Hume's Ontology

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Ingvar Johansson

Professor emeritus in theoretical philosophy, Umeå University, Sweden

e-mail: ingvar.johansson@philos.umu.se

Abstract The paper claims that Hume's philosophy contains an ontology, i.e., an abstract exhaustive classification of what there is. It is argued that Hume believes in the existence of a mind-independent world, and that he has a classification of mind-related entities that contains four top genera: perception, faculty, principle, and relation. His ontology is meant to be in conformity with his philosophy of language and epistemology, and vice versa. Therefore, crucial to Hume's ontology of mind-independent entities is his notion of 'supposing relative ideas'. Entities that are referred to by means of ordinary ideas can be truly classified, whereas entities that are referred to by means of relative ideas can only be hinted at. When Hume's ontology is highlighted and systematized, his notion 'the faculty of imagination' becomes highly problematic. However, the exposition also makes it clear that Hume deserves the honorary title: the first cognitive scientist.

Keywords David Hume · Ontology · Faculty of imagination · Cognitive science

1 Hume and Ontology

David Hume's two foremost British Empiricist predecessors, John Locke and George Berkeley, are generally seen as having put forward not only an empiricist epistemology and philosophy of language, but a whole philosophical system that also includes an abstract exhaustive classification of what there is, i.e., an ontology. Hume, on the other hand, is often seen as having put forward only an epistemology and a philosophy of language. I will show that this is false. His *Treatise* contains a whole philosophical system.[1]

Not long ago, Helen Beebee (2006) tried to downplay the central role most earlier commentators have ascribed to Hume's epistemological and semantic concerns. She claims his "central concern to be genetic," i.e., to explain "*how* it is that we believe what we do"; and that to this explanatory end Hume posits "the associative *mechanism* of causation" (2006: 22, 60).[2] In outline, such a view fits my ontological perspective well. Whether material or mental, the mechanism mentioned must be a really existing mechanism.

In what has been termed the "New Hume Debate" (Read and Richman 2007), my views align with those who argue that Hume posits both a mind-independent external world and a necessity-causal relation in this world, but I will start with a presentation of Hume's ontology of mind-related entities. In the anonymously published review of the first two books of *Treatise* (the *Abstract*), Hume summarizes his ontology of the mind as follows:

> the soul, as far as we can *conceive it* [italics added], is nothing but a system or train of different perceptions, […] all united together, but without any perfect simplicity or identity. […] And therefore it must be our several particular perceptions, that compose the mind. I say *compose* the mind, not *belong* to it. The mind is not a substance, in which the perceptions inhere. (T Abs. 28)

> Our imagination has a great authority over our ideas; and there are no ideas that are different from each other, which it cannot separate, and join, and compose into all the varieties of fiction. But notwithstanding the empire of the imagination, there is a secret tie or union among particular ideas, which causes the mind to conjoin them more frequently together, […] These principles of association are reduced to three, *viz.*

[1] Quotations from Hume's *A Treatise of Human Nature* and the so-called *Abstract* are taken from (Hume 2000a). A quotation from the first book, fourth part, seventh section, and third paragraph is referred to as (T 1.4.7.3); a reference to the fourth paragraph of Hume's *Abstract* takes the form (T Abs. 4). Quotations from his *An Enquiry concerning Human Understanding* are taken from (Hume 2000b). A reference to the fifth paragraph of section 2 takes the form (EHU 2.5). Such references are always inserted directly in the text.

[2] Compare in this respect also (Wolff 1968) and my own (Johansson 2002); the present paper is a development of the latter.

> *Resemblance*, […] *Contiguity* […] *Causation*; […] they are really *to us* the cement of the universe, and all the operations of the mind must, in a great measure, depend on them. (T Abs. 35)

Hume presents the *conceivable* part of his ontology of the soul as being atomistic. Mind is composed of perceptual atoms, perceptions. Thinking about his predecessors and contemporaries, he says: "The mind is not a substance." The perceptions, however, are not presented as completely free-floating. They are said to be bound together by a kind of natural laws called 'principles of association'. Leaving the traditional comparisons between Newton and Hume aside,[3] there is a structural similarity between Hume's picture of the mind and Newton's picture of the material world that I would like to highlight. Instead of Newton's corpuscles, Hume invokes perceptions; and instead of Newton's three general laws of motion, Hume appeals to three principles of association. As a more specific fourth law, Newton posits the law of gravitation, and beside the principles of association, Hume posits the "first principle in the science of human nature" (T 1.1.1.12), the principle that simple ideas have to be copies of simple impressions. However, Hume's talk of "the empire of the imagination" has no counterpart in Newton.[4]

At the beginning of the *Treatise*, Hume at once presents, almost section by section, the top genera in his ontology of mind-related entities:

A. Perceptions (sections one and two)
B. Faculties (section three)
C. Principles (sections two and four)
D. Relations (section five).

Before embarking on my presentation of these Humean "categories," I will briefly explain why I have not listed the mind-related entities that are mentioned in the subsequent sections six and seven of the *Treatise*.

Section six has the title "Of modes and substances." I neglect it because Hume regards modes and substances as non-basic entities. He says: "The idea of a substance as well as that

[3] See (Kemp Smith 2005: ch. III), (Passmore 1980: ch. 3), and (Buckle 2007: ch. 3).

[4] As R. P. Wolff says: "Hume began the *Treatise* with the assumption that empirical knowledge could be explained by reference to the contents of the mind alone, and then made the profound discovery that it was the activity of the mind, rather than the nature of its contents, which accounted for all the puzzling features of empirical knowledge" (1968: 99–100).

of a mode, is nothing but a collection of simple ideas, that are united by the imagination" (T 1.1.6.2).

In section seven, "Of abstract ideas," Hume makes it clear that he is a nominalist of some sort. Therefore, it might be argued that it is nonsensical to speak of general ontological entities in Hume's philosophy the way I have started to do; and will continue to do. For my purposes, however, it is enough (i) that Hume certainly needs the *general terms* used in the list above, and (ii) that he is not claiming that these general terms have no language-independent referents at all. The terms are referring to real items in the four different classes named by A, B, C, and D. Hume does not regard his general terms as being only predicates or merely conceptual constructions. In the terminology of contemporary analytic metaphysics, Hume should be called a 'trope nominalist' or a 'resemblance nominalist' of some kind.[5] All the items in each of his classes are related by similarity relations. His notion of 'resemblance' will be discussed in Section 5 below.

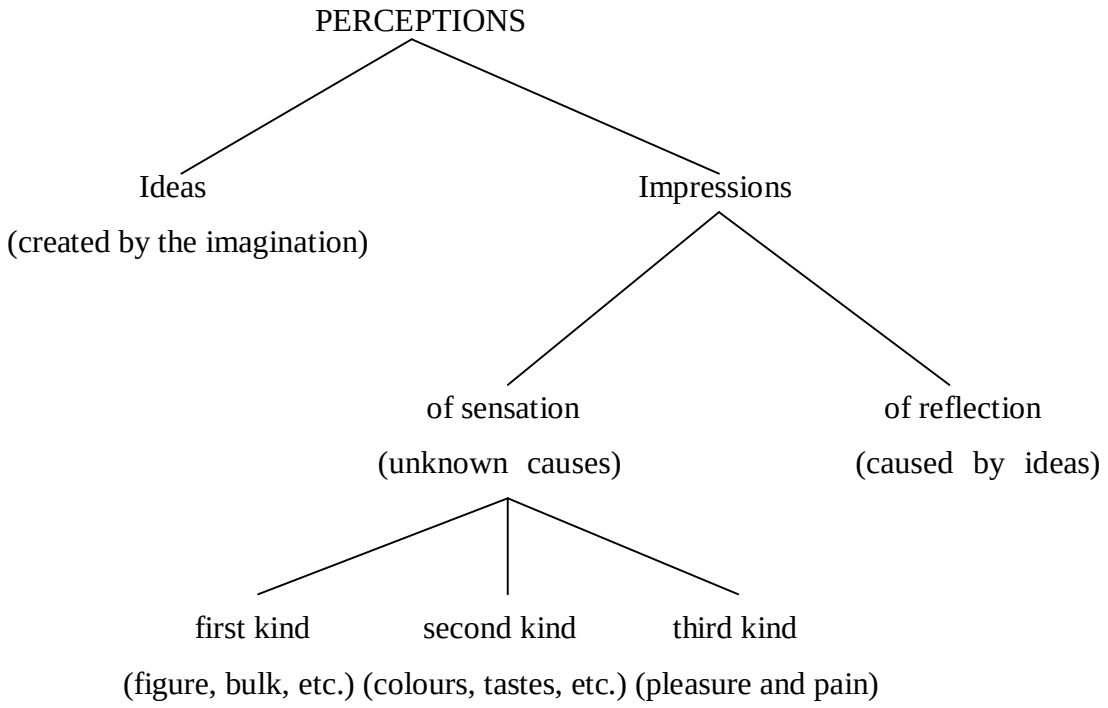
2 Perceptions

Hume classifies perceptions not only into impressions and ideas. His whole overall taxonomy of perceptions looks like this:[6]

[5] Using the distinctions in (Armstrong 1978a), one can say that Hume is definitely not a predicate nominalist. He does not regard properties as "nothing but a shadow cast upon particulars by predicates" (1978a: 13). Armstrong says that "The 'British Empiricists', Locke, Berkeley and Hume, are often taken to be Concept Nominalists. It is not clear to what extent this is so. […] I have the impression that they never got the ontological problem into clear focus" (1978a: 26). In my opinion, Hume can neither be called a concept nominalist; a Humean idea is never a unifier in the sense that in concept nominalism a concept is assumed to unify what falls under it.

[6] My taxonomy differs somewhat from, but is consistent with, the classification in (Kemp Smith 2005: 106).

Taxonomy A:



Let me repeat some Humean fundamentals. Impressions and ideas can be either simple or complex. Necessarily, simple ideas are copies of simple impressions of sensation; also, they have a lower degree of force and vivacity than the impressions copied. Simple ideas are for their existence dependent upon simple impressions of sensation, but complex ideas need not be copies of any corresponding complex impression; they can be created by a mere juxtaposition of pre-existing simple ideas. Impressions of sensation are said to have unknown causes. Hume did not intend to say that impressions of sensation *lack* causes; this one knows for sure thanks to a letter.[7]

The view that impressions are caused either by unknown causes or by ideas created by the imagination, remains true even if the second and third books of the *Treatise* are taken into account. When Hume discusses passions, desires, and emotions, he regards most of them of as subspecies of impressions of reflection, but some of them are claimed to have unknown causes. He says that some "arise from a natural impulse or instinct, which is perfectly unaccountable"; and, "Of this kind is the desire of punishment to our enemies, and of happiness to friends; hunger, lust, and a few other bodily appetites" (T 2.3.9.8).

[7] See (Kemp Smith 2005: 408–9). In the *Treatise* Hume writes: "As to those *impressions* which arise from the *senses*, their ultimate cause is, in my opinion, perfectly inexplicable by human reason" (T 1.3.5.2). The bottom tri-partition of Taxonomy A is put forward in (T 1.4.2.12).

I will return to the unknown causes in Section 6; the imagination is presented in the next section.

3 Faculties

Like Locke before him and Kant after him, Hume uses 'faculty' in the sense of a capacity or power of the mind (whatever mind is) that he sees no reason to explain or define. This notion of 'faculty' is since long regarded as obsolete in both psychology and philosophy; and most contemporary Hume experts shun it also when presenting and discussing Hume's ideas, but I will stick to it. A substitute such as 'mechanism' has to me too strong connotations of necessarily being something material and deterministic to do complete justice to Hume's thinking.[8]

In the *Treatise,* Hume explicitly distinguishes between the faculties of memory and imagination. And in a footnote he says that he employs 'imagination' in two senses:

> When I oppose the imagination to the memory, I mean the faculty, by which we form our fainter ideas. When I oppose it to reason, I mean the same faculty, excluding only our demonstrative and probable reasoning. When I oppose it to neither, 'tis indifferent whether it be taken in the larger or more limited sense, or at least the context will sufficiently explain the meaning. (T 1.3.10.n22)

Both the memory and the imagination in the limited sense create ideas based on impressions, but the ideas created by the imagination are fainter. Another difference is that the faculty of imagination is freer than the faculty of memory is. The latter is bound to reproduce the order of the impressions it copies.

Apart from the faculties mentioned, Hume speaks of sense faculties and a faculty of reason. The problem "whether it be the *senses, reason,* or the *imagination,* that produces the opinion of a *continu'd* or of a *distinct* existence" (T 1.4.2.2) is to Hume a faculty problem. The overarching message of the *Treatise* and the *Enquiry* is that the capacities of the faculties

[8] Beebee, for one, does not talk of faculties, but of the "mechanisms by means of which those entities [that populate the mind] interact with one another" (2006: 5). A notable exception to the deletion of 'faculty' is (Owen 1999). Also, some of the authors in (Radcliffe 2008) use the term 'faculty', but the term is not indexed in the book.

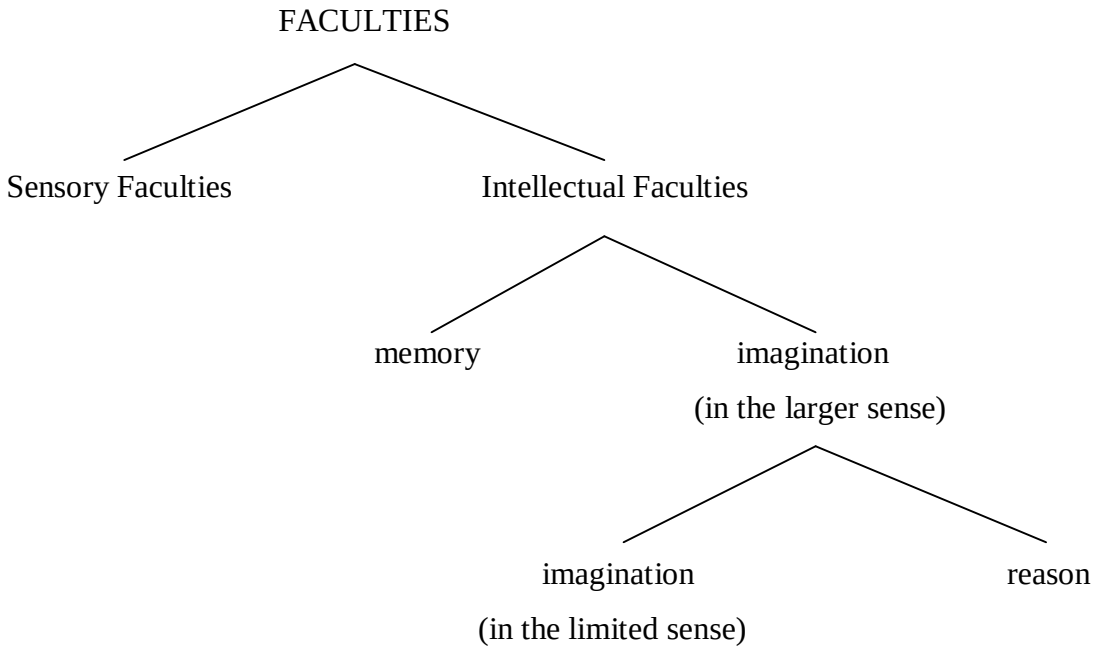
of senses and reason have been radically exaggerated. It is mainly the faculty of imagination that produces the belief in "continu'd existences."

The distinction between imagination in the limited sense and reason is not always completely clear, but in the main Hume uses 'reason' in such a narrow sense that reason cannot form any new ideas.[9] This means that imagination in the limited sense is given the role not only of creating new simple ideas, but also of combining already existing ideas into more complex ideas, as well as to separate an already given complex idea into its (at first not clearly seen) simple components.

In relation to the sense faculties, Hume speaks of a "passive admission of the impressions thro' the organs of sensation" (T 1.3.2.2) and that "there are three different kinds of impressions convey'd by the senses" (T 1.4.2.12). Hume has to be taken literally when he says that impressions come "thro'" and are "convey'd by" the sense organs; impressions of sensation do not inhere in the sense organs that convey them.

No doubt, Hume is using a number of faculty notions, and the referents can be classified as below; the term 'intellectual faculties' is Hume's, too (T 1.3.12.20).

Taxonomy B:



[9] I regard my view of Hume's reason as being in agreement with both (Owen 1999) and (Beebee 2006); their differences notwithstanding.

I will make no further comments on the faculty of memory, which in the *Enquiry* is disregarded; and the term 'imagination' will in what follows always mean imagination in the limited sense. [10] Reason is, as I have said, delineated in such a way that it cannot create ideas, only work with ideas that are already created by the imagination.

In everyday life, a contrast is often made between our free and creative imagination and our sensory faculties; the latter being regarded as passively stimulated and forced to take in what they meet. Hume uses this contrast, too. Both in the *Treatise* and the *Enquiry* he states that "nothing is more free" than the faculty of imagination (T 1.1.4.1; EHU 5.10). It is not, however, absolutely free. Hume's "first principle in the science of human nature" states that the faculty of imagination cannot, despite its freedom, possibly create simple ideas out of nothing. The principle must be an existing something, and in this sense be part of Hume's ontology. The fact that it has both semantic and epistemological repercussions does not make it non-ontological. It puts down a first restriction on the freedom of the imagination (RFI 1), which can be formulated as follows:

RFI 1: *The faculty of imagination can only create and conceive simple ideas that resemble already experienced simple impressions.*

Some commentators find it problematic that Hume allows exceptions such as the famous missing shade of blue (Stroud 1977: 33–5), but I think it (and similar cases) can easily be taken care of by a reformulation of RFI 1. Even though Hume says that "the instance is so particular and singular, that 'tis scarce worth our observing, and does not merit that for it alone we shou'd alter our general maxim" (T 1.1.1.10), he does not forbid such an "alteration"; and the general principle/maxim can be amended as follows:

RFI 1, 1st amendment: *The faculty of imagination cannot only create and conceive simple ideas that resemble already experienced simple impressions; it can also create and conceive ideas that resemble impressions that are closely similar to those already experienced.*

A second amendment will be presented in Section 4; first some words about Hume's distinction between conceiving ideas and supposing relative ideas. Note that the amendment

[10] The distinction between memory and imagination is discussed in (Gore 1902: 33–5), (Kemp Smith 2005: ch. XI), (Wilbanks 1968: 67–8, 76–7), and (Traiger 2008: 58–71).

above makes it unnecessary to bring in, as Daniel Flage (1981, 1982) does, the notion of 'relative idea' to solve the problem of the missing shade of blue.

As far as I know, Jan Wilbanks was the first to stress that Hume "in addition to *conceiving*, […] recognizes a *supposing* activity of this faculty [of imagination]" (Wilbanks 1968: 81), but it was Galen Strawson who managed to make it central to Hume interpretations. He writes:

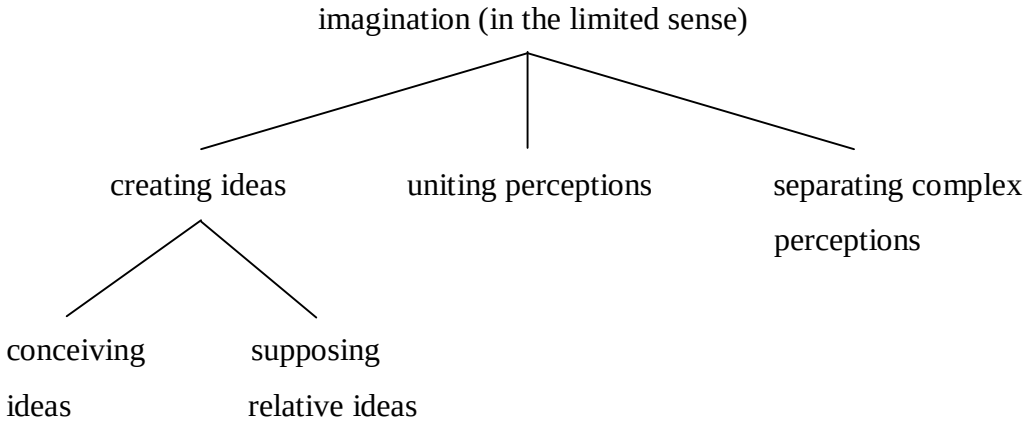
> Nevertheless (Hume seems to be saying), even if we cannot form any idea of external objects that counts as positively contentful on the terms of the theory of ideas, we can still form a 'relative' idea of such objects. It is a merely relative idea because we cannot in any way conceive of or descriptively represent the nature of an external object as it is in itself (when it is supposed specifically different from perceptions); we can conceive it only indirectly. […] But a merely relative idea of (or term for) something X is not no idea of (or term for) X at all. (Strawson 1989: 51)

> The distinction between what we can *content-fully conceive* (given the special theory-of-ideas-based account of contentfulness) and what we can *coherently suppose* must be added to Hume's overall theory of meaning or intelligibility. (Strawson 1989: 58)

Put in terms of modern philosophy of language, Hume can be taken to say that terms such as 'object' and 'causality' have two kinds of uses, one with respect to the mind-internal world and one with respect to the mind-external world.

It has been claimed that "Strawson blurs the distinction between relative ideas and questions of reference" (Flage 2007: 151), but I think he does not. My systematization of Hume's ontology ought to make it clear, that Hume must be using the notion 'unknown cause' in a referring sense. Taxonomy B can be continued downwards as follows:

<u>Taxonomy B continued</u>:



In anticipation of Section 6, let me repeat that I support Strawson's claim that Hume very well can *talk* about both external objects and relations of necessity-causality between such objects. What Hume cannot on pain of inconsistency do, and never does, is to say that we can *conceive* such objects and causal relations. What Hume can consistently say, and does say, is that we can *suppose* them with the help of *relative* ideas. He does talk about causal relations between objects and events in an external world, and this talk does not contradict his *complete* philosophy of language. Moreover, we can even have opinions and beliefs about things talked about by means of relative ideas. I think Kemp Smith's analysis of Hume on beliefs is correct. It has been summarized as follows:

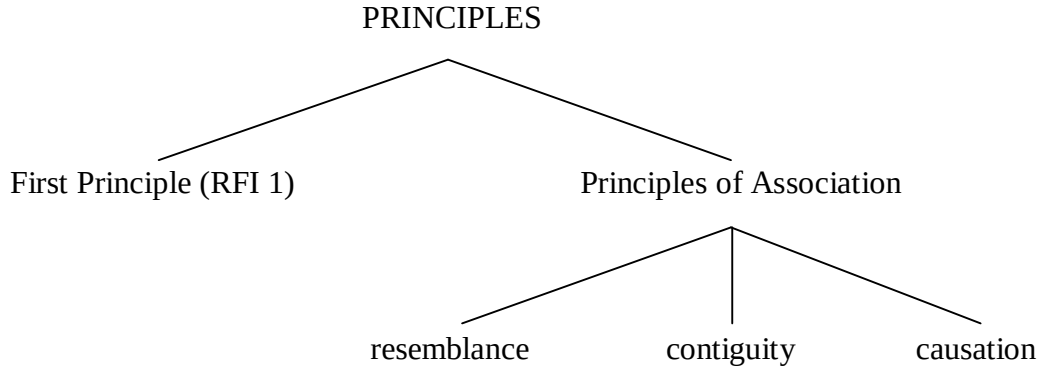
> In the area of belief [as in that of moral sentiments], Kemp Smith proceeds to argue, Hume proposes a similar subordination of reason through his doctrine that belief itself is a kind of feeling characterising certain ideas: specifically it is the liveliness or "force and vivacity" that distinguishes those ideas that are affirmed from those ideas that are merely entertained. (Garrett 2005: xxxii).

A belief is a feeling of vividness that has united with an idea; and such a feeling can unite as much with a supposed relative idea as with a conceived idea.

4 Principles

I have already mentioned one principle that Hume says regulates the faculty of imagination (RFI 1), but there are also the three principles of association. We obtain this taxonomy:

Taxonomy C:



The "first principle in the science of human nature" holds between ideas and impressions, whereas the principles of association are principles only for ideas. When we have an idea of something, Hume says, "our imagination runs easily from [it] to any other that *resembles* it" (T 1.1.4.2). Equally easy, the imagination "runs" from an idea of something to an idea of something else that earlier was contiguous to the first; and if it is an idea of a cause, it "runs" to the effect.

Hume regards causality to be both the strongest and the most extensive of the principles of association, but all three are some kind of natural laws for the faculty of imagination. It must be noted, though, that whereas RFI 1 states a law that might be compared with Newton's inexorable natural laws, the principles of association are not exactly like this. Hume says that a "uniting principle among ideas is not to be consider'd as an inseparable connexion; for that has been already excluded from the imagination: […] we are only to regard it as a gentle force" (T 1.1.4.1).[11] Hume never, however, takes time to explain in what way a "gentle force" differs from a force of the kind assumed by Newton. Leaving this problem aside,[12] Hume can be said to put forward a second restriction on the freedom of the imagination (RFI 2) that can be stated thus:

RFI 2: *The faculty of imagination is restricted by three principles of association: resemblance, contiguity, and causation.*

Resemblance, contiguity, and causation are relations, and since resemblance figures also in RFI 1, there must be a connection between Hume's notion of 'principle' and his notion of 'relation'. What it amounts to is explained in the next section.

[11] This is a further reason not to adopt Beebee's (2006) term the 'associative mechanism of causation'; compare my remarks in the first paragraph of Section 3. What she calls 'mechanism', Hume has divided into two parts: the faculty of imagination and the principles restricting it.

[12] The most reasonable interpretation is to my mind to be found in (Wolff 1968). He argues that "the various 'principles' invoked by Hume do have the characteristics of dispositions and propensities" of the mind (1968: 125).

5 Relations

Hume makes a distinction between natural and philosophical relations, and about the natural ones he says that "the one [relata] naturally introduces the other after the manner above-explain'd" (T 1.1.5.1), which means explained in the section presenting the principles of association. Put simply, the natural relations are the three relations mentioned in the principles of association. However, a relation is in itself neither natural nor philosophical; natural relations can also be philosophical relations. As Beebee says:

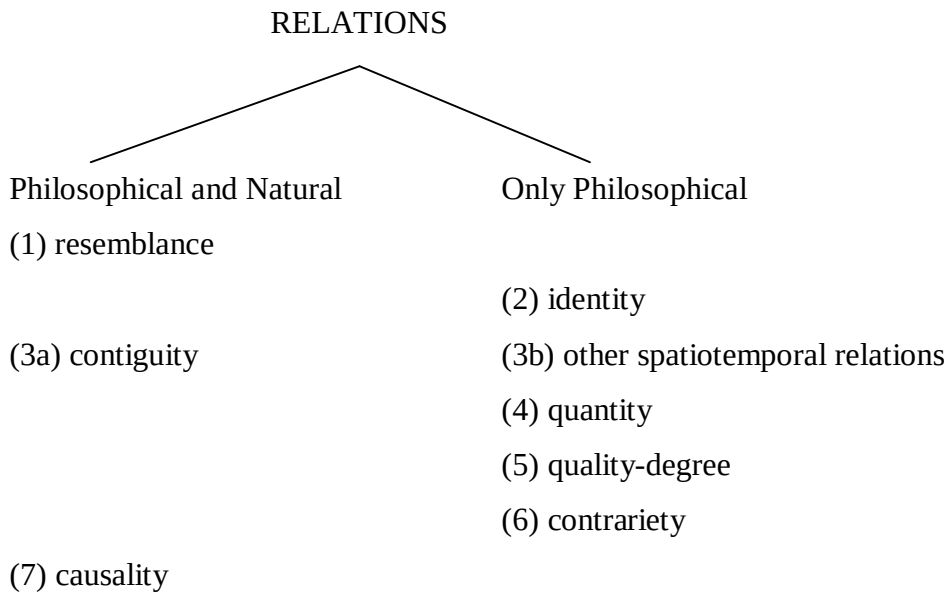
> It is important to note that the natural/philosophical distinction is thus a distinction not between two different kinds of *relation*, where a relation is conceived merely as a relation that obtains between the contents of two ideas, but between the kinds of operations of the mind associated with the obtaining of a relation. (Beebee 2006: 17)

Natural relations are relations whose relata in a certain way can influence the faculty of imagination; whereas philosophical relations are entities that are the result of comparisons made by the faculty of reason (T 1.1.5.2).[13] Since all natural relations can be discovered also by reason, they are at the same time philosophical relations, too. About the latter, Hume says: "we shall find that without difficulty they may be compriz'd under seven general heads" (T 1.1.5.2). If also his remark on natural relations is taken into account, then the schema below can be constructed:[14]

[13] In his introduction to the *Treatise*, D. F. Norton writes: "Note that the three relations, resemblance, contiguity, and causation, may be either natural (the result of the involuntary associating quality) or philosophical (the result of a voluntary act of the mind)" (2000: I21, footnote). In my opinion, instead of 'may *be* either natural […] or philosophical', he should have written 'may *appear* either as natural […] or as philosophical'. For more details on Hume and relations see also (Johansson 2002: sect. 6); Taxonomy D below is taken from this paper.

[14] Hume regards *difference* not as a relation, but "rather as a negation of relation" (T 1.1.5.10).

Taxonomy D:



If the *Enquiry*'s distinction between two "objects of reason," relations of ideas and matters of fact (EHU 4.1–2), is applied to philosophical relations, then the relations 2, 3, and 7 become matters-of-fact relations, and the others relations-of-ideas relations; a distinction put forward already in the *Treatise* (T 1.3.1). David Armstrong has brought Hume's distinction into contemporary analytic metaphysics in terms of the more handy terms 'external relations' and 'internal relations', respectively (Armstrong 1978b: ch. 19:iv); and I will use these.

What it means to be an internal relation can be explained as follows. Imagine two ideas of a specific hue of red. You can then without further ado realize that they resemble each other, and that, therefore, the impressions that they copy must resemble each other, too. That is, you can find the philosophical relation of resemblance between two red impressions merely by comparing the corresponding ideas. Similarly, in order to discover that there is a relation of contrariety, e.g. between a white impression and a black impression, you need not at the moment of discovery have such impressions. It is enough to consider the ideas of white and black. And the same goes for quality-degree. Merely by comparing the ideas of, say, five different determinate lengths, you can see that they are images of five different degrees of length. In the kind of cases mentioned, the relations are, Hume says, "discoverable at first sight" (T 1.3.1.2), but to discover quantity relations may often require a number of succeeding comparisons.

When it comes to the external relations (identity, spatiotemporal relations, and causality) no such comparisons of the ideas of the relata can produce an idea of the relation. For instance, by merely comparing the ideas of the Morning star and the Evening star, it is

impossible to figure out that perceptions of the Morning star and the Evening star are perceptions of the same heavenly object.

I will say no more about the distinction between external and internal relations, and I will next just *state* my position in the debate about Hume's notion of 'causality'. This in order to make it clear that there really is a position that fits the ontology I am unfolding. After that, I will present what ontological status Hume ascribes resemblance; the relation of identity will be discussed in Section 7. Whereas Hume's analysis of causality has been commented on in innumerable writings, his general ontological overview of relations has seldom been discussed.[15]

Three things should be kept distinct when discussing Hume on causation: (i) the idea of causality that refers to our perceptions, (ii) perceptions of causality, and (iii) the supposed relative idea of causality. Here are my views.

Hume's analysis of the *idea* of causality is concisely presented by Strawson (1989: ch. 10). The idea 'C causes E' contains four parts: (i) the idea 'C and E are contiguous', (ii) the idea 'C precedes E', (iii) the idea 'there is a constant conjunction between C and E', and (iv) an idea of an impression of reflection (the "necessary-connexion impression NC") in the mind. Those who fall prey to the illusion that a cause necessarily produces its effect do not notice that part (iv) is not an idea of a relation, but an idea of an impression of reflection.

Hume's analysis of perceived causality (bypassed by Strawson) I pick from Kemp Smith (2005: 88–95, 396–402). Apart from the sense impressions (conveyed by the sensory faculties), the perception of a cause-event contains not only the ideas of contiguity and precedency (created by the faculty of imagination), and of constant conjunction (mediated by the faculty of memory); it also contains an impression of reflection (caused by the imagination) that confers its vividness to the conceived idea of the expected effect. Thereby, the vividness constitutes a belief that the effect will necessarily occur. Kemp Smith says: "The 'impression', then, to which Hume thus traces the idea of necessity is, properly regarded, a feeling in the mind, not an apprehended relation between existents" (Kemp Smith 2005: 93).[16]

Beebee has another projectivist account than Kemp Smith has. Kemp Smith thinks it is merely a feeling in the mind that is claimed to be projected, but Beebee thinks that Hume means that it is mind's very *transition* from the idea of the cause to the idea of the effect that

[15] Three such papers are (Church 1941), (Hausman 1967), and (Costa 1998). Even though in some respects I disagree with them all, I have benefited from reading these papers.

[16] Note that the account given is quite consistent with the view (soon to be presented) that Hume thinks there are no relational impressions of sensation.

is projected (2006: ch. 4.2). The reason I prefer Kemp Smith's interpretation is that I can find no place for an un-reducible notion of 'transition' in Hume's list of relations. To me, his use of the term seems to be reducible to 'contiguity in time, at a certain place'.

What then to say about the relative idea of causality? As I have made clear in Section 3, Hume must be regarded as accepting such an idea of necessity-causality. In the "New Hume Debate," it is in this respect interesting to compare the views of Beebee and Edward Craig. Beebee claims that no conclusion can be drawn about whether Hume is a sceptical realist or a projectivist (2006: ch. 7.8), whereas Craig (2007) claims that Hume might be both, but that it is impossible to tell whether he is. Neither Beebee nor Craig, however, takes Hume's notion of 'supposed relative ideas' seriously. In my opinion, with respect to causality, Hume is a projectivist in relation to the perceptual world and a non-projectivist in relation to the external world.

So much for causality, I will now return to resemblance. Two of Hume's general views on relations can be stated thus: (i) *all relation ideas are complex ideas* (T 1.1.4.7), and (ii) *there are no relational impressions*. Hume never gives any real reasons for them, but such can be given.

The first view is in all probability rooted in the fact that it is impossible to imagine an individual relation *R* without imagining its relata. In order to imagine an individual two-term relation idea *R*, we have to create a complex idea that has the structure *Rab*.

The second view is required for reasons of internal consistency. If Hume would say that there are relational impressions that connect atomistic impressions, then he would contradict his view that *all* impressions are wholly distinct entities that can be perceived independently of each other.[17] Also, he would be contradicting his view that *all* impressions have force and vivacity; resemblances and spatial contiguities seem not to have any force and vivacity in themselves. There is a third reason that Hume could have used, but at least does not explicitly use. It consists in the question that constitutes the really hard problem of a realist conception of internal relations: where is the relational impression *R* of *Rab*? If *R* as a whole is in either *a* or *b*, it cannot be a relation relating *a* and *b*, but where else should it be?[18]

Resemblance, Hume says, is a relation "without which no philosophical relation can exist; since no objects will admit of comparison, but what has some degree of resemblance"

[17] This is not noted by Strawson. In his exposition of Hume's views on causality, he seems to take it for granted that there are impressions of contiguity and precedency (1989: 102–3).

[18] For a general exposition of this problem, see (Heil 2009).

(T 1.1.5.3). Now, since there are no relational impressions of resemblance, the idea of resemblance cannot be a direct copy of any impression. Neither can it wholly rely on comparisons made by reason, since reason is not (on Hume's delineation) creative. As far as I can see, Hume should, if he had taken time to elaborate on it, claimed that the idea of resemblance is the result of a collaborative effort of reason and the imagination. Reason compares, and the imagination creates on this basis a relation idea. Such a view, however, seems at first to contradict what I have called RFI 1. However, as I have earlier solved Hume's "problem of the missing shade of blue" by means of an amendment to RFI 1, I will now solve his "problem of the missing relational impressions" by means of another amendment:

RFI 1, 2nd amendment: *The faculty of imagination cannot only create and conceive simple ideas that resemble already experienced simple impressions; it can also create and conceive relation ideas whose relata ideas are copies of already experienced impressions.*

Hume ascribes the imagination the capability of uniting impressions and ideas into complex perceptions, and about reason and comparisons he says:

> 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 the 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* [italics added], we call *this* perception rather than reasoning; (T 1.3.2.2)

Hume must be ascribed (in relation to the perceptual world) a projectivist view not only of causality, but also of resemblance. On this view, when we perceive a resemblance between two red spots, then (i) we have two impressions of sensation conveyed by the sensory faculties, (ii) we have an idea of resemblance that is created by the imagination on the basis of comparisons made by reason, and (iii) this relation idea is by the imagination united with the two impressions. In a projection, an idea is fused with some impressions of sensation, and a complex perception is created.

Hume speaks as if we *discover* pre-existing relations of resemblance, but on the analysis made this talk is completely on a par with his talk about causal relations being discovered in perceptions. In both cases, a central part is just a figment of the imagination.

6 The External World

There are two kinds of ontologies: those that posit cognitive faculties that give us epistemic access to everything there is, and those that put severe restrictions on these faculties. The second kind of ontology comes with a duality, one list of categories for the really knowable part of the world and another list for the less knowable part. No epistemological turn in philosophy can completely do away with ontology. Whatever such a proposed turn looks like, it has to refer to some assumedly existing epistemic sources. No doubt, Hume's ontology is of the second kind, but his notion of 'relative ideas' allows him to talk about and believe in entities that cannot be fully known.

Beebee, however, writes: "Hume appears to think that there are positive reasons to think that belief [in the external world] is *false*" (2011: 736).[19] Strawson, on the other hand, says:

> [Hume] takes it for granted that there does exist an external reality, i.e., something other than our perceptions, something which affects us and give rise to our perceptions; and in this sense he does positively, and crucially, adopt a Basic Realist position of some sort with respect to 'the objects'. (Strawson 1989: 67–8)

What prevents Beebee from accepting (as I do) Strawson's view is, I suspect, that she takes it for granted that Hume's relative ideas should be described as being "inadequate ideas" (2006: 178–9).[20] Surely, according to Hume, a relative idea is inadequate for giving us a clear and distinct (i.e., a conceived) idea of its referent, but it need not be inadequate for making us talk intelligibly about mind-independent entities. In my opinion, Hume subscribes to the following statements: *unobservables are unknowable* and *ideas of unobservables are unconceivable*, but nonetheless *some relative ideas of unobservables are intelligible*.

The first part of Hume's ontology, the knowable ontology of the mind, posits four "categories": perception, faculty, principle, and relation. But what then do we find in the second part, the not really knowable ontology? Let us take a fresh look at some famous quotations from the *Treatise* and the *Enquiry*:

[19] Earlier, however, she was not equally straightforward in her claim; see (Beebee 2006: 179–80).

[20] In the paper (Beebee 2011), Hume's notion of 'supposing relative ideas' is not mentioned at all.

> The farthest we can go towards a conception of external objects, when suppos'd *specifically* different from our perceptions, is to form a relative idea of them, without pretending to comprehend the related objects. Generally speaking we do not suppose them specifically different; but only attribute to them different relations, connexions and durations. (T 1.2.6.9)

> As to those *impressions*, which arise from the *senses*, their ultimate cause is, in my opinion, perfectly inexplicable by human reason, and 'twill always be impossible to decide with certainty, whether they arise immediately from the object, or are produced by the creative power of the mind, or are derived from the author of our being. Nor is such a question any way material to our present purpose. (T 1.3.5.2)

> Bereave matter of all its intelligible qualities, both primary and secondary, you in a way annihilate it, and leave only a certain unknown, inexplicable *something*, as the cause of our perceptions; a notion so imperfect, that no sceptic will think it worth while to contend against it. (EHU 12.16)

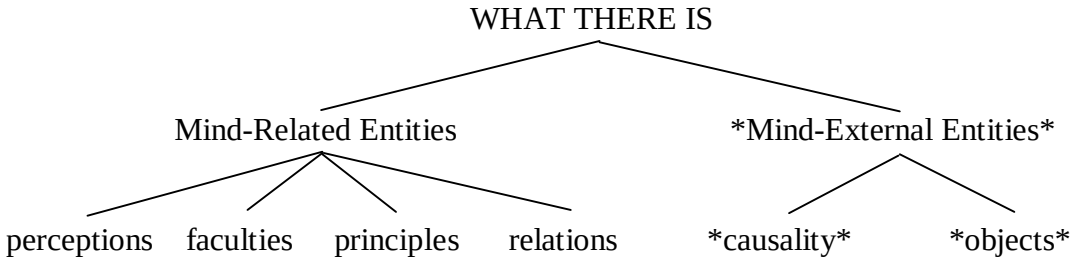
This was written long before substance-empty ontologies such as Ernst Mach's sensationalism and Bertrand Russell's neutral monism entered the philosophical scene; not to speak of Nietzsche's and neo-Nietzscheans' world in an absolute flux. The third quotation shows that Hume cannot really think of a philosopher ("sceptic") who maintains that our perceptions have no causes at all. In the second quotation, he refuses to take a stand on the issue whether the ultimate cause is material, mental, or God-like; and in the first he says that we can nonetheless "attribute to them different relations, connexions and durations." Upshot, there is something mind-external that causes impressions; it is more than a bare something, but what properties it has we cannot know. That is, we have to rest content with a supposed relative idea of an external impression-causing world; but, surely, this relative idea has a referent.

In the view just presented, there are two relative ideas involved; let me use an asterisk and call them *causation* and *external object*, respectively. Now, Beebee remarks, "while a sceptical realist interpretation of Hume on the external world obviously puts a sceptical realist interpretation of Hume on causation on the agenda, it does not, just by itself, force us to accept it" (2006: 179). I agree, but if she had tried to systematize Hume's ontology, I think she would have noted that Hume's ontology forces him to say that the *external objects* can affect some of our faculties (or "mental mechanisms," to use her own term). Since Hume maintains that a simple impression of sensation "arises in the soul originally, from unknown causes" (T 1.1.2.1), he must admit that the supposed relative idea of *causation* is intelligibly different from the supposed relative idea of *external object*, and that both are needed. Hume is close to Kant's later positing of unknowable things in themselves that affect us. This consequence is clearly stated by Strawson:

> Kant's position on the question of our ability to grasp the thought of something 'specifically different from perceptions' is arguably essentially the same as Hume's, if one supposes this something to be the 'noumenal reality'; although he distinguishes between the *thinkable* and the *knowable* rather than between what we may (intelligibly) *suppose* and what we may (contentfully) *conceive*, and also appears to make certain ill-advisedly definite claims about the character (e.g. the non-spatial and non-temporal nature) of his (noumenal) External Object(s). (Strawson 1989: 55 n35; see also 54 and 125)

Summary of the second part of Hume's ontology: there are *mind-external objects*, and at least some of them can *cause* mind-related phenomena to appear. Hume's overarching ontology looks like this:

Hume's Basic Ontological Taxonomy:



So far, I have presented Hume's ontology as being a consistent whole. Next, I will discuss whether it really is.

7 The Identity of the Faculty of Imagination

Hume distinguishes between unity and identity: "One single object conveys the idea of unity, not that of identity" (T 1.4.2.26). Identity is for Hume a temporal relation, identity through time: "Of all relations the most universal is that of identity, being common to every being, whose existence has any duration" (T 1.1.5.4).

A momentary simple impression is a unity, and it makes no sense to ask what it is identical with; it is simply itself as a unity. Another kind of unity is the man-made ones. We can freely lump together a number of entities and look upon the created collection as a unity (T 1.2.2.3). However, if we have two perceptions occurring at different times, it always makes sense to ask whether they are perceptions of an identical something.

Several commentators (soon to be mentioned) have remarked that there is a problem with Hume's analysis of personal identity and/or the unity of the mind, and I will now give my exposition of this problem.[21]

Hume uses the principles of association to explain how bundles of different perceptions can be united both into different things and into persons that endure through time. The problem is that in order for the principles to be able to perform this feat, the perceptions that constitute a certain person seem already to have to belong to this person. Why? Answer: the principles of association are stated as being universal principles, and as such they connect as much across minds as within minds.[22] Moreover, if every presumed identity is to be regarded as a figment of the imagination, then even the faculty of imagination falls apart as being only a collection of momentarily existing faculties. But since such faculties by definition can have no memory, they cannot be able to perform what Hume claims the faculty of imagination is able to accomplish. They cannot even relate the creation of a simple idea to an earlier existing simple impression, i.e., a momentary faculty of imagination cannot even make sense of the "first principle in the science of human nature."[23]

John Passmore is of the opinion that Hume did not face the problem of personal identity because he confused the creation of a first person identity with the creation of third person identities: "Hume shifts to another question: are the perceptions of *other people* really united or do we unite them by a fiction?" (1980: 82). Passmore thinks, and I agree, that Hume has an insoluble problem: "For if all that happens is that a series of very similar (or causally linked) perceptions succeed one another, there is no possible way in which this series of itself could generate the fiction of personal identity" (1980: 82). Barry Stroud agrees, too: "He absolutely needs a prior notion of a self or mind within which the fundamental principles or dispositions of human nature 'operate'" (1977: 135).

Looked at from my ontological-systematic approach, Hume's problem of personal identity should be regarded, at bottom, as a problem of the identity of the faculty of imagination. It is this faculty that is ascribed the ability to create the identities of ordinary perceivable things, of

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[21] Even Hume himself makes at the end of his *Appendix* to the *Treatise* some remarks in this direction. He is even talking about an inconsistency of his, but, as pointed out by Passmore, he is not formulating this inconsistency correctly (1980: 83). Wilbanks, on the other hand, thinks Hume only "feigned" the problem (1968: 166).

[22] The view that there might be one and only one mind seems never to have been considered by Hume. Kant, on the other hand, posits only one single transcendental ego.

[23] Pointed out by Strawson (1989: 130).

other persons, and of my own personal identity. The problematic relationship in Hume's philosophy between enduring entities ("continuants") in the world of perceptions and the faculty of the imagination was perhaps first noted by H. H. Price:

> His [Hume's] account of the identity of continuants in general is not easily reconciled with his account of the identity of the self in particular. A continuant, he says, is a series of numerically and qualitatively diverse particulars along which the imagination makes a smooth transition. The identity of a continuant is therefore a 'fictitious', or as others might say, a 'constructed' identity. But if the imagination is to make this smooth transition from item to item, must not it itself have an identity which is *not* fictitious or constructed? If it is itself a series of particular imaginings, what can we mean by saying that it makes a smooth transition along some other series of particulars? Perhaps there is some way of answering these questions without reintroducing the Pure Ego which Hume has officially rejected. But it is clear that the theory needs pretty drastic reformulation if his fundamental contentions are to be preserved. (Price 1940: 6)

Explicitly, Hume denies enduring identities, but implicitly he presupposes that the faculty of imagination has such an identity. Price also says:

> The word 'imagination' is the keyword of Hume's whole theory of knowledge. But he never quite succeeded in drawing the distinction which Kant drew later between the Transcendental Imagination and the Empirical Imagination. (Price 1940: 15)

This was written before Hume's distinction between conceiving ideas and supposing relative ideas began to be stressed. With this distinction at hand, one might claim that Hume maintains that we have a relative idea of the enduring identity of the faculty of imagination. Strawson writes:

> one might restate the point as follows: what Hume asserted was a bundle theory of the *self*, not of the *mind*. Thus the *mind*, considered as a whole, presumably (surely) has some unknown, ontologically perception-transcendent nature; but there is no such thing as the *self*, considered as something which features among the mental contents of the mind over and above all the perceptions that make up the mental contents of the mind: so far as the basic mental *contents* of the mind are concerned, all there are are perceptions. (Strawson 1989: 131)

In a sense I agree, but there is a problem Strawson does not notice. Whereas in relation to the not really knowable parts of his ontology, Hume can rest content with relative ideas such as *external object* and *causality*, he cannot so rest content when he talks about the mind-

related entities in his ontology. In particular, he cannot rest content with only a relative idea of the faculty of imagination. As far as I can see, the simplest way to save the coherence of Hume's philosophical system would be to lessen its strong connection between relative ideas and non-knowledge. If, in some cases, Hume would regard it as possible to obtain partial knowledge with the help of merely supposed relative ideas, then he could without inconsistency claim that we have reasons to believe in the existence of enduring faculties of imagination. The aim of this paper, however, is not to change Hume's system.

8 Hume's Ontology and Cognitive Science

Is Hume's ontology of more than historical interest? Yes, I definitely think so. It can be used to shed philosophical light on today's cognitive science. In 1993 John Biro claims: "there is a thread running from Hume's project of founding a science of the mind to that of the so-called cognitive sciences of the late twentieth century" (1993: 33). Ten years later, Jerry A. Fodor states: "Hume's *Treatise* is the foundational document of cognitive science" (2003: 134).[24] But I will take a longer quotation from Edward Craig, who (in 2000) says that according to Hume:

> Human beings are natural objects with no supernatural component, and to be understood, so far as we are capable of understanding ourselves, through the application of the natural sciences. [...] The other, positive stage of the project was to give an account of their [i.e., our attitudes and beliefs] true origin through his psychological theory of association and enlivenment of ideas, the workings of what he calls the human Imagination. [...] if he can dismiss the candidature of Reason and the Senses, then it must be the Imagination [that supplies the explanations], and his 1730s-style cognitive science swings into action. (Craig 2007: 118–9)

Modern cognitive science is empirically studying the cognitive capacities of human beings and animals, and how the brains and brain-connected bodies create some kinds of representations of the external world. One of the main overarching results seems to be that the importance of human reflective reason (Hume's reason) has been overrated, and that the differences between our cognitive capacities and those of the other primates and some other

[24] In saying so, however, Fodor also wants to defend what he regards as the really *true* kind of cognitive science; I am by no means making any similar claim about cognitive science. About this issue, see Biro's review of Fodor (Biro 2005).

animals are not at all as great as we traditionally have thought. Compare Hume: he wants with his *Treatise* to introduce "the experimental method" in the study of the operations of the mind; he downplays reason, stresses how much the faculty of imagination accomplishes, and states that "no truth appears to me more evident, than that beasts are endow'd with thought and reason as well as men" (T 1.3.16.1). From the point of view of today's cognitive science, there are good reasons to call Hume a cognitive scientist; even if his simple principles of association have been exchanged for much more complicated explanatory mechanisms.

In two respects, however, Hume's view differs from that of modern cognitive science. Whereas Hume is a sceptical realist, today's cognitive scientists seem to have no doubts that they are discovering literal truths about mind-independently existing brains, and they seem to have no place for the freedom of the imagination that Hume speaks of. Otherwise, one could have claimed that Hume's notion 'the faculty of imagination' should be regarded as just another name for the modern conception of the brain.[25]

However, the differences notwithstanding, I think no philosopher or scientist does better than David Hume deserve the honorary title: the first cognitive scientist.

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[25] Once, however, as noted by Buckle (2007), Hume allows himself to identify the imagination with the brain (T 1.2.5.20). But Buckle goes too far when he maintains: "The empire of the imagination affirmed in Hume's philosophy is thus, in the terms of its day, the domination of the mental life of human beings by the effects of bodily (material) processes" (2007: 148). I think Hume is *not* using the term 'the faculty of imagination' in "the terms of its day." Among the Enlightenment philosophers, Hume is quite unique in his scepticism and downgrading of reason; and this gives some of his concepts connotations they do not have when used by the other prominent Enlightenment thinkers.

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