Critical Survey of the Literature on Hume and the First *Enquiry*

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This survey aims to provide useful suggestions for further reading related to the first *Enquiry*, focused especially on the philosophical and scholarly issues discussed in this volume, and supplemented by references to contemporary works on the same themes. It starts with a short discussion of selected current editions of the *Enquiry* itself, then of Hume's other relevant works, before moving on to philosophical and interpretative topics, mostly organised according to the sections of the *Enquiry* where those topics are addressed, and making reference where appropriate to the papers in this volume (reserving the capitalised 'Chapter' for this purpose). Wherever a topic is not only of scholarly interest, but also of continuing philosophical or scientific relevance, I have tried to suggest some useful points of access into the modern literature, so that those whose interest is stimulated by the reading of Hume can follow this through into some of the many fascinating areas of contemporary debate.

Since Beauchamp's student edition of the *Enquiry*, referenced in §1a below, already contains a useful and reasonably up-to-date annotated bibliography (in its 'Supplementary Reading' section), I have tried as far as possible to complement it rather than to overlap. Hence there is no special section here on historical sources or bibliographic materials, nor on introductory surveys of Hume's thought, nor on general anthologies and collections of essays — in all of these areas, my own recommendations (except in the case of the recent general collections mentioned in §3a below) would correspond closely with those made by Beauchamp. Instead, I have tried to give more specific advice for students or scholars working through the issues discussed in this volume, often under pressure of time, and needing to make decisions which more wide-ranging bibliographies typically leave open, such as which Hume edition(s) they are best advised to purchase, and which particular articles or sections of books will most repay study on each of the various issues (and in which order). To this end I have summarised the most salient points of the majority of the items listed (excepting those that are too wide-ranging to make this feasible), and these summaries are often quite extensive where this has enabled me to spell out how the discussions fit together as parts of a continuing debate, or where the issues are particularly complex. In the case of some very recent items to which appropriate responses have not yet appeared, I have also added some personal suggestions regarding promising lines of criticism.

The whole field of Hume studies is blossoming, with interest in his philosophy stronger than ever and high quality contributions appearing every year. This has enabled me to include here many very recent works, whose citations can therefore in turn be used to identify further topical material for those with time to move beyond my recommendations. Such readers will find some additional suggestions in Beauchamp's bibliography, which in particular lists a number of books that I have omitted not from any adverse judgement on their quality, but usually because they are relatively unfocused on the topic in question. Also useful for older references will be 'Some Notes on the Hume Literature' which appears as an appendix to Terence Penelhum's *David Hume: An Introduction to His Philosophical System* (see §3b below).

In the future, I intend to provide updates to this survey through the Leeds Electronic Text Centre Hume Project website which hosts my electronic edition of the *Enquiry* (at **www.etext.leeds.ac.uk/hume/**). This site will also give access to freely available electronic copies of some of the works listed here, especially where these are difficult to obtain (e.g. because they are out of print or in journals of limited circulation). Any authors or other copyright holders willing to provide such electronic copies are invited to contact the Electronic Text Centre through the website. Readers will, I hope, find this an increasingly useful resource for gaining unrestricted access to some of the best available work on Hume and the *Enquiry*.

1. Editions of the Enquiry

1(a) Printed Editions

For many years the standard edition of the *Enquiry*, used for page references in the vast majority of philosophical and scholarly works on Hume, has been the edition published by Oxford University Press, originally edited by Selby-Bigge and more recently revised by Nidditch:

> David Hume, *Enquiries concerning Human Understanding and concerning the Principle of Morals* (1777), ed. L. A. Selby-Bigge, 3rd edn. rev. P. H. Nidditch (Oxford: Clarendon Press, 1975)

The text is based on the 1777 edition, which was the last to contain new authorial corrections (Hume having died in 1776). However it is far from perfect, containing well over 1,000 small inaccuracies, mostly of punctuation. Moreover Selby Bigge's editorial additions are generally best ignored, with the possible exceptions of the annotated index and the comparative table of contents with the *Treatise*. In particular, his Introduction is dated and totally misrepresents Hume's intentions, while the 'section' numbers which he inserted within the text simply invite misunderstanding because they are so easily confused with page numbers.

The page numbering of the Selby-Bigge edition will continue to be important for the foreseeable future, given the sheer number of books and articles on Hume (including those in the current volume) which use it to make reference to the two *Enquiries*. Readers of other editions are therefore well advised to write the Selby-Bigge page numbers at the relevant points in the margin of whatever edition they use themselves — the location of the Selby-Bigge page breaks can be found not only from the printed edition itself, but also from the appropriate version of the Leeds electronic edition of the *Enquiry*, available freely on the World Wide Web from the address **www.etext.leeds.ac.uk/hume/** (see §1b below).

Most printed editions of the *Enquiry* are textually even less accurate than the Selby-Bigge, but a number of them have useful editorial notes to supplement the text, such as elucidations of Hume's terms and explanations of his references. Though by now rather dated, the one by Hendel is particularly worthy of mention, because it also contains details of the various editions of the *Enquiry* that appeared in Hume's lifetime, together with the text of footnotes and other passages that were omitted from the 1777 edition:

> David Hume, *An Inquiry concerning Human Understanding* (1777), ed. Charles W. Hendel (Indianapolis: Bobbs-Merrill Educational Publishing, 1955)

By far the best printed edition of the *Enquiry* currently available, however, has only recently appeared in the Oxford Philosophical Texts series:[1]

> David Hume, *An Enquiry concerning Human Understanding* (1772), ed. Tom L. Beauchamp (Oxford and New York: Oxford University Press, 1999)

Beauchamp's editorial material is in general first rate. It includes a detailed introduction describing the background to the *Enquiry* and giving an outline of each section, an excellent survey of supplementary reading, an extensive and well-organised appendix of annotations to the text, and a useful glossary. The text is also highly reliable, though based on the 1772 edition which is arguably less authoritative than the 1777 preferred by most other editors. The main difference between the two is Hume's deletion from the latter of the majority of Section III, which he presumably excised from the edition left to posterity because he appreciated its lack of

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[1] Note that this is Beauchamp's *student* edition of the *Enquiry*, shortly due to be joined by a Clarendon *critical* edition with the same editor and based on the same text, which will be of particular interest to specialist scholars but significantly more expensive.

philosophical relevance to the main project of the _Enquiry_ as a whole. Beauchamp notes the deletion,[2] so in this respect readers are free to take their choice, but it is perhaps a shame that other significant omissions, from previous editions of the _Enquiry_, are not also noted by him (hence the continuing value of Hendel's edition, which does record them). The last and major criticism of Beauchamp's edition is its lack of Selby-Bigge page numbering. No doubt from a purist point of view the strict paragraph numbering introduced in Beauchamp's edition (as in the other new Oxford editions of Hume's works) is superior, but the inclusion of Selby-Bigge numbers in the margin would have greatly facilitated the usefulness of this edition for study, given that they have for so long been the _de facto_ standard for references to the _Enquiry_ in philosophical and scholarly works. Again, however, the solution is straightforward, and readers who wish to remedy this omission in their copy of the Beauchamp edition can easily do so by hand.

1(b) Electronic Editions

For students and scholars, the two most obvious potential virtues of electronic texts are cheapness and ease of manipulation (the latter including ease of reproduction, distribution, excerpting, and searching). Many free versions of the _Enquiry_ are available from the World Wide Web, but most are of dubious quality, being based on old printed editions that are now in the public domain. There is, however, a highly reliable version of the 1777 edition published by the University of Leeds Electronic Text Centre, and made freely available for non-profit academic purposes.

> David Hume, _An Enquiry concerning Human Understanding_ (1777), ed. Peter Millican (Leeds Electronic Text Centre, 2000), from Web address **www.etext.leeds.ac.uk/hume/**

This site is the 'home page' of a recently established but long-term project devoted to works on, and by, Hume, focusing on the publication of high quality texts and bibliographic materials together with search and other facilities. These facilities include the ability to display the texts in a number of formats, for example unpaginated, paginated as in Hume's original edition, or paginated according to the _de facto_ standard edition. The last of these is particularly useful in the current context, since it enables the Selby-Bigge pagination to be freely consulted over the Web.

> Currently the best search facilities available for Hume's works in general are provided by:

> > _Complete Works & Correspondence of David Hume_, CD-ROM in the Past Masters series, published by InteLex Corporation, Charlottesville, Virginia (Web address **www.nlx.com**)

The texts used by InteLex are not of high quality (e.g. the _Enquiry_ is taken from the 1898 Green and Grose edition), and the CD-ROM is far too expensive for most students, but the search facilities make it invaluable for those engaged in serious research on Hume, especially as it includes not only Hume's philosophical works, but also his _History of England_ and his correspondence.

2. Hume's Other Works

2(a) A Treatise of Human Nature

Exactly as with the two _Enquiries_, the standard edition of the _Treatise_ has for many years been the Oxford University Press edition originally edited by Selby-Bigge, and more recently revised by Nidditch:

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[2] In his note on the text (p. 80) Beauchamp calls it 'a major and unexplained deletion', thereby perhaps suggesting doubt regarding its authority. My own view is that the deletion was entirely judicious, and totally in line with the sort of streamlining outlined in §6 of Chapter 1 of this volume on 'The Context, Aims, and Structure of Hume's First _Enquiry_'.

> David Hume, *A Treatise of Human Nature* (1739–40), ed. L. A. Selby-Bigge, 2nd edn. rev. P. H. Nidditch (Oxford: Clarendon Press, 1978)

As with the Selby-Bigge *Enquiries*, the text is of reasonable quality but far from perfect, and the annotated index is the most useful of the editorial additions. And again the Selby-Bigge has recently been effectively supplanted (for all purposes other than page references) by a far superior new edition in the Oxford Philosophical Texts series:

> David Hume, *A Treatise of Human Nature* (1739–40), ed. David Fate Norton and Mary J. Norton (Oxford and New York: Oxford University Press, 2000)

David Norton's introduction is particularly valuable, providing an excellent outline of this complex and difficult work. Other useful editorial material includes a section of comprehensive annotations to the *Treatise* and to the *Abstract* (the text of which is included with the *Treatise* in both the editions mentioned here), and a glossary of 'potentially puzzling words and phrases'. Again the major criticism of the new Oxford edition is its lack of Selby-Bigge page numbering, but again this can easily be remedied by hand.

2(b) An Enquiry concerning the Principles of Morals

Hume's second *Enquiry* is included with the first in the Selby-Bigge edition discussed in §1a above, but yet again the best modern edition is in the Oxford Philosophical Texts series:

> David Hume, *An Enquiry concerning the Principles of Morals* (1751), ed. Tom L. Beauchamp (Oxford and New York: Oxford University Press, 1998)

This has similar virtues to Beauchamp's companion edition of the first *Enquiry* (see §1a above), and is therefore highly recommended.

2(c) Dialogues concerning Natural Religion

For understanding the *Enquiry*, Hume's posthumously published *Dialogues* have an importance surpassed only by the *Treatise*. They are also the most cleverly constructed and entertaining of all his works, and perhaps the funniest truly great work of philosophy ever written by anyone. The standard edition referred to in most articles and books on Hume is the one edited by Kemp Smith:

> David Hume, *Dialogues concerning Natural Religion* (1779), ed. Norman Kemp Smith, 2nd edn. (Edinburgh: Nelson, 1947)

This edition is particularly highly respected for two reasons. First, Kemp Smith carefully examined Hume's manuscript (even to the extent of studying the watermarks of the sheets on which it is written), and in his edition highlights the important changes that Hume made to the *Dialogues* between its original composition (in the early 1750s) and his death in 1776 (when he evidently took great care in preparing it for posthumous publication). Secondly, Kemp Smith provides a great deal in addition to Hume's text, including sections on various aspects of Hume's general views on religion, a short discussion of Sections X and XI of the *Enquiry*, a famous interpretative essay entitled 'The Argument of the *Dialogues Concerning Natural Religion*', a detailed critical analysis of the argument of the *Dialogues*, and some further appendices and textual supplements of related historical material. It is a great shame that at the time of writing, this excellent and standard edition (though reprinted by Bobbs-Merrill of Indianapolis from 1962 to 1980) is out of print.

Those seeking a reasonably priced and reliable modern edition of the *Dialogues* are probably best advised to choose one of the following:

David Hume, *Dialogues concerning Natural Religion* (1779) and *The Natural History of Religion* (1757), ed. J. C. A. Gaskin (Oxford and New York: Oxford University Press, 1993)

David Hume, *Dialogues concerning Natural Religion* (1779), ed. Martin Bell (Harmondsworth: Penguin, 1990)

Gaskin uses Kemp Smith's text, and also his footnotes which highlight what he took to be Hume's most significant manuscript alterations. Hence this edition will particularly appeal to those with interest in these scholarly issues, and it also has the significant benefit of including Hume's *Natural History of Religion* together with a short editorial introduction and useful explanatory notes on both works. Bell's edition seems to be targeted more at the general reader — it is, for example, less densely printed and hence much easier on the eye; while its introduction weaves major themes from the philosophy of the *Treatise* and *Enquiry* into the discussion of Hume's life and his views on religion, so as to provide a context for readers unfamiliar with his general epistemology. The editorial notes likewise provide helpful references to quotations from Hume's other writings and from the works of related philosophers and historical sources.

2(d) Hume's Essays

Of Hume's many essays, the ones most directly relevant to the topics of the *Enquiry* are those on religion, in particular 'Of Superstition and Enthusiasm' and 'Of the Immortality of the Soul'. But a number of others, for example 'Of the Dignity or Meanness of Human Nature', 'The Sceptic', 'Of the Standard of Taste', 'Of Essay Writing', and 'Of Suicide', also cover themes that are pertinent to the *Enquiry*, either in respect of its philosophical content or the context and manner of its composition. The standard modern edition of Hume's *Essays* is the following:

David Hume, *Essays, Moral, Political, and Literary* (1741–83), ed. Eugene F. Miller, 2nd edn. (Indianapolis: Liberty Classics, 1987)

Most of the essays, including all those mentioned above, are also included in a companion volume to Gaskin's edition of the *Dialogues*, in Oxford's *World's Classics* series:

David Hume, *Selected Essays* (1741–83), ed. Stephen Copley and Andrew Edgar (Oxford and New York: Oxford University Press, 1993)

2(e) Other Writings by Hume

Apart from Hume's major works dealt with above, and the *Abstract* and *My Own Life* reprinted in this volume, his writings most relevant to the *Enquiry* are:

David Hume, *A Letter from a Gentleman to his Friend in Edinburgh* (1745), ed. Ernest C. Mossner and John V. Price (Edinburgh: Edinburgh University Press, 1967)

The Letters of David Hume, ed. J. Y. T. Greig, 2 vols. (Oxford: Clarendon Press, 1932)

New Letters of David Hume, ed. R. Klibansky and E. C. Mossner (Oxford: Clarendon Press, 1954)

Only two other significant works remain to be mentioned, namely the largely forgotten *Dissertation on the Passions*, which currently has no modern printed edition,[3] and the *History of England*, which fortunately does:

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[3] The *Dissertation on the Passions*, like most of Hume's other works, is available in *The Philosophical Works of David Hume* edited by T. H. Green and T. H. Grose, 4 vols. (London: Longmans, 1882–6), which has recently been reprinted in facsimile (Bristol: Thoemmes, 1996). Like other works the *Dissertation* is also destined to appear in the Clarendon Hume series of critical editions from Oxford

David Hume, *The History of England* (1754–62), ed. William Todd, 6 vols. (Indianapolis: Liberty Classics, 1983)

Full of historical insight and wry humour, *The History of England* will be particularly fascinating for the Hume scholar attuned to his characteristic comments and turns of phrase. However it was written for a more leisured age, and its six volumes will probably strike most modern readers as rather heavy going.

3. General Secondary Literature on Hume and the Enquiry

3(a) Recent General Collections of Scholarly Work on Hume

Four of the best-known collections of advanced papers on Hume — edited by Chappell (1968), Livingston and King (1976), Morice (1977), and Norton, Capaldi and Robison (1979) — are now all more than twenty years old, though still well worth consulting. Relevant papers from them are listed in the sections that follow, as also from the 1990 collection *Studies in the Philosophy of the Scottish Enlightenment*, edited by Stewart. Of far more general interest for the study of the *Enquiry* is another recent Stewart volume:

Stewart, M. A. and Wright, John P. (eds.), *Hume and Hume's Connexions* (Edinburgh: Edinburgh University Press, 1994)

whose twelve papers include discussions of Hume's attempts to become a professor, the influences on his thought, his conception of 'the science of the mind' and of 'probable reasoning', his early attacks on the Design Argument, his treatment of miracles, and his other writings on religion.

The papers in *Hume and Hume's Connexions* all present new research, and are therefore not ideally suited for students. A less scholarly but far more systematic overview of Hume's philosophy, at a relatively introductory level, is provided by:

Norton, David Fate (ed.), *The Cambridge Companion to Hume* (Cambridge: Cambridge University Press, 1993)

This contains extremely useful papers by a number of distinguished authors, covering a wide range of topics including Hume's overall approach to philosophy, his science of the mind, his philosophy of science, his scepticism, and his view of religion, as well as others less relevant to the *Enquiry* (e.g. on Hume's moral, political, aesthetic and historical work).

Two other recent collections are particularly useful for the purposes of this survey, and will be mentioned frequently below. Unfortunately both are expensive, and targeted for library rather than for individual purchase, but both include a wide range of important reprints which are well worth consulting and are sometimes hard to obtain elsewhere. In what follows, these will be referred to as 'Tweyman (1995)' and 'Owen (2000)' respectively:

Tweyman, Stanley (ed.), *David Hume: Critical Assessments* (London and New York: Routledge, 1995), six volumes

Owen, David W. D. (ed.), *Hume: General Philosophy* (Aldershot and Burlington, Vermont: Ashgate, 2000)

University Press. In the meantime, the best practical source for Hume's more obscure works is probably the InteLex electronic edition mentioned in §1b above.

Tweyman's massive collection aims to cover the whole range of Hume's philosophy including, amongst many others, sections devoted to Hume's views on epistemology (17 papers), reason (7 papers), induction (7 papers), scepticism (9 papers), naturalism (7 papers), causality (19 papers), the external world (4 papers), and religion (34 papers). Many of the papers are well-known 'classics', but a high proportion date from the 1980s or later, and although the editor's selection is inevitably controversial in parts, the collection as a whole undoubtedly provides the most valuable single resource currently available for articles on Hume.

Owen's collection is a single volume of 'facsimile' reprints, divided into eight sections of which all but the one on personal identity have immediate relevance to the _Enquiry_ (being respectively on methodology, ideas and impressions, logic and demonstrative reasoning, belief and probable reasoning, miracles, causation and the 'New Hume', and scepticism). For each section the editor has selected between two and four papers, aiming to give good coverage of major areas of recent scholarly debate, and with particular points of interest and disagreement being highlighted by his introduction. The papers are of a very high standard, and the collection is highly topical (with only 3 of the 21 selections predating 1985). It is therefore likely to prove particularly useful for readers wishing to get up to date with recent scholarship on Hume's epistemology and metaphysics, and to acquaint themselves in reasonable detail with some of the major issues that are currently exciting most controversy.

To keep abreast with ongoing developments in Hume scholarship, by far the most valuable resource is the journal of the Hume Society:

> _Hume Studies_, published by the Hume Society twice yearly (April and November)

Most of the major contributors to the Hume literature have presented at least some of their work through _Hume Studies_, which is now highly respected in the philosophical community. Moreover it attracts papers not only from specialist scholars, but also from notable contributors to contemporary thought — one recent issue, for example, included articles by Annette Baier, Simon Blackburn, David Pears, and Barry Stroud.

3(b) General Introductory Books on Hume's Philosophy in the _Enquiry_

The only major single-author work devoted to the philosophy of the _Enquiry_ is still Antony Flew's classic:

> Flew, Antony, _Hume's Philosophy of Belief_ (London: Routledge & Kegan Paul, 1961)

Though extremely dated, and therefore to be treated with caution, this still repays reading on topics where Hume's purposes have long been well understood. The book as a whole is difficult for beginners, partly because Flew engages in so many detours to point out (often in characteristically forthright terms) the anti-metaphysical and anti-theological implications of Hume's views. However these detours themselves give the book a distinctive value, especially in Flew's chapters on Hume's Fork (ch. 3), on liberty and necessity (ch. 7), and on the Design Argument (ch. 9), in all of which his broad sympathy with Hume's views are very evident. Also worth consulting are his chapters on 'the objects of the exercise' (ch. 1), on belief (ch. 5), on scepticism (ch. 10), and on the Copy Principle (ch. 2), in the last of which he takes a somewhat similar line to Bennett in Chapter 3 of this volume. The book is weakest where Flew has least sympathy with what he takes to be Hume's position, most notably in the case of his deductivist interpretation of the famous argument concerning induction (which also unfortunately distorts his otherwise useful treatment of miracles — hence my preference in §9a below for his 1959 article on the topic).

An engaging introduction to most of the central aspects of Hume's philosophy in the _Enquiry_, which combines the text of Sections II, III, IV, VII and XI (and of two second _Enquiry_ appendices) with editorial commentary at a level suitable for beginners, is:

Penelhum, Terence, _David Hume: An Introduction to His Philosophical System_ (West Lafayette, Indiana: Purdue University Press, 1992)

Penelhum's account of Hume's motivations (which he developed in the article cited in §10c below) will be of interest to scholars as well as students: he identifies the essence of Hume's 'sceptical' view as being that philosophy itself should not be taken too seriously, since so far from bringing inner peace and tranquillity — as often traditionally claimed — it can instead lead to bewilderment and despair. Penelhum's discussions of the theory of ideas, cause and effect, and the Design Argument are less distinctive, but are all very clear and philosophically well-informed. His appendix 'Some Notes on the Hume Literature' is also useful, if rather dated (containing very few reference beyond 1985).

3(c) Hume's Life, his Aims in the Enquiry, and its Relation to the Treatise

The standard biography of Hume, which is thorough, generally accurate, and provides valuable discussion concerning the background to his publications, is:

Mossner, Ernest Campbell, _The Life of David Hume_, 2nd edn. (Oxford: Clarendon Press, 1980)

The traditional accusation that Hume was led to write the _Enquiry_ for vulgar motives of popular notoriety (discussed in §4 of Chapter 1 of this volume) has long since been thoroughly disposed of, the two best-known refutations being:

Kemp Smith, Norman, _The Philosophy of David Hume_ (London: Macmillan, 1941), ch. 24

Mossner, Ernest Campbell, 'Philosophy and Biography: The Case of David Hume', _Philosophical Review_ 59 (1950), 184–201; repr. in V. C. Chappell (ed.), _Hume_ (London and Melbourne: Macmillan, 1968), 6–34

More recently the same ground has been covered by:

Buckle, Stephen, 'Hume's Biography and Hume's Philosophy', _Australasian Journal of Philosophy_ 77 (1999), 1–25

Buckle presents the _Enquiry_ as a coherent and unified work, distinguished from the _Treatise_ primarily in its greater focus on an 'experimentalism' inspired by Newtonian science. Humean experimentalism involves a preference for mechanistic explanations and an eschewal of speculation about ultimate causes, both of which are prominent themes in the _Enquiry_, from the theory of association of ideas with which it begins (in Sections II and III) to the mitigated scepticism with which it ends (in Section XII).

Although Buckle seems to suggest that the move from the _Treatise_ to the _Enquiry_ is primarily a change of focus rather than of philosophical position, he approvingly mentions (p. 17) an article by Immerwahr whose aim is to provide a deeper account:

Immerwahr, John, 'A Skeptic's Progress: Hume's Preference for the First _Enquiry_', in David Fate Norton, Nicholas Capaldi, and Wade L. Robison (eds.), _McGill Hume Studies_ (San Diego: Austin Hill Press, 1979), 227–38

Immerwahr draws attention to Hume's distinction in the _Treatise_ between the 'general and more establish'd properties of the imagination' and the 'trivial properties of the fancy' (_T_ 225, 267–8). The latter are the dubious source of much theology and rationalist metaphysics, but in the _Treatise_ Hume is unable consistently to condemn them, because (as made clear at _T_ 185–6 and 268) they also play a crucial role in avoiding the corrosive scepticism to which the 'general properties' give rise in _Treatise_ I . iv. 1. Immerwahr sees the _Enquiry_ as providing Hume with a more satisfactory basis for his critical purposes, avoiding radical scepticism not by reliance on the 'trivial properties', but instead by limiting the 'general properties' to the subjects appropriate for

human investigation. Other writers too — notably Penelhum, Norton and Fogelin — have viewed the sceptical outlook of the two works as significantly different, contrasting the calm mitigated scepticism of the *Enquiry* with the unstable 'on-again-off-again' Pyrrhonism of the *Treatise* (the works of all three authors are discussed in §10c below). But this picture has recently been contested by:

> McCormick, Miriam, 'A Change in Manner: Hume's Scepticism in the *Treatise* and the first *Enquiry*', *Canadian Journal of Philosophy* 29 (1999), 431–47

McCormick stresses instead the continuity between the *Treatise* and the *Enquiry*, by arguing that the sceptical attitude of the *Treatise* is (despite some appearances to the contrary) virtually identical to that which is expressed much more clearly in the *Enquiry*.

Differences between the *Treatise* and the *Enquiry* are not, of course, confined to Hume's account of scepticism. One very significant change in the *Enquiry*, to which Noxon draws attention, is the separation of philosophical from psychological theorising, which in the *Treatise* were densely intertwined:

> Noxon, James, *Hume's Philosophical Development* (Oxford: Clarendon Press, 1973), especially 12–26, 153–65, 180–7

On Noxon's account, Hume's later works quite generally separate the critical from the constructive elements of his philosophy, a separation most evident in his later moral and political writings which (unlike the *Treatise*) tend to establish their positions on the basis of direct observation rather than psychological theory. This separation leaves the *Enquiry* focusing on the critical aspects of Hume's philosophy, with little attempt to forge any connexion (e.g. through the theory of association; cf. Dauer's paper in §4a below) with the psychological complexities that had figured so prominently in the *Treatise*, but which had ultimately, and inevitably, proved incapable of providing a criterion for distinguishing science from superstition. Noxon sees Hume in the *Enquiry* as adopting a new criterion, a 'Principle of Methodological Consistency', based on the idea that legitimate science is a development of the methods 'of common life, methodized and corrected' (*E* 162). Such a principle obviously harmonises well with the mitigated scepticism emphasised by Buckle and Immerwahr, but its adoption need not in itself imply any doubts about the psychological theories of the *Treatise*, even if Hume now sees them as largely irrelevant to his main critical purposes. Nelson, however, argues that the divide between the *Treatise* and the *Enquiry* goes deeper still, with Hume's repudiation of the earlier work being motivated by the recognition that it is contaminated with metaphysics of the very kind that he would later famously condemn in *Enquiry* XII:

> Nelson, John O., 'Two Main Questions concerning Hume's *Treatise* and *Enquiry*', *Philosophical Review* 81 (1972), 333–7

Nelson's theory is itself forcefully repudiated by:

> Cummins, Phillip D., 'Hume's Disavowal of the *Treatise*', *Philosophical Review* 82 (1973), 371–9

who argues that the *Enquiry* differs from the *Treatise* in respect of its psychology rather than its metaphysics. Indeed the only major Humean metaphysical doctrine whose absence from the *Enquiry* Cummins acknowledges (p. 379, note 35) is the bundle theory of the self, though he downplays even this by suggesting that Hume's famous difficulties with that theory (expressed in the Appendix to the *Treatise*) are relatively superficial, concerning only the explanation of *our belief* in personal identity. Flage, by contrast, takes Hume's difficulties with the bundle theory to be fundamental, even to the extent of providing the main reason for his dissatisfaction with the theory of mind in the *Treatise*, and motivating his move in the *Enquiry* to a far less ambitious theory which aspires only to lawful description of the mind's operations and makes no attempt to draw conclusions about the nature of the mind itself:

Flage, Daniel E., _David Hume's Theory of Mind_ (London and New York: Routledge, 1990), ch. 8; also available from the website **www.etext.leeds.ac.uk/hume/**

Flage's account also implies that Hume's problems with personal identity were the primary reason for his apparent loss of confidence in associationism (as documented in §4 of Chapter 1 of this volume). However Broackes (in Chapter 6) argues that despite these problems the bundle theory continued to underlie Hume's psychological theorising, while Bell (in Chapter 5) suggests that much of Hume's associationism may simply have been omitted from the _Enquiry_ rather than rejected. As this wide range of different views testifies, we are still some way from any consensus on what lies behind the differences between the _Treatise_ and the _Enquiry_. Nor should we restrict our attention here to philosophical considerations, for as Stewart makes clear in Chapter 2, at least some aspects of the _Enquiry_ were significantly influenced not only by literary considerations, but also by some more personal and historical concerns.

4. _The Nature and Origin of Ideas_

4(a) Impressions and Ideas, Force and Vivacity

An excellent introduction to Hume's theory of ideas, and also his theory of belief, appears in a volume aimed at pre-university students. In this paper, Craig also explicitly relates these theories to his 'Image of God' interpretation as discussed in Chapter 7.

Craig, Edward, 'Hume on Thought and Belief', in Godfrey Vesey (ed.), _Philosophers Ancient and Modern_ (Cambridge: Cambridge University Press, 1986), 93–110

Stroud's well-known book provides a rather more advanced discussion of the main features of Hume's theory of ideas, though it is generally focused far more on the _Treatise_ than on the _Enquiry_:

Stroud, Barry, _Hume_ (London and Boston: Routledge & Kegan Paul, 1977), ch. 2

Hume's fundamental distinction between impressions and ideas is founded on the notion of 'force and vivacity', which Stroud — like Bennett in Chapter 3 — interprets in the most straightforward way, as phenomenological intensity. Both Bennett and Stroud accordingly find Hume's distinction inadequate to capture the difference he intends, between feeling and thinking. Govier suggests that a more satisfactory position can be developed by recognising forcefulness and vivacity as two distinguishable characteristics of Humean perceptions, with a forceful perception being one that has a sustained causal influence, and a vivacious perception being one that is clear and intense. Then 'force' corresponds to distinctions related to degrees of belief, and 'vivacity' to the distinction between impressions and ideas:

Govier, Trudy, 'Variations on Force and Vivacity in Hume', _Philosophical Quarterly_ 22 (1972), 44–52

Govier thus differs from Stroud and Bennett in taking 'force and vivacity' to be functional as much as phenomenological. Everson goes even further, arguing that Humean 'force and vivacity' should be interpreted exclusively in functional rather than phenomenological terms:

Everson, Stephen, 'The Difference between Feeling and Thinking', _Mind_ 97 (1988), 401–13; repr. in Tweyman (1995) vol. i, 10–24 and in Owen (2000), 57–69

However a functional interpretation of force and vivacity makes its availability to consciousness problematic, and therefore seems hard to square with Hume's use of the notion. A recent discussion of the issue, proposing an alternative account according to which the 'force and vivacity' of impressions involves their sense of 'presentedness', is provided by:

Dauer, Francis W., 'Force and Vivacity in the *Treatise* and the *Enquiry*', *Hume Studies* 25 (1999), 83–99

Dauer's account has the implication that the 'force and vivacity' of impressions, memories and beliefs, though somewhat analogous, are nevertheless distinct. He sees this as motivating Hume's move away from the 'hydraulic' model of belief (as outlined in §7 of Chapter 1) and therefore having significance in respect of the philosophical differences between the *Treatise* and the *Enquiry*.

Hume's hydraulic language may itself have even more direct relevance to the interpretation of his conception of force and vivacity (at least in the *Treatise*), for Wright draws on eighteenth century physiology to suggest that he may have intended such language to be understood quite literally:

Wright, John P., *The Sceptical Realism of David Hume* (Manchester: Manchester University Press, 1983), §19

In the wake of twentieth-century philosophy it is natural to dismiss such a literalistic account as too crude to be worth considering. But a striking corrective is provided by recent work on neurophysiology, which suggests that Hume's admittedly simplistic theories of mental activity may contain a germ of truth. As Damasio, a prominent neurologist, puts it (p. 108): 'The images reconstituted from the brain's interior are less vivid than those prompted by the exterior. They are "faint", as David Hume put it, in comparison with the "lively" images generated by stimuli from outside the brain. But they are images nonetheless.'

Damasio, Antonio R., *Descartes' Error*, Papermac edition (London and Basingstoke: Macmillan, 1996), ch. 5

Later in his book (especially chapters 8, 9 and 11), Damasio emphasises another more fundamental respect in which Hume anticipated modern neuroscience: his insistence on the essential role of feeling within human reasoning, evident in his theory of belief in *Enquiry* V (and even more so in the *Treatise*, e.g. *T* 103 and 183). There is, of course, an intimate connexion between Hume's theory of ideas and his theory of belief, as brought out in a rich discussion by Flage which takes the 'force and vivacity' issue close to the territory covered by Broackes in Chapter 6:

Flage, Daniel E., *David Hume's Theory of Mind* (London and New York: Routledge, 1990), appendix entitled 'Force and Vivacity'; an adapted version appears in Tweyman (1995), vol. i, 56–74

To explore further in this direction, see the items listed in §6a below (most notably MacNabb's chapter and the end of the chapter by Bricke, both of which discuss the 'force and vivacity' of beliefs).

4(b) The Copy Principle

Bennett, in Chapter 3, casts serious doubt on the arguments that Hume presents for his Copy Principle, but nevertheless finds philosophical value in it by fundamentally reinterpreting it away from the idiom of 'ideas'. A recent book which spells out Bennett's approach at a more elementary level is:

Dicker, Georges, *Hume's Epistemology & Metaphysics* (London and New York: Routledge, 1998), 5–14

Others have attempted to defend Hume in ways that do less violence to his professed philosophical foundations. Garrett, in a thought-provoking examination of the whole issue, maintains that Hume consistently treats the Copy Principle as a well-confirmed empirical generalisation, and counters Bennett's negative assessment of Hume's arguments for it when thus interpreted:

Garrett, Don, *Cognition and Commitment in Hume's Philosophy* (Oxford and New York: Oxford University Press, 1997), ch. 2

One notorious puzzle for making sense of Hume's position is posed by his dismissive reaction to an apparent counterexample to the Copy Principle, the 'missing shade of blue' (*E* 20–1). Bennett's reinterpretation of the principle may seem to explain this away, but the adequacy of such a solution is challenged by:

Cummins, Robert, 'The Missing Shade of Blue', *Philosophical Review* 87 (1978), 548–65

who interprets the having of a Humean idea not as *understanding* a term, but as the possession of a *recognitional capacity*. Garrett's alternative solution is based on the natural resemblances which Hume acknowledges between simple ideas. For those seeking a summary of the debate, Bennett's approach and that of Fogelin (which is similar to Garrett's) are outlined by Noonan:

Noonan, Harold W., *Hume on Knowledge* (London and New York: Routledge, 1999), ch. 2

However Noonan's chapter is valuable more as an introduction to the general topic than as an account of Hume's thinking in the *Enquiry*, for it focuses as least as much on the philosophical as on the scholarly issues, and is explicitly concerned with the *Treatise*. Another work devoted to the *Treatise* provides a philosophically deep discussion of the Copy Principle, aiming to steer a course between the positivist approach favoured by Bennett, and the naturalism exemplified by Garrett:

Pears, David, *Hume's System* (Oxford and New York: Oxford University Press, 1990), ch. 1 and 2

Noxon takes a very different view of the Copy Principle, proposing an 'instrumentalist' interpretation according to which the principle is a 'rule of procedure for analysis' rather than a universal generalization:

Noxon, James, *Hume's Philosophical Development* (Oxford: Clarendon Press, 1973), 138–48

Livingston provides yet another perspective, relating the Copy Principle, as a criterion of 'internal' conceptual mastery, to a general interpretation of Hume which sees him primarily as a historically rather than scientifically oriented philosopher:

Livingston, Donald W., *Hume's Philosophy of Common Life* (Chicago and London: University of Chicago Press, 1984), ch. 3–4

Livingston does not accept any need for the sort of rational reconstruction undertaken by Bennett, for on his account, Hume's understanding of language is already far more sophisticated than the simplistic traditional interpretation — according to which Hume takes word meanings to be images copied from impressions — from which Bennett begins. In challenging this traditional interpretation Livingston draws on an influential paper by Árdal, which discusses Hume's account of abstract ideas and moral conventions (though this obviously moves the discussion a long way from the direct concerns of the *Enquiry*):

Árdal, Páll S., 'Convention and Value', in George P. Morice (ed.), *David Hume: Bicentenary Papers* (Edinburgh: Edinburgh University Press, 1977), 51–68; repr. in Tweyman (1995) vol. iv, 61–77

Those wishing to follow up these issues through contemporary discussions in the philosophy of language will find that much recent work is fearsomely difficult. However Blackburn and Miller provide two relatively accessible introductions, which take highly contrasting approaches while both giving significant attention to Humean issues:

Blackburn, Simon, *Spreading the Word* (Oxford and New York: Clarendon Press, 1984)

Miller, Alexander, *Philosophy of Language* (London: UCL Press, 1998)

Blackburn's treatment of the general problem of meaning occupies his first four chapters, with chapter 2 explaining the inadequacies of the Locke–Hume theory of ideas in this context. But whereas Blackburn starts

from the empiricists and takes a broadly Gricean 'convention-belief' (or 'communication-intention') approach, Miller starts from Frege and prefers the more fashionable 'truth-conditional' style of meaning theory, explicitly opposing (in his chapter 7) some of Blackburn's arguments. Miller's chapter 3 is of particular interest for its discussion of the verification principle, around which the logical positivists — claiming inspiration from Hume's Copy Principle — built their theory of meaning (however their claim to be Hume's heirs is certainly disputable, as made clear for example by Craig's book mentioned in 9c below).

5. *Reason and Induction*

5(a) Hume's Philosophical Logic

Though fundamental to his philosophy, there has been relatively little detailed discussion of Hume's distinction between 'relations of ideas' and 'matters of fact'. Flew's chapter in his 1961 book remains valuable for a general introduction to the status and philosophical point of what he named 'Hume's Fork':

> Flew, Antony, *Hume's Philosophy of Belief* (London: Routledge & Kegan Paul, 1961), ch. 3

A thorough recent discussion of the distinction appears in an introductory text:

> Dicker, Georges, *Hume's Epistemology & Metaphysics* (London and New York: Routledge, 1998), ch. 2

Both Flew and Dicker relate Hume's Fork to Kant's analytic–synthetic distinction; indeed Dicker gives Hume's position a surprisingly Kantian flavour, by suggesting that it leaves room for synthetic a priori principles (including, on his account, Hume's Fork itself), since he interprets Hume's 'matters of fact' as being restricted to propositions that either assert or deny existence. Most have instead taken Hume's Fork to correspond to the analytic–synthetic distinction as understood by the logical positivists such as Ayer, according to whom 'a proposition is analytic when its validity depends solely on the definitions of the symbols it contains [or in Humean language, the nature of the ideas], and synthetic when its validity is determined by the facts of experience.' (p. 105):

> Ayer, A. J., *Language, Truth and Logic*, 2nd edn. (Harmondsworth: Penguin, 1971), ch. 4

The analytic–synthetic distinction, thus understood, was famously criticised by Quine and then defended by Grice and Strawson:

> Quine, Willard Van Orman, 'Two Dogmas of Empiricism', in *From a Logical Point of View* (Cambridge, Massachusetts: Harvard University Press, 1953), 20–46; repr. in Paul K. Moser (ed.), *A Priori Knowledge* (Oxford and New York: Oxford University Press, 1987), 42–67
>
> Grice, H. P. and Strawson, P. F., 'In Defense of a Dogma', *Philosophical Review* 65 (1956), 141–58; repr. in Paul Grice, *Studies in the Way of Words* (Cambridge, Massachusetts and London: Harvard University Press, 1989), 196–212

Miller provides an up-to-date commentary on this debate, also introducing some important related issues (notably Quine's thesis of the indeterminacy of translation) and giving advice for further reading:

> Miller, Alexander, *Philosophy of Language* (London: UCL Press, 1998), ch. 4

Also of particular interest is the 'pragmatic' approach to analyticity taken by Aune, in his attempt to develop a 'reformed' Humean empiricism on the way to solving the problem of the external world:

> Aune, Bruce, *Knowledge of the External World* (London and New York: Routledge, 1991), 57–9, 86–90, 144–56

Along with the famous Quinean objections, some more recent issues in the theory of reference — associated with the work of Kripke — pose new difficulties for any simple binary distinction such as Hume's Fork. Since, however, these technical difficulties are unlikely to carry significant implications for Hume's philosophical purposes, it will suffice here to mention one article that usefully introduces the logical issues, reprinted within a topical collection which provides a good starting point for those wishing to dig deeper:

Swinburne, R. G., 'Analyticity, Necessity, and Apriority', _Mind_ 84 (1975), 225–43; repr. in Paul K. Moser (ed.), _A Priori Knowledge_ (Oxford and New York: Oxford University Press, 1987), 170–89

A potentially more serious problem for Hume concerns the adequacy of his famous maxim that whatever is conceivable is possible — the Conceivability Principle — which serves as his principal criterion for distinguishing between relations of ideas and matters of fact (_A_ 650, _E_ 25–6, 35, 48). Hume has often been supposed to accept in addition the (far more questionable) Inconceivability Principle, that whatever is inconceivable is impossible, which would have significant implications for his views on such things as the possibility of alternative senses (_E_ 20), causal realism (_E_ 33, 67–8), the external world (_E_ 154–5), and infinite divisibility (_E_ 155–8). Lightner argues forcefully that such an attribution would be incorrect:

Lightner, D. Tycerium, 'Hume on Conceivability and Inconceivability', _Hume Studies_ 23 (1997), 113–32

But the Conceivability Principle is itself controversial. Tidman considers various possible interpretations of 'conceivable', concluding that none of them can justify Hume's maxim because 'merely conceiving of a state of affairs gives us no reason whatsoever to think that state of affairs to be possible' (p. 298):

Tidman, Paul, 'Conceivability as a Test for Possibility', _American Philosophical Quarterly_ 31 (1994), 297–309

Tidman attributes the appeal of the maxim to a confusion between conceiving of a state of affairs, and having a modal intuition (which sometimes accompanies such conceiving). Yablo implicitly disputes, however, whether this is indeed a confusion if 'conceiving' is interpreted in the appropriate manner:

Yablo, Stephen, 'Is Conceivability a Guide to Possibility?', _Philosophy and Phenomenological Research_ 53 (1993), 1–42

On this account, 'I find _p_ conceivable if I can imagine . . . a situation . . . _of_ which I truly believe that _p_' (p. 26), and 'to imagine an _X_ is _thereby_ to enjoy the appearance that an _X_ could exist' (p. 30). Hence conceivability itself (in the appropriate sense) involves modal intuition, though Yablo concedes that such intuition is not infallible. Nor is it always available, and his corresponding account of inconceivability — as inability to imagine a situation 'that I don't take to falsify _p_' (p. 29) — leaves room for states of affairs that are neither conceivable nor inconceivable, and hence can be classed as 'undecidable'. This provides a straightforward way of dealing with alleged counterexamples to the Conceivability Principle including mathematical propositions (e.g. Goldbach's Conjecture) whose necessary truth or necessary falsehood is currently unknown. An alternative approach to such mathematical objections (which were first raised by Thomas Reid) is suggested by Casullo, who recommends revising the Conceivability and Inconceivability principles in a way that harmonises with Hume's distinction between intuition and demonstration:

Casullo, Albert, 'Reid and Mill on Hume's Maxim of Conceivability', _Analysis_ 39 (1979), 212–9

Casullo's proposal is to treat inconceivability as a criterion of impossibility only in the case of propositions knowable by intuition (those simple enough to enable the mind to 'see' directly the relationship between the ideas involved). More complex propositions — those knowable only by demonstration — will then be necessarily true (and hence classed as relations of ideas) if and only if they are 'derivable from other

propositions whose denials describe inconceivable states of affairs, using only principles of inference whose denials are inconceivable' (p. 215).

Despite all these complications, Hume's distinction between 'analytic' relations of ideas and 'synthetic' matters of fact is widely accepted and taken for granted, at least for the general run of propositions (leaving aside, for example, difficult problem cases involving theoretical terms whose meaning can evolve as science develops). However other aspects of Hume's philosophical logic are far more problematic, partly because his evident contempt for scholastic syllogism in particular seems to have given him a mistakenly dismissive attitude to formal rigour in general. Two searching discussions of his 'logic' are now rather dated, but still extremely helpful for highlighting some of the resulting difficulties:

> Bennett, Jonathan, *Locke, Berkeley, Hume: Central Themes* (Oxford: Clarendon Press, 1971), ch. 10
>
> Passmore, John, *Hume's Intentions*, 3rd edn. (London: Duckworth, 1980), ch. 2

Fortunately, many of the issues to which Bennett and Passmore draw attention (e.g. in Hume's theory of relations) impact more on the *Treatise* than on the *Enquiry*, but a notable exception is Hume's distinction between 'demonstrative' and 'probable' reasoning, which plays a fundamental role in *Enquiry* IV and XII. My own attempt to clarify Hume's understanding of this distinction is most concisely presented in §2 of:

> Millican, P. J. R., 'Hume's Argument concerning Induction: Structure and Interpretation', in Tweyman (1995), vol. ii, 91–144; repr. in Owen (2000), 165–218

and more extensively developed in Chapter 4 of the current volume (§3.1 and §7.1). Here I argue — against the general trend — that Hume's distinction corresponds quite closely to the modern distinction between 'deductive' and 'inductive' reasoning, where the former is understood in an *informal* (i.e. semantic rather than syntactic) manner. The most thorough recent discussions on the other side of this debate are:

> Owen, David, 'Hume on Demonstration', in Patricia Easton (ed.), *Logic and the Workings of the Mind: the Logic of Ideas and Faculty Psychology in Early Modern Philosophy*, North American Kant Society Studies in Philosophy 5 (Atascadero, California: Ridgeview Publishing Company, 1997), 153–74; repr. in Owen (2000), 109–30
>
> Owen, David, *Hume's Reason* (Oxford and New York: Oxford University Press, 1999), ch. 5

However it is important to note that Owen tends to interpret 'deductive' as meaning *formally* deductive, a concept admittedly quite foreign to Hume's philosophy given his contempt for formal logic.

5(b) The Structure of Hume's Argument concerning Induction

For many years Stove's analysis of Hume's famous argument, which interpreted it as relying on the implicit premise of deductivism, was commonly taken to be authoritative:

> Stove, D. C., 'Hume, Probability, and Induction', *Philosophical Review* 74 (1965), 160–77; repr. in V. C. Chappell (ed.), *Hume* (London and Melbourne: Macmillan, 1968), 187–212 and in Tweyman (1995), vol. ii, 29–43
>
> Stove, D. C., *Probability and Hume's Inductive Scepticism* (Oxford: Clarendon Press, 1973)

Detailed criticisms of Stove's interpretation, together with alternative accounts of the structure of Hume's argument, are provided by:

> Morris, William Edward, 'Hume's Refutation of Inductive Probabilism', in James H. Fetzer (ed.), *Probability and Causality* (Dordrecht: Reidel, 1988), 43–77

Millican, P. J. R., 'Hume's Argument concerning Induction: Structure and Interpretation', in Tweyman (1995), vol. ii, 91–144; repr. in Owen (2000), 165–218

Both focus mainly on the *Enquiry*, and although broadly similar in spirit, they differ significantly both in the points made and in the structure diagrams they propose for Hume's argument. Morris concentrates his fire on Mackie and Stove before presenting his own analysis. My own article is more wide-ranging in its criticisms of earlier authors, but says virtually nothing about Mackie and gives less textual detail on Stove. However it includes (in §11) a discussion of Stove's probabilistic account of Hume's conclusion, arguing that this is implausible quite independently of the defects of his structural analysis. Note that there is no need to consult this paper for my own structural analysis of Hume's argument, which Chapter 4 repeats in an improved form (in other respects the papers are very different, and only the detailed textual commentary — most of which I saw no reason to change — contains a high proportion of material in common).

5(c) Interpretations of Hume on Reason and Induction

Together with the work listed in §5b above, Chapter 4 of the current volume, and the appendix to Don Garrett's Chapter 11 (which develops two sections from his 1997 book), the following represent the main contemporary currents of thought in the interpretation of Hume's argument concerning induction:

Beauchamp, Tom and Rosenberg, Alexander, *Hume and the Problem of Causation* (Oxford and New York: Oxford University Press, 1981), ch. 2

Broughton, Janet, 'Hume's Skepticism about Causal Inferences', *Pacific Philosophical Quarterly* 64 (1983), 3–18; repr. in Owen (2000), 149–64

Noonan, Harold W., *Hume on Knowledge* (London and New York: Routledge, 1999), 110–34

Owen, David, *Hume's Reason* (Oxford and New York: Oxford University Press, 1999), ch. 6

Winkler, Kenneth, 'Hume's Inductive Skepticism', in Margaret Atherton (ed.), *The Empiricists* (Lanham, Maryland: Rowman & Littlefield, 1999), 183–212

All those listed here except Winkler interpret Hume's argument as non-sceptical, and therefore depart radically from the traditional view of his intentions. Winkler aims to re-establish the traditional sceptical view with reference both to the writings of Hume's contemporaries and to other parts of the *Treatise* and *Enquiry* (including in particular Section XII).

Beauchamp, Rosenberg and Broughton see Hume as opposing only a narrowly rationalist conception of induction; so when he denies that induction is founded on reason, they take him to be understanding 'reason' in a deductivist sense. But since elsewhere Hume frequently operates with a notion of reason that embraces 'probable' as well as 'demonstrative' inference, this implies an ambiguity in his use of the term, as spelt out in the following well-known article:

Winters, Barbara, 'Hume on Reason', *Hume Studies* 5 (1979), 20–35; repr. in Owen (2000), 133–48

However an anti-deductivist conception of Hume's argument is vulnerable to objections of a fairly straightforward kind, as presented in §14 of my 1995 paper and developed at greater length in:

Garrett, Don, *Cognition and Commitment in Hume's Philosophy* (Oxford and New York: Oxford University Press, 1997), 83–91

§13 of my own paper suggests a different ambiguity, interpreting 'reason' within Hume's argument as a notion involving quasi-perceptual insight, and detecting two other notions of reason elsewhere in Hume's writings (for further development of the perceptual notion, but without discussion of the ambiguity thesis, see §2 of

Chapter 4). Garrett denies any ambiguity in Hume's notion, as do Owen and Noonan — all three see the intention of Hume's argument as being to deny the dependence of inductive inferences on _ratiocination_, rather than to prove such inferences' unreasonableness (on _any_ conception of 'reason').

As the dates of many of these contributions make clear, this is a very active area of current debate amongst Hume scholars. Part of that ongoing debate can be found in the pages of _Hume Studies_, which remains the obvious place to look for further developments:

> Millican, Peter, 'Hume on Reason and Induction: Epistemology or Cognitive Science?', _Hume Studies_ 24 (1998), 141–59
>
> Garrett, Don, 'Ideas, Reason, and Skepticism: Replies to my Critics', _Hume Studies_ 24 (1998), 171–94 especially 177–88

Here Garrett mounts a spirited and uncompromising defence against my attack on his 1997 interpretation, and moreover goes onto the offensive against my 1995 paper. My latest response to him and to Noonan's and Owen's recent work is, of course, to be found in Chapter 4 of the current volume, §10.3 of which develops detailed logical objections to all non-sceptical interpretations of Hume's argument.

5(d) Inductive Scepticism

An undemanding but philosophically deep introduction to the general issue of inductive scepticism, eminently suitable for beginning students but entertaining at any level, is:

> Salmon, Wesley, _An Encounter with David Hume_, in Joel Feinberg (ed.), _Reason and Responsibility_, 3rd edn. (Encino and Belmont, California: Dickenson Publishing Company, 1975), 190–208

Whether Hume was himself an inductive sceptic is, as we have seen, a very controversial issue, but whatever his own views, the famous 'problem of induction' is probably his most celebrated philosophical legacy. A good background for exploring the issues, starting with the editor's introduction, is provided by:

> Swinburne, Richard (ed.), _The Justification of Induction_ (Oxford: Oxford University Press, 1974)

Swinburne considers three traditional methods of attempting to justify induction — the 'analytic', the 'pragmatic', and the 'inductive' — and the same three methods are also discussed by Skyrms' book mentioned in §6b below (which is particularly useful for its detailed treatment of the inductive justification, perhaps the most challenging of the traditional methods and of particular recent interest because of its application to 'abduction' or 'inference to the best explanation', for which see Psillos' book in §10a below). Neither Swinburne nor Skyrms, however, considers attempts to justify induction by appeal to a priori probability, which (for reasons explained in §7.2 of Chapter 4) would neatly sidestep Hume's negative argument if only they could be made to work. They would also pose an unambiguous challenge to Hume, unlike the 'analytic' and 'pragmatic' justifications, which both contain elements of similarity with Hume's own views. Two interesting attempts to develop such a probabilistic justification of induction, which combine accessibly presented technical ideas with illuminating philosophical discussion, are provided by:

> Blackburn, Simon, _Reason and Prediction_ (Cambridge: Cambridge University Press, 1973), ch. 7
>
> Mackie, J. L., 'A Defence of Induction', in G. F. Macdonald (ed.), _Perception and Identity_ (Ithaca: Cornell University Press, 1979), 113–30; repr. in _Logic and Knowledge_ (Oxford and New York: Clarendon Press, 1985), 159–77

Both Blackburn and Mackie aim to justify induction through the extrapolation of general uniformity, but historically a more popular way of attempting a probabilistic justification is by applying a statistical 'law of

large numbers' to specific events. Such attempts date back to Laplace, and the most persuasive are perhaps those of De Finetti and D. C. Williams. Stove has recently developed Williams' argument further, and presented it in a form suitable for a non-technical audience. (But note that Stove gives two distinct probabilistic arguments against Hume, the first of which — in chapter 5 of his book — is far less interesting, depending as it does on his questionable analysis of Hume's conclusion mentioned in §5b above.)

> Stove, D. C., _The Rationality of Induction_ (Oxford and New York: Clarendon Press, 1986), ch. 6

Although most modern philosophers would be highly sceptical about the possibility of any such justification of induction, no clear refutation of Blackburn, De Finetti, or Williams/Stove has yet been published (for criticism of Mackie, see P. J. R. Millican, 'Mackie's Defence of Induction', _Analysis_ 42 (1982), 19–24). The question of whether Humean inductive scepticism can be overcome using probability theory remains open.

6. Belief, Probability, Rationality, and the Reason of Animals

This section covers four aspects of Hume's thought which are quite closely interrelated and a full understanding of which requires reference to the _Treatise_, where Hume's theories of the mechanics of belief, and of the criteria for acceptable and unacceptable probable inference, are far more elaborate than in the _Enquiry_. In the _Treatise_, belief is explained using an explicit 'hydraulic' model which in the _Enquiry_ is quietly dropped (see the reference to Dauer's paper in §4a above). Partly as a result of this, the detailed sections on 'the probability of chances' (I. iii. 11), 'the probability of causes' (I. iii. 12), 'unphilosophical probability' (I. iii. 13), and 'rules by which to judge of causes and effects' (I. iii. 15), which together constitute around a third of the central part of _Treatise_ Book I, are reduced in the _Enquiry_ to the small Section VI 'Of Probability' and the long footnote to Section IX 'Of the Reason of Animals'. Apparently Hume considered these details inessential to his main philosophical purposes in the _Enquiry_, and although many would agree — especially in respect of his simplistic theory of the mechanics of belief — nevertheless his treatment of the criteria for correct probable reasoning remains of great importance in assessing the implications of the mitigated scepticism which he develops in Section XII.

6(a) Hume's Theory of Belief

A dated but still philosophically interesting overview of sections V and VI of the _Enquiry_ is provided by:

> Flew, Antony, _Hume's Philosophy of Belief_ (London: Routledge & Kegan Paul, 1961), ch. 5

The essays in this volume by Bell and Broackes (Chapters 5 and 6) dig deeper, addressing changes in Hume's account of belief between the _Treatise_ and the _Enquiry_, and drawing attention to many relevant interpretative and philosophical issues. For further investigation of these issues the following are helpful, though they pay relatively little attention to the development of Hume's thought:

> Hodges, M. and Lachs, J., 'Hume on Belief', _Review of Metaphysics_ 30 (1976), 3–18; repr. in Tweyman (1995), vol. i, 144–57

> Gorman, Michael M., 'Hume's Theory of Belief', _Hume Studies_ 19 (1993), 89–101

> MacNabb, D. G. C., _David Hume: His Theory of Knowledge and Morality_, 2nd edn. (Oxford: Blackwell, 1966), ch. 5

> Pears, David, _Hume's System_ (Oxford and New York: Oxford University Press, 1990), ch. 4 and 5

> Bricke, John, _Hume's Philosophy of Mind_ (Edinburgh: Edinburgh University Press, 1980), ch. 6

Hodges and Lachs, like Broackes, find systematic inconsistencies in Hume's theory, but relate these to his need for a effective critique of religious belief (e.g. alleged lively perceptions of God) rather than to his view on personal identity. They also see the problems as symptomatic of an underlying tension in his philosophy between two empiricist tendencies, one phenomenological and the other naturalistically realist. Gorman disagrees with them, claiming that a more charitable reading of Hume's (admittedly poorly expressed) words reveals a consistent view of belief as 'a perception that has a certain feeling to the mind, which is the same as saying that it is a perception that is conceived in a certain manner' (p. 99). MacNabb also accepts that belief may involve a characteristic feeling, but argues that what is really essential to Humean belief is firmness and steadiness (cf. the issue of force and vivacity in §4a above, and Loeb's use of steadiness as a criterion of rational belief in his papers mentioned in §6c below, a use anticipated by MacNabb in §3 of his chapter 6). Pears' fourth chapter provides a philosophical critique of Hume's theory in the _Treatise_, generally treating it as a unified whole; his next chapter then addresses a problem highlighted by Bell, of why causation is the only one of Hume's three associative relations able to generate belief. Finally, Bricke discusses Hume's treatment of belief in the context of his theory of thought and judgement, and thereby raises additional issues similar to some of those dealt with by Passmore's chapter referenced in §5a above (note also that Passmore's fifth chapter, especially from page 92 onwards, is highly relevant here).

Smith and Jones' introduction to the philosophy of mind provides an accessible link between Hume's theory of belief and modern discussions of the topic, in a chapter that focuses on Hume and Ryle:

> Smith, Peter and Jones, O. R., _The Philosophy of Mind_ (Cambridge, New York and Melbourne: Cambridge University Press, 1986), ch. 10

In subsequent chapters they go on to develop a functionalist account of belief, drawing particularly on the influential work of Armstrong, but also making connexions with adjacent areas in the philosophy of mind.

6(b) Probability of Chances and Probability of Causes

For an initial outline of Hume's treatment of probability, see Garrett's section on 'Cognitive Psychology and Probability' in Chapter 11 of this volume. Given the importance of the topic and its close historical association with the celebrated Humean problem of induction, there have been surprisingly few significant discussions in the literature, the following being amongst the most notable exceptions:

> Kemp Smith, Norman, _The Philosophy of David Hume_ (London: Macmillan, 1941), ch. 19
>
> MacNabb, D. G. C., _David Hume: His Theory of Knowledge and Morality_, 2nd edn. (Oxford: Blackwell, 1966), ch. 6
>
> Hacking, Ian, 'Hume's Species of Probability', _Philosophical Studies_ 33 (1978), 21–37
>
> Gower, Barry, 'Hume on Probability', _British Journal for the Philosophy of Science_ 42 (1991), 1–19

Kemp Smith provides a useful critical introduction to the account of probability in the _Treatise_, highlighting some of its crucial defects (Hume's awareness of which, he suggests, may account for the brevity of the _Enquiry_ account), and explaining how Hume's theory of belief leads him to treat both 'probability of chances' and 'probability of causes' as involving the same associationist mechanism. MacNabb likewise focuses on the _Treatise_, but gives more attention to the philosophical issues than to the details of Hume's own account, being (understandably) dismissive of some of its intricacies. Hacking praises Hume for noting the distinction between the two species of probability, but regrets that this insight was then erased by his conflation of the two, and was not pursued further either by Hume himself or by subsequent pioneers of the theory of probability. Gower, unlike these other commentators, takes seriously the additive account of probability measures suggested by Hume's talk (at _T_ 138 and _E_ 127) of _subtracting_ the weight of evidence against a hypothesis from that in favour

(so that a probability of zero represents indifference rather than certain falsehood). As Gower points out, this distinctive approach to probability tends to be overlooked given the modern enthusiasm for analysing some of Hume's arguments in standard Bayesian terms, but those responsible would no doubt see such analysis as charitable interpretation rather than oversight, given that Hume in the relevant contexts (e.g. *T* 127–42 and *E* 56–8) also uses terms implying proportionality, while the literal additive account is dubiously coherent (however Gower discusses its application to Hume's essay on miracles in 'David Hume and the Probability of Miracles', *Hume Studies* 16 (1990), 17–31).

Contemporary philosophy of probability tends to be fearsomely technical, and additionally complicated by the multiplicity of different interpretations of the relevant concepts, some of which also go together with different formal treatments. For an informal philosophical discussion of probability concepts, see:

> Mackie, J. L., *Truth, Probability, and Paradox* (Oxford: Clarendon Press, 1973), ch. 5

A straightforward classification of different formal approaches to probability, together with a sketch of some influential previous taxonomies, is given by:

> Weatherford, Roy, *Philosophical Foundations of Probability Theory* (London, Boston and Melbourne: Routledge & Kegan Paul, 1982), ch. 1

Those with the technical competence to dig deeper will find a useful survey of modern developments in:

> Howson, Colin, 'Theories of Probability', *British Journal for the Philosophy of Science* 46 (1995), 1–32

To explore the relationship between probability and induction, a useful start is Gillies' encyclopaedia article, which outlines the historical development of theories of probability, introducing some of the influential technical issues (such as the paradoxes of indifference, Dutch book arguments, Bayesian conditionalisation, and the Carnap–Hesse thesis) and relating them to the philosophy of induction:

> Gillies, Donald   A., 'Induction and Probability', in G. H. R. Parkinson (ed.), *An Encyclopaedia of Philosophy* (London and New York: Routledge, 1988), 179–204

Application of the probability calculus to inductive inference is problematic not only for Humean reasons (i.e. the apparent impossibility of a priori probability assignments, and sceptical doubts about inductive uniformity), but also because any such 'inductive logic' presupposes a grasp of 'natural kinds' or real uniformities in nature and therefore cannot — unlike deductive logic — be purely formal. The classic presentation of this 'new riddle of induction' is:

> Goodman, Nelson, *Fact, Fiction, and Forecast*, 4th edn. (Cambridge, Massachusetts and London: Harvard University Press, 1983), ch. 3

Skyrms' introduction to inductive logic provides a useful discussion of Goodman's 'riddle', as also of Mill's methods of induction and of modern responses to Humean inductive scepticism. However in a brief discussion on the interpretation of probability he acknowledges the uncertain basis of the entire enterprise of inductive logic, given the resilience of the fundamental problems of induction:

> Skyrms, Brian, *Choice and Chance* (Belmont, California: Dickenson Publishing Company, 1966)

6(c) Probability and Rationality in the *Treatise* and the *Enquiry*

Traditionally there has been little interest in those sections of the *Treatise* (notably sections 9–13 of Book I Part iii) where Hume discusses probabilistic inferential processes including a number that he considers dubious.

A fairly detailed survey of the various Humean belief-forming mechanisms is provided by §1 of Falkenstein's paper listed later in this section, but for a brief review see:

> Fogelin, Robert, *Hume's Skepticism in the Treatise of Human Nature* (London, Boston and Melbourne: Routledge & Kegan Paul, 1985), ch. 5

The most interesting of the mechanisms that Hume discusses is our tendency to seek and apply 'general rules', which though often leading to unwarranted prejudices also provides the only solution to such prejudices through reflection upon them (a point expressed dramatically at *T* 150). Hearn's well-known article surveys Hume's treatment of general rules, showing how they perform an important role not only in his epistemology, but also in his philosophy of the passions and of morals:

> Hearn Jr., Thomas K., '"General Rules" in Hume's *Treatise*', *Journal of the History of Philosophy* 8 (1970), 405–22

The recent growth of interest in *Treatise* I. iii. 9–13 has resulted from an appreciation that neither Hume's scepticism nor his naturalism are undiscriminating — within these sections but also elsewhere (e.g. *Enquiry* VIII to XII), he repeatedly endorses certain factual beliefs and methods of enquiry (notably those characteristic of empirical science), while dismissing others as spurious (e.g. those characteristic of superstition). As long as the orthodox interpretation took Hume to be a deductivist sceptic regarding induction, such judgements were themselves typically dismissed as mere inconsistencies on his part, but once it became generally accepted that he is no crude deductivist (see §5b and §5c above), the question of whether his philosophy can sustain a plausible theory of normative discrimination came to prominence. However the suggestion that it might do so is in some tension not only with his inductive scepticism, but also with his central thesis that belief is involuntary. In Chapter 14 Norton seeks to alleviate this latter tension, by showing how even if beliefs are indeed 'proximately involuntary', it is still possible for reflective philosophical doubt to alter the context in which they arise and thus to influence what we believe. Norton develops this position further in his book, arguing that a proper recognition of the role of reflective thought in Hume's philosophy comprehensively undermines Kemp Smith's influential claim that Hume's key principle is the subordination of reason to feeling:

> Norton, David Fate, *David Hume: Common-Sense Moralist, Sceptical Metaphysician* (Princeton and Guildford: Princeton University Press, 1982), ch. 5 part 2

Passmore's paper 'Hume and the Ethics of Belief' takes a similar approach, explaining how Hume's theory of belief, whilst implying its involuntary nature, can nevertheless allow us to have some control over what we believe by adopting a 'belief policy' involving such things as attention to and critical examination of evidence. Hence normative recommendations become at least a meaningful possibility, though the third chapter of Passmore's book casts doubt on whether such recommendations can be given any adequate basis using the resources at Hume's disposal in the *Treatise* (in particular his notion of general rules):

> Passmore, John, *Hume's Intentions*, 3rd edn. (London: Duckworth, 1980), ch. 3 and the appendix entitled 'Hume and the Ethics of Belief', whose original version appeared in George P. Morice (ed.), *David Hume: Bicentenary Papers* (Edinburgh: Edinburgh University Press, 1977), 77–92

Other discussions of the *Treatise* treatment of probability are more optimistic, seeing it as providing not only a rich source of apparently normative judgements, but also a plausible Humean attempt at a theoretical foundation for such judgements based on the empirical assessment of our reasoning methods. However as the following summaries make clear, there is relatively little agreement regarding the nature of this empirical assessment, and the criteria to which it answers:

Winters, Barbara, 'Hume's Argument for the Superiority of Natural Instinct', _Dialogue_ 20 (1981), 635–43; repr. in Tweyman (1995), vol. iii, 262–70

Winters takes Hume's problem to be that of justifying a preference for the 'general and more establish'd properties of the imagination' over the 'trivial properties of the fancy' (cf. Immerwahr's paper in §3c above). Hume's preference for the former, she suggests, is founded on two main considerations, namely their relative efficiency (deriving from their immediacy, irresistibility and durability) and their naturalness (which makes them easy and satisfying to apply).

Costa, M.J., 'Hume and Justified Belief', _Canadian Journal of Philosophy_ 11 (1981), 219–28; repr. in Tweyman (1995), vol. i, 174–82

Costa shares Winters' conception of Hume's problem, but sees his preference for disciplined causal reasoning (that which conforms to his 'rules by which to judge of causes and effects') as founded on its superior reliability compared with other inferential mechanisms. He ends by suggesting that Hume's philosophy thus contains the seeds of modern 'externalist' or 'reliabilist' epistemology, which likewise assesses epistemic justification according to the reliability of the belief-forming mechanisms involved.

Baier, Annette C., _A Progress of Sentiments: Reflections on Hume's_ Treatise (Cambridge, Massachusetts and London: Harvard University Press, 1991), ch. 4

Baier, in tune with the overall theme of her book, takes Hume's approval of causal norms of reasoning to derive from their reflexive application, whereby causal reasoning is applied to vindicate the very causal norms that it employs. Pithily summarised, '_Successful reflexivity is normativity_' (pp. 99–100). (The third part of Winkler's paper referenced in §5c above follows Baier in emphasising the role of reflection in Hume's '_normalising of the natural_' (p. 204), but in Winkler's view Hume fails to resolve the underlying tension between his inductive scepticism and his desire for normative discrimination.)

Loeb, Louis E., 'Hume on Stability, Justification, and Unphilosophical Probability', _Journal of the History of Philosophy_ 33 (1995), 101–32

Loeb, Louis E., 'Instability and Uneasiness in Hume's Theories of Belief and Justification', _British Journal for the History of Philosophy_ 3 (1995), 301–27

Loeb views Hume's discussions of 'unphilosophical probability' as fitting into a general framework of inductive assessment of inferential processes, but differs from Baier in taking the appropriate criterion to be stability of belief rather than successful reflexivity. In his second paper, he explains the motivation for seeking such stability as being the avoidance of uneasiness, and thus attributes Hume with a theory of justification which has close affinities to Peirce's theory of belief.

Wilson, Fred, 'Hume's Defence of Causal Inference', _Dialogue_ 22 (1983), 661–94

Wilson, Fred, _Hume's Defence of Causal Inference_ (Toronto, Buffalo and London: University of Toronto Press, 1997), especially ch. 2 §3

Wilson, on Hume's behalf, appeals to the (arguable) principle that 'must implies ought' to justify the basic practice of inductive causal reasoning over which we have no choice. He then interprets Hume's discussion of the various particular mechanisms of causal inference — and the formulating of 'general rules' about these mechanisms — as intended to yield an inductive assessment of their capacity to satisfy the natural passion of curiosity, this passion providing our motive for reasoning in accordance with those mechanisms that have proved most reliable.

Falkenstein, Lorne, 'Naturalism, Normativity, and Scepticism in Hume's Account of Belief', _Hume Studies_ 23 (1997), 29–72; repr. in Owen (2000), 219–62

Falkenstein follows Wilson in focusing on Hume's appeal to general rules, but puts particular emphasis on the formulation of second-order rules that assess the reliability of first-order rules. Such second-order reflection requires time and effort, suggesting that the relatively weak passion of curiosity may be insufficient to motivate it. Instead, Falkenstein argues, Hume sees such reflection as being motivated by the contemplation of sceptical arguments, which initially undermine all our beliefs but from which some beliefs — notably those that are frequently reinforced in common life — are quickly able to recover. Thus it is that the Pyrrhonian arguments lead naturally to both normative discrimination and mitigated scepticism.

All of the above summarised accounts imply that at least some of the material of _Treatise_ ı. iii. 9, 10 and 13 is crucial for the understanding of Hume's attitude to science and scepticism, and hence that a fundamental constituent of his philosophy is almost entirely absent from his later writings. Relatively few commentators have tried to avoid this uncomfortable conclusion by finding an adequate basis for normative discrimination within the text of the _Enquiry_ and _Dialogues_, something which I attempt in §11 of Chapter 4 of this volume (a similar account, but focusing more on the _Treatise_ and stressing common elements with several of the discussions above, is in §13 of my paper mentioned in §5b above). What I take to be the key passage from the _Enquiry_ is Hume's suggestion that science involves 'nothing but the reflections of common life, methodized and corrected' (_E_ 162), a passage which is — perhaps significantly — very clearly echoed in the _Dialogues_ (_D_ 134), and which Noxon likewise sees as expressing a general 'Principle of Methodological Consistency' (see the reference to his book in §3c above). A quite different approach, but one which also draws on both the _Treatise_ and the _Enquiry_, is taken by:

Ferreira, M. Jamie, 'Hume's Naturalism — "Proof" and Practice', _Philosophical Quarterly_ 35 (1985), 45–57; repr. in Tweyman (1995), vol. iii, 271–83

Ferreira argues that Hume's distinction between mere 'probabilities' and 'proofs' (_T_ 124, _E_ 56‡n.) is epistemologically very significant, separating those beliefs which in Hume's view can reasonably be doubted from those which cannot. She thus places Hume within a tradition of 'reasonable doubt' naturalism, a tradition whose progress from Wilkins to Newman she recounts in her book _Scepticism and Reasonable Doubt_ (Oxford and New York: Clarendon Press, 1986), and which she there contrasts (p. 234) with both 'sceptical' naturalism and 'justifying' naturalism. Her interpretation has the implication that Hume is rather close to Reid — the central representative of this tradition — in ruling out any reasonable ground for doubt about the fundamental beliefs derived from our natural faculties. For a strongly contrasting view, to which Ferreira herself alludes, see part 1 of Norton's chapter mentioned earlier in this section.

Moving on to contemporary discussions of human rationality, the question of how far our natural inferential methods conform to theoretical ideals has attracted much attention since the work of Kahneman and Tversky, who devised a range of experiments revealing various 'heuristics' that we use in our thinking, and 'biases' to which these lead. Their main papers are collected in:

Kahneman, D., Slovic, P., and Tversky, A. (eds.), _Judgement Under Uncertainty: Heuristics and Biases_ (Cambridge: Cambridge University Press, 1982)

There is, however, debate over how some of the results of Kahneman and Tversky should be interpreted (as exemplified by Cohen's criticism of their taxicab example, discussed by Owen in Chapter 12). Both their results and some of this debate are summarised in the chapter on probability in a book whose theme is precisely what Hume addressed in the sections of the _Treatise_ that we have been discussing: the subtle interplay between rational norms and our inferential practices.

Manktelow, K. I. and Over, D. E., *Inference and Understanding: A Philosophical and Psychological Perspective* (London and New York: Routledge, 1990), ch. 7

6(d) The Reason of Animals

Despite its importance for his anti-rationalist and naturalising philosophical project, very little has been written on Hume's discussion of animals (indeed not one paper out of nearly two hundred in Tweyman's six volumes is devoted to the topic!). What little has been written, moreover, has tended to focus on the moral rather than the epistemological aspects of Hume's position. With this reservation, a useful recent paper is:

Pitson, Antony E., 'The Nature of Humean Animals', *Hume Studies* 19 (1993), 301–16

Hume's view of animal and human reason as differing in degree rather than in their essential nature obviously fits very comfortably with the theory of evolution, and it is interesting to note that *Enquiry* IX is explicitly mentioned by Darwin in a manuscript dating from the time when he was developing that theory:

Huntley, William B., 'David Hume and Charles Darwin', *Journal of the History of Ideas* 33 (1972), 457–70

In this context it is understandable that the book on Hume which most emphasises the topic was written over a century ago by the man known as 'Darwin's bulldog':

Huxley, T. H., *Hume* (London: Macmillan, 1886), ch. 5, 'the mental phenomena of animals'

Since then the overwhelming success of evolutionary theory as an explanatory framework for biology has, of course, led to its almost universal acceptance in scientific circles. Yet perhaps surprisingly, Hume's bold claim that animals can reason in a way closely analogous to ourselves remains controversial. For an engaging account of some striking recent evidence in favour of Hume's position, see:

Stamp Dawkins, Marian, *Through our eyes only?* (Oxford, New York and Tokyo: Oxford University Press, 1998)

7. Causation

7(a) Hume's Account of Causation

In Chapter 7, Craig describes Hume's hunt for the impression of necessary connexion, and introduces some of the complex issues raised by it and by Hume's notorious two definitions of cause. Two other useful discussions of Hume's corresponding account in the *Treatise*, providing different perspectives on some of the same issues but also raising some new ones, are:

Stroud, Barry, *Hume* (London and Boston: Routledge & Kegan Paul, 1977), ch. 4

Noonan, Harold W., *Hume on Knowledge* (London and New York: Routledge, 1999), 140–57

In the course of his discussion, Stroud influentially takes on the question of what Hume's elusive impression of necessary connexion might be, concluding that it is just a certain feeling that accompanies our causal inferences, which because of its simplicity must be indefinable. His view is critically examined at length, in the context of a general treatment of Hume's theory of causation, by:

Pears, David, *Hume's System* (Oxford and New York: Oxford University Press, 1990), ch. 7

Stroud responds to Pears in a paper which considers the more general issue of whether any Humean internal impression (such as of necessity, or of moral sentiments) can coherently be projected onto the world in the way that Hume supposes (the problem being that such projection takes for granted the prior availability within the mind of something which in fact seems to make sense only after the projection has taken place):

> Stroud, Barry, '"Gilding or Staining" the World with "Sentiments" and "Phantasms"', _Hume Studies_ 19 (1993), 253–72; repr. in Rupert Read and Kenneth A. Richman (eds.), _The New Hume Debate_ (London and New York: Routledge, 2000), 16–30

Hume's notorious 'two definitions of cause' have provoked numerous discussions over many years because the two apparently conflict. Craig's response is to demote them from the status of strict _definitions_ of causation, and to see them instead as general encapsulations of two different aspects of Hume's conclusions about our causal beliefs. A less compromising approach is taken by Beauchamp, who sees Hume's definitions as capturing two different theories of causation, which Hume tries in vain to reconcile:

> Beauchamp, Tom, 'Hume's Two Theories of Causation', _Archiv für Geschichte der Philosophie_ 55 (1973), 281–300; repr. in Tweyman (1995), vol. iii, 303–21

In his later book with Rosenberg the development of this position is more extensive, and provides useful detailed discussion of a number of previous commentators' views:

> Beauchamp, Tom and Rosenberg, Alexander, _Hume and the Problem of Causation_ (Oxford and New York: Oxford University Press, 1981), ch. 1

A different perspective is brought to the issue by Russell, who sees Hume's two definitions as giving accounts of causation as it exists in the material world and in our perceptions respectively:

> Russell, Paul, 'Hume's "Two Definitions" of Cause and the Ontology of "Double Existence"', _Hume Studies_ 10 (1984), 1–25; repr. in Tweyman (1995), vol. iii, 416–33
>
> Russell, Paul, _Freedom and Moral Sentiment_ (Oxford and New York: Oxford University Press, 1995), ch. 2

Another insightful recent analysis first gives an overview of the various types of position that commentators have taken on the two definitions, and the general evidence for and against them. It then presents Hume as having a thoroughly coherent position based around his theory of abstract ideas and their definition:

> Garrett, Don, _Cognition and Commitment in Hume's Philosophy_ (Oxford and New York: Oxford University Press, 1997), ch. 5

Perhaps the most obvious objection to Garrett is that Hume does not explicitly mention his theory of abstract ideas in the context of his two definitions; moreover that theory does not feature at all in the _Enquiry_ (except in a footnote at _E_ 158), although the two definitions are just as prominent there as in the _Treatise_. Much of what Garrett says, however — in particular, his claim that the two definitions are co-extensive if properly understood — is plausible quite independently of any such connexion with abstract ideas.

It should be noted that Beauchamp, Rosenberg, Russell and Garrett all focus predominantly on the _Treatise_, so parts of their discussions are less directly appropriate to the _Enquiry_ where Hume's two definitions are somewhat different. Their most important omission is any mention of the puzzle concerning Hume's 'other words' appended to his first definition in the _Enquiry_ ('Or in other words _where, if the first object had not been, the second never had existed_.' — _E_ 76), which have often been interpreted (e.g. by Vesey in the article listed in §8b below) in a counterfactual manner that seems straightforwardly to conflict with the definition that they

supposedly paraphrase. For a statement of the simplest solution to this puzzle, which interprets the conditional as merely tensed rather than counterfactual, see:

> Jacobson, Anne Jaap, 'From Cognitive Science to a Post-Cartesian Text', in Rupert Read and Kenneth A. Richman (eds.), *The New Hume Debate* (London and New York: Routledge, 2000), 156–66

In addition to her comments on the two definitions, Jacobson raises important criticisms of Stroud's view of the impression of necessity. Her more general thesis that the *Enquiry* is to be read in a postmodern fashion, as developing different (and incompatible) perspectives rather than seeking for determinate conclusions, is interestingly provocative but likely to be seen by most Hume interpreters as a premature counsel of despair.

7(b) Humean Theories of Causation

Hume's theory of causation has become so influential that philosophical discussions of his views tend at the same time to be contributions to the contemporary philosophy of causation. This can make entry into the literature rather daunting, but fortunately a recent student text provides a relatively gentle introduction to some of the major issues:

> Dicker, Georges, *Hume's Epistemology & Metaphysics* (London and New York: Routledge, 1998), ch. 4

The outstanding modern contribution to the philosophy of causation in the Humean tradition is:

> Mackie, J. L., *The Cement of the Universe* (Oxford and New York: Clarendon Press, 1974)

The paperback edition (published in 1980) adds a useful preface, summarising Mackie's position and the book's contents. Though inspired by Hume, Mackie departs significantly from what he takes to be the Humean position (but his detailed analysis of Hume's arguments is questionable — see Morris's article in §5b above). Another major book, more textually sensitive and faithful to Hume than Mackie's though less philosophically groundbreaking, has already been mentioned in §5c and §7a above:

> Beauchamp, Tom and Rosenberg, Alexander, *Hume and the Problem of Causation* (Oxford and New York: Oxford University Press, 1981)

Beauchamp and Rosenberg present a rational reconstruction of Hume's view (ridding him of the 'two definitions' inconsistency that they ascribe to him), which they then defend against Mackie's criticisms and others. One author discussed both by them and by Mackie is Anscombe, whose Cambridge inaugural lecture is probably the best known radical attack on the entire Humean position:

> Anscombe, G. E. M., *Causality and Determination* (Cambridge: Cambridge University Press, 1971); repr. in *Metaphysics and the Philosophy of Mind: Collected Philosophical Papers Vol. II* (Oxford: Blackwell, 1981), 133–47

Anscombe's lecture is also reprinted in a collection which starts from Mackie's seminal paper 'Causes and Conditions' (1965) and contains other important articles on the nature of causation:

> Sosa, Ernest and Tooley, Michael (eds.), *Causation* (Oxford and New York: Oxford University Press, 1993)

7(c) Causal Realism and the 'New Hume'

In Chapter 8 of this volume, Galen Strawson presents a summarised account — with particular reference to the *Enquiry* — of the substantial case for Hume's causal realism which he made at far greater length in:

> Strawson, Galen, *The Secret Connexion* (Oxford and New York: Clarendon Press, 1989)

Strawson's book is given an elegant summary and a judicious critical assessment by:

> Broackes, Justin, 'Did Hume hold a Regularity Theory of Causation?', _British Journal for the History of Philosophy_ 1 (1993), 99–114

Broackes packs a multitude of points into his fifteen pages, making this a particularly efficient introduction to the issues which, while generally disputing the evidence for the causal realist interpretation, nevertheless expresses sufficient sympathy with it to conclude that Hume probably had no completely settled view (a conclusion interestingly similar to the one Broackes draws about Hume's theory of belief in Chapter 6).

Although he developed his position quite independently of these other authors, Strawson's book acknowledges that similar views had already been presented (albeit in very different style) by:

> Wright, John P., _The Sceptical Realism of David Hume_ (Manchester: Manchester University Press, 1983), ch. 4

> Livingston, Donald W., _Hume's Philosophy of Common Life_ (Chicago and London: University of Chicago Press, 1984), ch. 6

Less detailed but perhaps more widely known than the earlier work of Wright and Livingston, Craig's chapter on Hume (from parts of which his essay in Chapter 7 of this volume is developed), presents a general picture of his thought which is particularly congenial for the causal realist interpretation:

> Craig, Edward, _The Mind of God and the Works of Man_ (Oxford and New York: Clarendon Press, 1987), ch. 2

The first chapter of Craig's book is also of great interest, giving a survey of rationalist writings prior to Hume that exemplify the 'Image of God' conception of human reason which Craig sees as Hume's principal target. The upshot of Craig's thesis is that the traditional reading of Hume as a positivist is totally wrong-headed; far preferable is the kind of 'sceptical realism' attributed to him by Wright and Strawson.

Together with Blackburn's article in Chapter 9, which defends a 'projectivist' reading of Hume, the most influential critique of the causal realist interpretation is:

> Winkler, Kenneth P., 'The New Hume', _Philosophical Review_ 100 (1991), 541–79; repr. in Owen (2000), 347–85 and in Rupert Read and Kenneth A. Richman (eds.), _The New Hume Debate_ (London and New York: Routledge, 2000), 52–74

The reprint of Winkler's paper in _The New Hume Debate_ adds a postscript entitled 'Intelligibility and the Theory of Ideas' (pages 74–87). Also in this recent collection are a number of new papers, including a direct reply to many of the points made by Winkler:

> Wright, John P., 'Hume's Causal Realism: Recovering a Traditional Interpretation', in Rupert Read and Kenneth A. Richman (eds.), _The New Hume Debate_ (London and New York: Routledge, 2000), 88–99

Three other new papers in the collection, by Craig, Bell, and Flage, are of more specific interest in the causal realism debate:

> Craig, Edward, 'Projectivist _and_ Realist?', in Rupert Read and Kenneth A. Richman (eds.), _The New Hume Debate_ (London and New York: Routledge, 2000), 113–21

Craig here suggests that Hume may be _both_ a projectivist _and_ a realist about causation — projectivist about our everyday understanding of it (founded on 'the Imagination'), but realist about causes in nature. He then, however, goes on to question whether such realism may be just as incompatible with Hume's epistemology as it apparently is with his theory of ideas, because neither 'Reason' nor 'the Senses' can provide it with any basis

('Reason' here being rejected as a basis simply because uncaused regularity is conceivable). But since Craig detects traces, at the end of _Enquiry_ V, of a _non_-demonstrative argument for realism based on the regularity of nature, his negative conclusion might be avoidable by adopting one of the non-rationalistic conceptions of reason favoured by most of the works discussed in §5c above.

> Bell, Martin, 'Sceptical Doubts concerning Hume's Causal Realism', in Rupert Read and Kenneth A. Richman (eds.), _The New Hume Debate_ (London and New York: Routledge, 2000), 122–37

Bell attacks both Strawson's book and Wright's response to Winkler. Against Strawson he alleges a conflict between causal realism and Hume's inductive scepticism, given Strawson's apparent endorsement of the idea (alluded to by Craig) that realist causation can explain, and hence can be reasonably inferred from, the regularity of nature (but see my Introduction note 15 for doubts whether Strawson is indeed committed, as Bell implies, to what Blackburn in Chapter 9 calls a 'straitjacket'). Against Wright, Bell continues a debate on the interpretation of Hume's divergences from Malebranche, which started with:

> Wright, John P., 'Hume's Criticism of Malebranche's Theory of Causation: A Lesson in the Historiography of Philosophy', in Stuart Brown (ed.), _Nicolas Malebranche: His Philosophical Critics and Successors_ (Assen, Netherlands: Van Gorcum, 1991), 116–30
>
> Bell, Martin, 'Hume and Causal Power: the Influences of Malebranche and Newton', _British Journal for the History of Philosophy_ 5 (1997), 67–86

Wright (like Strawson in ch. 11 of his book) sees Hume as adopting Malebranche's aprioristic criterion of causation — as what would license a priori inference from cause to effect — and takes his divergence from Malebranche to involve (sceptical) realism about causes so conceived. Bell sees Hume as rejecting Malebranche's entire notion, and replacing it with one that can be applied only on the basis of experience and whose instances are metaphysically quite distinct. However Bell ends his later paper by observing a resulting tension in Hume's thought, since such distinctness sits uneasily with the generality that is characteristic of necessity. This tension, Bell suggests, may explain the acknowledged imperfection in Hume's two definitions of cause (_T_ 170, _E_ 76–7), which New Humeans have taken as strong evidence of causal realism.

> Flage, Daniel, 'Relative Ideas Re-Viewed', in Rupert Read and Kenneth A. Richman (eds.), _The New Hume Debate_ (London and New York: Routledge, 2000), 138–55

If Hume believes in truly _objective_ causal powers, then he must be able to maintain a belief about something for which — as he shows in _Enquiry_ VII — there is no corresponding impression (and hence, according to his Copy Principle, no idea). Strawson, Wright and other New Humeans have seen the solution to this puzzle in his notion of 'relative ideas' (cf. §10a below), but Flage, author of a number of earlier articles on the notion, here argues that it is inadequate to play such a role. He draws attention to similar notions in the work of Locke, Berkeley, Arnauld and Reid, which however require clear understanding of the relation involved, something unachievable in the current case. He also argues that there is no evidence that Hume's 'relative ideas' can support a belief, for in the _Treatise_ and _Enquiry_, force and vivacity attach only to positive ideas.

8. _Liberty and Necessity_

8(a) Hume's Treatment of Liberty and Necessity

Given its enormous importance for Hume, it is surprising that the literature on his treatment of liberty and necessity is so meagre. Moreover what little has been written has tended to focus on his discussion in the _Treatise_, which (as Botterill explains in Chapter 10) is significantly different from that in the _Enquiry_ and in

some ways quite misleading. In particular, the distinction between two types of liberty in the _Treatise_ has encouraged many past commentators (for example Stroud in ch. 7 of his 1977 book) to interpret Hume as a straightforward classical compatibilist, a view exploded both by Botterill and by Russell (see his 1995 book below). Kemp Smith's short but influential chapter on the topic, though useful as an account of Hume's main points in the _Treatise_, exemplifies this misleading emphasis on the two liberties:

> Kemp Smith, Norman, _The Philosophy of David Hume_ (London: Macmillan, 1941), ch. 20

For the student of the _Enquiry_, perhaps the most interesting of the traditional compatibilist accounts is:

> Flew, Antony, _Hume's Philosophy of Belief_ (London: Routledge & Kegan Paul, 1961), ch. 7

The recent recognition that Hume's compatibilism is more distinctive and subtle than previously assumed, and rooted at least as much in his naturalist project as in conceptual concerns, is due largely to Russell's work, brought together in what is undoubtedly the most important book on the topic:

> Russell, Paul, _Freedom and Moral Sentiment_ (Oxford and New York: Oxford University Press, 1995)

Most relevant for the interpretation of the _Enquiry_ are chapters 1, 3, 4, and 7 (chapter 2 has already been mentioned in §7a above). Rejecting, like Botterill, the traditional focus on the contrast between the two types of 'liberty' mentioned in the _Treatise_, Russell emphasises instead Hume's analyses of necessity and of the conditions for moral responsibility. His densely argued work provides the best available account of how all these important strands in Hume's philosophy weave together. For another perspective on Hume's view of the relationships between liberty, necessity, and moral responsibility, see:

> Bricke, J., 'Hume, Freedom to Act, and Personal Evaluation', _History of Philosophy Quarterly_ 5 (1988), 141–56; repr. in Tweyman (1995), vol. iv, 175–91

Garrett's recent book provides a general problem-orientated discussion of liberty and necessity, nicely complementing Russell's approach (though unfortunately not discussing it) by focusing in turn on specific interpretative difficulties rather than explicitly developing an integrated overall perspective:

> Garrett, Don, _Cognition and Commitment in Hume's Philosophy_ (Oxford and New York: Oxford University Press, 1997), ch. 6

Garrett highlights a range of apparent inconsistencies and other problems that various commentators have identified in Hume's account, and then with characteristic ingenuity proceeds to explain them away.

8(b) Free Will and Determinism

There is, of course, a far wider range of material on the general philosophical topic of free will and determinism than on the detailed interpretation of Hume's position. A very brief introduction, approaching the topic through Hume's _Enquiry_ in a (now rather dated) Wittgensteinian spirit, is provided by:

> Vesey, Godfrey, 'Hume on Liberty and Necessity', in Godfrey Vesey (ed.), _Philosophers Ancient and Modern_ (Cambridge: Cambridge University Press, 1986), 111–27

A particularly clear defence of Humean compatibilism, which helpfully introduces the contributions of contemporary philosophers such as Van Inwagen and Frankfurt, occurs in a chapter of a book on artificial intelligence whose aim is to refute the general claim that a robot could not be free:

> Copeland, Jack, _Artifical Intelligence: A Philosophical Introduction_ (Oxford and Cambridge, Massachusetts: Blackwell, 1993), ch. 7

Honderich provides a more detailed but still introductory discussion, which (though misinterpreting Hume in the traditional manner) sets out many of the surrounding issues with great clarity while developing his own 'theory of determinism', a theory which rejects both compatibilism and incompatibilism:

> Honderich, Ted, *How Free Are You?* (Oxford and New York: Oxford University Press, 1993)

The concept of free will is intimately connected with that of intentional action, and both impinge on moral theory. Mackie provides an accessible general treatment of these issues, from the viewpoint of a broadly Humean approach to morality:

> Mackie, J.L., *Ethics: Inventing Right and Wrong* (Harmondsworth: Penguin, 1977), ch. 9

Turning now to more detailed treatments, the following are amongst the most influential book-length presentations of the case for compatibilism and for libertarianism respectively:

> Dennett, Daniel C., *Elbow Room: The Varieties of Free Will Worth Wanting* (Oxford: Clarendon Press, 1984)

> Van Inwagen, Peter, *An Essay on Free Will* (Oxford: Clarendon Press, 1983)

A contrasting and very uncompromising approach can be found in Galen Strawson's book on the topic, which rejects both Humean compatibilism and traditional libertarianism on the ground that *irrespective* of the truth or falsity of determinism, our belief that we are truly free and responsible agents is false:

> Strawson, Galen, *Freedom and Belief* (Oxford and New York: Clarendon Press, 1986)

Other contemporary approaches are represented in Watson's useful collection, including two of the best-known compatibilist contributions, 'Freedom of the Will and the Concept of a Person' by Harry Frankfurt, and 'Freedom and Resentment' by Peter Strawson (the latter of which is discussed at some length in chapter 5 of Russell's book, finding illuminating parallels with Hume):

> Watson, Gary (ed.), *Free Will* (Oxford and New York: Oxford University Press, 1982)

Understanding how all these different views relate to each other is a complex matter, but the first part of a recent book — written from a libertarian perspective — draws the threads of contemporary debate into a coherent pattern:

> Kane, Robert, *The Significance of Free Will* (Oxford and New York: Oxford University Press, 1996), part I

Hume ends his section on liberty and necessity by hinting that his compatibilist account leaves God as the author of sin. Kenny provides a contemporary discussion of this issue, with the same conclusion:

> Kenny, Anthony, *The God of the Philosophers* (Oxford and New York: Clarendon Press, 1979), ch. 6

9. Hume's Philosophy of Religion

The best general account of Hume's philosophy of religion is:

> Gaskin, J. C. A., *Hume's Philosophy of Religion*, 2nd edn. (Basingstoke and London: Macmillan, 1988)

The same author provides an excellent overview in Norton's *Cambridge Companion*:

> Gaskin, J. C. A., 'Hume on Religion', in David Fate Norton (ed.), *The Cambridge Companion to Hume* (Cambridge: Cambridge University Press, 1993), 313–344

Leaving aside Gaskin's book, probably the most widely respected contribution on the topic is Kemp Smith's editorial material in his standard edition of the _Dialogues_, discussed in §2c above:

> David Hume, _Dialogues concerning Natural Religion_ (1779), ed. Norman Kemp Smith, 2nd edn. (Edinburgh: Nelson, 1947)

Penelhum's 1975 book on Hume is unusual in giving explicit attention to the arguments of _Enquiry_ XI as well as those of _Enquiry_ X, offering a convenient summary and a brief philosophical discussion of each:

> Penelhum, Terence, _Hume_ (London and Basingstoke: Macmillan, 1975), ch. 8 especially 175–80

When reading Hume's writings on religion, it is important to remain alert to the possibility of irony in his apparent declarations of theistic belief (e.g. in the concluding paragraph of _Enquiry_ Sections VIII and X). Berman's discussion of contemporary deist writings sets Hume in context, showing how widely practised — and widely recognised — was the art of 'theological lying':

> Berman, David, 'Deism, Immortality, and the Art of Theological Lying', in J. A. Leo Lemay (ed.), _Deism, Masonry, and the Enlightenment_ (London and Toronto: Associated University Presses, 1987), 61–78

Fieser illustrates how this context was taken for granted by Hume's early critics, who clearly recognised the need to 'decode' his writings in order to reveal their hidden meaning:

> Fieser, James, 'Hume's Concealed Attack on Religion and His Early Critics', _Journal of Philosophical Research_ 20 (1995), 83–101

Given this background, it is a genuine puzzle to identify Hume's real views on religion, a puzzle which has generated a great deal of literature especially in relation to the interpretation of his _Dialogues_ (as discussed in §9b below). It seems clear that Hume himself held at most a very minimal deism, which raises the question of why he should have devoted so much attention to the topic. Noxon suggests that his fascination with it derived from his perception of religious belief itself as an extraordinary phenomenon:

> Noxon, James, 'Hume's Concern with Religion', in K. R. Merrill and R. S. Shahan (eds.), _David Hume: Many-sided Genius_ (Norman, Oklahoma: University of Oklahoma Press, 1976), 59–82; repr. in Tweyman (1995), vol. v, 3–25

The most obvious alternative explanation — that Hume was motivated by the desire to oppose superstition — is rejected by Noxon (following Wollheim) by appeal to Hume's pessimism and conservative temperament. Hume was indeed pessimistic about the power of philosophy to undermine the religious commitments of 'the vulgar', but this does not imply that he had no such reformative ambition in respect of his more discerning readers. Quite the contrary is suggested by his manifesto in _Enquiry_ I, which explicitly advocates that we 'cultivate true metaphysics . . . in order to destroy the false and adulterate' (_E_ 12), and also by his posthumously published essay 'Of Suicide', whose first paragraph describes philosophy as a 'sovereign antidote . . . to superstition and false religion' (see §3 of Chapter 1 of this volume for other relevant references). Moreover his concern with religion was very far from being the relatively detached curiosity suggested by Noxon, though as Siebert shows, his passionate moral opposition to religion is more clearly manifested in the _History of England_ than in his philosophical writings:

> Siebert, Donald T., _The Moral Animus of David Hume_ (London and Toronto: Associated University Presses, 1990), ch. 2

9(a) Miracles

The historical context of Hume's essay on miracles has become much better understood over recent years. Chapter 8 of Gaskin's book (listed above) is useful, but the most detailed treatment of both the prior debate and of Hume's arguments is:

> Burns, R. M., *The Great Debate on Miracles* (London and Toronto: Associated University Presses, 1981)

Two recent articles are also particularly noteworthy:

> Wootton, David, 'Hume's "Of Miracles": Probability and Irreligion', in M. A. Stewart (ed.), *Studies in the Philosophy of the Scottish Enlightenment* (Oxford and New York: Clarendon Press, 1990), 191–229

> Stewart, M. A., 'Hume's Historical View of Miracles', in M. A. Stewart and John P. Wright (eds.), *Hume and Hume's Connexions* (Edinburgh: Edinburgh University Press, 1994), 171–200

Gaskin locates Hume's essay within an ongoing English debate centring around Thomas Sherlock's famous *Tryal of the Witnesses of the Resurrection*, in which Sherlock defended the Gospel resurrection stories as historically well-founded. Burns discusses a wider variety of English authors, finding parallels to the arguments of both Sherlock and Hume which make it harder to identify Sherlock as Hume's specific target, and also suggest that Hume's arguments may be less original than is often supposed (with similarities to those of deists such as William Wollaston). Wootton stresses the influence on Hume's thinking of less familiar French sources, which Hume is likely to have encountered during his time in France working on the *Treatise*. Stewart, while acknowledging both French and English sources, argues that Locke was the primary influence on Hume's thinking about the topic. Locke's views are put into context by Jones, who surveys how the topics of testimony and miracles were treated by British philosophers from Bacon to Hume:

> Jones, Peter, *Hume's Sentiments* (Edinburgh: Edinburgh University Press, 1982), 45–56

There are numerous discussions of the philosophical merits of what has been, ever since its publication, one of Hume's most controversial arguments. Some early responses and relevant reviews have recently become easily available in a useful collection (see *Hume Studies* 24 (1998), 198 for details):

> Tweyman, Stanley (ed.), *Hume on Miracles* (Bristol: Thoemmes Press, 1996)

One particularly entertaining piece, unfortunately long since out of print and not included in Tweyman's collection, is a spoof by Archbishop Richard Whately which was initially published (anonymously) in 1819. Here Whately aims to demonstrate the absurdity of Hume's criteria for judging miracle stories by showing that the history of Napoleon's exploits would, on these criteria, appear equally incredible:

> Whately, Richard, *Historic Doubts relative to Napoleon Buonaparte* (London: John W. Parker and Son, 1859)

Moving on to modern interpretations and assessments of Hume's argument, the first section of Garrett's Chapter 11 gives some indication of their large number and considerable variety, and his lists of references can easily be used to identify works which diverge from his interpretation in particular respects. Rather than duplicate this resource, I here pick out only a few highlights from the immense literature. To begin with those that have attained 'classic' status, the following short general discussions of Hume's essay are still well worth reading, even though they may look slightly dated in the light of more recent scholarship:

> Broad, C. D., 'Hume's Theory of the Credibility of Miracles', *Proceedings of the Aristotelian Society* 17 (1916–17), 77–94; repr. in Tweyman (1995), vol. v, 444–55

> Flew, Antony, 'Hume's Check', *Philosophical Quarterly* 9 (1959), 1–18

Mackie, J. L., *The Miracle of Theism* (Oxford and New York: Clarendon Press, 1982), ch. 1

Broad is sympathetic but ultimately critical of the strength of Hume's conclusion, and sees it as inconsistent with his inductive scepticism (see §6c for suggested reading on this crucial issue). Flew takes Hume to be less ambitious, aiming to provide only a 'check' to the 'impertinent solicitations' of 'bigotry and superstition' addressed to 'the wise and learned' rather than a more general offensive criterion; however he too sees the essay as inconsistent with Hume's account of induction. Mackie is less textually focused, and therefore less faithful to the details of Hume's treatment, but his discussion — which generally supports a Humean point of view — is philosophically interesting in its own right (for criticism, see Bruce Langtry, 'Mackie on Miracles', *Australasian Journal of Philosophy* 66 (1988), 368–75).

Perhaps not surprisingly, the most substantial contributions are on the theistic side of the debate, with two books being particularly noteworthy:

Swinburne, Richard, *The Concept of Miracle* (London and Basingstoke: Macmillan, 1970)

Swinburne's well-known study starts by analysing how the notions of 'miracle' and 'law of nature' should be understood (criticising Hume for ignoring the relevance of an event's religious significance), then considers the appropriate criteria for weighing of evidence and for preferring a purposive to a scientific explanation. Overall Swinburne finds Hume's conclusion simplistic, in that it fails to take into account both the full range of possible evidence, and also how miracles can fit into a pattern of explanation within a theistic world-view in which miracles and other evidence for God's existence are mutually supporting.

Houston, J., *Reported Miracles: A Critique of Hume* (Cambridge: Cambridge University Press, 1994)

Houston's book is more theologically informed than Swinburne's, but just as philosophically sensitive, reaching conclusions in a similar spirit but adding more incisive criticism of Hume. It starts with a historical survey of views on the miraculous, ranging through Augustine, Aquinas, Locke, Hume, Bradley and Troeltsch, and ends with two chapters on the epistemological and theological implications of taking miracles seriously. But the heart of the book consists of two chapters on the concept of a miracle (one on theological conceptions, the other on Hume's) followed by three in which 'Hume's case' is assessed. Houston's primary criticism (ch. 9) questions Hume's assumption 'that the evidence for the relevant law(s) of nature is, in the overall dialectical context, undeniably relevant to an assessment of the probability (or improbability) that a reported putative miracle actually took place' (p. 133). This threatens to undercut Hume's entire argument in Part i of his essay, the point being that if the theist himself takes the reported event to be a *violation* of what, in other instances, has been a universal law, then the evidence for that law garnered from those other instances is exactly in accord with what the theist claims — Hume is apparently simply begging the question against the possibility of a miracle by presuming that the general rule must extend to the event in question. Houston follows up with a secondary objection (ch. 10), against Hume's aprioristic assumption that a report of an improbable event must itself inherit that improbability. For it would be perfectly possible that mankind in general — like the proverbial Edinburgh solicitor to whom Houston alludes — should be *more* reliable when reporting unusual events than when reporting relatively everyday happenings. Of course Hume, in Part ii of his essay, argues strongly that the facts of human nature are otherwise, but the point remains that on Hume's own principles such facts can be known only a posteriori. For his argument is founded on an inductive conception of testimony, according to which its reliability can be known only through experience; hence experience alone can tell us under what circumstances different types of testimony are more, or less, reliable.[4]

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[4] Houston's book has yet to receive a substantial answer, and he efficiently dismisses the various Humean responses that he himself considers. Hence it may be helpful to suggest some other possible lines of reply. One response to his primary criticism may be implicit

Hume's inductive conception of testimony is itself attacked by Coady in an article and in a recent book:

Coady, C. A. J., 'Testimony and Observation', *American Philosophical Quarterly* 10 (1973), 149–55

Coady, C. A. J., *Testimony* (Oxford and New York: Clarendon Press, 1992), especially ch. 4 and ch. 10

The tenth chapter of Coady's book deals with the topic of 'astonishing reports', describing some of the complexities of assessing such evidence and concluding that no simple rule of assessment, such as Hume's, is likely to be universally applicable. But he addresses more basic concerns in his fourth chapter (as in his article), attacking Hume's 'reductive approach' whereby testimony is viewed as simply a species of inductive evidence, which therefore needs to be grounded on an observed correlation between reports and facts if it is to provide an adequate basis for belief. He argues for the incoherence of this view (which, for example, seems to imply the possibility of testimony's existing in a community but yet having no connection with reality), and concludes that testimonial evidence must instead be seen as a fundamental category of evidence that is not reducible to other kinds. Hume is defended against this attack in:

Traiger, Saul, 'Humean Testimony', *Pacific Philosophical Quarterly* 74 (1993), 135–49

where Traiger argues that the traditional attribution to Hume of an epistemically individualist and purely inductivist conception of testimony is incorrect.

Yet another book-length attack on Hume, which has appeared very recently, has the merit of giving detailed attention not only to Hume's own argument, but to four 'reconstructions' of it by Mackie, Mill, Flew, and Sobel:

Johnson, David, *Hume, Holism, and Miracles* (Ithaca and London: Cornell University Press, 1999), especially 5–33

Johnson provides forceful criticisms of many distinctive points — made by Mill and Flew in particular — that are somewhat distant from Hume's own words and so tend not to be addressed by other authors. However his principal criticism of all five versions of Hume's argument is that they ultimately beg the question against the miraculous, either by defining miracles out of existence (e.g. as exceptions to an exceptionless law of nature), or by taking for granted without argument that the inductive balance of evidence against any miracle cannot be outweighed by testimony on the other side. Johnson maintains that the inductive evidence can be so outweighed, even in principle by the testimony of a single witness, and he supports this claim with illustrations involving selection of marbles from an urn (pp. 25, 56) and reports of unusual weather (p. 31). These illustrations indeed appear initially very convincing, but it is a shame that Johnson does not consider some possible objections, for which we must turn to another strand of recent debate.

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in Hume's comment that 'it is impossible for us to know the attributes or actions of such a Being [i.e. God], otherwise than from the experience which we have of his productions, in the usual course of nature. This still reduces us to past observation, and obliges us to compare the instances of the violation of truth in the testimony of men, with those of the violation of the laws of nature by miracles, in order to judge which of them is most likely and probable.' (E129). Thus the postulation of divine intentions that go beyond what is manifest in common experience will be gratuitous (a message spelt out explicitly in *Enquiry* XI), undermining any attempts to use the theistic hypothesis to go further than the conclusions of ordinary induction from experienced regularities. Development of this debate is likely to move beyond the single issue of miracles to the general explanatory value of a theistic world-view (including the Problem of Evil), somewhat confirming the moral drawn by both Swinburne and Houston. Houston's secondary objection is less fundamental, for although his logical point is well made, from a Humean point of view it remains plausible that inductive evidence for the reliability of *any* testimony can never exceed the evidence for a law of nature.

As Owen makes clear in Chapter 12, illustrations in a similar spirit to those used by Johnson — often involving lotteries, urns and other probabilistically calculable scenarios — date right back to Hume's contemporary Richard Price. But after many years of relative neglect they have recently inspired great interest in the formal analysis of Hume's argument, largely with the aim of clarifying their true force against it. The standard lottery example involves a report (e.g. from a newspaper which is normally 99% reliable in such matters) that the winning ticket in a lottery of, say, 10,000 tickets was ticket number 297 (or whatever). In this situation, it seems that Hume's argument would advise us to reject the report, on the grounds that it is more probable that the report should be false (probability 1%) than that ticket 297 should really have won the lottery (probability 0.01%). But intuitively this seems quite wrong — if the newpaper is 99% reliable in such matters, then surely we should have 99% confidence that the winning ticket was indeed 297. As Hambourger shows, such points can also be made in respect of many other types of report, even something as mundane as someone's reporting their own name:

Hambourger, Robert, 'Belief in Miracles and Hume's Essay', *Noûs* 14 (1980), 587–604

Owen hints (in his footnote 12) that this problem for Hume is solvable by taking into account that in such a lottery, an incorrect report of the winning number can be wrong in 9,999 different ways (hence if some ticket other than 297 actually won but the newspaper reported it wrongly, the chance that it would report the particular number 297 is only 1 in 9,999). However a formal treatment of this solution requires a Bayesian analysis more complex than Owen's simplified version — two such treatments (the first involving non-standard infinitesimals and the second more straightforward) are presented by:

Sobel, Jordan Howard, 'On the Evidence of Testimony for Miracles: A Bayesian Interpretation of David Hume's Analysis', *Philosophical Quarterly* 37 (1987), 166–86

Dawid, Philip and Gillies, Donald, 'A Bayesian Analysis of Hume's Argument concerning Miracles', *Philosophical Quarterly* 39 (1989), 57–65

However Olin points out that matters are not quite this straightforward, because an exactly parallel move is possible with respect to miracle reports on the basis that if the reported event did not happen, then it would be extremely unlikely that *this* particular thing would be reported:

Olin, D., 'Hume, Miracles, and Prior Probabilities', in Tweyman (1995), vol. v, 416–26

Nevertheless there remains, as Hambourger stresses, an evident disanalogy between the case of the lottery and the miracle — in the lottery the *particular* event reported may be initially improbable, but the *type* of event reported is not. Schlesinger provides a formal analysis which is able to take this into account, by explicitly giving a low value to the probability that *any kind* of miracle has occurred in a specific situation:

Schlesinger, George N., 'Miracles and Probabilities', *Noûs* 21 (1987), 219–32; repr. in Owen (2000), 265–78

Schlesinger goes on to argue that miracle reports can nevertheless raise the probability of God's existence (though highly paradoxically, he suggests that on the assumption that God exists, such reports need not raise the probability of the miracle itself!).

The continuing debate over lottery and related examples is not of merely technical interest, for it has brought into the open many issues of more general relevance. Olin, for example, lays the blame for Hume's problems on his failure to distinguish statistical from epistemic probability, and on his key presumption that evidence is additive. Hambourger too sees Hume's treatment of evidence as simplistic, in particular his supposition that the likelihood of the reported event can be factored out separately from the credibility of the report (a point which also seems to lie behind some criticisms that Johnson makes in his book, for example in

chapter 7). If indeed the two cannot be separated, then the only coherent way of interpreting Hume's rule for the assessment of miracle reports may be to reduce it to a triviality, though arguably this need not be objectionable (for a sketch of this issue, and some implications for attempts to formalise Hume's position, see Peter Millican, '"Hume's Theorem" concerning Miracles', _Philosophical Quarterly_ 43 (1993), 489–95).

9(b) Hume on the Design Argument

In terms of their direct impact on the secondary literature, Sections X and XI of the _Enquiry_ could hardly be further apart. With Section X the problem is one of selection from a vast range of critiques and replies; with Section XI the problem is to find even a handful of contributions that directly address the specific issues that Hume raises there. A notable exception is the relevant chapter of Flew's classic book:

> Flew, Antony, _Hume's Philosophy of Belief_ (London: Routledge & Kegan Paul, 1961), ch. 9

Flew generally supports Hume's contention that it is illegitimate to infer qualities in the cosmic Designer beyond those that are manifested in the experienced cosmos, and he also agrees with Hume's closing hint that the supposed Deity's uniqueness is a decisive obstacle to viewing theism as a hypothesis open to confirmation from the empirical evidence. Both principles are challenged forcefully by Swinburne, who argues that they are contrary to standard criteria of scientific inference:

> Swinburne, R. G., 'The Argument from Design', _Philosophy_ 43 (1968), 199–212; repr. in Tweyman
> (1995), vol. v, 197–209 (see especially Swinburne's itemised points 1 to 3)

These general issues are explored by Gaskin in Chapter 13 of this volume, and a detailed reply to Swinburne has recently appeared in a new journal published by the Council for Secular Humanism, which is named after Philo, Hume's sceptical spokesman in the _Dialogues_:

> Beaudoin, John, 'On Some Criticisms of Hume's Principle of Proportioning Cause to Effect', _Philo_ 2
> (1999), 26–40; also available from the website **www.etext.leeds.ac.uk/hume/**

We must now turn to the _Dialogues_ themselves, which have attracted the vast majority of scholarly interest regarding Hume's criticisms of the Design Argument. What follows is only a very brief review of a massive debate, for the puzzle of how far the _Dialogues_ reveal Hume's own views on religion has for many years been one of the most discussed issues of Hume interpretation. There are several detailed commentaries on the _Dialogues_ available, of which Kemp Smith's (referred to in §9 above) is certainly the most influential. Two others of particular interest are:

> Pike, Nelson, 'Hume on the Argument from Design', in Pike (ed.), _David Hume: Dialogues concerning
> Natural Religion_ (Indianapolis: Bobbs-Merrill, 1970), 125–238

> Tweyman, Stanley, introduction to Tweyman (ed.), _David Hume: Dialogues concerning Natural Religion
> in Focus_ (London and New York: Routledge, 1991), 1–94

Kemp Smith's uncompromising interpretation provides the background to the subsequent debate: 'I shall contend that Philo [the sceptic], from start to finish, represents Hume; and that Cleanthes [the advocate of the Design Argument] can be regarded as Hume's mouthpiece only in those passages in which he is explicitly agreeing with Philo, or in those other passages in which, while refuting Demea [the mystically inclined a priori theist], he is also being used to prepare the way for one or other of Philo's independent conclusions.' (_D_ 59). Pike (pp. 224–34) disputes this sceptical reading, highlighting Cleanthes' rejoinder in Dialogue III where he says to Philo that if he contemplates the structure of an eye, the idea of a designer will 'immediately flow in upon you with a force like that of sensation' (_D_ 154). Philo makes no reply at this point, but Pike suggests that it is his acceptance of this 'irregular' but 'irresistible' argument that forms the basis for his famously puzzling

'confession' at the beginning of Dialogue XII (*D* 214–7). Tweyman develops this idea further, relating it to Hume's discussion of scepticism in the *Enquiry*. He suggests that Philo's argumentation itself exemplifies the Humean transition, discussed by Norton in Chapter 14 of this volume, from Pyrrhonian scepticism (which though unsustainable performs the useful service of undermining our initial dogmatic confidence) to mitigated scepticism (which corrects the Pyrrhonian doubts with 'common sense and reflection' — *E* 161). According to Tweyman, in Dialogues I to VIII Philo argues as a Pyrrhonian, aiming for suspense of judgement, but thereafter he mitigates his scepticism and by Dialogue XII is prepared to acknowledge the natural force of Cleanthes' 'irregular' argument.

Since Hume is famous for affirming the power of nature to compel belief beyond the reach of reason, it is not surprising that many commentators have seen a similar pattern in the *Dialogues*, with Cleanthes' irresistible inference of Dialogue III and Philo's confession of Dialogue XII indicating that theism may be a Humean 'natural belief' (the term is Kemp Smith's) alongside those in inductive uniformity, the reliability of our senses, and the independent continuity of the external world. Butler and Penelhum have been perhaps the strongest advocates of this idea, and Gaskin its most resolute opponent, with the following works (in order) giving the essence of their debate:

> Butler, R. J., 'Natural Belief and the Enigma of Hume', *Archiv für Geschichte der Philosophie* 42 (1960), 73–100
>
> Gaskin, J. C. A., 'God, Hume and Natural Belief', *Philosophy* 49 (1974), 281–94; repr. in Tweyman (1995), vol. v, 150–63 (this article is reproduced, largely verbatim, on pages 129–39 of the first edition of his book *Hume's Philosophy of Religion*, London and Basingstoke: Macmillan, 1978)
>
> Penelhum, Terence, 'Natural Belief and Religious Belief in Hume's Philosophy', *Philosophical Quarterly* 33 (1983), 266–82; repr. in Tweyman (1995), vol. v, 164–80
>
> Gaskin, J. C. A., *Hume's Philosophy of Religion*, 2nd edn. (Basingstoke and London: Macmillan, 1988), 116–31

Gaskin objects to the classification of theism as a 'natural belief' on the grounds that it does not seem to be a belief of common life, is not irresistible and independent of reasoning, is not necessary for action in the world, and is not universal. In response to these criticisms, Penelhum suggests a modified position according to which the belief in God, though potentially requiring reasoning to bring it about (and hence not 'natural' in the strict sense) nevertheless is like the natural beliefs in being, *once acquired*, beyond the power of reason to dislodge. But given the very minimal theism which Penelhum ascribes to Hume, his difference from Gaskin reduces to the question of whether, in Hume's view, such 'attenuated deism' may be, after all, a reasonable conclusion to draw from the Design Argument. Gaskin maintains that it is, though since this reasonable belief is easily conflated with a natural and non-rational *feeling for design*, the psychological upshot of Penelhum's and Gaskin's positions may ultimately be hard to distinguish. Another subtle variation on the same general theme is provided by:

> Yandell, K. E., 'Hume on Religious Belief', in Donald W. Livingston and James T. King (eds.), *Hume: a Re-evaluation* (New York: Fordham University Press, 1976), 109–25; repr. in Tweyman (1995), vol. v, 36–55

who seeks illumination by starting from the *Natural History of Religion* instead of the highly ambiguous *Dialogues*. Yandell's Hume accepts that some minimal religious principle is part of human nature, though it is not irresistible and is often intermixed with more primitive religious feelings arising from ignorant hopes and fears. Although the Design Argument is unsound, contemplation of the order of the world can trigger our innate propensity to believe in a Designer, and Yandell maintains that this propensity — despite its instinctive nature

— is appropriately judged to be part of our _rational_ capacity. _Why_ such an instinct should be appropriately called 'rational' is, however, unclear, and one might suspect that Yandell has here gone too far in attempting to find a genuine reconciliation between Hume's refutation of the Design Argument and his endorsements of the design hypothesis in the _Natural History_ and elsewhere. For a more straightforward explanation of Hume's position suggests itself — that his declarations of belief are simply instances of the 'theological lying' discussed by Berman and Fieser in their essays mentioned in §9 above. Faced with this possibility, the only way of revealing Hume's true opinions seems to be to follow where his most forceful arguments lead, and to try to identify the targets at which they are aimed.

With this in mind, many authors have attempted to identify the real archetypes behind the characters of the _Dialogues_. Pakaluk takes all three to be represensive of abstract philosophical 'types', with Philo being a mitigated sceptic or 'true philosopher', Cleanthes a 'false philosopher', and Demea a 'vulgar reasoner'. Like Tweyman, Pakaluk sees Philo's eventual acceptance of the design hypothesis as exemplifying a Humean transition of thought, though not a change of theory so much as a change of temper, when the natural sentiments of the mind that have hitherto been suppressed return after the sceptical duelling ceases. In developing this account, he also draws various interesting parallels between the _Dialogues_ and _Enquiry_ XII (especially Hume's discussion of the external world in _Enquiry_ XII Part i):

> Pakaluk, Michael, 'Philosophical "Types" in Hume's _Dialogues_', in V. Hope (ed.), _Philosophers of the Scottish Enlightenment_ (Edinburgh: Edinburgh University Press, 1984), 116–32; repr. in Tweyman (1995), vol. v, 323–38

A more concrete identification of Hume's characters was influentially made by Mossner very soon after the first appearance of Kemp Smith's edition. Accepting Kemp Smith's identification of Philo with Hume, Mossner argues that Cleanthes and Demea represent respectively Joseph Butler and Samuel Clarke:

> Mossner, Ernest C., 'The Enigma of Hume', _Mind_ 45 (1936), 334–349

All three of Mossner's identifications are challenged, however, by a comprehensive comparative study of Hume and Butler:

> Jeffner, Anders, _Butler and Hume on Religion_ (Stockholm: Diakonistyrelsens Bokförlag, 1966), especially 131–43, 169–71, 180–209

According to Jeffner, although Butler is indeed a primary target of the _Dialogues_, he is not represented directly by any of the characters. Instead, Cleanthes is modelled on a type of scientific theologian associated with the Royal Society (most famously Boyle and Newton, but also John Wilkins, John Ray, William Derham, George Cheyne, and Colin Maclaurin), who were enthusiastic advocates of the analogical Design Argument. Here Jeffner draws on:

> Hurlbutt III, R. H., 'David Hume and Scientific Theism', _Journal of the History of Ideas_ 17 (1956), 486–97

who quotes passages from Cheyne and Maclaurin strikingly similar to Cleanthes' words (including his famous appeal to the 'force like that of sensation' in Dialogue III which has inspired so much interest in the natural belief interpretation). Jeffner goes on to suggest that Demea is modelled on the theological school of Peter Browne, William King, and William Law, who denied that we have understanding of the supposed analogical similarity between God's and man's attributes and who were accordingly inclined to prefer the aprioristic reasoning of Samuel Clarke. Finally, Jeffner identifies Philo not with Hume himself but with Bayle, combining scepticism and mysticism with apparently devout fideism. On this reading, it is the combinations of the characters rather than their individual positions that display Hume's true views and spell defeat for Butler's

theism. Philo and Demea combine to portray the evil of the world and the impossibility of an analogical argument for a good God; Cleanthes and Philo combine to reject a priori natural theology; while Cleanthes and Demea combine to insist that faith, if it is to be intellectually respectable, should be founded on reason. Taken together, these results imply the impossibility of any defensible theism.

9(c) The Contemporary Design Argument

Although for many years the Design Argument lay under the cloud of Hume's critique, and perhaps even more influentially the undermining of its biological aspect through the theory of evolution, it has recently enjoyed something of a renaissance. The first wave of this rebirth came from philosophers who advocated treating the argument not as decisive in itself, but as part of a *cumulative case* in which a wide range of considerations are adduced to show the overall plausibility of a theistic world view. The roots of this approach go back to Hume's contemporary Joseph Butler, but its modern pioneer was Mitchell, soon to be followed by Swinburne:

> Mitchell, Basil, *The Justification of Religious Belief* (London and Basingstoke: Macmillan, 1973), especially chapters 2 and 3

> Swinburne, Richard, *The Existence of God*, (Oxford and New York: Clarendon Press, 1979), especially ch. 8 (chapters 10 and 11 consider the Problem of Evil)

The best-known critique of Swinburne is by Mackie, who starts by explicitly following Hume's objections to the logic of the Design Argument. He then — like Philo in Dialogues X and XI — presses home his attack by emphasising the Problem of Evil, which aims to turn the tables by confronting the theist with empirical evidence that is far less favourable to his optimistic conclusions:

> Mackie, J. L., *The Miracle of Theism* (Oxford and New York: Clarendon Press, 1982), chapters 8 and 9

The revised edition of Swinburne's book adds a direct reply to Mackie in a new appendix:

> Swinburne, Richard, *The Existence of God*, revised edition (Oxford and New York: Clarendon Press, 1991), appendix A

The second wave of the Design Argument's renaissance has come, perhaps surprisingly, from the same arena that inspired the Enlightenment vision of a divine clockmaker, namely the heavens. Modern discoveries in physics and cosmology suggest that the Universe began with a 'Big Bang', and that the initial conditions of this Big Bang, and the laws of nature that have governed the Universe since, must have been impressively 'finely tuned' to permit the evolution of stars, planets, and hence — ultimately — life. For a fairly detailed (and moderately technical) outline of this apparent 'fine tuning', see:

> Davies, P. C. W., *The Accidental Universe* (Cambridge, New York and Melbourne: Cambridge University Press, 1982), especially chapters 3 and 4

Less detailed overviews are provided by two philosophical discussions from strong advocates of the Fine Tuning Argument, who draw the inference that unless the Universe were designed with life in mind, the existence of this favourable fine tuning would be vanishingly improbable:

> Swinburne, Richard, *The Existence of God*, revised edition (Oxford and New York: Clarendon Press, 1991), appendix B

> Craig, William Lane, 'The Teleological Argument and the Anthropic Principle', in W. L. Craig and M. McLeod (eds.), *The Logic of Rational Theism: Exploratory Essays* (Lewiston, New York: Edwin Mellen, 1990), 127–53

All three of these writers make reference to the (rather unfortunately named, and variously interpreted) 'Anthropic Principle', which has been used to explain away the apparent fine tuning — or 'anthropic coincidences' — as a selection effect. This idea can be summed up as a retort to the theist: 'You shouldn't find it surprising to observe that the Universe is "fine tuned" for life, because if it weren't, you wouldn't be here to observe anything'. As the discussions above make clear, however, this retort seems dubious unless there is a 'population' of universes for the selection effect to work on, for if there is only one universe, then it does indeed appear surprising (and hence crying out for explanation) that this sole universe should happen to be 'finely tuned' in a way that makes possible the existence of observers. (The atheist's retort conflates the unsurprising fact that we fail to observe a universe _unsuitable_ for life, with the surprising fact that we observe a universe suitable for life — indeed that we are here to observe anything at all.) This constitutes a serious problem for the atheist, for it seems to put the boot of metaphysical extravagance — traditionally one of the very strongest objections to theism — on the other foot. For if the only reasonable alternative to the hypothesis of a divine Fine Tuner is a massive ensemble of universes, with life emerging only in the minute proportion that happen to be 'finely tuned', then arguably theism has now become the more modest and metaphysically economical of the available hypotheses. All of these themes are engagingly developed at length in the most extensive philosophical treatment of the issue so far published:

> Leslie, John, _Universes_ (London and New York: Routledge, 1989)

Leslie is not, however, a conventional theist, for the 'God' to whose action he attributes the creation of the Universe is a Neoplatonic 'ethical requiredness' rather than a divine person.

The recent discovery of the Fine Tuning Argument is perhaps the most significant development in natural theology since Hume's _Dialogues_, and it is too early yet to attempt any general assessment of its merits (not least because the physical theory on which it is based is very far from being solidly established). One notable advantage that it has over traditional versions of the Design Argument is to point unambiguously to _advance planning_ as the ultimate source of order in the Universe, thus bypassing Hume's objection (_D_ 147–8, 170–85) that it is mere bias to prefer intelligence over the other potential sources of order that we experience, such as vegetation, generation, and the emergence of patterns from chaos. The cosmological scale of the argument also seems to lend support to the theist's desired conclusions about the Designer's unity and supremacy (cf. _D_ 166–8). But other Humean objections remain strong, particularly his insistence (_E_ 143–8, _D_ 149–50) that, without experience of the origin of worlds, we are unable to make any proper assessment of the probability that a life-favouring universe (whether like ours or profoundly different) might exist without being expressly designed. Indeed this point gains even more force in the light of modern physics, which has repeatedly demonstrated the unreliability of our intuitive judgements when applied beyond the human scale of things, to atoms and the cosmos. Another Humean objection (_D_ 191) highlights our ignorance of the underlying structure of the world, suggesting that for all we know there may be some deep reason why it _has to be_ structured as it is. Applied to the Fine Tuning Argument, this draws attention to the possibility of a future theory that will provide a clear explanation for what at present seem surprising coincidences. Such objections, like those made by Philo to the traditional Design Argument a century before the theory of evolution, may appear 'mere cavils and sophisms' (_D_ 202), being based on promissory notes and appeals to ignorance rather than offering any explicit alternative theory. But just like Philo, the atheist can effectively force his adversary onto the defensive by turning instead to the ancient Problem of Evil, where the anthropic coincidences are of no help to the theist. A malevolent spirit, just as much as a benevolent one, can be expected to favour a Universe conducive to life, because as Smith points out, life is a prerequisite of moral evil as well as of moral good:

> Smith, Quentin, 'The Anthropic Coincidences, Evil and the Disconfirmation of Theism', _Religious Studies_ 28 (1992), 347–50

For an extended development of this 'antitheistic' strategy, which applies it to a wide range of traditional theistic arguments and to Swinburne's Design Argument in particular detail, see:

> Millican, P. J. R., 'The Devil's Advocate', _Cogito_ 3 (1989), 193–207; also available from the website **www.etext.leeds.ac.uk/hume/**

Presumably Hume himself — like Philo — viewed the Problem of Evil as the theist's most formidable obstacle, obliging him 'to tug the labouring oar, and to support [his] philosophical subtilties against the dictates of plain reason and experience' (_D_ 202). To explore the prospects for a successful theistic defence, see (in addition to the books by Mitchell and Swinburne mentioned above):

> Taliaferro, Charles, _Contemporary Philosophy of Religion_ (Oxford and Malden, Massachusetts: Blackwell, 1998), ch. 9
>
> Adams, Marilyn McCord and Adams, Robert Merrihew (eds.), _The Problem of Evil_ (Oxford and New York: Oxford University Press, 1990)

Taliaferro gives a wide-ranging overview of contemporary approaches, while the Adams' collection contains many of the most important pieces, including a number discussed by Taliaferro.

10. Scepticism

Section XII of the _Enquiry_ is particularly complex, since as Norton makes clear in Chapter 14 it not only discusses a wide range of sceptical positions and arguments, but also makes reference (either implicitly or explicitly) to many other aspects of Hume's philosophy. Any proper understanding of Hume's scepticism must therefore take account of a number of important issues discussed earlier, most notably the relationship between the _Enquiry_ and the _Treatise_ (§3c), Hume's argument concerning induction (§5b and §5c), and his discussions of philosophical and unphilosophical probability (§6c), but also his alleged causal realism (§7c) and his religious scepticism (§9).

Though seriously dated in some matters of interpretation, each of the following provides a stimulating discussion of the wide range of issues that arise in this complex section:

> Flew, Antony, _Hume's Philosophy of Belief_ (London: Routledge & Kegan Paul, 1961), ch. 10
>
> Passmore, John, _Hume's Intentions_, 3rd edn. (London: Duckworth, 1980), ch. 7

The most prominent of the topics raised for the first time in _Enquiry_ XII are scepticism with regard to the external world and with regard to infinite divisibility. The literature on each of these is sufficiently rich to merit separate consideration before we turn to discuss more general perspectives on Hume's scepticism.

10(a) Scepticism Regarding the External World

The first major sceptical topic in Section XII is the external world — which also incorporates the primary–secondary quality distinction — though this _Enquiry_ discussion (_E_ 151–5) is drastically scaled down from that in the _Treatise_ (_T_ 187–231). No doubt for this reason, most commentators have focused almost exclusively on the far more sophisticated _Treatise_ account, the interpretation of which poses severe problems not only because of its complexity but also because Hume's ultimate view has proved so elusive. Good presentations of this _Treatise_ account have appeared in a number of general books on Hume:

> Stroud, Barry, _Hume_ (London and Boston: Routledge & Kegan Paul, 1977), ch. 5
>
> Noonan, Harold W., _Hume on Knowledge_ (London and New York: Routledge, 1999), ch. 4

Pears, David, _Hume's System_ (Oxford and New York: Oxford University Press, 1990), ch. 10 and 11

Fogelin, Robert, _Hume's Skepticism in the Treatise of Human Nature_ (London, Boston and Melbourne: Routledge & Kegan Paul, 1985), chapters 6 and 7

Stroud, whose entire book follows Kemp Smith in stressing Hume's naturalism in opposition to his scepticism, interprets the discussion of _Treatise_ I. iv. 2 as an attempt to explain the origin of our idea of continued and distinct existence, with the aim of showing that this idea is not innate. The apparently sceptical outcome of the discussion may be unsettling, but again its point is naturalistic, 'to show that reason, as traditionally understood, is not the dominant force in human life' (pp. 116–7). Noonan starts his chapter in a similar spirit, by emphasising the naturalistic purposes of Hume's sceptical arguments, but unlike Stroud he goes on to consider the deeper sceptical problems raised by _Treatise_ I. iv. 4 (concerning the primary–secondary quality distinction; cf. _E_ 154–5), and ends with the comment that Hume's sceptical conclusions here undermine his earlier attempt to give a consistent account of the distinction between the principles of the understanding and those of the narrow imagination: 'Thus our common belief in an external world is indubitable, but in no way justified and, being false, incapable of any justification' (p. 186). Pears restricts his attention to _Treatise_ I. iv. 2, dissecting Hume's arguments in detail and blaming his conclusion 'that our belief in body is intellectually indefensible' (p. 196) on an inadequate recognition of the distinction between impressions and physical objects, both in Hume's own view and in that which he attributes to the vulgar. Pears thus interprets Hume as seriously sceptical about (both the tenability and content of) our belief in body even before the primary–secondary quality objection of _Treatise_ I. iv. 4 which according to the _Enquiry_ 'goes farther' (_E_ 155). Fogelin sees all this scepticism as fundamental to Hume's intentions, taking him to be a committed Pyrrhonian who deliberately aims to highlight irreconcilable differences between the various points of view described in his 'natural history' of philosophy, with none of these providing a stable outcome. (Fogelin very clearly spells out this position — which he calls 'radical perspectivism' — in a later critique of Garrett: 'Garrett on the Consistency of Hume's Philosophy', _Hume Studies_ 24 (1998), 161–9.)

Probably the two best-known discussions of these sections of the _Treatise_ are:

Price, H. H., _Hume's Theory of the External World_ (Oxford: Clarendon Press, 1940)

Bennett, Jonathan, _Locke, Berkeley, Hume: Central Themes_ (Oxford: Clarendon Press, 1971), ch. 13 and pp. 91–4

Neither of these is particularly scholarly by modern standards, but both are serious and illuminating attempts to address the philosophical issues. Price's book is very dated, relating Hume's views to positions that were influential at the time such as those of Kant, Russell and the logical positivists. However this in itself gives the book a distinctive value, because Price's elegant writing makes its age no obstacle to comprehension, while some parts of Hume's theory (e.g. his claim that perceptions can exist independently) can be usefully illuminated by being put alongside their early twentieth century descendants (e.g. Russell's notion of sensibilia). Bennett's discussion is far shorter, and probably for that reason more intense as he grapples philosophically with Hume's problems in an effort to avoid his apparently despairing conclusion. Though rewarding this makes for difficult reading, but Bennett's views are given a relatively simple critical discussion in an introductory book which also provides its own analysis of Hume's argument:

Dicker, Georges, _Hume's Epistemology & Metaphysics_ (London and New York: Routledge, 1998), ch. 6

Dicker's chapter ends with a sketch of the Kantian response to this form of scepticism, which again will prove useful for students needing a straightforward introduction to a very complex issue.

From the point of view of a student of the _Enquiry_, perhaps the three most thought-provoking recent discussions of Hume's scepticism about the external world are:

Bricke, John, _Hume's Philosophy of Mind_ (Edinburgh: Edinburgh University Press, 1980), ch. 1

Garrett, Don, _Cognition and Commitment in Hume's Philosophy_ (Oxford and New York: Oxford University Press, 1997), ch. 10 especially 209–220

Wright, John P., _The Sceptical Realism of David Hume_ (Manchester: Manchester University Press, 1983), ch. 2 and §11

Bricke is unusual in giving serious attention to the _Enquiry_ as well as to the _Treatise_, and he provides a careful and philosophically sensitive discussion of both. However he concurs with other commentators in finding Hume's position ultimately unstable, showing sympathy with the perspectival view championed by Fogelin before finally concluding that Hume is himself probably a representative realist, whose sceptical attack on such realism is intended not to refute it outright but only to undermine our confidence in building theories that stray too far from the vulgar perspective. Garrett goes further in attempting to develop a consistent Humean position, based on his view of Hume as primarily a cognitive scientist rather than a sceptical philosopher. He does this by thoroughly downplaying the apparent extreme scepticism which has proved so puzzling for Stroud and other previous commentators in the 'naturalist' tradition: 'Nowhere does Hume claim that most of our beliefs in the existence of continued and distinct existences are unworthy of assent, nor that such beliefs should be rejected or suspended.' (p. 220). This claim involves some delicate interpretation of Hume's statements, some of which superficially appear to tell strongly in the opposite direction. But at least some of this appearance can be explained away, as Wright also does in an account which considers the background to Hume's views in physiological theories of perception deriving in large part from Malebranche. According to Wright, most of Hume's _Treatise_ discussion is devoted to explaining — in terms that are at least implicitly physiological — the 'vulgar' belief in external objects that are supposedly identical to our perceptions. _This_ belief Hume takes to be clearly false, though it importantly paves the way _psychologically_ for representative realism by setting the scene for the 'obvious' argument from sensory variation that is presented most clearly at _E_ 152 (cf. _T_ 193). Representative realism is thus an example of those 'reflections of common life, methodized and corrected' (_E_ 162) which Hume commends, and he can consistently endorse it because its dependence on the false vulgar view is psychological rather than logical. Such realism might seem to be contradicted (as Fogelin and Noonan suppose) by Hume's scepticism concerning the primary–secondary quality distinction. But although this indeed implies that we are unable to conceive distinctly of objects 'specifically different from our perceptions', it does not prevent our forming a bare 'relative idea' of them (_T_ 68) and thus maintaining a form of realism even though we lack any distinct conception of the objects concerned. As we have seen in §7c above, this notion of relative ideas also plays a major role in Wright's account of Hume's 'sceptical realism' with regard to causation; indeed it is the similarity between the two cases which provides much of the attraction for his interpretation.

Unfortunately neither Garrett nor Wright says much about Hume's discussion in the _Enquiry_, but both suggest the possibility of a non-sceptical reading. And if, like Garrett, we are prepared to entertain the possibility that some of Hume's statements have an import rather different from their superficial impression, then this may cast new light on, for example, the crucial final paragraph of _Enquiry_ XII Part i. This contains both the conditional clause: 'at least, if it be a principle of reason, that all sensible qualities are in the mind, not in the object'; and also a concluding comment that the notion of 'a certain unknown, inexplicable _something_' is 'so imperfect, that no sceptic will think it worth while to contend against it'. These have generally been read in what is probably the most natural way, as respectively _endorsing_ the 'principle of reason' and _rejecting_ the imperfect notion, but they can be read in a very different way, as _raising a genuine question_ about the alleged

principle (which fits well with the agnosticism about objects' natures implied by both Garrett and Wright) and as _accepting_ the admittedly imperfect notion of an 'unknown, inexplicable _something_'. There is no doubt that Hume was capable of artful composition (as witnessed supremely by his _Dialogues_), but why should he wish to present his views in such an obscure and misleading manner? Perhaps this too can be explained given the context in which he wrote and his purposes in the _Enquiry_. For a prominent theme in British philosophy at the time was the pursuit of metaphysics based on supposed insight into the nature of matter. An accessible discussion of this tradition is in a book by Yolton:

> Yolton, John W., _Thinking Matter_ (Minneapolis: University of Minnesota Press, 1983), ch. 5

which particularly singles out Andrew Baxter as an influential exponent of this style of metaphysics, who like others in the tradition maintained the intrinsic inertness of matter as a means of drawing religious conclusions. Hume knew Baxter's work, and it has even recently been argued that Baxter may lie behind the vitriolic attack which, as Stewart explains in Chapter 2, ruined Hume's attempt to gain appointment to an Edinburgh chair at just the time when he was writing the _Enquiry_:

> Russell, Paul, 'Wishart, Baxter and Hume's _Letter from a Gentleman_', _Hume Studies_ 23 (1997), 245–76

In this context, Hume may have seen good reason for stressing the sceptical implications of his arguments concerning matter, so as to wreck the prospects for any attempt to build a solid metaphysics on insight into its nature (which the primary–secondary quality distinction was supposed by some to exemplify). As suggested in §12 of Chapter 4, a confused and obscure notion of matter would leave empirical induction as the only remaining basis for scientific progress, a result which seems to harmonise perfectly with the overall intention and design of the _Enquiry_ as interpreted in Chapter 1 (see especially the end of that chapter).

Contemporary attacks on scepticism regarding the external world have tended to avoid disputing with Hume on his own ground, preferring to rely on more fundamental objections to the very coherence of the sceptical position. For example both Hookway, and Bell and McGinn (referenced in §10c below) follow Wittgenstein's _On Certainty_ in seeing the existence of external objects as a 'framework' judgement presupposed by our thinking, rather than as a potentially questionable factual statement in need of evidential support. Nevertheless there are exceptions to this general trend, in particular two discussions in a Humean spirit, one on each side of the sceptical debate:

> Mates, Benson, _Skeptical Essays_ (Chicago and London: Chicago University Press, 1981), ch. 3

> Aune, Bruce, _Knowledge of the External World_ (London and New York: Routledge, 1991), especially chapters 3, 6 and 7

Mates engagingly elaborates Humean objections to the external world, concluding that they are ultimately unanswerable. Aune sets out to answer them, based on 'reformed' empiricist principles that in part claim inspiration directly from Hume. At the end of his discussion Aune touches on issues of scientific realism, which are central to modern philosophy of science. To explore these issues further, see:

> Psillos, Stathis, _Scientific Realism: How Science Tracks Truth_ (London and New York: Routledge, 1999)

Particularly relevant here are Psillos' fourth and ninth chapters. The former provides a defence of 'abduction' or 'inference to the best explanation' which is strongly reminiscent of the 'inductive' justification of induction discussed in §5d above. The latter defends scientific realism against Van Fraassen's 'constructive empiricism' largely on grounds that echo the Humean claim that science is 'nothing but the reflections of common life, methodized and corrected' (_E_ 162).

10(b) Scepticism Regarding Infinite Divisibility

Few would argue that Hume's work in the philosophy of mathematics is of great lasting significance, for here his confident and sometimes almost heroic commitment to empiricism leads him to draw conclusions well beyond the bounds of his technical expertise. Confirmation of this assessment can be drawn from the minor role which Hume is given in a relatively accessible guide to the history and philosophy of the infinite (one which ultimately advocates a finitist position, though on Wittgensteinian rather than Humean grounds):

> Moore, A. W., *The Infinite* (London and New York: Routledge, 1990), especially 80–3, 205

Perhaps not surprisingly, most authors of books on Hume have ignored the topic, a notable exception being Fogelin, who also followed up his book with an article explaining both the proposed proofs of infinite divisibility to which Hume alludes and also his debt to Berkeley's earlier critique:

> Fogelin, Robert, *Hume's Skepticism in the Treatise of Human Nature* (London, Boston and Melbourne: Routledge & Kegan Paul, 1985), ch. 3

> Fogelin, Robert, 'Hume and Berkeley on the Proofs of Infinite Divisibility', *Philosophical Review* 97 (1988), 47–69

Fogelin's book concentrates entirely on the *Treatise* and his article says little about the *Enquiry*, whose treatment of infinite divisibility is significantly different. Fortunately a recent paper is able to fill the gap:

> Jacquette, Dale, 'Infinite Divisibility in Hume's First *Enquiry*', *Hume Studies* 20 (1994), 219–40

This is one of a number of useful papers on the topic to have appeared recently in *Hume Studies*. Another aims to assess the philosophical value of Hume's contribution:

> Franklin, James, 'Achievements and Fallacies in Hume's Account of Infinite Divisibility', *Hume Studies* 20 (1994), 85–101

Though disagreeing with Hume's would-be refutation of infinite divisibility, Franklin is broadly sympathetic even to the extent of maintaining (p. 87) that Hume's conclusions about the discreteness of space are consistent with standard geometry. (For a contrary view see Mark H. Pressman, 'Hume on Geometry and Infinite Divisibility in the *Treatise*', *Hume Studies* 23 (1997), 227–44 especially 239–41.) However Franklin is dismissive of Hume's attempts to draw conclusions about space from the nature of our ideas, which he sees as involving the crude fallacy 'it is not conceivable by the human mind, therefore it cannot be.' (p. 93). Hume is defended against this charge of crudeness by:

> Waxman, Wayne, 'The Psychologistic Foundations of Hume's Critique of Mathematical Philosophy', *Hume Studies* 22 (1996), 123–67

who finds Hume's argument to be a consistent following-through of his theories of relations and abstraction from *Treatise* Book I Part i and of his Separability Principle. How far all this applies to the *Enquiry* is unclear, since neither the theory of relations nor the Separability Principle figure explicitly in the later work, while the theory of abstraction appears only at *E* 158‡n., in a role for which it is not used in the *Treatise* (as Jacquette observes). There is work to be done on how far the truncated *Enquiry* account can make sense without the metaphysical commitments of the *Treatise* — whether, for example, the argument at *E* 156‡n. is intended to involve a conclusion beyond what Waxman calls the 'perceptible manifold', in which case the Separability Principle would seem to be required (note that the reference to 'physical points' does not decide this issue in the way that might be expected, given Hume's only other uses of the phrase, at *T* 40 and *T* 112).

10(c) The Nature of Hume's Scepticism

Many discussions of Hume's scepticism draw comparisons between his views and those of the ancient sceptics, either the Pyrrhonists (whose pre-eminent spokesman was Sextus Empiricus) or the Academics (whose doctrines became known primarily through the works of Cicero). The views of both of these schools and their relationship to Hume are outlined in the final chapter of Norton's book, which also provides the basis for some of his discussion in Chapter 14 of this volume:

> Norton, David Fate, _David Hume: Common-Sense Moralist, Sceptical Metaphysician_ (Princeton and Guildford: Princeton University Press, 1982), 255–69 (on Pyrrhonism) and 269–79 (on Academic scepticism)

Popkin charts the Renaissance rediscovery of Greek scepticism and its influence on subsequent thinkers in his well-known history, which has been largely responsible for the now general appreciation of the sceptical tradition's immense impact on modern thought:

> Popkin, Richard H., _The History of Scepticism from Erasmus to Spinoza_ (Berkeley and London: University of California Press, 1979)

Popkin is also the author of what is probably the best-known discussion of Hume's scepticism, referred to by a number of the works discussed below:

> Popkin, Richard H., 'David Hume: His Pyrrhonism and his Critique of Pyrrhonism', _Philosophical Quarterly_ 1 (1951), 385–407; repr. in V. C. Chappell (ed.), _Hume_ (London and Melbourne: Macmillan, 1968), 53–98 and in Tweyman (1995), vol. ii, 161–87

Although Hume himself in _Enquiry_ XII repeatedly describes Pyrrhonism as 'excessive' and criticises it as unlivable (_E_ 159–61), Popkin points out that his understanding of it is incomplete, failing to take into account the Pyrrhonian principles — expounded by Sextus Empiricus — of living according to nature and accepting 'evident' appearances undogmatically. However Sextus can still be criticised for not going far enough, and Popkin argues that Hume's position, which goes much further in accepting the natural inevitability of _almost all_ our beliefs, is in fact the only consistent development of Pyrrhonism. The Pyrrhonian should admit that both our beliefs and our doubts are determined by nature, and might well vary, according to our mood or situation, quite independently of their epistemological merit. Nature does not allow us to suspend judgement, even about non-evident things, just because a belief is shown to lack rational warrant. So ironically, ancient Pyrrhonism is too dogmatically rationalistic in failing to separate the issue of warrant from that of belief. Popkin believes that Hume is right to criticise it as unlivable, and as a recipe for madness rather than a path to the _ataraxia_ (i.e. quietude or unperturbedness) which is its avowed aim. A more detailed discussion of the livability of traditional Pyrrhonism comes to a similar conclusion:

> Burnyeat, M. F., 'Can the Skeptic Live His Skepticism?' in Malcolm Schofield, Myles Burnyeat and Jonathan Barnes (eds.), _Doubt and Dogmatism_ (Oxford and New York: Clarendon Press, 1980), 20–53; repr. in Myles Burnyeat (ed.), _The Skeptical Tradition_ (Berkeley and London: University of California Press, 1983), 117–48

Burnyeat starts by criticising Hume for assuming without argument 'that it is impossible to live without reason and belief'. But after a close examination of Sextus' views, including his crucial distinction between belief and merely accepting 'appearances', Burnyeat concludes that this distinction breaks down for 'appearances' that are non-perceptual. The sceptic cannot plausibly deny that _these_ 'appearances' — which he himself accepts to be part of a natural life — are epistemic and therefore instances of belief. Living without such beliefs would involve a radical self-detachment which does indeed seem humanly impossible.

The sceptical tradition is given a historically informed though predominantly philosophical treatment by Hookway, who agrees with Popkin in seeing Hume's position as essentially a development of Pyrrhonism, but a development that makes room not only for belief, but also for science:

Hookway, Christopher, *Scepticism* (London and New York: Routledge, 1990), ch. 5

On Hookway's account, Hume accepts that Pyrrhonian arguments are unanswerable and, like Sextus, rejects 'the propect of achieving an active rational control over our reasonings' (p. 106); instead we must simply yield passively to the beliefs that we naturally find ourselves holding. Hume also follows Sextus in recommending the virtues of detachment from our cognitive faculties on practical grounds, though whereas Sextus sees such detachment — and consequent abandonment of belief and theoretical enquiry — as a route to tranquil *ataraxia*, Hume differs in taking both belief and theoretical enquiry to be part of our nature, so that Pyrrhonian tranquillity is unattainable. The best we can achieve is to make our speculations more tentative, to limit their scope, and — by leaving their most worrying conclusions behind when we quit our study — to prevent them from impinging undesirably on common life. Many similar themes are explored in a rich paper which has as much to say about Hume's scepticism as it does about the *Dialogues* in particular:

Penelhum, Terence, 'Hume's Skepticism and the *Dialogues*', in David Fate Norton, Nicholas Capaldi, and Wade L. Robison (eds.), *McGill Hume Studies* (San Diego: Austin Hill Press, 1979), 253–78; repr. in Tweyman (1995), vol. v, 126–49

Penelhum, like Hookway, sees Hume as advocating a limitation on 'distant and high enquiries' (*E* 162) not on the ground that they are unnatural (for on the contrary, they are all too natural), but rather, to avoid the anxiety that such enquiries can cause. However he finds a major contrast between Hume's response to this problem in the *Treatise* and the *Enquiry* — in the *Treatise*, the damaging effects of excessive scepticism are to be limited by being confined to the study (thus implying the 'on-again-off-again' scepticism which McCormick's paper in §3c above argues is a misinterpretation), whereas in the *Enquiry*, Hume recommends instead a limitation of subject-matter. The only justification Penelhum can discern for this later limitation is the notion that our cognitive faculties are so imperfect that we should avoid any reliance on them wherever we are able to do so. However he finds this justification objectionably *ad hoc*, for some people might find speculation about theological and metaphysical matters psychologically unavoidable, and as much a part of their nature as more down-to-earth theoretical enquiry. This 'consistency problem' for the mitigated scepticism of the *Enquiry* seems particularly hard to evade if Hume takes theism to be a natural belief, as Penelhum goes on to maintain (though he slightly modifies this view in a later paper — for discussion, see §9b above).

Fogelin answers Penelhum's consistency problem by arguing that Hume does not intend his mitigated scepticism to be *justified* at all — no such justification could possibly be available, because from a theoretical point of view Hume's scepticism is wholly unmitigated (as demonstrated in particular by his 'scepticism with regard to reason' of *Treatise* I. iv. 1). Instead, the mitigation is simply a *causal* outcome of our confrontation with Pyrrhonism, in that when we come to appreciate the force of the sceptical arguments, this will naturally have the *effect* of instilling us with modesty, and inducing us to restrict our enquiries in accordance with Hume's recommendation:

Fogelin, Robert J., 'The Tendency of Hume's Skepticism', in Myles Burnyeat (ed.), *The Skeptical Tradition* (Berkeley and London: University of California Press, 1983), 397–412

Stroud takes a similar approach, interpreting Hume's mitigated scepticism as 'a state we can find ourselves in, when the reflections leading to excessive scepticism have been tempered or mitigated by our natural inclinations.' (p. 280):

Stroud, Barry, 'Hume's Scepticism: Natural Instincts and Philosophical Reflection', _Philosophical Topics_ 19 (1991), 271–91; repr. in Owen (2000), 471–91

However Stroud emphasises that Hume's mitigated sceptic is not simply the Pyrrhonian slave of nature described by Popkin. An unreflective peasant can equally well live naïvely in accordance with our natural instincts, and what distinguishes the Humean sceptic is a reflective appreciation and acceptance of our subservience to these instincts. Such an acceptance can be an enduring state, very different from the 'on-again-off-again' scepticism seen by Popkin and others as the essence of Hume's scepticism. Moreover this state can lead to something like the _ataraxia_ sought by the ancient Pyrrhonians, thus providing a basis for the pragmatic recommendation of Humean philosophy which Stroud finds in the _Treatise_ but even more clearly in the _Enquiry_ (Sections I, V and XII). This pragmatic theme is developed at greater length by:

Owen, David, 'Philosophy and the Good Life: Hume's Defence of Probable Reasoning', _Dialogue_ 35 (1996), 485–503

Owen, David, _Hume's Reason_ (Oxford and New York: Oxford University Press, 1999), ch. 9 especially 205–6, 211–23

Owen takes very seriously Hume's recommendation in the _Treatise_ that since we cannot help pursuing enquiries beyond the realm of common life (a premise which seems in some tension with the mitigated scepticism of the _Enquiry_), 'we ought only to deliberate concerning the choice of our guide, and ought to prefer that which is safest and most agreeable' (_T_ 271). Owen interprets Hume's earlier discussions of probable reasoning — and even his apparently approving descriptions of the inferential practices of 'wise' and 'reasonable' people and of 'philosophers' — as having nothing whatever to do with questions of justification or warrant (cf. §5c and §6c above). They are normative only in the sense of clarifying what 'correct' probable reasoning involves, and it is then a quite different question whether such reasoning is to be preferred to any alternatives (e.g. Roman augury by the inspection of a sacrificed sheep's entrails, which can also be done either 'correctly' or 'incorrectly' — see Owen's book p. 206). Hume's justification of 'philosophy' comes later and is purely pragmatic, based on the observation that such philosophy is more useful and agreeable than superstition, and therefore conforms to the Humean conception of the virtues. Owen, like Stroud, puts particular weight on Section I of the _Enquiry_ in developing his pragmatic interpretation. For a contrasting view, see §4 of Chapter 1 of this volume, which interprets that section as arguing for 'abstruse philosophy' more on the basis of a search after _truth_ than a quest for calm.

Most of the works discussed above stress Hume's continuity with the sceptical tradition and with Pyrrhonism in particular. However Hume left his own mark on that tradition, and in summing up this distinctive contribution Hookway (pp. 104–5) emphasises three particular aspects of his thought, namely his emphasis on the irresistibility of belief, his ambition to develop a naturalistic science of man, and his conceptual concern with the limits of our ideas. We have already seen that the first of these plays a central role in several of the works mentioned above, but the second and third have figured less prominently in discussions of his scepticism. However Hume's naturalistic ambitions assume centre stage in a paper which contends that although his _conclusions_ were sceptical, his _aims_ were not:

Bell, Martin and McGinn, Marie, 'Naturalism and Scepticism', _Philosophy_ 65 (1990), 399–418

Bell and McGinn argue that Hume's philosophy is intended not so much as a _development_ of scepticism as a _rejection_ of it, with his fundamental objective being to achieve a naturalistic understanding of our ordinary beliefs that would allow us to see them as entirely legitimate. In the case of induction, they maintain, he succeeds: his account of why we are convinced by causal inferences enables us to see that we are neither absurd nor arbitrary in founding our beliefs on such inferences, and paves the way for a confident endorsement of

inductive method. But the anti-sceptical project misfires when Hume's explanation of our belief in the continued and distinct existence of body leads him to the conclusion that this belief is not only unsupported by reason but is actually false, and hence is a belief that we ought not to hold (cf. §10a above). Bell and McGinn therefore interpret the apparent dismay provoked by this result in the *Treatise* (e.g. *T* 217–18, 265–6) as entirely genuine, and not merely a dialectical prelude to a premeditated pragmatic resolution, nor a dramatic wallowing in the excesses of scepticism. However the contrast they draw, between Hume's constructive treatment of causal reasoning on the one hand and his destructive conclusions with regard to the external world on the other, is implicitly contested by Robison, who focuses on the third distinctive feature of Hume's scepticism identified by Hookway, namely its conceptual aspect:

> Robison, Wade L., 'David Hume: Naturalist and Meta-sceptic', in Donald W. Livingston and James T. King (eds.), *Hume: a Re-evaluation* (New York: Fordham University Press, 1976), 23–49; repr. in Tweyman (1995), vol. v, 36–55

Robison sees the core of Hume's scepticism as involving the realisation that the human mind is *essentially incoherent*: we cannot help applying to our experience various concepts — notably that of continuing objects distinct from our perceptions, and objective necessary connexions between those objects — which his analyses demonstrate to have no legitimate application to it. Even Hume himself, after undertaking these analyses and proving that the concepts in question are illegitimate, cannot help applying them, so there is no philosophical solution to this 'meta-scepticism': all we can do is resort to 'carelessness and inattention' (*T* 218; cf. *T* 268) and ignore the problem. This indeed seems to be Hume's prescription in some relevant parts of the *Treatise*, but obviously such an account fits less comfortably with the *Enquiry*, which ends not on a note of despair, but with a positive endorsement of empirical science within the bounds of a relatively mild mitigated scepticism. However the principal sources of Hume's conceptual scepticism — his Copy Principle, and his attack on the supposed abstract ideas of primary qualities — are still present, so how are we to explain his apparent equanimity in the later work? Assuming that this is not a mere ignoring of inconsistency, we seem to have three main possibilities. The simplest is to follow Stroud in seeing Hume as calmly accepting 'the whimsical condition of mankind' (*E* 160), now that the initial anxiety of his sceptical enquiries in the *Treatise* has subsided. The second is to find ways in which the conceptual scepticism of the *Enquiry* can coexist with that work's endorsement of science; I have tried in §9.2 and §12 of Chapter 4 to sketch how such an account might go, accepting the *legitimacy* of causal concepts despite the subjective origin of the relevant idea, and mitigating the negative impact of the confused notion of matter by seeing this confusion as in part a *help* to inductive science (in revealing the lack of any alternative) rather than as a hindrance. The third possibility is to downplay Hume's conceptual scepticism, so that a notion's failure to conform to his theory of ideas remains compatible with that notion's acceptability; as we have already seen in §7c and §10a above, this is the essence of the 'sceptical realism' championed by Wright:

> Wright, John P., 'Hume's Academic Scepticism: A Reappraisal of His Philosophy of Human Understanding', *Canadian Journal of Philosophy* 16 (1986), 407–35; repr. in Tweyman (1995), vol. ii, 222–47 and in Owen (2000), 303–31

Wright forcefully rejects Popkin's Pyrrhonist interpretation, arguing that Hume's writings in fact exemplify only one prominent Pyrrhonist theme, namely the conflict between our natural judgements (the 'noumena') and the way things appear to us (the 'phenomena', including the nature of our impressions and ideas). In other respects — his denial that suspension of belief is possible or that it would lead to tranquillity, his quest for a science of man, and his approval of probabilities — Hume leans instead towards Cicero's 'academic' scepticism, a tendency which becomes fully explicit in the *Enquiry*. All of these threads come together in Hume's account of how the imagination leads us mechanically to accept probable beliefs and to make natural judgements beyond the realm of our ideas. These natural judgements include the inconceivable 'suppositions'

of causal power and external existence, which Wright discusses briefly in this article but at much greater length in his book (see §7c and §10a above).

Leaving aside the specific topics of induction and the external world (§5d and §10a above), most contemporary discussions of scepticism have moved far from specific Humean concerns. Hookway's book mentioned above provides a useful general overview, but says relatively little about some specific issues that have recently come to prominence, such as Putnam's semantic externalism (which can ground an argument from the theory of reference that some sceptical claims can be meaningful only if they are false) and Goldman's reliabilism (which can be used to deny the inference from 'internalist' doubt to lack of knowledge — see Costa's paper in §6c above for the suggestion that such reliabilism has roots in Hume's own thought). These developments, and others, are explored from a variety of perspectives in:

> DeRose, Keith and Warfield, Ted A., *Skepticism: A Contemporary Reader* (Oxford and New York: Oxford University Press, 1999)

Particularly helpful is DeRose's introduction, which briefly sketches the issues and thus provides a context for the subsequent papers together with a summary of their main themes.