

Oxford Handbooks Online

The Understanding

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The Oxford Handbook of British Philosophy in the Eighteenth Century

Edited by James A. Harris

Print Publication Date: Oct 2013

Online Publication Date: Dec
2013

Subject: Philosophy, History of Western Philosophy (Post-Classical)

DOI: 10.1093/oxfordhb/9780199549023.013.008

[–] Abstract and Keywords

The chapter discusses the conceptions of the faculty of ‘the understanding’ in eighteenth-century British philosophy and logic. Topics include the distinction between the understanding and the will, the traditional division of three acts of understanding and its critics, the naturalizing of human understanding, conceiving of the limits of human understanding, British innatism and the critique of empiricist conceptions of the understanding, and reconceiving the understanding and the elimination of scepticism. Authors discussed include Richard Price, James Harris, Zachary Mayne, Edward Bentham, Isaac Watts, Dugald Stewart, John Norris—as well as Locke, Berkeley, Hume and Reid.

Keywords: faculty of understanding, scepticism, innatism in British philosophy, naturalism, limits of human understanding

THE term ‘epistemology’ did not come into common use in English until the mid nineteenth century when Scottish philosopher James Ferrier described it as the science that answers the general question ‘What is Knowing and the Known?’ or more succinctly ‘What is Knowledge?’ (Ferrier 1875: 48–9). What philosophers have come to call epistemology since the time of Ferrier was studied in eighteenth-century Britain under the title of ‘human understanding’, or sometimes simply ‘the understanding’. For some thinkers of the day ‘the understanding’ was limited to the faculty which produced absolute knowledge. However, for most, following Locke, the study of the faculty of understanding included not only knowledge itself, but also the pre-conditions for knowledge including the operations of the senses and the mind which make it possible.¹ More significantly, it often embraced the study of the nature of *belief* or opinion and even principles of reasoning that led to error. It was in part normative, but it also included a study of the facts about human cognition which are now studied by cognitive scientists.

Looking back at his eighteenth-century predecessors in his *Elements of the Philosophy of the Human Mind* in 1814, Dugald Stewart complained about ‘the vagueness and indistinctness’ of the term ‘*Understanding*’, as well as related terms such as reason and judgment (Stewart 1792–1827: Vol. 2, 14–15). He objected in particular to the use of the term understanding to include ‘Imagination, Memory, and Perception’. While acknowledging that there is some rationale for this usage because these latter powers are ‘all subservient in one way or another to the right exercise of the Understanding’, Stewart proposed to use the term *understanding* as synonymous with *reason*. In turn, he limited the term *reason* to ‘the power by which we distinguish truth from falsehood’ and by which we discover the means ‘for the attainment of our ends’ (Stewart 1792–1827: Vol. 2, 12). The understanding or reason should be understood as the faculty by which we obtain both theoretical and practical knowledge.

As shown in this chapter, the term ‘understanding’ suffers from ambiguity in the most influential thinkers of the day, including Locke and Hume. The latter, for example, presented a naturalized notion of the understanding which relaxed the traditional demands of that faculty but, at the same time, retained a notion of the understanding which requires comprehension and insight into natural processes. It is the conflict between the natural judgments of common understanding and the demands of philosophical understanding which typically characterizes Hume’s scepticism. There were, as we shall see, two very different responses to this scepticism. Writers such as Richard

Price rejected the naturalized notion of the understanding and argued that the objects of the understanding are purely intellectual ideas on which necessary truths are based. While not entirely rejecting that approach, Thomas Reid and other writers of the Scottish School of Common Sense relaxed the demand that all the first principles of the understanding must be based on necessary truths. They 'refuted' Humean scepticism by arguing that the natural judgments of common life are not in conflict with philosophical understanding.

7.1 The Understanding and the Will

In his *Essay Concerning Human Understanding*, Locke identified 'Perception, or Thinking' and 'Volition, or Willing' as 'the two great and principal Actions of the Mind'—and 'the *Understanding*' and 'the *Will*' respectively as the faculties or powers which perform these actions (Locke 1975: II.vi.2). The will, for Locke, is defined as the source of voluntary actions: it is the power to perform or refrain from performing an action, according to an 'order or command of the mind' (Locke 1975: II.xxi.5). However, this 'command of the mind' itself often appears to be the product of the understanding. In the *Essay* he wrote that 'Man is put under a necessity by his constitution, as an intelligent Being, to be determined in *willing* by his own Thought and Judgment, what is best for him to do' (Locke 1975: II.xxi.48). Similarly, he begins his posthumously published *Conduct of the Understanding* with the claim that all voluntary action depends 'upon some precedent knowledge or appearance of knowledge in the understanding' and that 'the will itself, how absolute and uncontrollable so ever it be thought, never fails in its obedience to the dictates of the understanding' (Locke 1823: 205). At the same time, he recognized that human beings were capable of *akrasia*, of understanding the good without acting on it. In his revised account 'Of Power' in the second edition of the *Essay*, he wrote that he was 'forced to conclude, that... the *greater good*, though apprehended and acknowledged to be so, does not determine the *will*, until our desire, raised proportionately to it, makes us *uneasy* in the want of it' (Locke 1975: II.xxxv.35). This passage suggests the sovereignty of the will over the understanding—at least, in determining our outward actions.

In the eighteenth century, Locke's conception of judgment was sometimes contrasted with that of the Cartesians, who held that judgment is a product of the will, and that the only operation of the understanding is to perceive. For example, in the article on 'Understanding' in Ephraim Chambers' 1728 *Cyclopaedia* the distinction between the two philosophies was expressed as follows: for Locke and 'the *Corpuscularians*, the *Understanding* has two Offices, viz. *Perception*, and *Judgment*; according to the *Cartesians* only one, viz. *Perception*' (Chambers 1728: Vol. 2, 323). In his article on 'Judgment' Chambers supported the Cartesian view that judgment is always based on a free act of the will—even in the case where 'we consent to the truth...when it appears perfectly evident'. In his *Essay towards the theory of the ideal or intelligible world* (1701), John Norris had written that 'Judgment...seems rather to belong to the Will, than to the Understanding, as being nothing else but that assent or dissent which the Will gives to what the Understanding perceives, or seems to perceive' (Norris 1701: Vol. 2, 126). Following Malebranche, Norris had argued that the understanding is purely passive, even in the operations of reason (Malebranche 1997: 3). The proper function of the will is to withhold assent until one has clear and distinct ideas, and even then the act of assent is ascribed to the free action of the will (cf. Descartes 1985–91: Vol. 2, 40). Error arises simply from the will assenting to that for which it lacks evidence.

In fact, there seems to be little more than a verbal difference between the views of Locke and the Cartesians on the relation of the will to the understanding.² Locke shared the Cartesian view that we are responsible for error, and that we should not assent to a proposition until the evidence in its favour is overwhelming. He wrote that '*we can hinder both Knowledge and Assent, by stopping our Enquiry, and not employing our Faculties in the search for any Truth. If it were not so, Ignorance, Error, or Infidelity could not in any case be a Fault*' (Locke 1975: IV.xx.16). Our laziness and failure to make a true judgment in such cases seems to be a function of the will. Further, Locke supplemented the Cartesian view that when our understanding apprehends clear and distinct ideas we are determined to assent, with the claim that overwhelming probabilities also command our assent. In cases such as those concerning the events of the life and death of Julius Caesar, the evidence 'naturally determines the Judgment, and leaves us as little liberty to believe, or disbelieve, as a Demonstration does...' (Locke 1975: IV.xvi.9). For Locke overwhelming evidence leaves us without liberty, whereas for the Cartesians our assent in such cases is the height of human freedom—but a freedom in which we are determined by our own rational nature.³

The distinction between the understanding and the will had a very different significance in the philosophy of David

Hume than in that of Locke and the Cartesians. He appealed to this distinction in defending the importance of what he called 'mental geography' in the first section of his *Philosophical Essays concerning Human Understanding* (2000 [1748]: 10).⁴ However, in going on to explain its usefulness he did not stress the importance of withholding one's belief from what lacks evidence, as did Locke and Norris. Rather he contrasted the judgments of the understanding with those of our affections or feelings. In support of the distinction, Hume cited the claim of Francis Hutcheson that 'moral perceptions...ought not to be clas'd with the Operations of the Understanding, but with the Tastes, or Sentiments'.⁵ Following Hutcheson, Hume argued that the understanding—taken as the faculty which determines truth and falsity—plays a subsidiary role to feelings in bringing about actions (Hume 1978: 413–18). For Hume, unlike Locke, the pronouncements of the understanding are not normative.

Thomas Reid criticized the general division of the mind into the faculties of understanding and the will on the ground that the understanding itself is always active and that 'the will must have an object, and that object must be apprehended or conceived in the understanding' (Reid 2002: 64–5). He wrote that 'there is no operation of the understanding wherein the mind is not active in some degree'. For him the understanding takes in all our contemplative powers—those by which 'we perceive objects; by which we conceive or remember them; by which we analyze or compound them; and by which we judge and reason concerning them'. Reid stresses that perception of external objects involves an activity on the part of the understanding in judging their properties and existence. In the final analysis, he wrote that both the will and the understanding concur in all operations of the mind, and that he classifies any mental operation 'under that faculty which hath the largest share in it'.

7.2 The Traditional Division of the Acts of the Understanding, and Its Critics

Logic texts in Britain in the seventeenth and eighteenth centuries generally adopted the traditional distinction of three acts of the understanding: (1) conception or simple apprehension, (2) judgment, and (3) discourse or reasoning. Sometimes, following the division in the *Port Royal Logic*, a fourth—'method' or ordering of judgments—was added (see Arnauld and Nicole 1996: 227–75).

The first act of the understanding, conception or simple apprehension, is non-propositional: it does not put forward any claim which is true or false. In explaining simple apprehension in his *Logick: or the right Use of Reason in the Enquiry after Truth*, Isaac Watts noted that we can think of things without 'affirming or denying any Thing concerning them' (Watts 1725: 6–7). The act of simple apprehension is '*Perception or Conception*' (Watts 1725: 11). We perceive both external and internal objects via ideas. An idea is 'the *Thing as it exists in the Mind, by way of Conception or Representation*' (Watts 1725: 13). He writes further that an idea is 'a Representation of something that we have seen, felt, heard, &c. or been conscious of'. He goes on to discuss both simple and complex ideas, arguing that our ideas of both substances and modes which are formed by the imagination are also objects of simple apprehension. Again, the key to the notion of simple apprehension is that it involves a non-propositional awareness.

Writing much later in the century, Edward Bentham states in his *Introduction to Logick, Scholastik and Rational* that 'the operations of the understanding...are reducible to these three, Simple Apprehension, Judgment, and Reasoning' (Bentham 1773: 2–3). Like Watts, he characterizes the first operation as non-propositional: 'when we barely contemplate any thing, as a book, house, man, &c. whether absent or present, without determining any thing concerning it, we are simply said to apprehend'. Also, like Watts, Bentham considers the act of simple apprehension to be *perception*. Perception of material objects takes place via representative ideas. He characterizes an idea as 'the form, under which a thing is represented within the mind'. Both sensation and imagination were, for Bentham, acts of simple apprehension. He wrote that when perception is accompanied by and 'annexed to any impression on the body made by an external object, [it] is called *Sensation*' and 'when ideas recur without the operation of objects on the external sensory, especially if under the choice and conduct of the Understanding, it is called *Imagination*'. Bentham also includes under simple apprehension two more actions of the Understanding, namely *consciousness* and *intellect*. The first involves the perception of the operations of the mind itself and the pleasures and pains which accompany them (what Locke called 'reflection') and the second, the perception of purely intellectual objects without any image. He gives as examples of purely intellectual perception, ideas such 'as *God, Justice, Virtue, Reason*'.

The second act of the understanding, according to the traditional account, is judgment. Isaac Watts defines it as

'that Operation of the Mind, whereby we join two or more Ideas together by one Affirmation or Negation, that is, we either affirm or deny this to be that' (Watts 1725: 7). He opposes those who consider judgment to consist 'in a meer Perception of the Agreement or Disagreement of Ideas', insisting that beyond perception itself judgment involves an act of will (Watts 1725: 222). Watts argues that we can perceive, or at least think we perceive an agreement or disagreement of ideas without making a judgment, and that we can make a judgment without any clear perception. For judgment to take place we must acquiesce in what we perceive. Despite the necessity of an act of will, Watts classifies judgment among the acts of the understanding. He writes that when a judgment is 'clothed with Words, 'tis called a Proposition, even though it be in the Mind only, as well as when it is exprest by speaking or writing' (Watts 1725: 224–5).

For Bentham, judgment is 'acknowledgment' of 'an agreement or disagreement between one thing and another'. This acknowledgment is done 'by *Affirmation* or *Denial*' (Bentham 1773: 3–4). Bentham says that he uses the word 'acknowledge' rather than 'perceive' here because in many cases of judgment we don't actually perceive the agreement or disagreement of ideas, but acknowledge it on the basis of the authority of a reliable witness (Bentham 1773: 35). In this he is influenced by Locke, who contrasted *judgment* with knowledge—that is, the perception of the agreement or disagreement of ideas. Indeed, for Locke, *judgment* is defined as 'the putting *Ideas* together, or separating them from one another...when their Agreement or Disagreement is not perceived, but *presumed* to be so' (Locke 1975: IV.xiv.4).

The third act of the understanding, 'Argumentation or Reasoning' is defined by Watts as 'that Operation of the Mind, whereby we infer one Thing, or one Proposition, from two or more Propositions premised' (Watts 1725: 7). He appeals to the notion of a 'Medium' or intermediate idea which was central to the notion of reasoning for Descartes, Locke and other modern philosophers. Watts writes that 'when we are unable to judge the Truth or Falshood of a Proposition in an immediate Manner, by the mere Contemplation of its Subject and Predicate, we are then constrain'd to use a *Medium*, and to compare each of them with *some third Idea*...' (Watts 1725: 423). He then goes on to give a standard account of syllogistic logic. One finds a similar account in Bentham, though he begins with a more informal conception of reasoning. He characterizes it as determining the truth or falsity of a proposition 'by observing its agreement or disagreement with some other, whose truth we acknowledge already' (Bentham 1773: 4). He then lays out a standard account of syllogistic reasoning.

These three constitute the acts of the understanding discussed in Bentham's *Logick* and many other logic textbooks of the time; but, following Arnauld and Nicole, Watts adds a fourth act which he calls 'the *Art of Method*' (Watts 1725: 506).⁶ It concerns 'the Operation of the Mind, whereby we put the Ideas, Propositions, and Arguments...into such an Order as is fittest to gain the clearest Knowledge of it, to retain it longest, and to explain it to others in the best Manner' (Watts 1725: 8–9).

While, as the text of Edward Bentham shows us, the traditional distinction of the three acts of the understanding did not disappear from logic textbooks, it was generally disregarded or criticized by British philosophers throughout the eighteenth century. Locke replaced it with his own trilogy in his *Essay Concerning Human Understanding*. He wrote that 'Perception, which we make the act of the Understanding, is of three sorts: 1. The Perception of *Ideas* in our Minds. 2. The Perception of the signification of Signs. 3. The Perception of the Connexion or Repugnancy, Agreement or Disagreement, that there is between any of our *Ideas*' (Locke 1975: II.xxi.5). Locke's division of acts of the understanding roughly follows the division of 'books' in the *Essay* itself: The first two books are ostensibly concerned with the origin of our ideas (#1); the third book discusses language and the signification of words (#2); and the fourth book is concerned with knowledge and opinion (#3).⁷

As much as this division differs from the traditional one, it is still important to recognize that Locke retains the essence of the traditional distinction between 'simple apprehension' and judgment. Like 'simple apprehension', Locke's first act of the understanding, the 'Perception of *Ideas* in our Minds', is not propositional. For this reason, one must be cautious in applying the term 'empiricist' to his philosophy: he does not, like Gassendi, hold a crude empiricism which conflates 'the acquisition of principles with the acquisition of concepts' (see Ayers 1998: 1023; and Woolhouse 1994: esp. 149). Knowledge, which *is* propositional for Locke, is a distinct act of the understanding which goes beyond simple apprehension. It is 'the perception of the connexion and agreement, or disagreement and repugnancy of any of our *Ideas*' (Locke 1975: IV.i.2). Even the knowledge of '*actual real Existence* agreeing to any *Idea*', which barely fits this formula, takes us beyond the bare idea to the judgment that the idea is derived from an independent object (Locke 1975: IV.i.7; and esp. IV.xi.3).

The Malebranchist view, which reduced judgment and reasoning to the perception of relations, was set out in the article on 'judgment' in Chambers's *Cyclopaedia*. Chambers wrote that

The only Difference, then, between Perception, Judgment, and Reasoning, so far as the Understanding is concerned in them is this, That it perceives a thing simply, without any relation to any other thing in a simple Perception, that it perceives the Relations between two or more things in *Judgments*, and lastly that it perceives the Relations that are between the Relations of things in Reasonings: So that all the Operations of the Understanding are in effect no more than pure Perceptions. (Chambers 1728: Vol. 2, 409)

In his *Essay towards the Theory of the Ideal or Intelligible World*, John Norris also stressed that while the objects of the understanding may be complex in so far as they involve the relations of ideas, the act of the understanding is always a 'simple Apprehension' (Norris 1701: Vol. 2, 141–3). In his *Treatise of Human Nature*, David Hume also reduced the three traditional acts of the understanding to simple apprehension. He wrote that

these three acts of the understanding...taking them in a proper light...all resolve themselves into the first, and are nothing but particular ways of conceiving our objects. Whether we consider a single object, or several; whether we dwell on these objects or run from them to others; and in whatever form or order we survey them, the act of the mind exceeds not a simple conception. (Hume 1778: 96–7)

Hume argues that judgment does not necessarily involve the perception of the relation of two ideas: since 'existence' is not a separate idea, a judgment concerning the existence of a thing, such as '*God is*', does not contain more than one idea (cf. Hume 1778: 66–8). Moreover, according to Hume's own theory of inductive reasoning, 'we infer a cause immediately from its effect'. We do not require an 'intermediate idea' and such reasoning cannot be put in syllogistic form. While, like the Cartesians, Hume reduced all the acts of the understanding to simple perception, he did not share their view that judgment involves an act of free will in which we assent to or dissent from what we perceive. Quite the contrary, he argued for a naturalistic theory of the understanding in which these operations arise from the mechanical processes of the imagination.

7.3 Naturalizing the Understanding: Natural Judgments and Inferences

The paradigm of simple apprehension for many writers of logic textbooks was the operation of sensation. Locke himself stressed its passivity, and considered the simple sensations or ideas which it produces to be indestructible mental atoms. He held that the 'materials of Knowledge' are not in the power of the mind to change, and that in sensation 'the *Understanding* is merely *passive*' (Locke 1775: II.i.25).

At the same time, Locke held that visual perception of external objects is complex and that judgment enters unconsciously into what we see. We judge that we are seeing three-dimensional objects, when all that actually appears to our senses is a two-dimensional surface with varied shadow and colour. Locke wrote that '*the Ideas we receive by Sensation, are often in grown People alter'd by the Judgment, without our taking notice of it*' (Locke 1775: II.ix.8).⁸ This judgment is the result of 'an habitual custom' which 'alters the Appearances into their Causes'. His explanation of the fact that we are not aware of making such a judgment is that the action of judging has become so quick from habit that we cannot attend to it: 'a settled habit, in things whereof we have frequent experience, is performed so constantly, and so quick, that we take that for the Perception of our Sensation, which is an *Idea* formed by our Judgment' (Locke 1775: II.ix.9).⁹

It is not clear whether Locke intended to ascribe this habitual judgment to the understanding or to some other faculty of the mind. Certainly he did not think that there is any weighing of evidence in these cases, as is required to make a reasoned judgment. Elsewhere he contrasts the 'natural Correspondence and Connexion' of our ideas which it is 'the Office and Excellency of our Reason to trace' with those connections between our ideas 'wholly owing to Chance or Custom' (Locke 1775: II.xxxiii.5). At the same time, he writes of custom as settling 'habits of Thinking *in the Understanding*, as well as of Determining in the Will, and of Motions in the Body' (Locke 1775: II.xxxiii.6). For Locke, even irrational judgments based merely on custom and habit are fixed 'in the Understanding'.

Locke's example of naturalized perceptual judgment in the *Essay* was of the visual perception of three-dimensional shape; however his analysis had clear implications for our seeing of distance, size, and position—implications which were discussed at length in Berkeley's *Essay Towards a New Theory of Vision*. Berkeley argued explicitly

against the 'natural geometry' which Descartes had postulated in his *Optics* (Berkeley 1948: 175 (§19); cf. Descartes 1985–91: Vol. 1, 170). Descartes had argued that we determine the distance of nearby objects from our eyes through 'a quite simple act of the imagination' which 'involves a kind of reasoning quite similar to that used by surveyors'. He held that the mind makes a calculation based on the distance between our two eyes and the size of the angle formed by focusing them on a single point on the object. Berkeley criticized Descartes' account of distance perception on the ground that it is 'incomprehensible' that we could 'make those judgments, and draw those conclusions' without knowing that we do so (Berkeley 1948: 175 (§19)). Moreover, he argued that there is no 'necessary connection' between the visual datum we use to perceive the distance of nearby objects and the distance itself, as Descartes had thought (Berkeley 1948: 176 (§24)). Rather the judgment we make of the distance of nearby objects is based on 'constant experience' which has 'found the different sensations corresponding to the different dispositions of the eyes to be attended each with a different ... distance in the object' (Berkeley 1948: 174 (§17)). As a result the repeated experience, a 'habitual or customary connexion' has been formed 'between those two sorts of ideas, so that the mind no sooner perceives the sensation arising from the different turn it gives to the eyes' than it perceives the 'idea of distance' which has become associated with it. As Berkeley's argument develops it becomes clear that the 'idea of distance' is based on sensations of touch including kinaesthetic sensations; the customary connection to which he refers is between visual signs and the ideas of distance experienced through the sense of touch (Berkeley 1949: 58–9 (§44)).

As with Locke, there is some ambiguity in Berkeley's writings as to whether the habitual judgment is to be ascribed to the understanding or not. In the *New Theory of Vision* Berkeley likened this judgment of distance to the process whereby 'upon hearing a certain sound, the idea [of its meaning] is immediately suggested to the understanding which custom had united to it' (Berkeley 1948: 174 (§17), my emphasis). However, in his later *Theory of Vision Vindicated* he attributed the judgment of distance via sight to the imagination *rather than* the understanding. He writes that 'things not actually perceived by sense are signified or suggested to the imagination, whose objects they are, and which alone perceives them' (Berkeley 1948: 264 (§39; see also §§50–2)). 'To be suggested is one thing, and to be inferred is another' (Berkeley 1948: 265 (§42)). Only necessary 'judgments and inferences' are made 'by the understanding'.

A similar ambiguity pervades the discussion of natural judgments and inferences in Hume's *Treatise of Human Nature*. When he formulated what has become known as the problem of induction, Hume did so by drawing a contrast between the operations of the understanding and those of imagination. He raised the question 'whether experience produces the idea by means of the understanding or of the imagination; whether we are determin'd by reason to make the transition, or by a certain association and relation of perceptions' (Hume 1978: 88–9). *Understanding* is here identified with *reason*, and *the imagination* with the faculty which *associates ideas*. He writes that 'even after experience has inform'd us of their *constant conjunction*, 'tis impossible for us to satisfy ourselves by our reason, why we shou'd extend that experience beyond those particular instances, which have fallen under our observation' (Hume 1978: 91). By 'reason' in this context he means the faculty which compares ideas and determines the relations between them.¹⁰ While the understanding or reason is able to ascertain the contiguity, succession, and constant conjunction of the objects we call cause and effect in past experience, it is unable to discover the power or necessary connection by which the one produces the other. Hume concludes that if the ideas of cause and effect had 'no more union in the fancy [i.e. the imagination] than objects seem to have in *the understanding*, we could never draw any inference from causes to effects, nor repose belief in any matter of fact' (Hume 1978: 92; emphasis added).

Having denied that the understanding or reason is the source of our inductive inferences, Hume attributes them to the imagination or to 'custom or a principle of association' (Hume 1978: 97). In the *Treatise* he wrote that we ascribe this operation of the mind 'to CUSTOM, which proceeds from a past repetition, without any new reasoning or conclusion' (Hume 1978: 102). As we shall see in a moment, in his first *Enquiry* he is even more explicit in defining custom as a principle which is independent of the operations of reason and the understanding.

Nevertheless, in the *Treatise* Hume went on to attribute the actions of imagination and custom themselves to the understanding. Without renouncing his earlier *contrast* between the understanding and imagination, he went on to consider the understanding—what we may now call *naturalized understanding*—as a function of the imagination and the association of ideas.¹¹ He writes that 'the understanding or imagination can draw inferences from past experience, without reflecting on it; much more without forming any principle concerning it, or reasoning upon that principle' (Hume 1978: 104). In this passage, far from being contrasted with the imagination, the understanding is

contrasted with reasoning. Again, in the Conclusion to Book 1 he identifies 'the understanding' with 'the general and more establish'd properties of the imagination' (Hume 1978: 267). It is the imagination or the association of ideas which causes us to infer the idea of the effect from the impression of its cause, and enlivens that idea so that we believe in the existence of its object. Belief in real existence is founded on the vivacity of an idea. Thus, Hume writes that 'the memory, senses, and understanding are...all of them founded on the imagination or the vivacity of ideas' (Hume 1978: 265).

In his *Enquiry Concerning Human Understanding* Hume dropped those claims in which he identified the understanding with imagination, and generally maintained a distinction between the operations of reason (including probable reason) and the understanding on the one hand, and the inferences caused by custom and habit on the other. This is surely one area in which he hoped to correct 'some negligences in his former reasoning and more in his expression' in this rewriting of his earlier argument. In the famous Advertisement which he prefaced to his later philosophical writings he asked his readers to disregard the *Treatise* and regard his later writings including the first *Enquiry* 'as containing his philosophical sentiments and principles' (Hume 2000: 2). In the first *Enquiry* he wrote that 'in all reasonings from experience, there is a step taken by the mind, which is *not supported by any argument or process of the understanding*' (Hume 2000: 36, emphasis added) The step is taken by *the mind*, but not by *the understanding*. We cannot discover in nature the principle which would allow us to move from past regularities to inferences about similar events occurring in the future. To draw the inference we require the operation of custom or habit. Hume characterizes custom or habit as 'a propensity to renew the same act or operation, *without being impelled by any reasoning or process of the understanding*' (Hume 2000: 37, emphasis added) Belief is formed through 'a species of natural instincts, which *no reasoning or process of thought and understanding is able either to produce or prevent*' (Hume 2000: 39, emphasis added). Probable inferences have their source in an 'instinct or mechanical tendency' which 'may be *independent of all the laboured deductions of the understanding*' (Hume 2000: 45, emphasis added). In general, in the first *Enquiry* Hume is far more careful in distinguishing the operations of the understanding from those of custom. While he writes of the 'reason' which humans and animals share, he is careful to identify it as an instinct, and to distinguish its operations from the more developed 'disquisitions of human understanding' (Hume 2000: 81).

In his *Inquiry into the Human Mind on the Principles of Common Sense* (1764), Thomas Reid stressed the 'original and natural judgments' of the senses which, he argued, are 'part of that furniture which nature hath given to *the human understanding*' (Reid 1997: 215, emphasis added). Like Malebranche and Hume before him, Reid argued that these natural judgments of sense incorporate a belief in the existence of the external object, and 'of its figure, distance, and magnitude'. Like them, he stressed that 'this judgment or belief is not got by comparing ideas', that is, by judgment and reason in the traditional sense. But while Malebranche (1997: 572–4, 34ff.) and Hume (1978: 194ff.) attributed such natural judgments to the imagination and stressed the false assumptions embodied in the mechanisms which produced them, Reid dismissed such mechanisms and argued that these natural judgments emerge full blown as 'the common sense of mankind'. For Reid, there is no conflict between common sense and science. He argued against the view of Malebranche and Locke that we naturally ascribe the *sensations* of colour, sound, smell to the object and that philosophy is needed to correct these mistakes of common sense (Reid 1997: 72–6; see Wright 2005, esp. 154–6). For Reid, the understanding includes 'first principles of contingent truths' which constitute both the common sense of mankind and the unquestioned and true assumptions on which natural and moral science must proceed (Reid 2002: 467–90). For Reid, there are no conflicts in human understanding.

7.4 Conceiving the Limits of Human Understanding

The aim of Locke's *Essay* was to examine our 'own Abilities' in order to see 'what Objects our Understandings were, or were not fitted to deal with' (Locke 1975: 'Epistle to the Reader' 7). He argued that 'the *Comprehension* of our Understandings...comes exceeding short of the vast Extent of Things' (Locke 1975: l.i.5). What lies on the other side of the comprehension of our understandings is probability. In most areas of life we are only guided by the 'Candle-light' of probability, and lack the sunlight of perfect knowledge. In making such claims, Locke considers *the understanding* to be the faculty of absolute knowledge, that knowledge which is gained primarily through intuition and demonstration. It is the faculty through which we comprehend and have insight into the real relations of things.

We can, according to Locke, have such comprehension and insight in a few areas of human enquiry, most

obviously, mathematics. We have ‘certain and universal Knowledge’ that the sum of the angles of a triangle are necessarily equal to two right angles; the connection between these two ideas cannot ‘be possibly mutable, or... depend on any arbitrary Power’ whatsoever—including the will of the Creator (Locke 1975: IV.iii.29). Locke holds that, like mathematics, morality is capable of demonstration—though he only attempts a few steps toward showing that it is so (Locke 1975: III.xi.16; IV.iii.18; IV.iv.7; see Coleman 1983, and the Introduction to Fuller, Stecker, and Wright 2000: esp. 13–22). In the *Essay*, Locke also gave a demonstrative proof of the existence of an intelligent eternal Creator of the universe, beginning with such intuitive principles as that we ourselves exist, that something cannot be derived from nothing, and that intelligence cannot arise from that which lacks it (Locke 1975: IV.x, esp. 2–5). He thinks that the fact ‘that the size, figure, motion of one Body should cause a change in the size, figure, motion of another Body, is not beyond our Conception’ and that ‘the separation of the Parts of one Body, upon the intrusion of another; and the change from rest to motion, upon impulse ... and the like, seem to us to have some *connexion* one with another’ (Locke 1975: IV.iii.13).

But we lack comprehension of the real essence of natural substances—the kind of *demonstrative* knowledge of nature sought by Aristotelian science. Locke writes that in the case of natural substances ‘*Experience must teach me, what Reason cannot*’ (Locke 1975: IV.xii.9). We need to go out and find what qualities coexist with other ones. For example, we discover through experience that the qualities which cohere in that substance we call gold coexist with the quality of solubility in *aqua regia*, and so add the latter quality to our idea of the nominal essence of gold. However, this does not provide us with any universal knowledge. Locke writes that since we cannot find any necessary connection between a body which has the other properties of gold and its incombustibility we must turn to experience, and that ‘as far as that reaches, I may have certain Knowledge, but no farther’.

Locke dwells on two major reasons for the limits of our understanding. First, our lack of ideas which, he argues, must all arise from sensation or reflection. The senses only provide us with ‘dull and narrow Information’ regarding external objects and fall ‘far short of what we may justly imagine to be in some even created understandings’ (Locke 1975: IV.iii.6). Secondly, it is impossible for us to discover by either intuition or demonstration the agreements and disagreements between many of the ideas we have. Locke specifically points out our inability to determine from our ideas of thought and matter whether it is possible for matter to think. Also we are unable to determine the necessary connection between primary and secondary qualities and, as we have seen, that between any of the qualities of natural substances.

The realm of probability for Locke is contrasted to that of knowledge and is excluded from the understanding. Probability ‘is nothing but the appearance of...an Agreement, or Disagreement, by the intervention of Proofs [i.e. intermediate ideas] whose connexion is not constant and immutable, or at least is not perceived to be so...’ (Locke 1975: IV.xv.1). In the case of probability, ‘that which makes me believe, is something extraneous to the thing I believe’—such as the testimony of others and the conformity of my current observation with my own experience and that of others (Locke 1975: IV.xv.3). However, it is important to note that Locke takes very seriously the realm of probability and opinion, and sets out normative rules according to which we ought to assent to different degrees of probability (Locke 1975: IV.xvi). Yet for purposes of determining the limits of human knowledge it lies outside the comprehension of the understanding.

It is also important to realize that in setting the limits of our understanding and then going on to explain the rational grounds of opinion Locke saw himself as combating both relativism and scepticism—that is, from concluding either that ‘there is no such thing as Truth at all; or that Mankind hath no sufficient means to attain...Knowledge of it’ (Locke 1975: I.i.2). The central concerns which lay behind his writings on ‘the understanding’ were the interminable religious and political disputes of late seventeenth- and early eighteenth-century England. He wrote that when men ‘extend their Enquiries beyond their Capacities...they raise Questions, and multiply Disputes, which never coming to any clear Resolution, are proper only to continue and increase their Doubts, and confirm them at last in perfect Scepticism’ (Locke 1975: I.i.7). Part of his solution to scepticism was to show the extent of human knowledge; that is, to find ‘the Horizon...between the enlightened and dark Parts of things; between what is, and what is not comprehensible by us...’ He thought that we need to recognize the limits of our comprehension of reality and so not overreach ourselves in claiming knowledge where we do not have it.

Unlike Locke, Hume identified the project of showing the restrictions of human understanding as *sceptical*. In his *Abstract of a Treatise of Human Nature* (1740) he wrote that his ‘reader will easily perceive, that the philosophy contain’d in this book is very sceptical, and tends to give us a notion of the imperfections and narrow limits of

human understanding' (Hume 1978: 657). Throughout his *Enquiry Concerning Human Understanding* Hume writes of the 'narrow capacity' or 'narrow...bounds of human understanding' (Hume 2000: 120, 7). The academic philosophy or mitigated scepticism which he adopts in that book confines 'to very narrow bounds the enquiries of the understanding' (Hume 2000: 35).

Like Locke, Hume held that a major source of the limitations of our understandings was the limitations of the ideas which we receive through our inner and outer senses. All simple ideas are derived from simple impressions, whether of sensation or reflection. Our complex ideas are formed from those simple ideas by 'compounding, transposing, augmenting, or diminishing the materials afforded us by the senses and experience' (Hume 2000: 14). We have no objective idea of power, force, or necessary connection (words which he considers more or less synonymous) and the subjective idea which we do have arises simply from constant experience, custom and the mechanisms of the imagination. In the *Treatise*, he writes of the lack of an 'adequate idea' of power in the realms of either matter or mind (Hume 1978: 160), and in the first *Enquiry* that the ideas we have of cause and effect in either realm are 'so imperfect...that it is impossible to give any just definition of cause, except what is drawn from something extraneous and foreign to it' (Hume 2000: 60). We fail to find the necessary connection that we all naturally believe that there is between cause and effect so that 'we cannot give a satisfactory reason, why we believe, after a thousand experiments, that a stone will fall or fire burn', much less form any 'determination...with regard to the origin of worlds, and the situation of nature, to and from eternity' (Hume 2000: 121). Hume goes on to limit demonstrations to the realm of mathematics, and proposes to throw any book into the flames, if it lacks either demonstrative reasoning or '*experimental reasoning concerning matters of fact and existence*' (Hume 2000: 123).

7.5 British Innatism and the Restriction of 'the Understanding': Universal Ideas, Necessary Truths, and Non-sensory Conceptions

Long before Dugald Stewart, a number of eighteenth-century British writers sought to distinguish the faculty of understanding from that of the senses and imagination. While they did not respond directly to Locke's critique of innate ideas and principles in Book 1 of the *Essay Concerning Human Understanding*, they still insisted—against both Locke and Hume—that there were ideas whose content does not derive from experience. The overall view that emerged from these writings was that while the senses provide an occasion for the development of the ideas of the understanding, they do not supply their content.

In *Two dissertations concerning sense and imagination...* (1728) Zachary Mayne argued that the proper object of the understanding is what he called a 'Notion', not an *idea* as that term has been understood since the time of Locke. Locke had instituted a 'new Doctrine' when he claimed 'that *the Perception of an Idea is an Act of Understanding*' (Mayne 1728: 105). Since publication of *An Essay Concerning Human Understanding*, people have generally used the word 'idea' for '*the Image, Picture, or Representation in the Mind of a Sensible Appearance, or of an Object which hath before been perceived by Sense*' (Mayne 1728: 104). Mayne does not seek to correct this usage, as do the other writers we shall look at in this section, but he thinks that it encourages people to think that they actually see or perceive what can only be understood. He wrote that people 'fancy they see what *they understand*, or see the *Intelligibility*...of an Object, which is...only perceivable or discernible by the *Understanding* and does in no wise fall under the Notice and Cognisance of *Sense*' (Mayne 1728: 14). His central point is that the sensory properties of a thing do not tell us how a thing is related to other things and that its relations are only intelligible through the understanding.

In his *Hermes: or a Philosophical Inquiry Concerning Language and Universal Grammar* (1751), James Harris speculated that 'the *English* word, UNDERSTANDING' was originally coined to stand for that faculty where permanent knowledge was supposed to reside (Harris 1751: 371). The understanding was supposed to 'STAND UNDER' the sciences 'as their immoveable support'. It should not be considered to embrace 'fleeting powers of perception, like the Sense[s], but...*steady, permanent, and durable* COMPREHENSIONS'.

According to the Platonism developed in Harris's book, the ideas of the understanding are universal and not 'circumscribed either by *Time* or *Place*' (Harris 1751: 381). Unlike the objects of the senses they are not fleeting or impermanent, but originally exist as permanent possibilities contained in the mind of the creator. Sensations are no more than 'passing *pictures* of these *immutable Archetypes*' (Harris 1751: 384). Harris considers the view of Locke that general ideas are derived from the ideas of sensory particulars as 'a kind of Atheism', because it implies

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that the mind can be affected by the body (Harris 1751: 400). It is true that the senses 'awaken the dormant energies of *Man's Understanding*' (Harris 1751: 394). But sensation is only like the spark which is needed to fire a cannon; it does not contain 'those Energies themselves' which are released when we understand. To avoid atheism one must trace all ideas, those of human beings as well as those of the creator, to a purely mental source. In the final analysis Harris considers all minds either to be themselves divine or to derive their ideas from the one single mind of the creator.

Harris regarded the imagination as an intermediate faculty which prepares the way for the universal ideas which are comprehended by the understanding. While sensation limits us to the present, imagination supplies human beings with 'permanent Phantasms' on which the mind can operate (Harris 1751: 360). Nevertheless, imagination only provides the basis for the operation of the faculty of understanding which 'discerns...what in MANY IS ONE' and 'comes to behold a kind of *superior Objects*'—namely 'GENERAL IDEAS' (Harris 1751: 362–3).

Like Harris, Richard Price, in his *Review of the Principle Questions of Morals* (1758), held that 'the very notion of sense and understanding are, in all respects, different' (Price 1758: 25). While sense is 'conversant only about *particulars*' the understanding has universals for its object. He took issue with the Lockean claim that abstract ideas are formed from particular ones which exist previously in the understanding. We must, he argued, already have the general idea of a triangle in our understandings in order to discover what particular triangles of different sizes and angles have in common. 'How else should...[the understanding] know how to go to work, or what to reflect on?' (Price 1758: 42) Price also takes issue with the claim embraced by Berkeley and Hume that universality consists in a name which is used to signify only particular ideas.¹² For, if 'the idea to which the name answers and which it recalls into the mind...[is] only a particular one, we could not know to what other ideas to apply it, or what particular objects had the resemblance necessary to bring them within the meaning of the name' (Price 1769: 38).

Price stressed the distinction between the understanding and imagination as well as that between the understanding and the senses. He acknowledged that we need to imagine the figure of a particular triangle when we perform a geometrical proof, but the proof could not be applied generally if we had 'none but particular ideas' (Price 1758: 43). Moreover, if the understanding were not distinct from the imagination one could not distinguish the primary and real properties of matter from secondary ones. For, if our ideas were limited to those of imagination, we could never be able to represent matter without colour. Because the understanding can conceive abstract ideas which have never been sensed, it is able to pronounce 'without doubt or hesitation, that colour being no quality of matter, it does and must exist without it' (Price 1758: 45).

For Price, the understanding is simply the faculty in the mind 'that discerns *truth*, that views, compares, and *judges* of all ideas and things' (Price 1758: 19–20). He argues that this faculty, as it operates through 'Intuition' is the source of new simple ideas which cannot be derived from sensation and reflection. It 'is a spring of new ideas'. In intuition, the understanding forms these ideas at the same time as it discovers fundamental truths about the nature of reality.

Price stressed that the understanding, unlike the senses, is active in the pursuit of knowledge. The senses are passive, their impressions and ideas arising independently of our wills. They know nothing of the objects which cause these impressions. He argues that the senses are bound up with the material part of our being. However, 'in intellectual perceptions, the soul acts more by itself, and separately from matter' (Price 1758: 23). It is 'the intellect that must perceive...order and proportion; variety and regularity, design, connection, art, and power...' (Price 1758: 24).

Among the ideas which Price ascribes to the understanding are solidity, inertia, duration, space and time, and infinity. According to Price, in apprehending these ideas we apprehend necessary self-evident truths about reality. In apprehending the idea of solidity we understand that two solid objects cannot occupy the same space. Such an idea cannot arise from experience; indeed, Price argues that there are cases where two distinct bodies *appear* to run into each other. His account of solidity is directly opposed to that of Locke, who argued that we get the idea of the impenetrability of solid bodies from the sense of touch (Price 1758: 26–7; cf. Locke 1975: II.iv). Price holds that the impenetrability of bodies is a necessary and universal truth, and that such a truth cannot be derived from the senses. The senses can only tell us what happens in finite particular cases.

Price appeals to the ideas of the understanding to support controversial views in eighteenth-century natural philosophy and natural theology such as the claim that matter is inactive. He asks the question 'what furnishes us

with our ideas of resistance and inactivity?’ He asserts that it cannot be experience because

never did any man yet see any portion of matter that was void of *gravity*, and many other active powers; or that would not immediately quit its state of rest and begin to move; and also *lose* or acquire motion after the impressing of new force upon it, without any *visible* or *discoverable* cause. (Price 1758: 28–9)

His point is that the appearances suggest principles which go against those known to be necessary by appeal to intuition. Matter appears to move spontaneously when attracted to another body; but the contrary claim that matter is devoid of any activity is intuitive and *a priori*. His view of the inertness of matter is directly opposed to those of David Hume and, Henry Home, Lord Kames.¹³ In his *Philosophical Essays Concerning Human Understanding*, Hume argued that one cannot determine *a priori* that matter is devoid of activity. He asked rhetorically if it is ‘more difficult to conceive, that motion may arise from impulse, than that it may arise from volition?’, and went on in a footnote to the first edition of this book to commend Newton for putting forward the hypothesis of ‘an aethereal active matter’ to explain universal attraction.¹⁴ For Hume, not only is the principle that matter is inactive not intuitive; it might be false. Only further experience can decide the issue.

Another simple idea which Price attributes to the understanding is duration. He agrees with Hume that all we directly observe is a succession of perceptions: ‘What the observation of the train of thoughts following one another in our minds, or the constant flux of external things, immediately and properly suggests to us is *succession*’ (Price 1758: 30). But while a lasting object cannot be directly observed, the idea of duration is ‘included in every notion we can frame of reality and existence’. Again there is a direct contrast with the views of Hume, who argued that we believe in duration as a result of a ‘fiction’ of the imagination through which we conflate an unchanging perception with a successive one (Hume 1978: 37).

Price also claims in opposition to Hume that the causal maxim—the belief that every event has a cause—can be established by intuition. It is ‘an essential principle, a primary perception of the understanding’ (Price 1758: 34–5). He writes that nothing could be ‘more clearly absurd and contradictory, than the notion of a change without a *changer*;...or beginning to exist without being produced’. For Price, an uncaused event seems to be a conceptual impossibility, though he does, briefly, like later Scottish writers, refer the principle to ‘common sense’. He disregards Hume’s argument that the idea of a beginning of existence and having a cause are two entirely distinct ideas, and that we can conceive of the first without the second (Hume 1978: 79–80). He also dismisses Kames’s claim that the causal maxim can be derived from *feeling* (see Home 1751: 271–6), saying that anyone who ascribes the principle ‘to a different power from the understanding, should inform us why the same should not be asserted of all self-evident truth and impossibility’ (Price 1758: 35–6).

Price argues that the idea of power, both active and passive, must have its source in the understanding. It is, he claims, inconceivable that there could exist a real object which is neither productive of change nor be changed by something else. He asserts that ‘all the foundations of natural knowledge...would be destroyed’ if ‘all things [were] wholly unconnected, loose, and detached from one another’ so that ‘one event or object’ did not ‘in any circumstances imply any thing...beyond itself’ (Price 1758: 37). Everyone admits that ‘things appear otherwise to us’ and that ‘we are under a necessity of considering them as connected and of inferring one thing from another’. But without refuting Hume’s argument that this supposition arises from the imagination, Price asks why it should not be accounted for by a real connection perceivable by reason.

Price holds that we are always dissatisfied with an explanation unless we discover a necessary connection between cause and effect. We are not satisfied when ‘we only see one thing constantly attending, or following another, without perceiving the real dependence and connexion’ (Price 1758: 38). This is the case with gravitation, as well as the regular connection between impressions on our body and the sensations which attend them. In each of these cases we are aware that we have not yet discovered the power by which the cause produces the effect. He mentions Newton’s three original laws of motion, as cases where (he thinks) we *do* have an understanding of the necessary connection between causes and effects. He is confident that ‘had we a perfect insight into the constitution of nature, the laws that govern it, and the motions, texture, and relations of the several bodies...that compose it; the whole chain of future events in it would be laid open to us’ (Price 1758: 39–40). In this case we would have no more use for experience and observation.

According to Price, the regularity of experience is only a sign of some underlying cause. To illustrate this he appeals to a thought experiment where one side of a regular six sided die turns up on every throw. In such a case

he thinks that we would all conclude that 'there was something in the constitution of it that disposed it to turn up this particular side, rather than any other' (Price 1758: 40 note). The same is true of any other experienced regularity, where we are unable to understand the necessity underlying the regularity.

While philosophers of the Scottish school of 'common sense' tended to avoid the word 'idea' which they associated with the view that ideas constitute a third entity between the mind and the external object, they did hold that we have non-sensory *conceptions* or *notions* of external objects. Thomas Reid wrote in his *Inquiry* 'that we have clear and distinct *conceptions* of extension, figure, motion, and other attributes of body, which are neither sensations, nor like any sensation, is a fact of which we may be as certain as that we have sensations' (Reid 1997: 76). Like Harris, he holds that while such conceptions are *occasioned by* sensations, they are products of the mind itself. Often, according to Reid, we are not even aware of the sensation: in his discussion of the sense of touch he wrote that the feelings of touch serve as 'natural signs' from which 'the mind immediately passes to the thing signified, without making the least reflection upon the sign, or observing that there was any such thing' (Reid 1997: 63). Following Berkeley, Reid's word for the relation between the sensation and the conception it occasions is 'suggestion'. He writes that even when we have never before 'had any notion or conception of the things signified' the sensations as natural signs 'do suggest it, or conjure it up by a kind of natural magic, and at once give us a conception or belief in it' (Reid 1997: 60). However, unlike the suggested ideas of Berkeley's philosophy, those of Reid do not arise from experience, but rather from the native constitution of the understanding.

Unlike Harris and Price, Reid took the non-sensory conceptions which were occasioned by our sensations, to be particular qualities of external objects—not universals. On Reid's view we immediately apprehend particular external objects and their properties such as hardness. Nevertheless, he did praise James Harris and James Burnet, Lord Monboddo, for restoring *the word* 'idea' to its ancient meaning, where it referred only to universals (Reid 2002: 387).¹⁵ Reid's sometime Aberdeen colleague, George Campbell, wrote in his *Philosophy of Rhetoric* of 1776 that it is only 'general notions or abstract ideas...which are considered as particularly the object of the understanding' (Campbell 1776: Vol. 1, 104n)—a view which he shared with Harris, Price, and Monboddo.

7.6 Conclusion: Reconceiving 'The Understanding' and Eliminating Scepticism

In the Introduction to his *Treatise on the Principles of Human Knowledge* (1709) Berkeley noted that the source of scepticism was thought to be 'the natural weakness and imperfection of our understandings' (Berkeley 1949: 25–6 (§§2–3)). He himself argued that scepticism does not arise from the failure of our natural faculties but rather in 'the wrong use we make of them'. More specifically, he argued that scepticism has its roots in the belief in the existence of objects independent of the mind which cause and correspond to our ideas. His solution to scepticism, developed in Part I of the *Principles*, was to deny the existence, as well as the conceivability, of such objects (Berkeley 1949: 48–9, 78–80 (§§18–20, 86–9)). However, few eighteenth-century philosophers accepted this solution. As Hume observed after explaining one of Berkeley's strongest arguments against the existence of matter, 'his arguments, though otherwise intended, are, in reality, merely sceptical' in so far as 'they admit of no answer and produce no conviction' (Hume 2000: 116 note).

Writers later in the century including Price and Reid also saw themselves as defending human understanding from sceptical objections. They rejected the experiential origin of our ideas which Berkeley shared with Locke and Hume, and claimed that our basic beliefs such as those in an external world independent of our senses arose from a set of ideas which had their source in the understanding alone. These ideas were, according to these writers, the source of truths which were intuitively certain. As we have seen, Price considered these truths to be necessary and their denials to be self-contradictions. However, for Reid, not all these truths were necessary, though he held that it was absurd to deny even the first principles of contingent judgments. Their authority lay in their innateness, and the fact that their denials went against the dictates of common sense (see Harris 2008).

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Notes:

- (1) For the importance of Locke's writings in the development of faculty psychology in the eighteenth century, see Buickerood (1985). On faculty psychology throughout the seventeenth century, see Hatfield (1998).
- (2) Winkler (2006) stresses the distinction between 'verdictive' and 'perceptive' models of judgment, but ends up noting that many eighteenth century philosophers and logicians combined both models.
- (3) Perhaps the two views are reconcilable if one interprets Locke as holding that liberty is compatible with necessity. On the difficult question of whether Locke is a compatibilist, see Chappell 1998, esp. p. 89.
- (4) The name of the *Philosophical Essays Concerning Human Understanding* was changed by Hume to *An Enquiry Concerning Human Understanding* in 1758.
- (5) This note was dropped after the first two editions of the *Philosophical Essays*. See Hume 2000: 232. For

Hutcheson's distinction between the faculty of *reason* and moral sense, see Hutcheson 2002: 137–55.

(⁶) Duncan (1748) also includes the fourfold division of the acts of the understanding.

(⁷) See also Locke 1975: 4.21.4, where Locke gives his '*Division of the Sciences*'.

(⁸) It was this observation which led to the famous problem formulated by William Molyneux, which Locke reported in his *Essay*—the problem of whether a person born blind who gained his sight when he was an adult would be able, without further experience, to distinguish a cube from a sphere by sight. Both Molyneux and Locke denied that this was possible.

(⁹) This explanation was developed in a very convincing way by Dugald Stewart. See Stewart 1792–1827: Vol. 1, 103–31.

(¹⁰) '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 1978: 73).

(¹¹) Hume acknowledged an ambiguity in his use of the term imagination in a footnote which he first added to Hume 1978: 371 and then revised and moved to 117. It would take me too far afield to discuss these notes here. The point I am making is that he fails to acknowledge that he also uses the terms 'understanding' and 'reasoning' in two very different senses.

(¹²) See Berkeley 1949, Introduction; and Hume 1978: 1.1.7, 17–25.

(¹³) For Hume on the inertness of matter, see Hume 1754.

(¹⁴) This was changed to 'etherial active fluid' in the third edition of 1756 as a result of the criticism of John Stewart, Professor of Natural Philosophy at the University of Edinburgh. See Hume 2000: 57–8n. 16, and Beachamp 2000: lxxviii–lxxix, 157–8. See also Wright 1983: 162–4.

(¹⁵) Reid refers to Burnett [Lord Monboddo] 1779–99: I, ch. 1, as well as Harris 1751: book III, ch. 4.

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