probabilities.*’ This statement is rather confusing. It seems like there are distinct topics here: the three kinds of reasoning recognized by Hume and then the ‘several degrees of evidence’ that are possessed by their fruits. Note the use of the term ‘from’ before each of the three kinds. Should we take his concern here to be with the evidence that we get *from* knowledge, *from* proofs, and *from* probability, and not with knowledge itself, proof itself, or probability itself? It is unclear. We could interpret the definitions as definitions of the evidence arising from knowledge, proofs, and probability, or we could interpret them as definitions of knowledge, proofs, and probability themselves.

I resolve this ambiguity in the following manner. This passage is Hume’s recognition that the conventional linguistic usage of the term ‘knowledge’ is not limited to occurrent knowledge

and instead extends to cover dispositional knowledge as well. The first part of the passage finds Hume signaling that, in the rest of the passage, he plans to ‘preserve the common signification of words’. As already explained, assurance is dispositional. So, although Hume’s position is that knowledge is, strictly speaking, as the Constitutive Account renders it, he recognizes that there are dispositions that arise from it that allow it to be retained in some derivative form even after its object is no longer present to mind (which is generally how knowledge is understood and described by the competent English speaker).⁴⁵

The second objection I will consider is that the Assurance Account still has the advantage of not running afoul of Hume’s famous statement that ‘the reference of the idea to an object’ is ‘an extraneous denomination, of which in itself it bears no mark or character’ (*T* 1.1.7.6). This statement is commonly understood to be an expression of Hume’s rejection of any intrinsic sort of intentionality—like that which is attributed to him under the Constitutive Account.⁴⁶

I grant that *most* of the objects in Hume’s system are not intrinsic to the ideas and impressions that have them.⁴⁷ I also grant that Hume could not countenance the possibility of an intrinsic object which is *distinct* from the idea or impression that has it. As I argued in section 2, Hume’s endorsement of both the Separability Principle and the Conceivability Principle rules out anything like Descartes’ objective reality. My proposal is of a different variety. Instances of Humean knowledge have intrinsic objects, but these objects are not distinct from them. The relata of these objects are parts of the instances themselves. It is the Constitutive Account, after all. Given that the objects of instances of knowledge must be this way *for there to be any knowledge at all*, the Constitutive Account is the middle way.⁴⁸ It avoids the above argument and yet it allows for the certainty that Hume demands of knowledge. In this sense, my response to the challenge that the remark from *T* 1.1.7.6 presents has already been given.

The final objection that I will consider comes from section 3.1.1 of the *Treatise* (*‘Moral distinctions not deriv’d from reason’*). My response to this objection will reveal the ways in which Hume’s metaphysical options interact with his position on knowledge, thereby addressing many related objections.

In this section, Hume gives an argument against the claim that ‘morality is susceptible of demonstration’ (*T* 3.1.1.18). Since ‘no matter of fact [i.e. probability relation] is capable of being demonstrated’, Hume busies himself with evaluating whether moral truths could be tokens of the knowable relations.⁴⁹ This method is further justified by the fact that Hume’s opponents hold that morality is constituted by necessary truths—or, as he puts it, ‘eternal immutable fitnesses and unfitnesses of things’ (*T* 3.1.1.17). As I have noted, Hume holds that tokens of the knowable relations are necessary. Hume’s argument is as follows:

If you assert, that vice and virtue consist in relations susceptible of certainty and demonstration, you must confine yourself to those *four* relations, which alone admit of that degree of evidence; and in that case you run into absurdities, from which you will never be able to extricate yourself. For as you make the very essence of morality to lie in the relations, and as there is no one of these relations but what is applicable, not only to an irrational, but also to an inanimate object; it follows, that even such objects must be susceptible of merit or demerit. *Resemblance, contrariety, degrees in quality, and proportions in quantity and number*; all these relations belong as properly to matter, as to our actions, passions, and volitions. ‘Tis unquestionable, therefore, that morality lies not in any of these relations, nor the sense of it in their discovery. (*T* 3.1.1.19)

This argument confirms that tokens of the knowable relations are the only objects of knowledge, but it also spawns an objection to the defenders of the Constitutive Account that goes

as follows. If Hume were to hold the Constitutive Account, then surely Hume should *not* assert here that knowable relations could be instantiated by bodies. According to the Constitutive Account, all instances of knowledge are immediately present perceptions, and bodies are *not* immediately present perceptions.

Yet, on any interpretation of Hume where mind-independent things like bodies are immediately present to the mind, he could endorse the Constitutive Account and maintain that we could have knowledge of them. If Hume's considered position on the metaphysics of immediately present impressions is that of ordinary people (the 'vulgar', as he describes them in *T* 1.4.2), then Hume is a direct realist who allows knowledge of knowable relations holding between mind-independent things. For instance, if a green blade of grass and a green leaf are mind-independent things and yet they are immediately present to the mind, then one can know that they resemble with respect to greenness at the time that they are immediately present.

Few commentators interpret Hume as endorsing the direct realist position discussed in *T* 1.4.2. Hume is widely read as arguing there that we *believe* that our immediately present perceptions are bodies, but that our beliefs can be shown to be false.⁵⁰ Nevertheless, Hume prefaces Book 3 of the *Treatise* with an 'Advertisement' that reveals that he wants the book to be '*understood by ordinary readers*':

I think it proper to inform the public, that tho' this be a third volume of the Treatise of Human Nature, yet 'tis in some measure independent of the other two, and requires not that the reader shou'd enter into all the abstract reasonings contain'd in them. I am hopeful it may be understood by ordinary readers, with as little attention as is usually given to any books of reasoning. It must only be observ'd, that I continue to make use of the terms, impressions and ideas, in the same sense as formerly; and that by impressions

I mean our stronger perceptions, such as our sensations, affections and sentiments; and by ideas the fainter perceptions, or the copies of these in the memory and imagination.

This statement is Hume's signal that he will *not* be presuming either of the alternative metaphysical positions on the nature of bodies that he considers in *T* 1.4.2, especially given their complexity. The first alternative is an indirect realism, where one's mind-dependent immediately present perceptions can, at best, represent mind-independent things distinct from them.⁵¹ The second alternative is a variety of solipsism, where one's mind-dependent immediately present perceptions cannot represent anything but other such perceptions.⁵² Since Hume argues in *T* 1.4.2 that '*ordinary readers*' identify some of their impressions with bodies, this is what Hume is presuming in *T* 3.1.1—and it is under the presumption of the truth of this identification that one can *know* that knowable relations hold between bodies. *T* 3.1.1.19 and similar passages should be understood as referring to this sort of view of the metaphysics of bodies.

If Hume himself denies that any mind-independent things could be immediately present perceptions, then he must deny that knowledge could extend beyond one's mental states or objects. All of the relata of known knowable relations must be immediately present to the mind and, on the two aforementioned alternatives to direct realism, no mind-independent things could be immediately present in this way. Therefore, our knowledge could not extend beyond our mental states or objects on these two alternative metaphysical views.

4. HUMEAN SENSORY KNOWLEDGE

In this section, I will argue that Hume holds that there is sensory knowledge. Given that impressions are the perceptions involved in sense perception, this means that, on my interpretation, Hume maintains that some impressions are instances of knowledge because they are at least partially constituted by the tokens of the knowable relations that they have as objects.

The texts that I will rely upon to argue for this claim are found in the *Treatise* and provide further evidence for attributing the Constitutive Account to Hume. The first such passage finds Hume making a distinction between sense perception and reasoning:

All kinds of reasoning consist in nothing but a *comparison*, and a discovery of those relations, either constant or inconstant, which two or more objects bear to each other. This comparison we may make, either when both objects are present to the senses, or when neither of them is present, or when only one. When both the objects are present to the senses along with the relation, we call *this* perception rather than reasoning; nor is there in this case any exercise of the thought, or any action, properly speaking, but a mere passive admission of the impressions thro' the organs of sensation. (*T* 1.3.2.2)

Hume uses 'constant' and 'inconstant' here to refer, respectively, to the knowledge and probability relations.⁵³ As we have seen, knowable relations hold constant in virtue of the intrinsic properties of their relata, whereas probability relations do not. In the second sentence, Hume makes a threefold distinction that cuts across both kinds of relations. Hume states that when we compare objects and form perceptions of philosophical relations, the relata can be such that both are present to the senses, neither is present to the senses, or only one is present to the senses. When both are present to the senses, along with the relation, Hume claims that 'we call *this* perception rather than reasoning'. This claim is made in connection with the opening sentence, wherein Hume claims that 'all kinds of reasoning consist in nothing but a *comparison*, and a discovery of those relations, either constant or inconstant, which two or more objects bear to each other.' Hume's view, then, is that reasoning is constituted by perceptions of relations where at least one relata is not present to the senses, whereas sense perception of relations is constituted by perceptions of relations where both relata are present to the senses.

It is a short step from this passage to the possibility of Humean knowledge via sense perception. If a token relation is a knowable relation and you perceive it, as well as both of its relata, via ‘a mere passive admission of the impressions thro’ the organs of sensation’, then you perceive that relation and its relata via sense. If the Constitutive Account is correct, this impression *just is* an instance of knowledge. Thus, we can have sensory knowledge.⁵⁴

As previously noted, Hume maintains that there is a distinction between intuition and demonstration, which are the two ways in which we can acquire knowledge. The relationship between the two is asymmetric; demonstration is defined in terms of intuition, but not vice versa. In typical cases, demonstrative knowledge is realized when one links multiple instances of intuitive knowledge to one another in order to form a perception of a token of a knowable relation.⁵⁵ Intuitive knowledge, in turn, is realized when such a linking process does not occur; intuition is immediate.⁵⁶ In *T* 1.3.3.2, Hume reveals this aspect of his view when arguing against a causal version of the Principle of Sufficient Reason (*‘whatever has a beginning also has a cause of existence’*). Hume states this principle and then he curtly claims that none of the knowable relations are ‘imply’d’ in it, inferring from this that it ‘therefore is not intuitively certain.’ Hume is asserting that the mere consideration of the terms of this principle reveals that they are not linked via one of the knowable relations. If intuition were inferential, then mere consideration of the terms of a principle would not be sufficient to rule out the possibility of intuiting it because one could lack the intermediate ideas necessary to infer the relation that constitutes it. In this respect, Hume’s position is indebted to that of Locke, who argues that *in every step Reason makes in demonstrative Knowledge, there is an intuitive Knowledge of that Agreement or Disagreement, it seeks, with the next intermediate Idea, which it uses as a Proof: For if it were not so, that yet would need a Proof. Since without the*

Perception of such Agreement or Disagreement, there is no Knowledge produced: If it be perceived by it self, it is intuitive Knowledge: If it cannot be perceived by it self, there is need of some intervening *Idea*, as a common measure to shew their Agreement or Disagreement. (E IV.ii.7)⁵⁷

Since both relata of a token of a knowable relation must be present to the senses in any case of knowledge acquired via sense perception, one can perceive that they bear that relation immediately. It follows that if there is sensory knowledge, then we should expect Hume to categorize it as intuitive knowledge. And there is, in fact, a striking passage where Hume indicates that we can know via sense perception and, in accordance with what we would expect if the foregoing reading is correct, he states that such knowledge is intuitive rather than demonstrative:

It appears, therefore, that of these seven philosophical relations, there remain only four, which depending solely upon ideas, can be the objects of knowledge and certainty. These four are *resemblance, contrariety, degrees in quality, and proportions in quantity or number*. Three of these relations are discoverable at first sight, and fall more properly under the province of intuition than demonstration. When any objects *resemble* each other, the resemblance will at first strike the eye, or rather the mind; and seldom requires a second examination. The case is the same with *contrariety*, and with the *degrees* of any *quality*. No one can once doubt but existence and non-existence destroy each other, and are perfectly incompatible and contrary. And tho' it be impossible to judge exactly of the degrees of any quality, such as colour, taste, heat, cold, when the difference betwixt them is very small; yet 'tis easy to decide, that any of them is superior or inferior to another,

when their difference is considerable. And this decision we always pronounce at first sight, without any enquiry or reasoning. (*T* 1.3.1.2)

In this passage, Hume begins by distinguishing the three probability relations from the four knowable relations. Next, Hume argues that contrarieties, resemblances, and qualitative relations are ‘discoverable at first sight’. This reference to vision, made several times in the passage, is Hume’s way of emphasizing that the senses enable us to perceive tokens of these three knowable relations. So long as token colors, tastes, feelings, and the like are sufficiently different, Hume asserts that we perceive that they bear one or more of these three knowable relations to each other.

Note that Hume states that we perceive token knowable relations holding between impressions ‘without any enquiry or reasoning.’ Given the context, it is clear that the contrast to which Hume refers here is the very same contrast between sense perception and reasoning that he introduces in the passage I quoted previously in this section (*T* 1.3.2.2).⁵⁸ This reading is buttressed by Hume’s comment that these three knowable relations ‘fall more properly under the province of intuition than demonstration.’ Only if vision, smell, touch, and the other sensory modalities provide immediate access in the same way that intuition does would Hume make such an assertion; since Hume implies that the ‘province of intuition’ is broader than vision, smell, or touch alone, his view seems to be that sensing knowable relations is a way of intuiting them.

In the subsequent passage (*T* 1.3.1.3), Hume considers whether proportions in quantity or number—tokens of the fourth kind of knowable relation—can be perceived. Hume argues that generally they cannot, since most of the time we ‘can only guess’ at whether two quantities bear some exact proportion to one another.⁵⁹ But Hume grants that there may be some cases involving ‘very short numbers, or very limited portions of extension; which are comprehended in an

instant, and where we perceive an impossibility of falling into any considerable error.’ Thus Hume holds that tokens of all four knowable relations can be perceived, although some are more commonly perceived than others. Since there are not any other texts that cut against this interpretation, we are justified in interpreting Hume as arguing that there is sensory knowledge, despite the relative brevity of his statements.⁶⁰

These passages are most naturally read under the presumption that the Constitutive Account is Hume's position. Hume's phrasing indicates that he holds that we know at the same time that we perceive tokens of the knowable relations via sense, and he gives no reason to read him in a contrary fashion. There is no mention of assurance or of any mental processes that must occur before knowledge is acquired in the kinds of cases discussed. This is exactly what we would expect if the Constitutive Account is Hume's position.

5. CONCLUSION

In this paper, I have argued that Hume's justification of his view on the 'objects of knowledge and certainty' in *T* 1.3.1 reveals his standards for knowledge. Since these standards permit both ideas and impressions to qualify as instances of knowledge, Hume's account of knowledge—the Constitutive Account—makes room for sensory knowledge constituted by impressions. None of the details of Hume's argumentation in *T* 1.3.1 preclude intuitive knowledge of this variety, and the textual evidence from *T* 1.3.1 and the subsequent section further strengthens the case. Given that Hume holds that instances of this sort of knowledge are realized in every case where one's impressions have token knowable relations between their parts, it is ubiquitous. While Hume is rightly labeled an empiricist for many different reasons, a close inspection of his account of knowledge reveals yet another way in which he merits the label.⁶¹

¹ I will use *T*, *A*, and *EHU* to cite Hume's *Treatise*, its *Abstract*, and his first *Enquiry*, respectively. Quotations are from the Clarendon edition of the works of David Hume: Thomas L. Beauchamp (ed.), *An Enquiry concerning Human Understanding* (Oxford: Clarendon Press, 2001); and David Fate Norton and Mary J. Norton (eds.), *A Treatise of Human Nature*, two volumes (Oxford: Clarendon Press, 2007), the latter of which includes the *Abstract*. My references are to Clarendon paragraph numbers.

² In the first *Enquiry*, for instance, Hume uses 'knowledge' in many different colloquial senses, and the few passages related to knowledge as Hume describes it in *T* 1.3.1 must be understood through the fuller picture given by the *Treatise*. See, e.g., *EHU* 1.8, *EHU* 4.4, or *EHU* 5.22. For discussion and a similar reading to mine, see Frederick F. Schmitt, *Hume's Epistemology in the Treatise: A Veritistic Interpretation [Hume's Epistemology in the Treatise]* (Oxford: Oxford University Press, 2014), 41.

³ Although Hume never explicitly analyzes the nature of propositions, it seems that he maintains that propositions are the perceptions that linguistic *that*-clauses express. See *T* 1.1.1.7, *T* 1.1.7.3, *T* 1.1.7.8, *T* 1.1.7.14, *T* 1.2.6.2-3, *T* 1.3.3.2-3, *T* 1.3.6.4, *T* 1.3.7.3, *T* 3.1.1.27, *A* 7, *A* 18, and *A* 21. The subject-predicate structure of *that*-clauses indicates that the relevant perceptions are generally complex, and philosophical relations are the best candidates in Hume's system (the alternatives are modes and substances; see *T* 1.1.4.7). Numerical identity and existential statements are potential exceptions (see *T* 1.4.2.26 and *T* 1.3.7.5n20, respectively). For discussion, see David Owen, *Hume's Reason* (Oxford: Oxford University Press, 1999), 74n109, 103-104.

⁴ For discussion of this sevenfold division, see Peter Millican, ‘Hume’s Fork, and his Theory of Relations’ [‘Hume’s Fork’], *Philosophy and Phenomenological Research*, 95:1 (2017), 3-65, at 14-17.

⁵ ‘Perception’ is Hume’s generic term for ideas or impressions. See *T* 1.1.1.1 and *T* 1.1.1.1n2. There is some disagreement about what perceptions are for Hume. I subscribe to what Jonathan Cottrell calls the ‘Object View’, which holds that perceptions are the objects of the mind and that they can have objects of their own. For discussion, see Jonathan Cottrell, ‘Hume on mental representation and intentionality’, *Philosophy Compass*, 13 (2018), 1-12, especially 2-3. For a brief discussion of the metaphysics of perceptions as it relates to the Constitutive Account, see section 3.3. By ‘token philosophical relation’, I mean a particular relation that holds between two particular (collections of) things. Note that, in using the kind-token distinction, I do not mean to imply that Hume is *not* a nominalist. The kind-token distinction at issue here must be understood through Hume’s account of abstract ideas, which I discuss in section 3.1.

⁶ For places where Hume uses ‘comparison’ in this sense, see *T* 1.1.5.2-7, *T* 1.2.4.21-31, *T* 1.3.1.6, *T* 1.3.2.2, *T* 1.3.4.3, *T* 1.3.11.2, *T* 1.3.14.31, and *T* 1.1.7.7n5App.

⁷ The reason why the relevant sort of comparison does not require higher-order awareness is that Hume holds that what prior philosophers identified as judgment and reasoning just is conception. And to conceive something, for Hume, just is to have a perception of it. See *T* 1.3.7.6n20. For discussion, see Charles Echelbarger, ‘Hume and the Logicians’ in Patricia A. Easton (ed.), *Logic and the Workings of the Mind: The Logic of Ideas and Faculty Psychology in Early Modern Philosophy* (Atascadero, CA: Ridgeview Publishing Co, 1997), 137-151; Owen, *Hume’s Reason*, 74n109, 75, 96-97, 103-104; and Millican, ‘Hume’s Fork’, 5-6.

⁸ Although Hume presents these three as the probability relations, and I will treat them as such in what follows, some of their members seem to qualify as knowable relations. See note 15.

⁹ There is widespread agreement that these relations are the objects of Humean knowledge. See, e.g., Kingsley Blake Price, 'Does Hume's Theory of Knowledge Determine his Ethical Theory', *The Journal of Philosophy*, 47:15 (1950), 425-434, at 427; David Owen, 'Locke and Hume on Belief, Judgment and Assent', *Topoi*, 22 (2003), 15-28; Kevin Meeker, 'Hume on Knowledge, Certainty, and Probability: Anticipating the Disintegration of the Analytic/Synthetic Divide?', *Pacific Philosophical Quarterly*, 88 (2007), 226-242, at 228; Schmitt, *Hume's Epistemology in the Treatise*, 12, 65-66; Donald C. Ainslie, *Hume's True Scepticism* (Oxford: Oxford University Press, 2015), 21; Graciela De Pierris, *Ideas, Evidence, and Method: Hume's Skepticism and Naturalism concerning Knowledge and Causation [Ideas, Evidence, and Method]* (Oxford: Oxford University Press, 2015), 97-110; Don Garrett, *Hume* (New York: Routledge, 2015), 42, 51-52, 92; and Millican, 'Hume's Fork', 17-27.

¹⁰ Although Hume presents these four as the knowable relations, and I will treat them as such in what follows, some of their members seem to qualify as probability relations. See note 15.

¹¹ Thus the knowable relations are internal relations. For discussion of recent attempts to make this notion precise, see Fraser MacBride, 'Relations' in Edward N. Zalta (ed.), *Stanford Encyclopedia of Philosophy* (Winter 2016 Edition), URL = <https://plato.stanford.edu/archives/win2016/entries/relations/>. Both Graciela De Pierris (*Ideas, Evidence, and Method*, 12, 97-110) and Jani Hakkarainen ('Hume as a trope nominalist', *Canadian Journal of Philosophy*, 42:S1 [2012], 55-66) explicitly apply this concept to Hume's knowable relations. See also Jonathan Cottrell, 'Minds, Composition, and Hume's Skepticism in the Appendix', *Philosophical Review*, 124:4 (2015), 533-469, at 544fn29.

¹² For relevant cases where Hume uses ‘infallible’ and its cognates, see, e.g., *T* 1.3.1.5, *T* 1.3.3.2, and *T* 1.4.1.1. For relevant cases where Hume uses ‘certain’ and its cognates, see, e.g., *T* 1.3.1.2, *T* 1.3.1.6, *T* 1.3.3.2, *T* 1.3.3.3, *T* 1.3.6.7, and *T* 1.3.12.14.

¹³ See, e.g., *T* 1.3.2.1 and *T* 1.3.3.9. For discussion of *scientia*, certainty, and Hume’s antecedents, see Owen, *Hume’s Reason*, 17-23, 36-38, 83-84. See also Nicholas Jolley, ‘*Scientia* and Self-knowledge in Descartes’ in Tom Sorell, G.A. Rogers, and Jill Kraye (eds.), *Scientia in Early Modern Philosophy: Seventeenth-Century Thinkers on Demonstrative Knowledge from First Principles* (Heidelberg: Springer, 2010), 83-97; Tom Sorell, ‘*Scientia* and Science in Descartes’ in Tom Sorell, G.A. Rogers, and Jill Kraye (eds.), *Scientia in Early Modern Philosophy: Seventeenth-Century Thinkers on Demonstrative Knowledge from First Principles* (Heidelberg: Springer, 2010), 71-82; Schmitt, *Hume’s Epistemology in the Treatise*, 50-81; and De Pierris, *Ideas, Evidence, and Method*, 97-98.

¹⁴ Schmitt, *Hume’s Epistemology in the Treatise*, 71. See the subsequent pages for further discussion. Note that I disagree with Schmitt’s position that infallibility, for Hume, is ultimately to be understood in terms of necessary reliability. See note 34.

¹⁵ Note that Hume’s justification indicates that there may be some resemblances, proportions in quantity or number, qualitative relations, and contrarities that are objects of probability. For instance, the relative heaviness of two objects mentioned by Hume in *T* 1.1.5.5 is a relation ‘of which we receive information from experience’ and which is ‘never discoverable merely from their ideas’ (*T* 1.3.1.1). Likewise, although we know that $3-1=2$, we do not know that this proportion in quantity or number is instantiated by any beings which are not perceptions or their parts (more on this issue later in this section). And while some relations in space and time, identities (over time), and causal relations are objects of probability, some are objects of

knowledge. There are two-dimensional spatial relations that hold between the colored points that are immediately visible to me right now that ‘depend entirely on the ideas, which we compare together’ (*T* 1.3.1.1) and that are ‘discoverable at first sight, and fall more properly under the province of intuition than demonstration’ (*T* 1.3.1.2). Nothing extrinsic to my complex idea of the visual array before me needs to cooperate for me to know that a patch of red is between two patches of blue. In *T* 1.3.1, Hume seems to be too cavalier about how clean this distinction between the two classes of relations really is.

¹⁶ For discussion, see Miren Boehm, ‘Certainty, Necessity, and Knowledge in Hume’s *Treatise*’ in Stanley Tweyman (ed.), *David Hume: A Tercentenary Tribute* (Ann Arbor, MI: Caravan Books, 2013), 67-84, at 68, 76-79.

¹⁷ See also *T* 1.1.7.6 and *A* 11.

¹⁸ See, e.g., *T* 1.3.6.1, *T* 1.3.9.10, and *T* 1.3.14.13.

¹⁹ This is the link to Hume’s negative views on the ‘necessary connexion’ between causes and their effects. See *T* 1.3.14.15-23.

²⁰ For extensive discussion of this feature of perceptions and related issues, see Hsueh Qu, ‘Hume on Mental Transparency’, *Pacific Philosophical Quarterly*, 98 (2017), 576-601. Hsueh Qu argues that Hume holds that ‘[w]e cannot fail to apprehend the qualitative characters of our current perceptions, and these apprehensions cannot fail to be veridical’ (Qu, ‘Hume on Mental Transparency’, 577). Since Qu holds that ‘the intrinsic qualities of a perception seem limited to its qualitative character’ (Qu, ‘Hume on Mental Transparency’, 582), it follows that this view, which Qu calls ‘Qualitative Transparency’, applies to intrinsic properties. For discussion, see J.A. Passmore, *Hume’s Intentions* (London: Duckworth, 1980), 90; and Jonathan Cottrell, ‘Minds, Composition, and Hume’s Skepticism in the Appendix’, 544.

²¹ Although the dialectic in *T* 1.4.2 is complex, the view expressed in *T* 1.4.2.47 is expressed in Hume's own voice. In the paragraph prior, Hume abandons the temporary identification of 'perception' with 'object' that he had sustained from *T* 1.4.2.31. Hume says he will once again 'distinguish [...] betwixt perceptions and objects' in the way that the 'modern philosophers' (like Locke) do. Hume then proceeds to argue in his own voice in *T* 1.4.2.47 that the hypothesis 'that our objects alone preserve a continu'd existence' while our immediately present perceptions *do not* has '*no primary recommendation*' with regard to reason. It is in this argument that Hume relies on the claim that I attribute to him that 'the only existences, of which we are certain, are perceptions, which [are] immediately present to us by consciousness'.

²² See *T* 1.3.2.3, *T* 1.4.2.5, *T* 1.4.7.3, and *T* 2.2.6.2. In the first *Enquiry*, Hume seems to have a similar view. See *EHU* 7.11 and *EHU* 7.13.

²³ For cases where Hume describes perceptions as 'appearances' (or uses 'appear' or its cognates with respect to them), see, e.g., *T* 1.1.1.1, *T* 1.1.3.1, *T* 1.1.4.2, *T* 1.2.1.5, *T* 1.2.2.1, *T* 1.2.3.4, *T* 1.2.3.10, and *T* 1.2.6.8. See especially *T* 1.1.7.3-4 and *T* 1.2.5.26n12.2App.

²⁴ Of course, as Samuel C. Rickless discusses ('Hume's distinction between impressions and ideas', *European Journal of Philosophy*, 26 [2018], 1222-1237), there are other interpretations of the impression-idea distinction. However, there is only one interpretation of the distinction under which Hume holds that the misattributed property (of being an idea) is an intrinsic one. This is the interpretation under which Hume's view is that the distinction between impressions and ideas 'consists in the degrees of force and liveliness with which they strike upon the mind' (*T* 1.1.1.1), where 'force and liveliness' is interpreted as referring to phenomenal intensity. While I agree that 'force and liveliness' should be interpreted in this way, the other aspect of the interpretation is implausible for the reasons Rickless cites, and all of the other interpretations of Hume's

impression-idea distinction hold that the misattributed property is extrinsic. For further discussion of the distinction, see Norman Kemp Smith, *The Philosophy of David Hume: A Critical Study of its Origins and Central Doctrines* (London: Macmillan, 1941), 209-212, 229-236; Don Garrett, *Cognition and Commitment in Hume's Philosophy* [*Cognition and Commitment*] (New York: Oxford University Press, 1997), 11-40; David Landy, 'Hume's Impression/Idea Distinction', *Hume Studies*, 32:1 (2006), 119-139, at 119-120; and David Landy, 'A Puzzle about Hume's Theory of General Representation', *Journal of the History of Philosophy*, 54:2 (2016), 257-282, at 275-280.

²⁵ For relevant discussion, see Yumiko Inukai, 'Hume on Relations: Are They Real?', *Canadian Journal of Philosophy*, 40:2 (2010), 185-209, at 195-202. For justification of the claim that Hume holds that all relations have numerically distinct relata, see *T* 1.1.5.4, *T* 1.3.1.1, and *T* 1.4.2. For relevant discussion of identity with respect to *T* 1.4.2, see Garrett, *Hume*, 98-105.

²⁶ There is also the claim that any perception that satisfies (i)-(iii) is an instance of knowledge—that is, there is the claim that (i)-(iii) are jointly sufficient. Yet, nothing Hume asserts regarding knowledge in the *Treatise* indicates that there are any further conditions that must be satisfied or that perceptions that satisfy (i)-(iii) could fail to be knowledge. This is not a surprise since Hume explicitly states (ii), and the standards that he uses to justify (ii) entail only (i) and (iii). Certainty of the sort Hume demands of knowledge is guaranteed by any perception that satisfies (i)-(iii).

²⁷ This is the standard interpretation of the Separability Principle. See, for instance, Garrett, *Cognition and Commitment*, ch. 3; Donald L. M. Baxter, 'Hume, Distinctions of Reason, and Differential Resemblance', *Philosophy and Phenomenological Research*, 82:1 (2011), 156-182, at 161-162; and Taro Okamura, 'Hume on Distinctions of Reason: A Resemblance-First Interpretation', *Australasian Journal of Philosophy*, 97:3 (2019), 423-436, at 424-425.

²⁸ Per *T* 1.1.7, Hume is a nominalist who denies that there are uninstantiated properties. So, if a given token knowable relation *R* were to not exist *in rebus* (i.e. as a perception, as a part of a perception, or as another thing)—the possibility of which follows from Hume’s principles in the above-noted ways—then it would not exist *simpliciter*. Yet, since token knowable relations are metaphysically necessary, Hume maintains in *T* 1.3.6.1 that their contraries are contradictions and that it is not possible that their contraries exist. So, even though *R* would not exist in such a scenario, not-*R* could not exist either. This is not necessarily a problematic result. Hume has the resources to make a distinction between (a) the possibility that a token knowable relation fails to hold without any of its contraries holding and (b) the possibility that a token knowable relation fails to hold while some of its contraries hold. It is open to Hume to hold that (a) is a genuine possibility while (b) is not. The denial of the Law of Excluded Middle seems to be a consequence of Hume’s position here.

²⁹ For discussion of a similar argument in the context of mental transparency more generally, see Qu, ‘Hume on Mental Transparency’, 584-585.

³⁰ And likewise in the first *Enquiry* when Hume discusses knowable relations: ‘Propositions of this kind are discoverable by the mere operation of thought, without dependence on what is any where existent in the universe’ (*EHU* 4.1). This is to presume that the relations of ideas referred to in the first *Enquiry* are knowable relations. Hume makes this link himself in *T* 1.3.6.6, *T* 1.3.7.3, *T* 3.1.1.9, *T* 3.1.1.18-19, and *T* 3.2.2.20, but I will not defend the identification further here.

³¹ Millican, ‘Hume’s Fork’, 22. It is this slide that leads Schmitt (*Hume’s Epistemology in the Treatise*, 88) to claim, contrary to the Constitutive Account, that Hume holds that ‘we know only

that the relations hold on the objects, given the existence of the objects as represented by the ideas. We do not know that these relations hold on the objects unconditionally.’

³² For the most straightforward case where Locke contests this view, see *E* III.iii.7-9.

³³ For a congenial summary of Hume’s position on abstract ideas, see Garrett, *Hume*, 52-60. For a competing picture and an account of the interpretative geography, see Landy, ‘A Puzzle about Hume’s Theory of General Representation’.

³⁴ I give it this name because, aside from the Definition Passage, Hume uses ‘assurance’ rather than ‘evidence’ to refer to what ‘*arises from the comparison of ideas*’. The Assurance Account is the most common interpretation of Hume’s position on knowledge defended in the secondary literature, but its defenders do not defend it at great length. Proponents include Kingsley Blake Price (‘Does Hume’s Theory of Knowledge Determine his Ethical Theory’, 427); Don Garrett (*Cognition and Commitment*, 170); Kevin Meeker (‘Hume on Knowledge, Certainty, and Probability: Anticipating the Disintegration of the Analytic/Synthetic Divide?’, 229); and Louis E. Loeb (*Stability and Justification in Hume’s Treatise* [Oxford: Oxford University Press, 2002], 61fn1, and ‘Inductive Inference in Hume’s Philosophy’ in Elizabeth Radcliffe (ed.), *A Companion to Hume* [Hoboken, NJ: Wiley-Blackwell, 2008], 106-125, at 106). Many apparently relevant discussions of Hume’s position on knowledge, like that in Harold W. Noonan, *Hume on Knowledge* (London: Routledge, 1999), in fact concern Hume’s relationship with contemporary positions on knowledge. An exception is that of Schmitt (*Hume’s Epistemology in the Treatise*, ch. 2). Schmitt attributes to Hume the view that knowledge is cognition that is ‘necessarily reliable’. Full engagement with Schmitt’s interpretation would take me too far afield, but I will make three brief remarks. First, I deny, contra Schmitt (*Hume’s Epistemology in the Treatise*, 73-75), that Hume holds that one’s consciousness of one’s immediately present perceptions provides

knowledge of their existence, given that this is not a knowable relation. Second, I deny, contra Schmitt (*Hume's Epistemology in the Treatise*, 69-72), that the primary sense of 'infallible' that Hume applies to knowledge refers to a feature of the *operations* that produce it. Knowledge is infallible in Hume's primary sense because the knower cannot err with respect to the known, regardless of the operations by which it comes about. In the case of intuition, it is especially clear that the features of the operations of the faculties that it arises from are entirely irrelevant. Third, Schmitt's interpretation is incomplete because it does not specify the relationship between instances of knowledge and their objects. Although Schmitt's account is a viable alternative, and there are many aspects of his analyses that I agree with, I maintain that the Assurance Account is the most plausible alternative to the Constitutive Account since it is supported by the Definition Passage, which contains Hume's only explicit definition of knowledge and seems to straightforwardly undermine it. Furthermore, it is the Humean version of one of the accounts of knowledge attributed to Locke in the secondary literature. This latter connection significantly increases its *prima facie* plausibility, given the links and affinities between the two thinkers on these issues. See the end of this subsection for discussion.

³⁵ See *T* 1.2.4.25, *T* 1.2.4.30, *T* 1.3.1.4, *T* 1.3.4.3, *T* 1.3.13.19, *T* 1.4.2.14, and *T* 2.3.10.2.

³⁶ This parallels Locke's treatment of certainty. For discussion, see Schmitt, *Hume's Epistemology in the Treatise*, 58-62.

³⁷ For discussion, see Emil Badici, 'Standards of Equality and Hume's View of Geometry', *Pacific Philosophical Quarterly*, 92 (2011), 448-467; and Graciela De Pierris, 'Hume on space, geometry, and diagrammatic reasoning', *Synthese*, 186 (2012), 169-189.

³⁸ In *T* 1.3.13.19, Hume corroborates this reading in a discussion of the relationship between assurance and memory. Hume argues that our confidence in the faculty of memory rivals the assurance derived from demonstrations, thereby revealing that he sees the notions as similar.

³⁹ See *T* 1.3.3.1-3 for an argument of Hume's that assumes this dualistic view.

⁴⁰ For a concise description of how demonstrations are structured, see Owen, *Hume's Reason*, 98-99.

⁴¹ See Samuel C. Rickless, 'Is Locke's Theory of Knowledge Inconsistent?', *Philosophy and Phenomenological Research*, 77:1 (2008), 83-104, at 85, 93, 93n10; and Keith Allen, 'Locke and Sensitive Knowledge', *Journal of the History of Philosophy*, 51:2 (2013), 249-266, at 251-252. On habitual knowledge, see *E* II.xxxii.6, and *E* IV.i.8-9. On sensitive knowledge, see *E* IV.xi.2-8. See also *E* I.i.2, *E* I.iii.13, *E* IV.xv.2, *E* IV.xvi.6, and *E* IV.xvi.14. For further discussion, see also Jennifer Nagel, 'Sensitive Knowledge: Locke on Skepticism and Sensation' in Matthew Stuart (ed.), *A Companion to Locke* (Hoboken, NJ: Wiley-Blackwell, 2016), 313-333, at 318. See the next note for primary text citation information for Locke.

⁴² As some of his qualifications here indicate, Locke ultimately argues, of this variety of habitual knowledge, that 'upon a due examination I find it comes not short of perfect certainty, and is in effect true Knowledge.' It is *until* he makes this decision that he labels it 'assurance'. As for this abbreviation, I am using *E* to cite Locke's *Essay*. Quotations are from the Clarendon edition of the works of John Locke: P.H. Nidditch (ed.), *An Essay concerning Human Understanding* (Oxford: Clarendon Press, 1975). My references are to Clarendon paragraph numbers.

⁴³ Rickless, 'Is Locke's Theory of Knowledge Inconsistent?', 85. See also Samuel C. Rickless, 'Locke's "Sensitive Knowledge": Knowledge or Assurance?' in Daniel Garber and Donald

Rutherford (eds.), *Oxford Studies in Early Modern Philosophy, Volume VII* (Oxford: Oxford University Press, 2015), 187-224.

⁴⁴ Rickless, 'Is Locke's Theory of Knowledge Inconsistent?', 85.

⁴⁵ Hume continues to alternate between occurrent and dispositional senses of probability throughout the subsequent sections, and he uses 'knowledge' in the derivative dispositional sense at many other points in the *Treatise*, as Garrett (*Hume*, 42) notes. See, e.g., *T* 1.3.8.13, *T* 1.3.13.10, and *A* 21.

⁴⁶ For instance, Garrett ('Hume's Naturalistic Theory of Representation', *Synthese*, 152:3 [2006], 301-319, at 307) takes this statement to be strong evidence that 'Hume, however, rejects the view that ideas are intrinsically representational.' Qu ('Hume on Mental Transparency', 597) agrees, arguing that 'the point about intentionality being extrinsic seems to generalise', although he does interpret Hume as holding that passions can have intrinsic intentionality.

⁴⁷ Hume regularly refers to what perceptions are 'of'. The weak kind of intentionality possessed by those perceptions that bear the relevant kinds of resemblance and causal relations to others can explain many of Hume's references of this latter sort. This kind of intentionality comes rather cheap. In fact, Hume holds that all ideas possess it in virtue of being 'copies' of impressions. See also *T* 1.1.1.3, *T* 1.1.1.7, *T* 1.2.3.11, *T* 1.3.7.5, *T* 1.3.14.6, and *T* 1.3.14.11. In some of the other cases that Hume refers to, there is an absence of either a causal relation or a resemblance between the perception in question and its object. Likewise, in some cases, a perception is a copy of another but does not represent it. This means that a perception being a copy of another is neither necessary nor sufficient to have it as an object. Don Garrett argues that, instead, these cases show that some 'perceptions represent as they do, for Hume, at least partly in virtue of the kinds of causal or functional roles they come to play in the mind.' Garrett,

Hume, 72. For discussion, see Garrett, *Cognition and Commitment*, 41-57, 72-73; and Garrett, ‘Hume’s Naturalistic Theory of Representation’, 308-313.

⁴⁸ As my discussion implies, I defend a hybrid theory, under which Hume relies on multiple types of intentionality, depending on the context. For discussion of related issues, see Cottrell, ‘Hume on mental representation and intentionality’, 2-7.

⁴⁹ Hume identifies matters of fact with the probability relations. See *T* 1.3.6.12, *T* 1.3.7.2, *T* 1.3.12.23, *T* 1.3.13.1, *T* 1.4.2.14, and *T* 3.1.1.9.

⁵⁰ Those who disagree about the precise nature of Hume’s view agree about this much. See the next two notes for relevant citations regarding the alternatives.

⁵¹ Interpreters who attribute versions of this position to Hume include John Passmore (*Hume’s Intentions*); Donald Livingston (*Hume’s Philosophy of Common Life* [Chicago: University of Chicago Press, 1984]), Edward Craig (*The Mind of God and the Works of Man* [Oxford: Oxford University Press, 1987]), Galen Strawson (*The Secret Connexion: Causation, Realism, and David Hume* [Oxford: Oxford University Press, 1989]); and ‘David Hume: Objects and Power’ in Peter Millican [ed.], *Reading Hume on Human Understanding* [Oxford: Oxford University Press, 2002], 231-257); and Garrett (‘Hume’s Naturalistic Theory of Representation’, *Hume*).

⁵² Interpreters who attribute versions of this position to Hume include H.H. Price (*Hume’s Theory of the External World* [Oxford: Oxford University Press, 1940]), H.A. Prichard (*Knowledge and Perception* [Oxford: Oxford University Press, 1950]), Simon Blackburn (‘Hume and Thick Connexions’ in Peter Millican [ed.], *Reading Hume on Human Understanding* [Oxford: Oxford University Press, 2002], 259-276); David Fate Norton (‘Of the Academical or Skeptical Philosophy’ in Peter Millican [ed.], *Reading Hume on Human Understanding* [Oxford: Oxford University Press, 2002], 371-392); Yumiko Inukai (‘Perceptions and Objects: Hume’s

Radical Empiricism’, *Hume Studies*, 37:2 (2011), 189-210); and Kenneth Winkler (‘Hume on Scepticism and the Senses’ in Donald C. Ainslie & Annemarie Butler [eds.], *The Cambridge Companion to Hume’s Treatise* [Cambridge: Cambridge University Press, 2015], 135-164).

⁵³ For discussion, see Millican, ‘Hume’s Fork’, 17-18.

⁵⁴ Note that this means that I hold that sensory impressions represent, even in isolation. They represent parts of themselves—namely, what Donald C. Ainslie calls their ‘image-content’ (‘Adequate Ideas and Modest Scepticism in Hume’s Metaphysics of Space’, *Archiv für Geschichte de Philosophie*, 92 [2010], 39-67, at 47). For a competing picture, see Schmitt, *Hume’s Epistemology in the Treatise*, 67-69.

⁵⁵ As Owen (*Hume’s Reason*, 9) puts it, ‘Two ideas are demonstratively related if the relation between them is conceived, not immediately, but via other intermediate ideas. The link between each pair of adjacent ideas in the resulting chain must be intuitive.’ For discussion, see Owen, *Hume’s Reason*, 93-98.

⁵⁶ As Garrett puts it, intuition is an ‘immediate apprehension of relations of ideas’ and ‘immediate and non-inferential’. For the former, see Don Garrett, “‘A Small Tincture of Pyrrhonism’: Skepticism and Naturalism in Hume’s Science of Man’ in Walter Sinnott-Armstrong (ed.), *Pyrrhonian Skepticism* (Oxford: Oxford University Press, 2004), 68-98, at 98n39. For the latter, see Garrett, *Hume*, 90.

⁵⁷ For further discussion of this connection with Locke, see De Pierris, *Ideas, Evidence, and Method*, 51-62.

⁵⁸ See also *T* 1.3.6.6.

⁵⁹ See also *T* 1.2.4.23.

⁶⁰ Commentators who agree that Hume holds that some tokens of the knowable relations are perceived in visual experience include Kingsley Blake Price ('Does Hume's Theory of Knowledge Determine his Ethical Theory?', 427-428); Garrett (*Hume*, 92); Millican ('Hume's Fork', 46-48); Miren Boehm ('Certainty, Necessity, and Knowledge in Hume's Treatise', 73-74); and Inukai ('Hume on Relations: Are They Real?', 195-202). Norton (*David Hume: Common-Sense Moralism, Sceptical Metaphysician* [Princeton, NJ: Princeton University Press, 1982], 228n77) argues that it is not Hume's 'official position', which may be compatible with my interpretation. There are others who argue that some tokens of the knowable relations are perceivable *and yet contingent* because their relata are themselves matters of fact. See Owen, *Hume's Reason*, 95; Owen, 'Hume and the Mechanics of Mind: Impressions, Ideas, and Association', 83; and Helen Beebe, *Hume on Causation* (London: Routledge, 2006), 21, 24. Yet, every commentator—with the possible exception of Millican, who seems to argue in passing that Hume should hold that there is intuitive sensory knowledge—denies that (or is silent on the question of whether) any impression *could itself be* knowledge. See, e.g., Boehm, 'Certainty, Necessity, and Knowledge in Hume's Treatise', 73-75, 79-81.

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