Overview of *Treatise* Book 1 Part 3, Sections 1-5

Book 1 Part 3 of Hume's *Treatise of Human Nature* is entitled "Of knowledge and probability", but the title is rather misleading, because only the short first section is devoted to "knowledge" (here used in the strict sense of *certain* knowledge). Moreover the bulk of Part 3 focuses not so much on *probability* as on *causation*, and the relationship between these is not made clear for some time.[1]

Section 1.3.1 "Of knowledge" launches immediately into a dichotomy within the "seven different kinds of philosophical relation", picking up from the discussion of relations in *T* 1.1.5. Four of these relations (*resemblance*, *contrariety*, *degrees in quality*, *proportions in quantity or number*) "depend entirely on the ideas" that are related together, and hence can be the basis of *knowledge* in the strict sense.[2] Of these four, the first three, Hume says, "are discoverable at first sight, and fall more properly under the province of intuition than demonstration" (1.3.1.2). Only *proportions in quantity or number* remains as a relation capable of grounding complex demonstrative reasoning, and hence Hume takes the view that useful demonstration is generally confined to mathematics.[3] The remaining three kinds of relations are *identity*, *relations in time and place*, and *causation.* These can all, Hume says, "be chang'd without any change in the ideas" (1.3.1.1), a claim which is perhaps best interpreted as meaning that truths about these relations cannot be settled *a priori* just by consulting our (perceived or remembered) ideas of the relevant objects.[4]

Section 1.3.2 "Of probability; and of the idea of cause and effect" starts with a discussion of *reasoning*, which Hume takes to involve *comparison* of "objects" and discovery of their relations.[5] A comparison between objects that are present to the senses, however, is a matter of *perception* rather than reasoning, and this covers "any of the observations we may make concerning *identity*, and the *relations of time and place*; since in none of them the mind can go beyond what is immediately present

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[1] Indeed apart from an inconspicuous use of the word "probably" at *T* 1.3.2.2, the word "probability" and its cognates do not appear in the main text (leaving aside the Part 3 and Section 2 headings) until *T* 1.3.6.4. Only at that point, in the heart of his argument concerning induction, does Hume get close to spelling out the intimate relationship – almost amounting to an identity – between causal and probable reasoning, though this is implicit in the "key result" at 1.3.2.3.

[2] In the *Enquiry*, Hume describes propositions known in this sort of way as "relations of ideas" (4.1), and it is broadly equivalent to *analyticity* in the modern sense of "truth in virtue of meaning". Note, however, that Hume takes non-trivial relations of ideas to be confined to mathematics (which is in contrast with modern views on analyticity, and raises difficult questions about the status of his own philosophical reasonings).

[3] This view is preserved in the *Enquiry*: "the only objects of the abstract sciences or of demonstration are quantity and number" (*E* 12.27), though the two works differ significantly regarding the status of geometry. *Treatise* 1.3.1.4 says that geometry "never attains a perfect precision and exactness", because geometrical ideas are derived from the senses. But in the *Enquiry*, geometry is included alongside algebra and arithmetic as a "science" whose affirmations can be "intuitively or demonstratively certain" (*E* 4.1).

[4] This seems most questionable in the case of identity, where Hume gives only the perfunctory argument "Two objects, tho' perfectly resembling each other, and even appearing in the same place at different times, may be numerically different" (*T* 1.3.1.1). Bear in mind here that by "identity" Hume means *identity over time*, "as apply'd … to constant and unchangeable objects" (*T* 1.1.5.2).

[5] Hume often uses the noun "object" to mean anything that is sensed or thought about; it does not necessarily imply an external or physical object.

to the senses, either to discover the real existence or the relations of objects." (1.3.2.2) Only *causation* can go beyond what we perceive in this way, and any judgements that we make about the identity or spatio-temporal relationships of things beyond our perception are always based on causation.

> "Here then it appears, that of those three relations, which depend not upon the mere ideas, the only one, that can be trac'd beyond our senses, and informs us of existences and objects, which we do not see or feel, is *causation*." (1.3.2.3).

This is the key result that implies that all reasoning from experience (and hence – in Hume's view – all "probable reasoning", though he does not mention this here) must be founded on the relation of causation. Hume therefore focuses on this vital idea of causation, with the aim of "tracing it up to its origin, and examining that primary impression, from which it arises" (1.3.2.4). Examining objects that we take to be causes and effects doesn't reveal any particular *qualities* that are common to all of them (1.3.2.5), so Hume concludes that "The idea … of causation must be deriv'd from some *relation* among objects" (1.3.2.6). He then remarks that "whatever objects are consider'd as causes or effects, are *contiguous*", and where distant objects causally interact, we find that they are "link'd by a chain of causes, which are contiguous among themselves". "We may therefore consider the relation of CONTIGUITY as essential to that of causation; …".[6] Next Hume goes on claim that "PRIORITY of time in the cause before the effect" is "essential to causes and effects" (1.3.2.7). He supports this claim with a rather weak argument, that if a cause could be "perfectly co-temporary with its effect … they must all of them be so", which would lead to the "utter annihilation of time" in which "all objects must be co-existent".[7]

Contiguity and *priority* are not enough to distinguish a cause and effect relationship, but it's not clear yet what else is required. Trying to define a cause as "something productive of another" is useless, because *production* is synonymous with *causation* and gets us no further forward (1.3.2.10).

> "Shall we then rest contented with these two relations of contiguity and succession, as affording a compleat idea of causation? By no means. An object may be contiguous and prior to another, without being consider'd as its cause.[8] There is a NECESSARY CONNEXION to be taken into consideration; and that relation is of much greater importance, than any of the other two above-mention'd." (1.3.2.11)

None of the known qualities of objects, or their relations, seem to reveal any such necessary connexion. Yet it would be premature to give up the search for an impression from which that idea could be derived, since the Copy Principle has been fairly "firmly establish'd" (1.3.2.12). What to do?

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[6] However this sentence continues: "at least may suppose it such, according to the general opinion, till we can find a more proper occasion [footnote to 1.4.5] to clear up this matter, by examining what objects are or are not susceptible of juxta-position and conjunction". In section 1.4.5, Hume will explain that some of our perceptions (e.g. impressions of smell, or taste, or sentiments) are not spatially located, and hence cannot be spatially contiguous, though this does not prevent their being causes or effects. In most of his discussion in *Treatise* 1.3, however, this remains a "loose end" that is not properly tied up; in the *Enquiry*, Hume drops the requirement of contiguity altogether.

[7] Again Hume seems aware that his discussion is less than rigorous: "If this argument appear satisfactory, 'tis well. If not, I beg the reader … [to suppose] it such. For he shall find, that the affair is of no great importance." (1.3.2.8)

[8] Note that this means *single instance* contiguity and priority; *constant conjunction* hasn't yet made an entrance.

> "We must, therefore, proceed like those, who being in search of any thing … and not finding it in the place they expected, beat about all the neighbouring fields, without any certain view or design, in hopes their good fortune will at last guide them to what they search for." (1.3.2.13)

Hume chooses two "neighbouring fields" to explore, both of which apparently involve "that *necessary connexion*, which enters into our idea of cause and effect":

> "*First*, For what reason we pronounce it *necessary*, that every thing whose existence has a beginning, shou'd also have a cause?
>
> *Secondly*, Why we conclude that such particular causes must *necessarily* have such particular effects; and what is the nature of that *inference* we draw from the one to the other, and of the *belief* we repose in it?" (1.3.2.14-15)

This sets the agenda for Sections 1.3.3 (on the *Causal Maxim*) and 1.3.4-6 (on *causal inference*), the last of which leads on to an extended discussion of *belief* (1.3.7-10). and *probability* (1.3.11-13). It is not until Section 1.3.14 that Hume will return to the issue he is setting aside here: the origin of the idea of necessary connexion.

Section 1.3.3 "Why a cause is always necessary" discusses the "general maxim in philosophy, that *whatever begins to exist, must have a cause of existence*", which "is commonly taken for granted in all reasonings, without any proof given or demanded." (1.3.3.1). Many philosophers take it to be "founded on intuition" (i.e. self-evident), but Hume opposes this by appealing to his analysis of knowledge from *T* 1.3.1:

> "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. These relations are *resemblance*, *proportions in quantity and number*, *degrees of any quality*, and *contrariety*; none of which are imply'd in this proposition, *whatever has a beginning has also a cause of existence*. That proposition therefore is not intuitively certain." (1.3.3.2)

He then proposes "an argument, which proves at once, that the [Maxim] is neither intuitively nor demonstratively certain", based on what are known as his Separability and Conceivability Principles:[9]

> "as all distinct ideas are separable from each other, and as the ideas of cause and effect are evidently distinct, 'twill be easy for us to conceive any object to be non-existent this moment, and existent the next, without conjoining to it the distinct idea of a cause … The separation, therefore, of the idea of a cause from that of a beginning of existence, is plainly possible for the imagination; and consequently the actual separation of these objects is so far possible, that it implies no contradiction nor absurdity; and is therefore incapable of being refuted by any reasoning from mere ideas; without which 'tis impossible to demonstrate the necessity of a cause." (1.3.3.3)

Most of the rest of the section is devoted to refuting various attempted demonstrations of the Causal Maxim, namely those of Hobbes (1.3.3.4), Clarke (1.3.3.5), Locke (1.3.3.6-7) and one that appeals to

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[9] The Separability Principle (as explicitly stated at *T* 1.1.7.3) is that "whatever objects are different are distinguishable, and that whatever objects are distinguishable are separable by the thought and imagination". See also the discussion of *T* 1.1.3.4, above. The Conceivability Principle, introduced at *T* 1.2.2.8, is "*that whatever the mind clearly conceives includes the idea of possible existence*, or, in other words, *that nothing we imagine is absolutely impossible*." In the argument at *T* 1.3.3.3, the Separability Principle shows that any object can be conceived as coming into existence separately from its having a cause, after which the Conceivability Principle is (implicitly) invoked to infer that this is a genuine possibility, implying no contradiction.

the correlative ideas of cause and effect (1.3.3.8). The final paragraph, like the "neighbouring fields" passage in the previous section, provides a rather artificial link to a change of topic:

> "Since it is not from knowledge or any scientific reasoning, that we derive the opinion of the necessity of a cause to every new production, that opinion must necessarily arise from observation and experience. The next question, then, shou'd naturally be, *How experience gives rise to such a principle?* But as I find it will be more convenient to sink this question in the following, *Why we conclude, that such particular causes must necessarily have such particular effects, and why we form an inference from one to another?* we shall make that the subject of our future enquiry. 'Twill, perhaps, be found in the end, that the same answer will serve for both questions." (1.3.3.9)

In fact Hume never returns explicitly to the question of why we believe the Causal Maxim! However there is further textual evidence beyond the *Treatise* corroborating the suggestion made here, that he intended to ground it in "observation and experience".[10]

Section 1.3.4 "Of the component parts of our reasonings concerning cause and effect" is the first of two preliminary sections leading up to Hume's famous discussion of causal or inductive reasoning in *T* 1.3.6. Here he argues that any causal reasoning, if it is to result in real belief in the object inferred, must ultimately start from something perceived or remembered (though as he points out at 1.3.4.3, the memory might be vague and general rather than distinct and particular). Without a perceptual impression to start from, or a memory, any causal reasoning would be entirely hypothetical "and consequently there wou'd be no belief nor evidence" (1.3.4.2).

Section 1.3.5 "Of the impressions of the senses and memory" follows on from the previous section, with the corollary that "this kind of reasoning … from causation" starts from "an impression of the memory or senses" and leads to an *idea* of the relevant cause or effect (1.3.5.1).

> "Here therefore we have three things to explain, viz. *First*, The original impression. *Secondly*, The transition to the idea of the connected cause or effect. *Thirdly*, The nature and qualities of that idea."

The remainder of the current section is devoted, as the title suggests, to the first of these three things: "the impressions of the senses and memory", while *T* 1.3.6 considers "the inference from the impression to the idea" and *T* 1.3.7 turns to "the nature of the idea or belief". So Hume's discussion here is pleasingly systematic, in contrast with some of the route he has followed hitherto in this part of the *Treatise*.

The main conclusion of Section 1.3.5 is that the distinction between the ideas of the memory and those of the imagination lies in "the different *feeling* … the ideas of the memory are more *strong* and *lively* than those of the fancy" (1.3.5.5).[11] And we see an anticipation of Hume's theory of belief:

> "And as an idea of the memory, by losing its force and vivacity, may degenerate to such a degree, as to be taken for an idea of the imagination; so on the other hand an idea of the imagination may acquire

[10] Hume's discussion "Of the Probability of Causes" will later give hints as to why "philosophers" believe in determinism generally (*T* 1.3.12.5), and perhaps this is a pointer to what Hume planned to say on the Causal Maxim.

[11] The quoted passage is taken from a section of text that Hume added in 1740, through the Appendix that was published with Book III.

> such a force and vivacity, as to pass for an idea of the memory, and counterfeit its effects on the belief and judgment. This is noted in the case of liars; who by the frequent repetition of their lies, come at last to believe and remember them, as realities …
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> Thus it appears, that the *belief* or *assent*, which always attends the memory and senses, is nothing but the vivacity of those perceptions they present; and that this alone distinguishes them from the imagination. To believe is in this case to feel an immediate impression of the senses, or a repetition of that impression in the memory. 'Tis merely the force and liveliness of the perception, which constitutes the first act of the judgment, and lays the foundation of that reasoning, which we build upon it, when we trace the relation of cause and effect." (1.3.5.6-7)

Hume's theory – as will be revealed in *T* 1.3.7-8 – is that causal inference involves the associative transfer of force and vivacity from the perceived or remembered impression to the inferred idea. This enhanced vivacity thus automatically converts that idea into a belief.

The title of this section of the *Treatise* – "Of the impressions of the senses and memory" – is rather surprising, given Hume has earlier (in *T* 1.1.2 "Division of the subject" and *T* 1.1.3 "Of the ideas of the memory and imagination") made clear that the memory deals in *ideas* rather than *impressions*. Hume seems to think of the ideas of the memory as "somewhat intermediate betwixt an impression and an idea" (*T* 1.1.3.1) because they are sufficiently firm and vivid – sufficiently impression-like – to establish copy-ideas in the imagination: "The impressions of the memory never change in any considerable degree; and each impression draws along with it a precise idea, which takes its place in the imagination, as something solid and real, certain and invariable." (THN 1.3.9.7). If this is right, then all the ideas that are actually involved in *thinking* lie within the imagination, and the role of the senses and memory is to supply the "impressions" from which those ideas derive.

Hume's view of *the imagination* is also rather confusing, and we shall see later in the *Treatise* that he uses the term ambiguously. For the present, however, note that it is a direct consequence of Hume's empiricism – his Copy Principle – that all the ideas we think with are quasi-sensory, since all are copied from impressions of sensation or reflection (i.e. outer or sense). Hume denies, therefore, any separate faculty that can take a "pure and intellectual view" of "refin'd and spiritual" ideas (*T* 1.3.1.7), unsullied by sensory input, as Descartes and other rationalists supposed. Hence it is almost inevitable for Hume that our main thinking faculty will be the *imagination* (the faculty that deals with mental *images*). In this sense, we can think of the imagination as something like a multi-layered or multi-dimensional virtual canvas on which sense-copied ideas appear, with different degrees of "force and vivacity" and "in a perpetual flux and movement" (*T* 1.4.6.4).[12]

[12] The model of a canvas is obviously most appropriate to visual ideas, which indeed seem to dominate Hume's thought, although ideas may correspond to any of the senses—including internal "reflection" – and only the ideas of sight and touch will be spatially arranged (not necessarily within a single space).