USE OF THESES

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HUME'S "MENTAL GEOGRAPHY"

The aim and scope of the first Enquiry.

by

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"[The] assumption that the exegesis of Hume was in effect finished needs to be challenged."

T.E. Jessop,

"Some Misunderstandings of Hume."

1952.
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The epistemological legacy inherited by Hume both from his rationalist and from his empiricist predecessors was seen by him to be defective at its foundation. It was based upon the following principles:

A) that indubitable knowledge was attainable in at least some fields, — mathematics or sense experience or divine revelation;

B) that basically all knowledge was of a kind: that is, once we have uncovered a method for acquiring indubitable knowledge in one field, this method can be extended to all others; and that consequently the goal of certainty in all departments of human knowledge is theoretically attainable;

C) that ways of knowing and what was known were independent of the knowing mind.

Hume agreed with assumption (A): there is some knowledge which, in the best Cartesian tradition, we cannot doubt. However he vigorously denied assumptions (B) and (C), — the extensibility of cognitive methods from one field of knowledge to another and the independence of knowledge from the knowing mind. With regard to the former, Hume maintained the thesis that, despite its success in such fields as mathematics and logic, the deductive method was inapplicable to others such as the probability of chances and ethics. With regard to the
latter, he held that all knowledge was to be explained primarily in terms of the cognitive process occurring in the knower.

This shift of emphasis in Hume's epistemology from the known to the knower is advertised in his major philosophical works whose titles indicate the centering of interest respectively in "human nature" and in "the human understanding". The doctrine that emerges from these works, and in particular from the later one, is what Hume has called a "mental geography": that is, in more modern terms, a faculty theory of knowledge. In the present thesis I hope to show that what Hume attempts is the development of a doctrine which regards the "human understanding" as equipped with diverse cognitive techniques, each uniquely fitted for application to a unique class of cognitive objects. The counterpoint of this doctrine consists in the exposure of errors arising from the misapplication of a cognitive faculty to questions pertaining to a sphere of knowledge in which it has no competence.

That the faculty theory of knowledge outlined above forms both in the Treatise\(^1\) and in the first Enquiry\(^2\) the central doctrine, to which the other doctrines relate, is by no means generally accepted. It is intended in the present thesis both to defend this interpretation, with particular reference to the Enquiry, and to dilate on its advantages — in coherence and in congruity with Hume's writings — over other interpretations.

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Nor is the question of the central doctrine in Hume's writings the only point at issue among his commentators. Despite two centuries of continual and lively debate on his philosophy, critics are not yet agreed even on whether his major works are to be read as independently concerned with epistemology, or as paving the way for his ethical or religious theories. There is the widest divergence of views as to the correct interpretation of each of his major doctrines, and on the philosophical consequences of these doctrines. There is genuine disagreement on whether Hume was a sceptic or not.

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1 See C. Maund, *Hume's Theory of Knowledge* (London: MacMillan, 1937), Ch. II.


3 This is the contention of C. W. Hendel, *Studies in the Philosophy of David Hume* (Princeton: Princeton University Press, 1925), Ch. I.

and on whether he is to be regarded as a subjectivist or an objectivist,\(^1\) an atheist or a "reverent agnostic",\(^2\) a phenomenalist,\(^3\) a positivist,\(^4\) a "Neutral Monist",\(^5\) or a solipsist.\(^6\) Certainly Hume might have been more than one of these at the same time; but he could not — without gross inconsistency — have adhered to all the ideologies that have been attributed to him.

That Hume is all things to all commentators, that his ultimate intentions are unclear, and that the implications of his major doctrines remain in dispute,— all this may be due to a lack of clarity and of consistency in his works. Yet, although Hume blamed himself for the incomprehension of his contemporaries, his writings can by present standards hardly be described as turgid and obscure or as impenetrable to the exegetic techniques of modern scholarship.

Another explanation that has been offered to account for some of the confusion is this:

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\(^1\) Again allowing for various definitions of the terms involved, Hume is generally held to be the former. But for a contrary view, see T.E. Jessop, \textit{op.cit.}, 167.

\(^2\) \textit{Ibid.}, 157.


\(^4\) See, for example, Passmore, \textit{op.cit.}, Ch.IV.


"It is a common practice of philosophers who have either not understood, or not responded sympathetically, to Hume's views, to use what to me, are at least misleading presentations, if not complete travesties of them, to illuminate by contrast either their own opinions, or those of philosophers whom they appreciate." ¹

The existence of mutually incompatible interpretations of Hume would support the notion that at least in some cases Hume's doctrines are misrepresented. A survey of the literature suggests that where this occurs it is due to prevailing malpractices in exegesis and to some misconceptions concerning the textual matter itself.

In the first place, no convincing explanation of the philosophical relation obtaining between the Treatise and the Enquiry has yet gained general acceptance. Often the facile view has prevailed that the latter work is little more than a more popular but less adequate rewriting of the former. Consequently, the Enquiry has been relegated to comparative obscurity; and much that is vital to an understanding of Hume's philosophy, and that is to be found in the Enquiry alone, has been overlooked. ² Second, the usual method of expounding Hume has been to consider one or another of his doctrines in isolation: his theory of causality, his critique of induction, his analysis of the notion of the self, his refutation of the argument from design, and so forth. This fragmentary treatment has been the tendency even in works

² Believing it to be of interest to the philosophy of religion alone, N. K. Smith deliberately omits a discussion of Hume's theory of miracles from The Philosophy of David Hume (see Preface, vii). For a discussion of its relevance to Hume's epistemology, see V & VIII below.
that profess to examine Hume's philosophy, or one of his major philosophical writings, as a whole. Consequently, we are unable to discern either whether there is some central theme into which the various strands of doctrine are woven or how the parts of his philosophy articulate — if at all — in relation to each other and in relation to a coherent whole.

The present thesis is an attempt to clarify some of the important issues concerning the interpretation of Hume's philosophy. It does so by arguing for a particular conception of the relation between the Treatise and the Enquiry, one which maintains that it is the latter that provides the theoretical presuppositions that make the former comprehensible. Second, it attempts to outline the faculty theory of knowledge which provides the Enquiry with its major theme and gives its parts their coherence. Third, it examines the elements of this theory in their mutual relations.

Without a proper understanding of the former two points, the lattermost appears to be impossible. The accepted theories regarding the relation of the Enquiry to the Treatise have long caused the Enquiry to be neglected; and lack of appreciation of the central thesis of the Enquiry has made parts of that work seem at best superfluous intrusions and at worst provocative polemics. The interpretation offered in the present thesis claims not only to be compatible with his express doctrines but also to accord with his original intention.
II. THE TREATISE AND THE ENQUIRY.

Each of the three themes dealt with in the several volumes of Hume's Treatise of Human Nature was tackled again in a subsequent work. The theme of Book I, Of the Understanding, appeared in new guise in the Enquiry concerning Human Nature in 1748; that of Book II, Of the Passions, reappeared under the same title in the second of his Four Dissertations in 1757; and that of Book III, Of Morals, re-emerged in the Enquiry concerning the Principles of Morals in 1751. The question naturally arises whether the subsequent works represent a mere repetition of, or a departure from, the doctrines of the Treatise, or whether the connection is to be explained in some other way.

In the present thesis, we are concerned with this question only in so far as it relates to the affinity between the Treatise and the first Enquiry. Obviously the way we answer this question will affect both our approach to, and our view of, Hume's philosophy. If, for example, the later work is merely supplementary to the earlier, we shall use the Enquiry to reinforce our understanding of moot points in the Treatise; or if the later work represents a radical change of doctrine from the earlier, we shall be faced not with one Humean philosophy to expound but with two. The answers so far attempted to this question fall into two broad patterns.

The first of these may be designated the "republication theory".
The fullest version of it is to be found in the comparison of the Treatise and the Enquiry undertaken by Vinding Kruse.\textsuperscript{1} That writer concludes that the difference between the two works is "merely of a formal nature": that is, discounting a few omissions from the Treatise and a few additions to the Enquiry, the latter work is substantially a republication in varied form of the substance of the former. In favour of this thesis Kruse adduces what he calls external and internal evidence. The former consists in citing Hume to the effect that he himself regarded the two works substantially the same, and in presenting a plausible motivation for Hume in recasting the doctrines of the Treatise. The internal evidence consists in a close comparison of the contents of the two works. The whole of this evidence deserves some investigation since it — or at least major elements of it — will be found to form the argument of a wide range of critics who subscribe to the theory.\textsuperscript{2}

The key passages taken as indicative of Hume's attitude to the question are extracted from one of his letters and from his "Advertisement" to the Enquiry:

\textsuperscript{1} V.Kruse, Hume's Philosophy in His Principal Work: A Treatise of Human Nature and in His Essays. Translated by P.T. Federspiel (London: O.U.P., 1939).

"I believe the philosophical Essays contain every thing of
Consequence relating to the Understanding which you would meet
with in the Treatise; & I give you my Advice against reading the
latter. By shortening & simplifying the Questions, I really render
them much more complete. Addo dum minuo. The philosophical Prin-
ciples are the same in both . . . "¹

"Most of the Principles, and reasonings, contained in this vol-
ume, were published in a work in three volumes, called A Treatise
of Human Nature . . . "²

These passages are manifestly open to the interpretation suggested
by the republication theory. However, they are also open to the inter-
pretation that, while the assumptions underlying both works are the
same, they nevertheless differ in aim and approach, and that a reading
of the Enquiry will implicitly convey everything of importance in the
Treatise — except for an elaboration of some points in their common
epistemological theory. I shall argue on independent grounds that
the latter interpretation is more acceptable; but in any case, the
cited passages alone fail to establish the republication theory.

The second facet of external evidence looming large in arguments
for this theory has been a peculiar construction placed on Hume's
character and motives. Hume is portrayed as having been so consumed
by literary ambition, so dismayed at the failure of the Treatise, so
ashamed at having gone precipitately to press with that "juvenile
work", so thirsty for public approbation, and so sensitive to criticism,³

¹ D. Hume, The Letters of David Hume. Edited by J. I. T. Greig
² Enquiry, 2.
³ Critics favour quotations from Hume's Letters, I, 2ff., 13, 30ff.,
and others in similar vein.
that he determined to win acclaim by a popular rehash of the Treatise in the Enquiry. To that end "he set aside ... even the consideration of truth" (Kruse), gutted the Treatise of whatever he could not popularise (Laing), amended some of its "imperfections of structure ... and extravaganzas" (Jessop), and added some racy irrelevancies on religious topics to assure the Enquiry of a wider public (Selby-Bigge). This characterization of Hume and of his literary practices purports to be based on evidence culled both from his autobiographical sketch and from his correspondence; but it ignores contrary evidence from the same sources. Thus, for example, while critics frequently quote Hume's admission that his "love of literary fame [was his] ruling passion" they tend less frequently to add his rider that this "never soured [his] temper, notwithstanding [his] frequent disappointments". Even more rarely quoted is the evidence from his letters that he was able to maintain about his lack of critical success a wry, self-deprecatory attitude: "I am now out of humour with myself; but doubt not, in a little time, to be only out of humour with the world like other unsuccessful authors." 

There is similarly little justification for considering the Treatise to have been a "complete fiasco" (Kruse). It is true that the book was slow in moving off the shelves and that Hume never lived to see the publication of a second edition; but he himself was to express satisfaction with the trend in the sale of the Treatise. Further, recent historical research has shown that the allegation of a resounding critical silence at the first appearance of the Treatise is no longer tenable. Without pretending to arrive at a complete enumeration,
E.C. Mossner cites some dozen English and Continental notices and reviews of the Treatise — not all unfavourable — in 1739 and 1740. It was, therefore, not so much the quantity as the quality of critical attention that must have led to Hume's plaint regarding the stillbirth of the Treatise.

This leads to the third shaky foundation of the theory. Far from being sensitive to criticism, Hume actively sought it out from such figures as William Mure, George Campbell, Lord Kames, Francis Hutcheson, Joseph Butler, and Continental correspondents (vide his Letters). In the few cases where the criticism was cogent, Hume proved perfectly willing to amend and improve his doctrines or their presentation. Unfortunately, however, the largest part of the critical comment on the Treatise was uninformed, vituperative, or both. Where it was merely the first, Hume's reaction was one of studied politeness. Thomas Reid, for example, attacked Hume not for the cogency of his reasoning but for what he took to be the repugnant consequences of his doctrines. For his part, Hume went out of his way to provide helpful comments on Reid's own work, even to the extent of correcting Reid's Scotcism.  


2 Reid, op. cit., 115n. and Ch. XII. Norman Kemp Smith comments: "What Reid seems constantly to have had in mind when he thought of Hume was the teaching of the first twenty pages of Book I of the Treatise ... Everything else which Hume has to say is, Reid would seem to have held, exhaustively predetermined by these opening pages." ("David Hume: 1739-1939", P.A.S.S., XVIII, 1939, p. xvii).

3 Letters, I, 375 f.
As for the more intemperate critics, Hume's wise policy was simply to ignore them: "... I am happy in my Resolution never to answer any of these People on any Occasion. For if I had ever been weak enough to have made any Reply to any Remarker, my Silence on this Occasion would have been taken for a Conviction of Guilt."¹

The imputation that differences between the Treatise and the Enquiry are to be explained by Hume's determination to curry favour with the crowd is patently false. On the one hand he is alleged to have omitted certain matters because "the general opinion would immediately have declared him an atheist" (Kruse); on the other, he included what he certainly knew would earn him that epithet.² That misdirected criticism had no influence on his writings is evidenced first by his own words: "Considering the Treatment I have met with, it would have been very silly for me at my years to continue writing any more; and still more blameable to warp my Principles and Sentiments in conformity to the Prejudices of a stupid, factious Nation ..."³ But his integrity under the severest pressure is even better illustrated by


² This is the case with the section on miracles which had been projected for inclusion in the Treatise but had been expunged from that work for prudential reasons. That he expected abuse for including it in the Enquiry is evidenced by his correspondence (see Letters, I, 102f) and that the expected occurred is evidenced by the spate of pamphlets that this section immediately provoked (see Mossner's Life, 286).

³ Letters, II, 269.
the course of his life. Twice — in 1744 and again in 1751 — Hume's applications for academic positions were rejected on the grounds of his "heresy, deism, scepticism, and atheism". When at last he obtained a reasonably comfortable position as librarian of the Advocates' Library in Edinburgh, one would expect from a servile pander such as Hume is portrayed to have been that he should quietly settle down to the writing of his History and steer clear of controversy. But this was not to be. When Hume was accused of acquiring objectionable literature for the library and put under the obligation of submitting future acquisitions for censorship, he made the reinstatement of the offending volumes a matter of principle and, when he lost his case, resigned the post. ¹ That Hume should disown his philosophical convictions "all for the approbation of the crowd" is simply beyond rational credence — if the man's act and word are to be given any weight.  

So much, then, for the external evidence. The internal evidence is composed of a close comparison of the topics dealt with in both works, a comparison such as that undertaken by Selby-Bigge. But of course such a comparison reveals that the Enquiry is not merely a republication of Book I of the Treatise. Large sections of the earlier work are omitted from the later; fully one third of the sections of the Enquiry break entirely new ground; and, where topics are common to both works, their treatment in the Enquiry differs significantly in emphasis and approach from that accorded them in the Treatise. The republicationists recognize these disparities but explain them away as being dictated by exigencies of form or as being prudential suppressions.

¹ See J.Y.T. Greig, David Hume (London: Jonathan Cape, 1931), 130ff., 188ff., 190ff., and comparable sections in Mossner's Life.
or additions designed to evoke "a murmur among the zealots". This insistence on ulterior motives underlines the fact that, without this as an explanation, the substantial differences between the two works make it impossible for the one to be considered merely a republication of the other. It seems, therefore, reasonable to contend that if the motivational prop of the republication theory is too weak to bear the argument then the theory itself is rendered untenable.

The alternative to the republication theory may for convenience be labelled the "revision theory".¹ One variation of this theory holds that in the years following the publication of the Treatise Hume became increasingly dissatisfied with the substantive doctrines of that work. The Appendix to the Treatise represents his first effort at revision, and the Abstract² his second. Finally, however, "the problem before him was not . . . one merely of minor repairs but . . . rather as to what could be salvaged from the wreckage" (Smith). Hence, nine years after the publication of Book I of the Treatise he undertook a


more or less radical revision of its ontology and epistemology in the Enquiry. The similarities between the two works are explained by the fact that he was dealing with the same broad themes in both works and was thus able in some instances to salvage material from the Treatise and incorporate it in the Enquiry. Additions are thought to reflect advances in his thinking; and omissions reflect his reconsideration of "doctrines with which Hume had come to be profoundly dissatisfied, and which he could not, therefore — truth being still his quarry — allow himself to repeat" (Smith). The two works, though marked by some superficial similarities, are substantially different — a difference reflecting his rethinking of the positions adopted in the Treatise and a reconsideration of their consequences.

A variation of the revision theory considers that, while Hume "had 'completed' his logic ... in the sense that its main principles were firmly established in the Treatise" (Passmore), there were individual segments of his theory that he had reconsidered in the intervening years and that he was now eager to revise. Since the revisions were more radical than could be accommodated in a second edition of the original work, and since in any case the Treatise was marred by stylistic defects, Hume presented the fruits of his reconsiderations in a new work — the first Enquiry.

Like its rival, the revision theory is based on both textual and external evidence. It gains its credibility largely on account of the former, since in fact the two works differ quite widely in content and even in their approach to a proportion of the topics which they have in common. However the theory is not easily reconciled with Hume's explicit assertions to the effect that it was primarily the
form of the *Treatise* with which he felt discontent, and even less so with his assertion that "the doctrines in both are the same". The contradiction can be reconciled only by motivational explanations. These, as in the case of similar exercises in support of the republication theory, fail to ring true. In the light of Hume's efforts to obtain critical comment on his work, and in the light of his frank admissions of error and puzzlement at seeming inconsistencies in his own work, it seems likely that had he wished to repudiate substantial portions of the *Treatise* he would — like Wittgenstein — have made his later work the vehicle of criticism against his earlier work.

Again, the *Abstract* is cited as evidence of Hume's dissatisfaction with the *Treatise* and is taken as an interim attempt to modify its doctrines. The *Abstract*, however, does not in fact presage a shift away from the general position of the *Treatise*: the interpretation it best lends itself to is as an attempt to clarify, and draw attention to, some salient epistemological features of the *Treatise*. This, indeed, is its avowed purpose; and in the absence of other than external — that is, motivational — evidence to the contrary, it does not seem justifiable for this stated and internally substantiated purpose to be ignored.¹

If the republication theory founders on the differences between the two works, the radical revision theory founders on the remaining similarities between them. This is not to argue that Hume did not amend here and alter there. This he clearly did. But the job of revamping was

¹ See for example *Abstract*, Preface and pp. 7, 8ff., 19ff., 23ff., 31. All these restate the doctrines of the *Treatise* substantially unchanged, complete even with what Hume recognized as their paradoxical consequences.
not so thoroughgoing as to justify so uncompromising a view as Smith's: "Could Hume have obtained possession of every published copy of the Treatise, there can be no question that . . . he would have rejoiced to commit them to the flames."¹

Each theory represents a plausible, if one sided, attempt to solve a genuinely puzzling phenomenon,— Hume's rewriting of what he had intended to serve as a definitive epistemology. Because of their opposite tendencies, the two theories we have considered and the evidence adduced in favour of each tend to cancel each other out. It is only in the practical consequences of their theories that the commentators agree. This is to the effect that Hume's epistemology is best understood if the Treatise is taken as the primary source of its exposition. The republicationists regard the Enquiry as an inferior restatement of Hume's philosophy; while the revisionists regard the unamended version of the Treatise as more cogent and more complete than the revised version of the Enquiry. In either case, the Enquiry has been considered as a secondary, at best supplementary, expression of Hume's philosophy.²

The lack of resolution in favour of either of these incompatible

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¹ The Philosophy of David Hume, 532.
² In Hume's Philosophy of Belief and again in "On the interpretation of Hume", Flew argues for a third view. This is the case for considering the Enquiry in its own right, as a work differing in aim from the Treatise. The specific aim of the Enquiry is seen as the elaboration of Hume's 'mental geography'. After only cursory consideration, Flew dismisses this project as unworkable, suggests substituting 'logical mapwork' for Hume's notion, and virtually ignores both ideas after the first chapter. As the title of his book suggests, Flew concentrates on developing the doctrines of the Enquiry as embodying not a 'mental geography' but a 'philosophy of belief'.
theories is indicative of continuing uncertainty regarding Hume's purpose in undertaking a second epistemological work that goes over much the same ground as his first. The view of the relationship between the two books developed in the next section of this thesis rejects both current theories. It is based on the premises (A) that what is distinctive in Hume's epistemology, and common to both the Treatise and to the Enquiry, is the 'mental geography' outlined on page 2 above; (B) that the specific defect in the Treatise, a defect which he attributed to its precipitate publication, was that that work consisted largely of the consequences of his theory, not its premises; (C) that the Enquiry was an attempt to rectify this by supplying the theoretical mould into which the practical cases of the Treatise fitted; and (D) that the Enquiry is therefore to be regarded as logically and methodologically prior to the Treatise. If this view lacks general acceptance, this may be due to the fact that it has so far not received consideration.
Why Hume's purpose in writing the Enquiry should remain the subject of continuing dispute requires explanation. It has been suggested that, because Hume's readers — and perhaps even Hume himself — were intellectual dilettantes, he failed to produce a work of sufficient philosophical rigour; and indeed it would be anachronistic to expect his writings to conform to the standards of modern scholarship. However, no such disagreement prevails with regard to the writings of his contemporaries and peers — Hutcheson, Berkeley and Adam Smith, to name a few.

Paradoxically, the answer seems to lie partly in Hume's preoccupation with attaining the greatest possible simplicity in the Enquiry. This he sought not only because he conceived that his earlier philosophical work had been misapprehended but also as a function of his conviction that philosophy should be "a department of literature, accessible to all intelligent readers, and in living contact with contemporary thought". Thus we find that Section I of the Enquiry is a

1 See, for example, S.N. Hampshire in David Hume, a Symposium, ed. D.F. Pears (London: Macmillan, 1963), 3.

2 Smith, "David Hume: 1739-1939", vi f. See also Enquiry, 162: "Philosophical decisions are nothing but the reflections of common life, methodized and corrected."
pledge to adhere as far as possible to an "easy and obvious" philosophy, and an apology for the occasional need to lapse into the "accurate and abstruse". Again, in subsequent Sections, he all too frequently cuts short his discussion of vital points at the stage where further investigation might call for some mental effort from his readers:

"... I shall think it sufficient, if the present hints excite the curiosity of philosophers" (Section IV);

"... Should I multiply words about it, or throw it into a greater variety of lights, it would only become more obscure and intricate" (Section VII);

"But the state of the argument here proposed ... will not much disturb his ease by any intricate or obscure reasoning" (Section VIII);

"But there occurs ... a difficulty, which I shall just propose to you without insisting on it; lest it lead into reasonings of too nice and delicate a nature" (Section XI);

"It is sufficient to have dropped this hint at present, without prosecuting it any farther" (Section XII).

Unfortunately, this attempt at simplicity in the presentation of his doctrines tends to shade into oversimplification. And since it is in many cases combined with an endeavour to increase the palatability of the Enquiry with a plethora of illustrative examples, the end result is to some extent a dilution of its clarity.

But the manifest defects in Hume's presentation are not the only reason for the mystery surrounding the aim of the Enquiry. Another has been the critical attempt to make the Enquiry fit the Procrustean frame appropriate to the Treatise.

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1 The most notorious example of this in the early editions of the Enquiry is the lengthy digression intended to illuminate Section III. This was mercifully expunged from later editions.
Up to this point I have claimed, but not borne out the claim, that the *Enquiry* is an elaboration of Hume's faculty theory of knowledge. It now remains to show (A) that this is in fact Hume's ostensible aim, (B) that the aim is in fact fulfilled in the *Enquiry*, and (C) what the theory is. A discussion of the second and third points occupies the remaining sections of the present thesis. As for the first point, the clearest indication of its validity is provided by key passages in the opening and the closing Sections of the *Enquiry* itself.\(^1\)

In Section I, Hume takes as the province of his investigation the "moral sciences".\(^2\) However, he is not about to launch into a compendious summary of philosophical arguments and conclusions in ethics, aesthetics, politics, psychology, and the like. Rather, his interest is in the epistemological foundation of all the branches of moral science; that is, in the proper procedures for investigating moral sciences and in the creation of a methodology for these sciences.

An obvious approach to all the sciences — physical as well as moral — is to investigate their objects, be these molecules or moral actions, planetary systems or political systems. The work of studying concrete instances, of differentiating and classifying their elements, of forming hypotheses regarding the laws governing their nature or behaviour, the testing and refinement of these hypotheses, — all this constitutes an accepted mode of obtaining knowledge in the sciences. But for Hume "this talk of ordering and distinguishing . . . has no

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\(^1\) Except where otherwise indicated, reference is to *Enquiry*, 5, 10, 12-5, 163-5.

\(^2\) As distinct from the "physical sciences". See Passmore, op. cit., 4 f.
merit, when performed with regard to external bodies, the objects of our senses.¹ His revolutionary proposal was to substitute for a consideration of the objects of enquiry a study of the instrument of enquiry,— the human understanding. This was not to abandon empirical investigation of the physical and moral sciences, but to enhance it: for "almost all the sciences are comprehended in the science of human nature, and are dependent on it".²

His approach to the study of the human understanding is, in the terms of his own comparison, that of the anatomist or the astronomer concerned with classifying and describing; but the task of the epistemologist assumes a greater importance than that of the scientist, since the work of the latter is subsumed in that of the former. Hume is aware that his epistemology, an essentially descriptive system, may be considered a poor substitute for the achievements of science whose main pride lies in the transcendence of description by explanation in terms of 'laws of nature' and the like. But Hume takes a jaundiced view of this allegedly superior achievement. He queries whether Newton, for example, actually explained the mechanics of celestial motion; or whether he merely observed and described and denoted the fact with terms such as "gravity" and "vis inertia". Hume is convinced that what passes for explanation in the physical sciences is in reality oblique description.³ Certainly for his own undertaking, Hume claims no more than a descriptive validity:

¹ Enquiry,13. ² Abstract,7. ³ See especially Enquiry,73 n.4 and also 30,66,68,76.
"It becomes ... no inconsiderable part of science barely to know the different operations of the mind, to separate them from each other, to class them under their proper heads, and to correct all that seeming disorder, in which they lie involved, when made the object of reflection and enquiry... And if we can go no farther than this mental geography, or delineation of the distinct parts and powers of the mind, it is at least a satisfaction to go so far...

"It cannot be doubted, that the mind is endowed with several powers and faculties... There are many obvious distinctions of this kind, such as those between the will and understanding, the imagination and passions, which fall within the comprehension of every human creature... And shall we esteem it worthy the labour of a philosopher to give us a true system of the planets, and adjust the position and order of those remote bodies; while we affect to overlook those, who, with so much success, delineate the parts of the mind, in which we are so intimately concerned?"  

This cognitive cartography, stated at its outset, is the general aim of the Enquiry. The closing pages of the final Section summarize its conclusions, and the intervening Sections elaborate the complete theory.

While the theory is rich in the treatment of its details, its outlines are difficult to discern. This is not only because of the obscuring tendency to use the same term in different senses and different terms to convey a single sense, but also because the whole is presented so discursively, and its doctrines so often made dependent on illustrative examples rather than on clear statements, that its elements require careful disentanglement and reconstruction for them to be seen as a system at all. Despite the risk, one can be saved from reading one's own, rather than Hume's, theses into the reconstruction, but only by constant attention to the epistemological aim..."
that Hume insists is the purpose of his "delineating the distinct parts and powers of the mind".

This aim Hume reiterates throughout the Enquiry.¹ In its positive aspects, it is to survey the extent of understanding attainable by human cognition — both by various means of direct apprehension and by the intermediacy of various rational calculi — and to examine the degrees of certainty which may be attached to the species of understanding. ("Understanding" is here more appropriate than the more natural "knowledge", since the latter is generally taken as truth entailing; and Hume examines not only the province of truth and falsity, but also the twilight zone of belief and hypothesis, feeling and memory). In its negative aspects, it is to display the general limits of human understanding as a whole and the special limits of each of the faculties that constitute the whole. Special limits imply the intractability of a problem to a specific faculty; general limits, to any or all of the faculties.

¹ Here are three of the dozens of references to this aim:

"Metaphysical errors arise ... from the fruitless efforts of human vanity, which would penetrate into subjects utterly inaccessible to the understanding ... " (Enquiry, II);

"The only method of undeceiving us is to mount up higher; to examine the narrow extent of science when applied to material causes ... " (Enquiry, 93);

"This narrow limitation, indeed, of our enquiries, is, in every respect, so reasonable, that it suffices to make the slightest examination into the natural powers of the human mind and to compare them with their objects, in order to recommend it to us. We shall then find what are the proper subjects of science and enquiry." (Enquiry, 163).
The means whereby we are to discover "what are the proper subjects of science and enquiry" is the mental geography. With it Hume stakes out the five cognitive faculties of the human understanding; and to each such faculty he assigns a cognitive sphere as its proper field of investigation. Which of the two groupings — faculties or spheres of cognition — is prior will receive attention below. It is an oversimplification to view the latter as entirely mind dependent. What is important for the present is Hume's view that the two are inextricably linked: a given faculty is appropriate to one and only one field of enquiry, and a given field of enquiry is susceptible to the probing of one and only one faculty; and it is only by correctly applying each given faculty to the appropriate field that man is able to investigate with a modicum of confidence any phenomenon or cognitive item coming within the ambit of human understanding.

The five faculties and their appropriate spheres of activity are, using largely Hume's terminology, the following: abstract reason, which is properly applied to relations of ideas; experimental reason, to matters of fact; perception, to percepts; (mental) taste or inclination, to value judgements; faith, to theology or divinity.

Each series falls into two groups: the rational and the irrational. The former, which includes abstract and experimental reason and their respective cognitive spheres, is characterized by the fact that the appropriate enquiries are conducted by means of reasoning: that is, by deducing conclusions from premises or from data via distinctive calculi. The latter, which includes all the rest, is characterized by the fact that the appropriate investigations culminate in conclusions that are reached without an intervening process but rather by a mental
"leap"; something in the nature of direct inspection or introspection.

Most of the individual cognitive spheres are further subdivided.

The whole system, comprising the human understanding and what it is fitted to investigate, can be set out in tabular form thus: ¹

<table>
<thead>
<tr>
<th>THE HUMAN UNDERSTANDING — AND ITS PROPER SUBJECTS</th>
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<tbody>
<tr>
<td><strong>RATIONAL FACULTIES</strong></td>
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<tr>
<td>ABSTRACT REASON</td>
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<td>EXPERIMENTAL REASON</td>
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<tr>
<td>IRRATIONAL FACULTIES</td>
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<tr>
<td>TASTE</td>
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<tr>
<td>FAITH</td>
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¹ I have tried where practicable to adhere to Hume’s terminology. It will be noted that in one instance, "matters of fact", the generic and specific names of cognitive spheres coincide. Where he uses the same term to denote both faculty and sphere or where he has no generic sphere name at all, I have adopted modern equivalents. This has occurred in the case of "percepts" and "value judgements". "Tautologies" are not so designated by Hume but are discussed in the *Enquiry* on p.163. For "rational faculties" Hume usually has "reason".
Much of the Enquiry develops the positive aspect of his theory. He investigates the correct procedures to be followed in examining specific questions with the appropriate mental faculty, and he explores the extent and nature of the positive information thus attainable. There are, thus, specific grounds on which we can justify an assertion to the effect that the diagonals of a parallelogram bisect each other or that whatever is long is not short. Similarly, there are means of establishing the probable validity of the claim that metals expand when heated or that there are craters on the hidden side of the moon. On a different plane and by different means we can also justify perceptual judgements; and it also makes sense to affirm that generosity is meritorious, that Masolino's frescoes are inspiring, or that sin is punished in the hereafter,—all so long as the grounds for the assertion and the procedures of justification are appropriate to the case.¹

However, the major portion of the Enquiry is concerned with the negative aspect of his theory. In this Hume is concerned with showing that the application of a mode of investigation to an inappropriate subject terminates in a negative result or in metaphysical error or in Pyrrhonic scepticism. We cannot, to use an analogy, expect to obtain correct information about a thing by examining it with the wrong instrument: we cannot study stars with a microscope, or molecules with

¹ In the main Hume speaks of "knowing," "feeling," "believing," and so forth in a transitive sense directed towards entities as the objects of, respectively, knowledge, sensation and belief. There are other parts of the Enquiry, however, where he considers the objects of cognition as propositions. For examples of this, see Enquiry 14, 25 f., 28, 95, 159.
a telescope, or either with a stethoscope. It is so too with the exercise of the understanding: considered abstractly, anything can be the cause of any other thing, nor are causal powers discernible to perception; in mathematics, the conclusions of experimental reason are paradoxical; moral arguments are incapable of supporting the religious hypothesis; and nothing but metaphysical nonsense ensues from the attempt to delve into "questions which lie entirely beyond the reach of human capacity". The error in each of these cases — and in the many others considered by Hume — lies in subjecting the question under consideration "to such a trial as it is, by no means, fitted to endure".

The negative aspect of Hume's epistemology was an attack on a variety of preceding and contemporaneous philosophies. It denied the rationalist doctrine that there is a universal a priori model of all knowledge, whether mathematical or factual; but it denied at the same time the then popular a posteriori argument for the existence of God. Hume even provided an anticipatory rebuttal of Kant's moral argument for the religious hypothesis. With his insistence on the distinctness of varieties of argument and on the limitation of each to its circumscribed field, Hume foreshadowed the epistemology of the logical positivists and of Wittgenstein's *Tractatus*. But Hume's theory was wider or more liberal than those of his modern heirs; for it allowed not only for analytic-deductive and synthetic-verifiable propositions, but it also acknowledged as meaningful those propositions of value judgment and of theology that are educed by the appropriate methods.

1 The cited cases are discussed in *Enquiry*, 25, 42, 156f., 103, 81.

2 Ibid., 130.
Hume's reputation as a sceptic rests on an incorrect or an incomplete reading of the Enquiry. True, Hume does claim that we are assured that "our conclusions from . . . experience are not founded on reasoning", that the inference "from the cause to the effect proceeds not from reason", that assent to the veracity of religion "is most contrary to custom and experience", that belief in the inheritance of sensible qualities in material objects "carries no rational evidence with it", that ethics and aesthetics "are not to be controlled (sic) or altered by any philosophical theory", and that a theological ethic leads to the "absurd consequence" either that no action can be pronounced evil or that God is accountable for the evil.¹ From such assertions it is concluded that whatever Hume counts as rationally untenable he advocates discarding as "nothing but sophistry and illusion". ²

This interpretation disregards the important distinction he draws between the rational and the irrational. When Hume asserts, as he frequently does, that all reasoning is either abstract or experimental, he means precisely that: all reasoning is subsumed under one or the other of these categories. What he neither says nor means, but what he is frequently taken as meaning, is that he thereby excludes any other mode of understanding. In fact, not only does he consider phenomena that are beyond the pale of reason still to be in a sense knowable, but he even asserts that they are calculable — at least to the extent that these phenomena parallel, or form a compound with, "particular or general facts".³ Were he to account irrational phenomena as being

¹ Ibid., 32, 54, 131, 155, 103, 100.
² Ibid., 165.
³ Loc. cit.
entirely beyond human ken, this would stand in flagrant contradictions to, among other things, his theory of perception, his moral sense theory, and to his reiterated references to the objectivity of causation.

The evidence that any such discrepancy is due to critical misunderstanding rather than to Hume's disregard for consistency is provided in the closing three pages of the Enquiry where he sums up the mental geography with respect to all the faculties and restates the central point: that what is cognizable becomes so by virtue of the correct application of the varieties of reason and other faculties to their proper spheres; that "nothing but sophistry and illusion" arise from the failure to limit enquiry within these proper bounds.

The form that this summary takes is an "examination into the natural powers of the human mind and . . . their objects" so as to "find what are the proper subjects of science and enquiry":

Item, "The only objects of the abstract science or of demonstration are quantity or number" and the express or elliptic tautologies contained in "all those pretended syllogistic reasonings, which may be found in every other branch of learning . . . "

Item, "All other [rational] enquiries of men regard only matter of fact and existence . . . [which] can only be proved by arguments from its cause or its effect; and these arguments are founded entirely on experience, . . . which teaches us the nature and bounds of cause and effect, and enables us to infer the existence of one object from that of another."

Item, "All other [perceptual] ideas are clearly distinct and different from each other, [and] we can never advance farther, by our utmost scrutiny, than to observe this diversity, and, by an obvious reflection, pronounce one thing not to be another."

Item, "Morals and criticism are not so properly objects of the [rational] understanding as of taste and sentiment . . . Or if we reason concerning it, and endeavour to fix its standard, we regard
a new fact, to wit, the general tastes of mankind, or some such fact, which may be the object of reasoning and enquiry."

Item, "Theology . . . has a foundation in reason, so far as it is supported by experience. But its best and most solid foundation is faith and divine revelation."  

Viewed in this context, the concluding 'peroration' takes on a new meaning:

"When we run over libraries, persuaded of these principles, what havoc must we make? If we take in our hand any volume of divinity or school metaphysics, for instance; let us ask, Does it contain any abstract reasoning concerning quantity or number? No. Does it contain any experimental reasoning concerning matter of fact and existence? No. Commit it then to the flames: for it can contain nothing but sophistry and illusion."  

This does not advocate — as Hume's critics almost unanimously take it to do — the indiscriminate incineration of works of divinity or school metaphysics. What it does in fact recommend is the rejection of those theories that derive from abstract arguments regarding matters other than those appropriate to deductive demonstration or from experimen tal arguments regarding matters other than those appropriate to inductive inference.

This, then, sums up Hume's mental geography and its conclusions. As a result of the general neglect of, or the secondary status accorded

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1 Ibid., 163ff.  
2 Loc.cit.  
to, the Enquiry no complete account of this doctrine has ever been provided by Hume's critics and commentators. The few who have taken any cognizance of it at all have given incomplete or distorted versions by enumerating only some of the faculties or confusing generic and specific cognitive spheres or amending Hume's doctrine to fit some personal preconception or theory. Flew, for example, asserts that Hume draws his map of mental geography with a two-pronged "fork", abstract and experimental reasoning.  

Constance Maund attributes to Hume a theory comprising a fourfold division of cognitive objects: impressions, ideas, and the objects of abstract and experimental reason.

G.E. Moore advocates amending Hume's theory to allow for three kinds of proposition that we may know to be true: those asserting relations of ideas, those asserting matters of fact of which we have knowledge by observation or by memory, and those asserting inferred matters of fact.

N.K. Smith finds Hume's theory to imply a threefold distinction between immediate awareness, deductive knowledge, and inferential belief.

And MacNabb presents Hume's mental geography as stipulating four distinct ways of knowing: by perception, by memory, by demonstration, and by probable reasoning. While these theses may be an improvement on Hume, they do not seem to me to represent the doctrine expounded in the Enquiry.

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1 Flew, op. cit., Ch. III and 270f.
2 Maund, op. cit., 29ff.
3 Moore, op. cit., 166f.
4 Smith, op. cit., IV.
5 D.G.C. MacNabb, David Hume: His Theory of Knowledge and Morality (London: Hutchinson's University Library, 1951), III.
6 I agree with Jessop (op. cit., 157) that "we are unlikely to reach a just understanding of either the man or his work unless we take into account his judgement upon himself".
If it is granted that the Enquiry develops a faculty theory of knowledge along the lines I have proposed in the preceding pages, we shall be in a position the better to appreciate the independent importance of the Enquiry and to understand the relation between that work and the Treatise. Its importance lies in the fact that Hume nowhere else gives a complete, systematic account of this theory; hence it is to the Enquiry that we must turn for an insight into this aspect of his philosophy. With regard to the other point, a digressive examination of textual and biographical evidence is necessary.

In his correspondence, Hume tells how at the age of eighteen 'there seemed to be opened up to him a new scene of thought which transported him beyond measure'. He had discovered a medium whereby to terminate 'all those endless disputes even in the most fundamental articles of philosophy'. Hume's inspiration sprang from the observation that the deficiencies of philosophy were not so much due to illicit argument in detail as to erroneous methodology. The main form that this error assumed was the indiscriminate application of deductive reasoning, which had proved successful in one sphere of enquiry, to other spheres where it had no applicability at all. That mathematical problems and syllogistic conundrums had yielded to deductive methods of approach was taken as a ground for attempting the deductive proof of the existence of the self or of angels, or the circularity of celestial orbits and the validity of this or that moral system.

In daily life, Hume argued, factual and existential matters are determined by reference not to deductive principles but to "experience" and "analogy". He contended that, since we are so psychologically framed

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1 Letters, I, 13.
that this is how in fact such matters are determined, it is by refer-
ence to "experience" and "analogy" that factual and existential prob-
lems in philosophy are also to be resolved. It was not, for Hume, a
matter of the intrinsic nature of synthetic as against that of ana-
lytic propositions that made the former incapable of demonstrative
proof. It was, rather, a factor inhering in human nature: we accept the
truth of an analytic proposition because its contradictory is not
humanly conceivable; and, by the same token, we cannot treat a synthetic
proposition as necessarily true because its contradictory is humanly
conceivable. Hence it is that the Treatise is a Treatise of Human Na-
ture: the problems of philosophical methodology are rooted in human
nature, and they are subject to its limitations. 1

Hume considers that there are other alternatives to deductivism
than argument from "experience" and "analogy". Thus, there appear in
the Treatise rather full accounts of perceptual experience and of
the moral sense. However, his main aims in that work are two. First,
he wishes to show the limited applicability of abstract reason.
Second, and more important, he wishes to subject hitherto unresolved
(or unsatisfactorily resolved) questions of philosophy to his new mode
of investigation, the mode of experimental reason. 2 The outstanding
feature of his treatment of these questions is the detailed explora-
tion not only of the licit bounds of experimental reason but also of
its limitations. These are manifested in the contradictions absurdities
and paradoxes that arise when these limitations are transcended. This

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1 See the Abstract, 7 and passim.

2 The Treatise, as its subtitle suggests, is "an attempt to introduce
the experimental method of reasoning into moral subjects".
is the source of the notorious sceptical conclusions concerning space and time, material objects and personal identity, even reason and the senses themselves. But these conclusions need not and, I believe, do not represent Hume's position: rather they arise from the very scope of the *Treatise*, the analysis in various fields of conclusions arising from the application of experimental reason.¹

¹ I believe there is an illuminating analogy between the sceptical conclusions of Hume in the *Treatise* and those of Kant in Religion within the Bounds of Pure Reason (1793). There Kant examines three speculative arguments for the existence of God: the ontological argument, the cosmological argument, and the argument from design. He finds that each of the three fails and concludes therefrom that speculative theology is a tissue of errors. Similarly, Hume concludes in the *Treatise* that, so far as certain types of reason are concerned, there are no grounds for asserting the infinite divisibility of time and space, for believing in external existences, or for entertaining the notion of personal identity. But neither Kant nor Hume insisted on the finality of these negative conclusions. What both did insist on was that the negative conclusions followed from given premises considered in a certain light.

Had Kant written nothing further on the theological problem, he would have been accounted an agnostic; but this, of course, was not his final position. Neither was the ontological agnosticism of the *Treatise* Hume's final position. That Hume was indignant at the thought that this should be taken as the interpretation of his doctrines is well illustrated by his remark in a letter to John Stewart: "But allow me to tell you, that I never asserted so absurd a Proposition as *that anything might arise without a Cause*: I only maintain'd, that our Certainty of the Falsehood of that Proposition proceeded neither from Intuition nor Demonstration; but from another Source... There are many different kinds of Certainty; and some of them as satisfactory to the Mind, the perhaps not so regular, as the demonstrative kind." (Letters, I, 187)
The nature of the criticism that the Treatise attracted persuaded Hume that he had failed not only in effecting the desired methodological revolution but even in achieving comprehensibility. For this Hume accepted the blame, attributing it not so much to the matter of the Treatise as to the manner in which its doctrines had been presented. However, that the alleged formal defects had little to do with stylistic niceties is intimated by that work’s continued reputation as a superb example of eighteenth century prose. And that it was also not due to excessive prolixity is attested by the remarkable economy of treatment of many of its major topics: four pages on "Of knowledge", two on "Of Relations", one and a half on "Of Modes and Substances", and so forth. The length of the Treatise is a function not of the detailed or repetitious treatment of any single topic, but rather of the number of topics covered. This, however, is unexceptionable in a book purporting to examine the conclusions of experimental reason over so wide a field of topics as is comprised by the category of "moral subjects".

Indeed the only specific defect that Hume explicitly deplores is "the positive Air, which prevails in that Book, and which may be imputed to the Ardour of Youth". What this refers to is, I believe, what does in fact constitute the major shortcoming of the Treatise. This is his assertion of philosophical conclusions without the provision of an adequate or systematic account of the assumptions on which these conclusions are based. The Treatise is the application of an epistemological theory — or of parts of such a theory — but of the theory itself the reader is left largely in the dark.

1 Letters, I, 187.
It was this gap that the Enquiry was to fill: in it Hume passed from the proliferation of instances to the construction of a theoretical underpinning for everything that the Treatise contains, and more. Although some of the illustrative examples of the Treatise are retained, many others can now be omitted to make room for a more thorough presentation of the foundations of his theory. Hence his claim, "Adde dum minuo." This view of the Enquiry as complementing and explaining the doctrines of the earlier work also makes sense of his assertion that "the philosophical Principles are the same in both"; the Enquiry presents these principles that the Treatise assumes and applies. Again, it provides some reason and justification — besides wounded vanity — for his advice against the reading of the Treatise. For unless the doctrines of that work are carefully considered in the light of the epistemological theory of the Enquiry, they are subject to the kind of misinterpretation represented by the narrow view of his theory of the understanding that recognises only two constituent categories, or by the sceptical conclusions which are attributed to him and which he consistently denied as representing more than the conclusions of certain rational practices.

For a balanced view of his philosophy, we need to reverse the exegetical procedure usually applied to Hume. We need to regard the Enquiry neither as a republication nor as a revision of the Treatise, but rather as a work that complements the Treatise, and one which may constitute the primary source for an understanding of Hume's epistemology and ontology. The remaining sections of the present thesis are devoted to an examination of these aspects of his philosophy as they are presented through the mental geography already outlined above.

1 Ibid.158. 2 Loc.cit. 3 Loc.cit.
IV. ABSTRACT REASON.

Since Hume's system comprises five faculties, each of which can appropriately or otherwise be applied to any of five major cognitive spheres, there are twenty-five distinct areas which together constitute the terrain to be investigated by the mental geography. Of this number only a few represent what to Hume is a permissible exercise of the faculties: the rest transcend the bounds of human understanding. Hume marks this distinction either by explicit reference to "just reasoning" and "unjust reasoning" or by exposing the paradoxical or otherwise untenable consequences arising from certain modes of understanding. 2

There are two possible approaches to the exposition of the type of faculty theory contained in the Enquiry. The first is to take in turn each of the cognitive spheres and to investigate the extent to which the various faculties are applicable to it. The second is to start with the faculties and attempt to apply each in turn to the various cognitive spheres. The end result of each approach will be the systematic examination of each of the modes obtained by applying five faculties to five cognitive spheres. Although no complete survey of the mental geography has yet been offered, the usual exegesis of Hume has been a partial exposition along the former lines, and Hume's own approach has also been the

1 For example, Enquiry, 113, 136.  
2 Ibid., 100, 156.
first of these two. In Hume's case, this seems to have been dictated by his predilection for making his point through the medium of an illustrative example. He has generally taken a problem typical to a sphere of enquiry — the existence of God or of material objects, the validation of probabilistic judgements, freedom of the will, and the like — and examined the nature and the extent of information that can be elicited about such a problem by various methods of enquiry. After claiming to show that certain methods terminate in paradoxical conclusions and others in neutral conclusions, he argues that the remaining method is the only one appropriate to the question at all. 1

While there is no inherent disadvantage in the first approach, the second has been adopted in the present thesis. By this approach it is hoped, first, to overcome the tendency to treat what are essentially illustrative examples as the major aspect of his epistemology. It is true that the conclusions regarding the individual cases are intrinsically important, and the critical attention lavished on them attests to their importance; but it is also true that these individual cases have tended to obscure the perspective of his epistemology as a whole. This is indicated by the failure to relate them to his epistemological system. Second, it is hoped to rectify what I consider to be misunderstandings of the individual doctrines due, in part, to this failure to relate them to his faculty theory. The misunderstandings are exemplified by those interpretations of Hume's negative conclusions due to a misapplication of reason, as indicating his advocacy of a general scepticism concerning that question or that whole field of enquiry. Third, it is hoped that this approach will throw into

1 Vide his discussion of causality in Enquiry, IV and V.
sharper relief the nature of his epistemology as a faculty theory of knowledge. The present section is concerned with that part of his mental geography that deals with abstract reason and its relation to the various cognitive spheres and to other faculties.

Hume's criteria for distinguishing between the propositions of abstract reason and those of experimental reason include elements from the criteria for distinguishing among the propositions of two other dichotomies adopted in later empirical systems: the a priori - a posteriori dichotomy and the analytic - synthetic dichotomy. However, since Hume's aversion to presenting an "abstruse philosophy" led to the omission of any systematic account of these criteria, the following remarks can claim to be no more than a reconstruction of this aspect of his doctrine from the "hints" with which he hoped to "excite the curiosity of philosophers".

The first criterion is what may be termed the "a prioristic criterion". What distinguishes the propositions of abstract reason is that they are "discoverable by the mere operation of thought, without dependence on what is anywhere existent in the universe". In his disquisition on the infinitesimal calculus, Hume goes even further than to suggest the independence of abstract reason from empirical tests: he claims that there exists an incompatibility between the conclusions of abstract and of experimental reason when applied to the same problem. The point there under discussion is the quantitative valuation of the angle of contact between a circle and its tangent. In Leibnizian calculus, any such angle, which is initially infinitely smaller than a right angle, continues to decrease infinitesimally in proportion to an increase in the diameter of the circle. Considered abstractly, Hume asserts, the argument whereby this is proved seems "unexceptionable"; but applied to spatial figures the conclusion is "big with contradiction and absurdity". (In modern mathematics, the angle under discussion is simply taken as equal to zero.) Hume's reasoning, here as elsewhere, is along the line that what may validly be asserted of concepts or entities in one sphere cannot be transposed to another by the mere substitution of terms.

The first criterion is in turn made dependent on another: what makes abstract propositions knowable a priori is their analyticity. Mathematical propositions, for example, are true because their conclusions are

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1 Ibid., 25.
2 Ibid., 156 ff.
3 Ibid., 37 and 163.
already 'contained' in the premises. The mathematical propositions which Hume discusses in this connection are equations. A second variety of abstractly true proposition is the verbal tautology, which depends for its truth on a special species of analyticity: the equation of the subject and the predicate by definition. "But to convince us of this proposition, that where there is no property, there can be no injustice, it is only necessary to define the terms, and explain injustice to be a violation of property."\(^1\)

The principle of analyticity is, in its turn, made to rest on yet a third criterion, the law of contradiction.\(^2\) If the negation of a proposition is self-contradictory, then its affirmation is abstractly true; if not, then the proposition is not subject to abstract validation by the test of analyticity.

We have, thus, a hierarchy of criteria. The abstract is what can be known a priori; the a priori is what is analytic; and the analytic is true by virtue of the law of contradiction.

Occasionally Hume introduces a fourth criterion which is sometimes allied to, and sometimes identified with, the law of contradiction. This criterion is 'the inconceivability of opposites'.\(^3\) If a state of affairs, opposite to that expressed by a proposition, cannot be conceived (presumably as a perceptual idea or 'mental image'), then the proposition affirming the state of affairs is formally true and hence one of abstract reason: if the opposite is conceivable, the proposition is not formally true and hence not one of abstract reason. Like the law of contradiction,

\(^1\) Ibid., 163.  
\(^2\) Ibid., 18 and 164.  
\(^3\) Ibid., 26 and 164.
this is proffered as a test of analyticity. Unlike that law, however, it does not express a logical relation; rather it describes an alleged psychological fact.

The object of abstract reason is that science, or the propositions expressing the content of that science, which meet the requirements of the criteria. Hume's generic name for this science is "relations of ideas", a term under which are subsumed the three traditional branches of mathematics and, as a separate species, syllogistic logic. Hume excludes all non-analytic propositions from the scope of abstract reason both implicitly by the application of his criteria and explicitly by the express limitation of what counts as relations of ideas to these species. Although other propositions are thereby automatically excluded, much of the Enquiry is devoted to detailed argument for the inapplicability of abstract calculus to the excluded propositions and to an exposition of the fallacies that arise from such a misapplication. His procedure is to select propositional and situational paradigms in each of the excluded spheres and to generalize from the paradigms to the whole sphere.  

The cognitive sphere designated by the generic term "matters of fact" coincides with the logical positivist category of "empirical" or "synthetic" propositions except that Hume's genus excludes propositions relating to the varieties of "perception". Among matters of fact Hume distinguishes two species: "matters of fact" and "real

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1 Ibid., 25, 31, 108, 163.
2 For paradigms of abstract reason see Ibid., 25 and 163 f.
existencei!J"• The latter species comprises existential propositions of
the type "x exists"; the former, predicative assertions regarding that
which is said to exist. This distinction is not fully developed by Hume;
and the identity of generic and specific names further obscures his ar-
gument. However, that he intends to draw some such distinction is indicat-
ed by those passages where he mentions the species jointly without the
suggestion that they are alternative names, and by other passages where
he considers one as specifically distinct from the other.¹ That most of
his discussion of the inapplicability of abstract reason to non-analytic
assertions is centered on its inapplicability to empirical propositions
is due to the prevalence in his time of speculative systems claiming to
be based on self-evident premises and valid inferences on subjects such
as "those concerning the origin of worlds, or the economy of the intellec-
tual system or region of spirits, ... and the situation of nature, from
and to eternity". ² The Enquiry is, therefore, particularly rich in matter
of fact paradigms.³

The development of his argument from these paradigms is highly rami-
fied and complex. In the first instance, he attempts to relate all generi-
cally factual propositions to a single paradigmatic proposition — the
causal maxim. This reduction includes both existential and predicative
propositions:

"... All our evidence for any matter of fact, which lies beyond
the testimony of sense or memory, is derived entirely from the
relation of cause and effect ..."

"The existence, therefore, of any being can only be proved by

¹ For example, Enquiry, 26, 35, 164.
² Ibid., 81 and 162.
³ Ibid., 29, 32, 33, 43, 45, 53, 54, 87, 89, and others.
arguments from its cause or its effect . . . "

In the second instance, he attempts by means of logical argument illustrative example and psychological description to show that the causal maxim — and hence the factual and existential propositions which depend on it — cannot be deductively derived.

Given the correctness of his analysis of abstract reason, "Hume's deathblow to deductivism" can be more briefly and simply stated. If a priori knowledge depends on analyticity and analyticity depends on the law of contradiction, it follows that neither existential nor matter of fact propositions can be affirmed on a priori grounds. The negation of propositions of the type "\( x \) is \( \phi \)" and "\( x \) exists" is not self contradictory; hence the affirmation is contingent.

Neither Hume's reduction of empirical propositions to the causal maxim nor the extra-logical arguments are essential to his case. In fact, they tend to obscure the very point that they are intended to reinforce. Of course, that point is itself explicitly stated by Hume:

"That there are no demonstrative arguments for the assertion that like sensible qualities must always be attended with like secret powers seems evident; since it implies no contradiction that the course of nature may change, and that an object, seemingly like those which we have experienced, may be attended with different or contrary effects." 3

"When a man says, I have found, in all past instances, such sensible qualities conjoined with such secret powers: And when he says,

1 Ibid., 159 and 164. The subordinate clause in the first passage is intended to separate from the discussion "perceptual" propositions.

2 The title of an article by D.S. Miller in Journal of Philosophy, XLVI (1949).

3 Enquiry, 34 ff.
Similar sensible qualities will always be conjoined with similar secret powers, he is not guilty of a tautology... \(^1\)

"If we reason a priori, anything may appear able to produce anything." \(^2\)

The whole doctrine concerning the inapplicability of abstract reason to matters of fact is summed up in the dicta: "Whatever is may not be" and "No negation of a fact can involve a contradiction." \(^3\)

At this point we may briefly examine some of the types of criticism levelled at Hume's analysis of the relation of abstract reason to the two rational cognitive spheres. First to be considered is Quine's suggestion that the analytic-synthetic dichotomy is itself nothing more than "an unempirical dogma of empiricists, a metaphysical article of faith." \(^4\) Instead of an exhaustive and mutually exclusive division of propositions into necessary and contingent classes, Quine offers a graded and constantly ratifiable scale of propositional values. His rejection of the traditional propositional categories rests essentially on a criticism of their criteria: verifiability in the case of synthetic propositions; synonymy in the case of analytic propositions. Since there seems to be no satisfactory way of making sense of these basic notions, the categories which ultimately rest on them are themselves untenable. A further criticism of analyticity arises from its failure to satisfy the primary requirement demanded of it: that its conclusions be immune from revision. Yesterday's indubitable deductive truths, Quine correctly points out, are today's controvertible hypotheses.

\(^1\) Ibid., 37.
\(^2\) Ibid., 164.
\(^3\) Loc. cit.

The dichotomy is therefore not only invalid, but it is also useless for arriving at the certainties which it promises to provide.

Quine's argument — and subsequent developments of the theme — has at least so much force that it is no longer possible to consider the traditional propositional categories as universally valid absolutes. However, I agree with Putnam¹ that the dichotomy can survive in an amended form: that is, as a stipulation convenient for, and valid within, an axiomatic system. To the question whether we wish a discredited concept to survive in any form, I think the answer is yes. This is so because the analytic-synthetic dichotomy happens to provide us with a convenient distinction, at least for the purpose of formal languages, between statements that are regarded as axiomatic — that is, immune from revision within the system — and those that are regarded as not immune from revision. And it is true today, as it was in Hume's time, that such a distinction provides a useful operational tool in logic and mathematics.

It may also be that Quine's requirements for the determinacy of the expressions in the dichotomy are too stringent. There is in logic no stronger and no weaker a basis for any other possible distinction than there is for that between analytic and synthetic propositions. What this argues is the view that, perhaps, all distinctions are conventional: but while the absence of a logical basis for a distinction may prevent that distinction from being regarded as a transcendental absolute, it need not prevent it from being used within a logically defined system.

Lastly, even if we are unable to arrive at a satisfactory definition of analyticity or any of its criteria, we are thereby neither assured that no such definition is obtainable nor debarred from using the category undefined. We may sidestep the issue of definition by stipulating the conditions of its use as an undefined operator in a logical system. Such a logic incorporating analytic propositions provides us, if not with immutable truths, at least with a symbolic convention "allowing us to use pairs of expressions inter-changeably"¹ or to "pronounce one thing not to be another".²

A second criticism directed at Hume is the contention that he does not in the proper sense provide a philosophical solution to an epistemological problem. His entire discourse amounts to no more than a psychological description of what allegedly occurs when we engage in cognitive activity.³ Hume might be excused — though his doctrine cannot be vindicated — on the historical ground that there was no clear conceptual or methodological demarcation between epistemology and psychology in his day. The more constructive critics have suggested that something can be salvaged from his doctrine if we make the appropriate logical substitutions for Hume's psychological terminology. Thus we

¹ Putnam, op. cit., 396; and see also J. Bennett, "Analytic-Synthetic", P.A.S., LIX (1958-9).
² Enquiry, 163.
might read "stipulative" and "derivative" for Hume's "intuitive" and "demonstrative" truths and, following Passmore, "things" and "empirical propositions" for Hume's "impressions" and "beliefs". In fact, however, although Hume's statement cannot be regarded as a rigorous logical exposition, he has himself provided in many instances (as I have attempted to indicate by selecting for quotation the more 'logical' passages of the Enquiry) epistemological equivalents for what he elsewhere treats in psychological terms.¹

A third criticism to be considered involves the claim that Hume errs in excluding from the province of abstract reason all matters of fact, and the claim consequent on this that some matters of fact can be known abstractly. This question has been approached from many sides: as the problem of predictability, as the problem of providing justification for theories of probability, as the possibility of logical argument from past to future, from the observed to the unobserved, from the known to the unknown, from a sample to the whole species, and from a sample to another sample within a species. It opens up the whole immensely complex and ramified question of the justification of induction. It is not within the scope of the present thesis to examine the solutions proposed to this problem; but since much of what has been written on the subject takes Hume as a starting point, and since writers who affirm the possibility of a positive solution commence by invalidating Hume's doctrine, it is intended to indicate the lines of attack against Hume and briefly to evaluate the cogency of these lines.

¹For opposing views on whether alternative languages can generate conceptual equivalences, see for example A.J. Ayer, The Foundations of Empirical Knowledge (London: Macmillan, 1963), V; and the Appendix to Chisholm's Perceiving.
The 'naive causalism' of the dialectical materialist relies on the argument that deliberate human manipulation of nature and successful prediction of physical experiment or of astronomical calculation prove the objectivity of causality as an operative factor in nature. Engels, who uses such an argument, considers that abortive experiments even provide additional support for causalism: "It is precisely this which proves causality instead of refuting it, because we can find out the cause of each such deviation from the rule by appropriate investigation... so that here the test of causality is so to say a double one."¹

Apart from the fact that Engels is driven to concede that "Hume's scepticism was correct in saying that a regular post hoc can never establish a propter hoc", this variety of naive causalism misses the point of Hume's analysis. For Hume's doctrine is not concerned with subverting the objectivity or the success of causally based prediction: "I have never asserted so absurd a Proposition as that any thing might arise without a Cause."² What he is concerned with, at least in the negative sense, is to establish broadly what Engels has conceded: that in reasoning from the known to the unknown, from the past to the future, "there is a certain step taken; a process of thought, and an inference, which wants to be explained";³ and that "the knowledge of this relation is not, in any instance, attained by reasonings a priori".⁴

² Dialectics, loc. cit.
³ Hume, Letters, I, 185 ff.
⁴ Enquiry, 33 f.
⁵ Ibid. , 27.
An allied if somewhat more sophisticated criticism of Hume's doctrine is the 'alternative cosmology' argument. It springs from a rejection of Hume's theory of perception and, in particular, of that part of the theory which argues for the logical independence of each percept from any other percept. It is this 'kaleidoscopism' that is seen as the major barrier to conceiving the universe as an ordered entity regulated by discoverable laws and subject to a predictive calculus. In order to permit such a calculus to operate, alternative cosmologists argue that the possibility of logical entailment among events must be postulated. Reid's introduction of this principle is simply to declare the causal maxim as one of his "three first principles of necessary truths". Although couched in less dogmatic terms, the modern variation of this argument shows no basic alteration. Thus Hartshorne claims that, since we do in fact rely on inductive prediction and since we have no better method of dealing with the future, we must adopt as an axiom the logical dependence of events upon their predecessors; and Whitehead argues for such a postulate as a "necessary preliminary, if we are to justify induction".

The alternative cosmology argument does not claim to refute Hume: in fact it admits that, given perceptual kaleidoscopism, "Hume's argument concerning induction is irrefutable". What it does is to plead that

1 Reid, op.cit., 396 ff. The other two truths are the reality of mind and matter and the deducibility of intelligent purpose from the design of the universe.

2 Hartshorne, op.cit., 162.


the consequences of Hume's theory are repugnant and that the alternative cosmology is necessary to save science from scepticism:

"If the cause in itself discloses no information as to the effect, so that the first invention of it must be entirely arbitrary, it follows at once that science is impossible, except in the sense of establishing entirely arbitrary connections which are not warranted by anything intrinsic to the natures either of causes or effects. . . . But scientific faith has risen to the occasion, and has tacitly removed the philosophic mountain."¹

The sort of theory that Whitehead believes is saved by scientific faith is contained in the following passage:

"The issue of the combined labours of Galileo, Newton, Descartes, and Huygens has some right to be considered as the greatest single intellectual success which mankind has achieved. In estimating its size, we must consider the completeness of its range. It constructs for us a vision of the material universe, and it enables us to calculate the minutest detail of a particular occurrence."²

The rejection of Hume's theory on such grounds as Whitehead's seems unjustified, first, because the question of the consequence of a theory is distinct from that of its validity. But even if the consequence is such as Whitehead suggests, and even if this is a relevant issue, then that question — as far as one school of modern science is concerned — has been settled in favour of Hume. J. Robert Oppenheimer sums it up in these words:

"Quantum theory is, of course, an acausal theory in the sense that events happen for which no precise cause can be determined or given. A given nucleus disintegrates at three o'clock on the afternoon of a certain day. No one in the world could find out when that would happen until it did happen. . . . It is a non-determinist theory. There is no possibility, as there was in Laplace's nightmare, of knowing everything about the world right

¹ Whitehead, op. cit., 4.
² Ibid., 47.
now—not a very plausible assumption—and therefore knowing all about its future—not a very happy outcome... Everything about this is quite different from the Newtonian picture.\textsuperscript{1}

What is important about the acausality of quantum theory is that the unpredictability of physical events (beyond statistical probability) is not merely the result of incomplete knowledge. That is, it cannot be argued that we could foretell the disintegration of a given nucleus at a particular instant in the future if only we had sufficient knowledge of the state of the universe at present. Such absolute predictability is impossible even in theory because, in quantum mechanics, the "attributes of physical objects can no longer be given absolute content.\ldots"

A characteristic feature of the quantum mechanical description is that the representation of a state of a system can never imply the accurate determination of both members of a pair of conjugate variables $p$ and $q$.\textsuperscript{2}

For the physicist, therefore, science does not require to be saved from Hume's criticism of an a priori causal principle. In fact, the discovery of the universal quantum of action "is not only foreign to the classical theories of mechanics and electromagnetism, but is even irreconcilable with the very idea of causality."\textsuperscript{3}

A different attempt to re-establish the a priorism of induction is represented by the argument for an analytic relationship between the premises and the conclusion in an inductive argument. Of several

\textsuperscript{1} R.J. Oppenheimer, \textit{The Flying Trapeze: Three Crises for Physicists} (London: Oxford University Press, 1964), 53.

\textsuperscript{2} Niels Bohr, "On the Notions of Causality and Complementarity", \textit{Dialectica}, II (1948), 312 ff.

\textsuperscript{3} \textit{Loc. cit.}
attempts at such a propositional solution, one of the most fully evolved is that of Donald Williams.¹ At the outset of his work Williams claims that induction can be justified by analytic a priori means as a formal relation holding between propositions. In particular, the conclusion at which he wishes to arrive is the thesis that "knowledge that in an observed part of a class \( M \) the property \( P \) is present in a certain proportion gives us a reason, analogous to that provided by the premises of a syllogism though less conclusive, for believing that in the whole of the class \( M \) the property \( P \) is present in a similar proportion".² The claim for "reason" (instead of "proof") and "analogy" (instead of "homology") is only the first dilution of Williams' theory. By the end of the work, in fact, much less is fulfilled than was initially promised. In his argument for the propositional entailment of class statements by sample statements, Williams relies on the intermediacy of what is claimed to be "an analytic truism": namely, the law of large numbers. This is described as "an a priori law of classes, demonstrable by logical analysis".³

It is obvious from Williams' argument that he recognizes the need for some such intermediating premises as the law of large numbers. The crucial question in evaluating his solution is whether that law, or any reasonable equivalent, is indeed an analytic truism or whether it is an arbitrary assumption postulating what it is required to support:

² Ibid., 20
³ Ibid., 81 and 139.
namely, that there exists a logical bond between the relative frequency of a property in a sample population and the relative frequency of that property in the whole population. Certainly if such a logical bond obtains, it follows that inductive propositions — at least those that generalize from a sample — can be deduced. But it is precisely the logical character of the bond that Williams fails to establish.¹

The law of large numbers itself, therefore, remains an inductive principle assumed for the purposes of justifying induction, and Hume’s question still goes begging: "Where is the medium, the interposing ideas, which join propositions so very wide of each other?"²

What appears to be the most fruitful method of circumventing Hume’s criticism is to treat inductive inference as the application of probability theory. Like the previous proposal, this one may also be examined by considering a sample argument in its favour.³ Feigl criticizes Hume for treating the probability in favour of an induction as a psychological or subjective matter, specifically as a degree of belief or an intensity of expectation based on habit, — a fair summary of the view expressed in Enquiry VI. Against this Feigl raises the possibility of two objective interpretations of induction: probability considered as a logical relation (after Leibniz, Bolzano, Nicod, Keynes); and probability considered as the limit of a statistical frequency

¹ In "Professor Donald Williams versus Hume", Journal of Philosophy, XLIV (1947), D.S. Miller winds up his argument with regrets that Williams’ "rare capacities and knowledge should have been devoted to an enterprise that Hume exposed as impossible two hundred years ago; the laying of a deductive foundation for induction".

² Enquiry, 37.

(after Venn, Peirce, Mises). The former is rejected for much the same reasons as those adduced against it by Russell\(^1\) and Strawson\(^2\) namely, that it is an inductive justification of induction and therefore begs the question. Feigl's solution is to consider the probability of induction as the extrapolation of statistical frequencies not involving the predication of any probability at all:

"The principle of induction, formulated in terms of the frequency theory, states simply that those regularities which have held so far without exception will be found to hold most frequently in the future. According to this analysis, the probability of induction is always secondary and hypothetical, and can never be a genuine attribute of pure generalization."\(^3\)

What seems to me most striking about this formulation of the frequency theory is that it is a paraphrase of Hume's formulation — with the difference that Feigl proffers a bare assertion without Hume's explanatory reference to psychological expectation. How this change suffices to render induction objective is not at all clear. Apparently Feigl also saw that the principle of induction could not be left in the form of an assertion, since it would then be open to the same demand for justification as any other inductive assertion. He therefore proceeds to transmute his original statement into something that will be immune to this demand, — "a hypothetical imperative" whose "meaning is not factual but motivational".\(^4\) Thus the "real" principle of induction is made to read as follows:


2 P. F. Strawson, *Introduction to Logical Theory* (London: Methuen, 1952), IX.

3 Feigl, *op. cit.*, 301.

4 Ibid., 302 f.
"Seek to achieve a maximum of order by logical operations upon elementary propositions. Generalize this order (whatever its form be: causal, statistical or other), with a minimum of arbitrariness, that is, according to the principle of simplicity."¹

This reformulation of the inductive principle — or, as it now stands, procedure — does not seem to me either to save it from sceptical questioning or to eliminate from it an implicit psychological element. First, if the assertion is vulnerable to the question "Why is it so?" the hypothetical imperative is equally vulnerable to the question "Why should I follow this procedure if I want some success in prediction?" Second, the hypothetical imperative can be taken as secondary to, or derived from, the psychological description of how we in fact proceed in inductive judgments. Considered in this light, Feigl's hypothetical imperative is the counterpart of Wittgenstein's description:

"The procedure of induction consists in accepting as true the simplest law that can be reconciled with our experiences. This procedure, however, has no logical justification but only a psychological one."²

The nature of the psychological justification consists in the fact, observed by Hume, that where a particular effect has always been found conjoined with a particular cause, we always expect the effect upon the appearance of the cause; and where several effects have been found to follow from a single cause, we proportion our expectation of the possible effects according to the quantitative experience of their conjunction with the cause.³

¹ Loc. cit.
³ Enquiry, 58.
In conclusion it is worth noting that, in the same way that the physical sciences have been found to be compatible with acausalism, probability theory has been found to be compatible with subjectivism. The apparent ineradicability of a subjective element in probability has led to its incorporation among the basic concepts of that science. Thus the Bayesian method considers probability to be concerned with "degrees of belief" which depend on three variables: the proposition believed, the proposition assumed, and "the general state of mind of the person who is doing the believing". 1 "Belief" itself is taken as a primitive notion 2 and, although it is no less a rigorous system for the fact, it explicitly admits to using as its raw material "subjective judgements . . . [without which] the theory would be tautological in the sense in which pure mathematics is tautological". 3 This concession to subjectivity is necessitated by the fact that, without arbitrary stipulation, there simply does not exist a sample of samples. Consequently, in estimating the probability of a binomial distribution the Bayesian must either guess the distribution of one element "or he must select [it] to 'represent his ignorance' . . . ." 4

The two concomitant doctrines we have so far examined, the limitation of abstract reason to relations of ideas and the inapplicability

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1 I.J. Good, Probability and the Weighing of Evidence (London: Charles Griffin, 1950), I.
2 Cf. Incerti, 48 f.
3 Good, op. cit., Preface.
of abstract reason to matters of fact, were undoubtedly among the most important and novel aspects of Hume's mental geography. The relation of abstract reason to irrational cognition, if not strictly entailed by these doctrines, is at least implicit in them. In his arguments for the non-deducibility of ethical and theological propositions Hume was able to rely to some extent on the work of the moral sense philosophers and the proponents of natural religion respectively. Therefore, the Enquiry is able to dispense with lengthy arguments on these subjects.

Hume considers ethical and, in general, evaluative questions to be concerned with "principles which . . . excite our sentiments, and make us approve or blame any particular object, action, or behaviour"; and the rationalist approach to the same questions as the quest "for some common principle, on which this variety of sentiments might depend". However, while Hume's "principle" is descriptive, what he attributes to the rationalists is the desire to establish "principles" which express "eternal and immutable relations, which to every intelligent mind are equally invariable as any proposition concerning quantity or number".

The rebuttal of a deductivist ethic is contained in Treatise III and in the second Enquiry. In the first Enquiry Hume does not offer any detailed counter-argument to it; he is more concerned with dissociating ethics from experimental reason and from theological arguments. However, it follows both from his analysis of the scope of abstract reason and from his definition of the nature of ethics that the latter does not

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1 Enquiry, 6.
come within the province of the former. If reason impinges in any way at all on the sphere of ethics, and Hume suggests that it does, then it is only in so far as ethics is concerned with judgements on states of affairs; and hence the only rational faculty that might come into play with regard to ethical propositions is experimental reason.

It was true of Hume's day, the era of the deist controversy, that "there is not a greater number of philosophical reasonings, displayed upon any subject, than those, which prove the existence of a Deity, and refute the fallacies of Atheists..." What Hume has called the 'religious hypothesis' consists, in his view, of one primary and several secondary elements. The former is the assertion that God exists; the latter is the predication to this 'real existence' of various attributes volitions and activities. In Hume's terms, the main elements of the hypothesis are judgements concerning "a divine existence, and consequently a divine providence and a future state". The religious hypothesis suggests that God is the creator and the "supreme governor of the world, who guides the course of events, and punishes the vicious with infamy and disappointment, and rewards the virtuous with honour and success".

Hume has a dual epistemological interest in the hypothesis: first, to ascertain how we can possibly know the hypothesis itself; and second, whether (given the hypothesis) any other facts or propositions can be derived from it. For the present, I shall limit discussion to the first of these aspects, and in particular to the relevance of abstract reason to the proof or disproof of the hypothesis.

\[1\] Enquiry, 149.  
\[3\] Op. cit., 133  
Hume does not consider in detail what among his contemporaries and predecessors passed as a priori arguments in favour of the religious hypothesis. These arguments generally took one of two forms: arguments for the necessary existence of God (the ontological argument, the argument from degrees of perfection, and the argument from contingency and necessity); and various forms of the causal argument (the cosmological argument and the prime mover argument). He neither affirms nor disaffirms the efficacy of these arguments; he simply denies that they are a priori.

"That the divinity may possibly be endowed with attributes, which we have never seen exerted; may be governed by principles of action, which we cannot discover to be satisfied: all this will be freely allowed. But still this is mere possibility and hypothesis. We never can have reason to infer any attributes, or any principles of action in him, but so far as we know them to have been exerted and satisfied." ¹

"Not only the will of the supreme Being may create matter; but, for aught we know a priori, the will of any other being might create it, or any other cause, that the most whimsical imagination can assign." ²

Since the religious hypothesis consists of affirmations regarding real existences and matters of fact, and since both kinds of affirmation are calculable solely by experimental reason, it follows that if the religious hypothesis is to be judged by any form of reason then it is to be judged by experimental reason. ³ And indeed it is to the empirical arguments for the existence of God that Hume addresses himself in some detail in the Enquiry. Abstract reason is indifferent to the hypothesis.

¹ Op.cit., 141
³ Cf. Hume, Dialogues, IX.
The present section has been concerned with Hume's theory regarding the relation of abstract reason to various cognitive spheres. His general conclusion may be summed up as the claim that knowledge results from the correct application of abstract reason to its proper cognitive sphere — relations of ideas — and that the misapplication of abstract reason to inappropriate cognitive spheres — matters of fact, value judgments, and the religious hypothesis — produces at best inconclusive results. In some cases, discussion has been extended to an examination of ramification of Hume's theory and to a consideration of some possible criticisms of the theory. Subsequent sections are planned along the same lines. They include an exposition of the relationship of each faculty to what Hume considers to be its appropriate sphere, and to those which Hume considers inappropriate to it; an examination of the extent of knowledge (or understanding) that Hume claims to be attainable or not attainable by such application; and a critical discussion of some of the issues raised by these doctrines.
V. EXPERIMENTAL REASON.

Reason, according to Hume, is the exercise of calculative procedures on given conceptual or perceptual material. Certain kinds of argument, those governed by the law of contradiction, are amenable to the procedures of abstract reason. However, other species of human calculation are not so governed and are therefore not amenable to analytic procedures. It is how these non-analytic arguments are calculable that is the subject of Hume's investigation into experimental reason.

Hume takes the objects of experimental reason to be matters of fact: that is, what is expressible by factual or existential propositions (or propositions that do not infringe the law of contradiction) — other than those with a perceptual or an evaluative or a theological content. Loosely, this defines what today would be termed elliptic or explicit inductive inferences. His reduction of the question of how such inferences are justified to the question of how we can know causal laws is perhaps the only undisputed aspect of his theory of experimental reason.¹ It is his treatment of the nature, and our knowledge, of causal laws and the supposed implications of Hume's solution to these questions that have formed the background to the controversy over Hume's theory.

¹ Enquiry 32, 35, 46. For a modern argument along similar lines see B. Russell, An Outline of Philosophy (London: Allen & Unwin, 1932), XXV.
Formulated as a law, causality makes it possible, given certain factual or existential factors, to infer something about other factual or existential factors. It assumes that the unobserved parameters in, say, an experimental situation possess precise values which, if they were known, would make precise prediction of the experiment possible — so long as the known parameters remain constant. Thus, if an exclusive causal relation is said to hold between two events, A and B, it is possible from the observation of either A or B to infer the past or future or simultaneous occurrence of the absent member of the pair.

Hume explicitly deals with the predictive and the 'retrodictive' utility of causality. As an instance of the former he cites the predictive inference that bodily contact with fire will prove painful; of the latter, the inference regarding the existence of past human habitation in a presently uninhabited locality where there are ruins and other human artefacts. 1 To these might be added the importance of causal laws in inferring concurrent events, as when doctors use visible symptoms to infer the presence of disease germs. What is common to these otherwise diverse instances is that the inference proceeds from something known (given in sense experience or memory) to something unknown. The link between the present fact and that which is inferred from it is the supposition that they are causally connected, and that such an inference is therefore possible. 2

The negative part of Hume's analysis of the concept of causality consists in the argument that certain of the faculties are incapable

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1 The Enquiry abounds in paradigms of experimental reason. See pp. 26, 29, 33, 43, 45, 51, 56, 58, 63, 66, 69, 77, 84, 87, 91, 98, among others.

2 Ibid., 27.
of acting as the cognitive source of the notion of causality. In the present thesis this is dealt with in the individual sections devoted to each of the faculties. The positive part of his doctrine consists of what claims to be a description of how the causal link is actually discovered. In his quest for the proper source of this notion, Hume takes as the basis of his further argument two empirical observations.

The first of these is the fact that a causal relation is known to obtain among events or things only after appropriate experience of one of three types. One of these may be termed 'the repeated homologous experience':

"It is only after a long course of uniform experiments in any kind, that we attain a firm reliance and security with regard to a particular event. . . When one particular species of event has always, in all instances, been conjoined with another, we make no longer any scruple of foretelling one upon the appearance of the other, and of employing that reasoning, which can alone assure us of any matter of fact or existence. We then call the one object, Cause; the other, Effect."\(^1\)

Another is 'the repeated analogous experience':

"Where the causes are entirely similar, the analogy is perfect [that is, homologous], and the inference, drawn from it, is regarded as certain and conclusive. . . But where the objects have not so exact a similarity, the analogy is less perfect, and the inference is less conclusive; though still it has some force, in proportion to the degree of similarity and resemblance. . . When the circulation of the blood, for instance, is clearly proved [by homologous experience] to have place in one creature, as a frog, or fish, it forms a strong presumption [by analogy], that the same principle has place in all."\(^2\)

And a third is 'the traumatic experience':

\(^1\) Ibid., 36 and 74 f. \(^2\) Ibid., 104.
"When a child has felt the sensation of pain from touching the flame of a candle, he will be careful not to put his hand near any candle, but will expect a similar effect from a cause which is similar in its sensible qualities and appearance."\(^1\)

Of these three, the first two are the most typical and, therefore, the most important. In general, it is only after repeated instances of homologous or analogous experiences that the idea of a causal link obtaining among events arises.

Hume's second basic observation relies on a view which in philosophy has had a revival of popularity since 1953. It is that what we mean by experimental reasoning is reflected by, and can be observed in, the actions consequent on this species of reasoning. By this standard, we may be said to engage in behaviour indicative of at least implicit reliance on the efficacy of causal laws — if not always of conscious experimental calculus — when we eat bread in the expectation that it will nourish us, when we shoot one billiard ball at another in the expectation that the second will be deflected at an angle in a desired direction, when we light a fire in the expectation of warmth, or when we draw a bow over a violin string in the expectation of producing a certain sound (all examples drawn from the Enquiry). Apparently similar behaviour and, therefore, apparently similarly motivated behaviour is discernible in children and in animals.\(^2\) Coupled with this, and connecting it with his reflections on the need for repeated experience of causal conjunctions, is the observation that such behaviour tends to improve in proportion to the increase in the number of relevant experiences: the more experience we have of causal conjunctions, the more confident our manipulation of materials and events.

\(^1\) Ibid., 39.  
\(^2\) Ibid., IX.
In his analysis of abstract reason, Hume had sought the original principle of that cognitive activity outside of abstract reason itself, and he had found it in "intuition" and "demonstration". In the case of experimental reason, he argues that to justify inductive inference by assuming a causal axiom (or some equivalent notion), or to justify causality by assuming the validity of the inferences based upon it, would beg the question. He therefore relies on his two observations to provide the clue as to the nature and origin of experimental reason. From his first observation he concludes that the reasoning itself is something in the nature of what today would be termed a conditioned reflex: from the second he concludes that the practice of cause-governed or motivated behaviour is, at least at a fundamental level, an unintellectualized involuntary response:

"... Experimental reasoning itself, which we possess in common with beasts, and on which the whole conduct of life depends, is nothing but a species of instinct or mechanical power, that acts in us unknown to ourselves; and in its chief operations, is not directed by any such relations or comparisons of ideas, as are the proper objects of our intellectual faculties. Though the instinct be different, yet still it is an instinct, which teaches a man to avoid the fire; as much as that, which teaches a bird, with such exactness, the art of incubation, and the whole economy and order of its nursery."  

The mental counterpart of the instinctiveness of conditioned behaviour is the 'custom' or 'habit' whereby, in the presence of one of a pair of causally related events or objects, the mind is conveyed to the idea of the absent member of the pair. This habit is expressed in the 'belief' that, where the cause is observed to have occurred, the effect is assumed to follow or to have followed; and that, where the effect

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1 Ibid., 35f.  
2 Ibid., 108.  
3 Ibid., 43, 55, 58, 69.
is observed to have occurred, the occurrence of the cause is assumed. In either case, the degree of certainty attaching to the belief is conditioned by the past numerical instantiation of the causal conjunction under consideration. Stated in general terms, Hume's doctrine amounts to the claim that the habitual transition of the mind from present cause to absent effect (or vice versa) results in an involuntary belief in the efficacy of causes proportionate to the quantitative experience of the relevant conjunctions in the past.¹ This belief — like the action consequent upon it — is "a species of natural instinct, which no reasoning or process of the thought and understanding is able either to produce or to prevent".²

There is one feature of Hume's analysis of causality that is determined by his theory of meaning (see next section below). There he claims it to be requisite for a term to have meaning that it shall ultimately be traceable to an 'impression'. Having reduced the notion of causality to a mode of behaviour reflecting a belief, Hume attaches meaning to the initial term in his series by attributing to the final term the character of a particular species of impression: namely, a 'feeling' or 'inward sentiment' denoted by the term "belief".³ Beyond asserting that belief is not an independent sentiment, or impression, but rather that it is attached as a qualitative modifier to existing impressions, Hume abandons the attempt to define belief itself and is content (like I.J. Good, IV above) to let it stand as a primitive term.⁴ An interesting feature of his theory of belief is the barely developed suggestion

¹ Ibid., 46 f., 56 f., 75, 106.
² Ibid., 46 f.
³ Ibid., 47 ff.
⁴ Ibid., 49 f.
that action consequent on belief may be taken as a criterion of belief: presumably, I may be said to believe that there is a step before me in the dark when I make the appropriate movement in anticipation of mounting it.¹

So far, Hume's reductive analysis of experimental reasoning has proceeded in two stages. First, he has reduced every instance of inductive inference to an instance of causal reasoning (or reasoning in which the causal principle is the fundamental assumption); and, second, he has reduced causality itself to what he claims are its basic components. In the case of causal reasoning considered as a practice this is instinctive adaptation; considered as a theory this is instinctive belief. Hume attempts to justify each of these reductive analyses by, among other means, arguing the untenability of its contrary. In support of the first, he instances typical inductive inferences which he can show to rely on the principle of causality and then assumes the right to postulate that all similar inferences rely on that principle unless and until an exceptional instance can be cited.² In support of the second, his method is to eliminate all other faculties as possible sources for the cognition of causality.³

The analysis of causality might lead one reasonably to anticipate a definition of that concept in terms of the elements to which it has been reduced. In fact, Hume offers three distinct definitions:

¹ Loc. cit.
² Macnabb, in David Hume, 18, has named this the "method of challenge".
³ See for example Enquiry, 27, 31, 38, and 70 f. for arguments respectively against perceptual, abstract, experimental, and divine origins of causal cognition.
"... We may define a cause to be an object, followed by another, and where all the objects similar to the first are followed by objects similar to the second. Or in other words where, if the first object had not been, the second never had existed... We may... form another definition of cause, and call it, an object followed by another, and whose appearance always conveys the thought to that other."

Hume's definition or definitions of "cause" constitute an instance of verbal legerdemain the extent of which seems to have eluded all but a few commentators. It is claimed that between the first and the second definitions there obtains a logical equivalence which cannot in fact be demonstrated: the first definition is sequential and the second necessitarian. It is also claimed that some sort of relation — the precise nature of which remains ambiguous — obtains between the first two and the third; in fact, the third definition is psychological. There are four subsequent reiterations of the definitions of cause. In all of these the first two are consolidated so that only the sequential definition remains. This is then presented either conjunctively or disjunctively with the psychological definition: in the first two and in the last reiteration conjunctively; in the third reiteration disjunctively. The nature of the relation between the two remaining definitions is not clarified by Hume's enigmatic rider to the effect that the sequential and the psychological definitions "are at bottom the same".

1 Ibid., 76 f.
2 Credit for spotting the non-equivalence of the first two definitions must go to Selby-Bigge (see his Introduction to the Enquiries, xviii).
3 Enquiry, 92 (twice), 97, 159.
4 Ibid., 97.
Because Hume insists on the presence of an impression as the condition for the meaningfulness of a term, and because the appropriate impression is a psychological product of phenomenal sequentiality; I consider it likely that Hume intends the conjunction (rather than the disjunction) of his definitions to provide the analysis of "cause". In any case, it is clear that he intends it to be through a function of these definitions that we are led to "infer the existence of one object from the appearance of the other" or "one event from the other". This raises the question of whether even the two definitions taken jointly exhaust what we mean when we use the term "cause" in the sense of one event, A, causing another event, B. There remains the suspicion that Hume's definitions omit something essential to cause beyond the frequently observed sequence of events that are homologous (or analogous) to A and B, and the consequent evocation on observing another instance of A of a mental anticipation of B.

The naive solution would be to assert that what has been omitted is something 'belonging to' the causally related elements A and B rather than something pertaining to the mind of the observer. Such a solution would, however, still run into the same difficulties that led to Hume's psychological formulation in the first place. It would have to identify precisely what that something is; and, assuming that the missing element can be identified, it would have to enucleate the cognitive process whereby this element can be known. From his consideration of such concepts as "power" "force" "energy" "vis inertiae" and "necessary connexion", Hume concludes that they are either synonymous with all or part of what is meant by "cause" or that they are "without meaning".  

1 Ibid., 42, 79.  
2 Ibid., 62, 72 f., 96.
traceable to any impression.

Apart from Hume's arguments in favour of his theory, it is also possible to hold on linguistic grounds that the two definitions are sufficient determinants for the concept of causality. Suppose there were no conjunctio such that there obtained between its elements an objective causal bond, and there were only such conjunctio as those described by Hume. There would thus be a type of conjunctio in which events homologous (or analogous) with event A were frequently observed to be spatially and temporally sequent on events homologous (or analogous) with event B, and such that on the appearance of one we anticipated the occurrence of the other. This type of conjunctio would need to be differentiated in language from other conjunctio which, while equally sequential, were not associated with frequent observation or with anticipatoriness.

Empirically, the two types of conjunctio would be characterized respectively by the presence and the absence of the frequency element; psychologically, by the presence and the absence of the anticipatory element; and epistemologically, by the presence and the absence of inductive inferences consequent on the observation of one member of the conjunctive pair. If these differences are linguistically denoted, the term assigned to the first type of conjunctio will, in use, be indistinguishable from what in natural languages is termed "causal conjunctio"; and that assigned to the second, indistinguishable from "casual conjunctio". Hence it seems that Hume's sequential and psychological definitions taken jointly are sufficient for the correct application of the term "cause" in natural languages even if an essential element is omitted.  

1 For a similar linguistic argument see Hobart, op.cit.
The view that Hume's definition dissolves the concept of causality rather than analyses it arises from a misunderstanding of his intention. The reality (objectivity) or otherwise of causality is not at issue. In fact, Hume takes a rather naive view of this question and he postulates a theory — reminiscent of the Cartesian explanation for the parallelism of material and spiritual motions — to account for the "harmony" between the operation of causes in nature and the concept of causality as an associative principle among ideas. Neither is Hume particularly interested in the meaning of causality or in the correct application of causal locutions. The focus of his interest is the epistemological question regarding the origin and nature of our knowledge of causes — the concept itself being given. In the case of cause, as in the case of the self and material objects and other entities regarding which he is alleged to have reached sceptical conclusions, he does not ask "What is so and so?" nor does he ask "What do we mean by so and so?": rather he asks "How do we know so and so?" In addressing himself to the analysis of causality in the Enquiry his formulation of the problem is this:

"It is universally allowed that matter, in all its operations, is actuated by a necessary force, and that every natural effect is so precisely determined by the energy of its cause that no other effect, in such particular circumstances, could possibly have resulted from it... Would we, therefore, form a just and precise idea of necessity, we must consider whence that idea arises when we apply it to the operation of bodies."  

There does not appear to me to be a logical incompatibility between the assumption that there exist objective causes and a psychological description of how we know causes any more, say, than there is between the assertions "Joe lives in Jerusalem" and "All I know of Joe is by hearsay."

1 Ibid., 82, 83, 90, 95. 2 Ibid., 50, 54. 3 Ibid., 82.
It is not only on the ground of alleged incomplete analysis that Hume's theory of experimental reason has been attacked. It seems to be the view that his interpretation of causality entails the conclusion either that inference is always and necessarily irrational, or that it cannot be established whether there exists a rational inference since his analysis leaves no room for distinguishing 'correct' from 'incorrect' inferences.1

If this is the consequence of Hume's theory of experimental reason, then to the extent that Hume's theory is true, it argues against the rationality of induction or against the possibility of establishing criteria for the correctness of inductive inferences. But it does not follow from the fact that the consequences of the theory are repugnant that the theory is wrong. Even if it did follow, however, the choice between accepting the repugnant consequences and rejecting the theory would not need to be made; I believe, since the repugnant consequences are not in fact entailed when all the ramifications of the theory are considered.

It is true that Hume takes the basis of experimental reason to be a concept whose origin is not rational. In this he says no more than does a more recent philosopher in discussing the same question:

"As a practice, induction is nothing but our old friend, the law of conditioned reflexes or of association. A child touches a knob that gives him an electric shock; after that, he avoids touching the knob. If he is old enough to speak, he may state that the knob hurts when it is touched; he has made an induction based on a

single instance. But the induction will exist as a bodily habit even if he is too young to speak, and it occurs equally among animals, provided they are not too low in the scale.1

For Hume as well as for Russell, animal inference is only the starting point of intellectual induction. Those passages in the Enquiry that are often cited as evidence that Hume holds all induction to be irrational refer, as the context indicates, to the primitive inferential activity that Russell calls the "practice" of induction. Rational induction too has its roots in the same phenomena as animal induction: for Hume these phenomena are sequentiality and the psychological state of the observer. However, unlike the conditioned animal or the burnt child, rational man is able to transcend his instinctive responses and to dispense with exclusive reliance on his 'inward sentiment' for the cognition of causes. This development is achieved by generalizing, or rationalizing, the practice of animal induction into the rules of probability calculus. The consistent application of these rules is the exercise of experimental reason.2 And it is none the less a rational activity — that is, the application of a calculus — for following a pattern established as a conditioned response. Once the generalization is achieved and the calculus systematized, the need for direct observation disappears; that is, what was an instinctive reaction becomes a rational activity. We can calculate the chances of a crap game mathematically without going near a game; and the same calculation will persuade us not to bet on these chances even before we have lost a cent.3

2 For paradigms of such rationalizations see Enquiry VI.
3 If we still bet on a crap game, it is either because we have crooked dice or because we hope against the evidence to bring off a win.
It is the calculable element in inductive inference that justifies Hume in counting the activity as rational and the faculty as a reason. In so designating experimental reason, Hume classes it with abstract reason and distinguishes both from the irrational faculties. The latter are characterized not only by not needing an intermediary calculus between premises and conclusion, but by such a calculus being considered in such cases as either irrelevant or as the source of philosophic error (see this Section below). No calculus, for example, is needed to inform me that I have a toothache. It is not relevant to the validity of Hume's theory that a calculus is required to locate the source of the toothache, or that what I take to be a toothache may really be hysterical pain; both kinds of identification difficulty are a function of the systematically misleading nature of the expression used in verbalizing sense experience. The point of the distinction is that "toothache" — whether or not it is correctly designated — represents a class of direct apprehensions in which there is no series from premises to conclusion.

Since experimental reason involves the application of a calculus, there exists a criterion of correctness in the application of the calculus; and since the calculus is founded on previous experience, there exists a criterion for the correctness of the formulation of the calculus. The calculus will be correctly formulated if it truly describes the frequency with which the parameters of an experiment have been associated; and it will be correctly applied if the association is consistently projected for predictive purposes according to experienced regularities. The degree of accuracy with which these mathematical procedures are effected constitute Hume's standard of "just reasoning".1

Hence, although it rests on a psychological foundation, what is accepted as a correct inference can be distinguished from guessing or from superstition.

In formulating the criteria and the rules of just reasoning, Hume does not claim to be providing absolute standards. What he does claim to be doing is to describe what in fact occurs when we are said to make a reasonable inductive inference:

"A wise man ... proportions his belief to the evidence. In such conclusions as are founded on an infallible experience, he expects the event with the last degree of assurance, and regards his past experience as a full proof of the future existence of that event. In other cases, he proceeds with more caution: He weighs the opposite experiments: He considers which side is supported by the greater number of experiments: to that side he inclines, with doubt and hesitation; and when at last he fixes his judgement, the evidence exceeds not what we properly call probability."\(^1\)

It is the fact of residual credence which, for Hume, justifies the rule of residual probability:

"In all cases, we must balance the opposite experiments, where they are opposite, and deduct the smaller number from the greater, in order to know the exact force of the superior evidence."\(^2\)

Similarly, the fact that we expect effects to be commensurate with causes permits us to formulate the rule of causal commensurability:

"When we infer any particular cause from an effect, we must proportion the one to the other, and can never be allowed to ascribe to the cause any qualities, but what are exactly sufficient to produce the effect."\(^3\)

The principal argument in favour of these rules is not the pragmatic one that adherence to these rules leads, by and large, to correct

\(^1\) Ibid., 110 f. \(^2\) Loc. cit. \(^3\) Ibid., 136.
predictions: Hume considers the procedure correct even when it leads to false conclusions.\(^1\) His argument is, rather, that if we abandon the psychologically based rules of inference for some "thimercial" absolute standard, "we are got into fairy land, long ere we have reached the last steps of our theory".\(^2\)

Before leaving Hume's positive theory of experimental reason, I will mention two further problems. The first of these concerns the reciprocal relation between phenomenal conjunctions and mental expectation.\(^3\) Hume apparently takes it that the former somehow cause the latter. He thereby assumes the operation of causality in his analysis of the same concept and renders the analysis circular. The second concerns Hume's theory of just reasoning. Here he commits what may be called "the Euthyphro fallacy" of defining just reasoning as being what just reasoners practice. It remains to be seen whether these difficulties are intractable or whether they can be dissolved by reformulating Hume's questions or his answers or both.

In discussing the misapplication of experimental reason, Hume addressed himself in particular to instances of this in relation to perception and theology. It was the misuse of experimental reason in these spheres that were most common and that led to what he considered the most insidious errors. On the other hand, while argument was required to combat the extension of deductivity to matters of fact, there were few instances or none of the misapplication of experimental reason to the abstract sphere: deductive knowledge was in any case regarded

\(^1\) Ibid., 113 f.  
\(^2\) Ibid., 72.  
\(^3\) This is discussed in Passmore, op. cit., 75 ff.
as the only appropriate approach to the abstract sciences.

Although ethical and aesthetic propositions constitute a distinct class within Hume's system, he does not consider value judgements to be entirely unamenable to experimental calculation. Hume accounts for this by postulating a theory similar to that regarding the "harmony" that is supposed to obtain between our causal notions and natural operations. In the case of ethics, there is observed to be a more than occasional, but less than complete, coincidence between what engages our approbation and what is empirically known to be socially useful, and a like coincidence between what arouses opprobrium and what is socially harmful. ¹ Again, there is observed to be a coincidence between the judgements of the moral sense and what is generally approved and disapproved among mankind. ² Hence, although ethical judgements proper are directly apprehended and are therefore incalculable, experimental reason may be applied to the empirical judgements that generally concur with them. In such cases, however, the conclusions of experimental reason are not strictly about ethical matters, but rather about "a new fact, to wit, the general tastes of mankind, or some such fact, which may be the object of reasoning and enquiry". ³

The relation between experimental reason and perception is limited to the inferential distinction between veridical and illusory appearances. That is, experimental reason can, on the basis of comparison with previous experience, establish with some probability what form appearances would take under 'normal' conditions when the present appearance deviates from the norm because of some special circumstance attending the perception. ⁴ The terms "veridical" and "illusory" can here be taken

¹ Enquiry, 102. ² Ibid., 165. ³ Loc. cit. ⁴ Ibid., 151.
in only a relative, numerical, sense since the inference relates to the appearance and not to some independent event or object to which the appearance can be related.

This leads to the question of whether we can infer from sense experience the existence of such objects — external bodies or an external world or real entities, as they have been variously called. It would seem that, if such objects can be inferred at all, then it is by means of experimental reason that they are inferred; and that, if they are to be inferred from anything, then it is from percepts that the inference is made. Almost the entire literature on Hume is agreed that his negative doctrines on the subject suggest that he favours the latter position in what is known as the realist-idealist controversy. Differences of opinion among the commentators concern mainly the question of what precise form of phenomenalism, monism, or nominalism he adopts in defining his idealist position. Some such interpretation would be correct, but only if it is presupposed that idealism is the only alternative to realism. However, while it is true that in the Enquiry Hume attacks both varieties of realist theory then current, it does not in fact follow from his rejection of these theories that he was an idealist. Hume actually adopted another alternative: the inapplicability of experimental reason to the problem.

The realism that Hume attacked was the supposition that a material body "preserves its existence uniform and entire, independent of the

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1 A notable exception is N.K. Smith. See his Philosophy of David Hume, 85 f.

2 This presupposition seems to be the basis of G.E. Moore's criticism of Hume in Some Main Problems of Philosophy (London: Allen and Unwin, 1953), VII; and in "The Refutation of Idealism", Mind, XII (1903).
situation of intelligent beings, who perceive or contemplate it." This much is common to both varieties of realism, naive (or direct) realism and the representative theory of perception. Hume's objections to the former are discussed in VI below. The representative theory of perception as defined by Hume consists in the belief or the assumption that "perceptions in the mind are fleeting copies or representations of other existences, which remain uniform and independent." The usual way of accounting for the mechanism of representation is causal: "that the perceptions of the mind must be caused by external objects, entirely different from them, though resembling them . . . " A causal association is, however, not essential to the theory: what is essential is the claim that there are two classes of cognitive object, the first of these 'known by acquaintance' and the other inferred from these. Thus the representative theory of perception proceeds on the assumption that material objects, the inferred entities, can always and only be known mediately. But if this is the case, then it is impossible — in Hume's sense of the term — that they could ever be inferred at all; for it is an indispensable condition of inference that the inferred entity or something analogous to it shall have been previously experienced in association with that from which it is inferred.

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2 Enquiry, loc. cit.

3 Loc. cit.

4 Roughly in the sense given to this expression by Russell in "Knowledge by Acquaintance and Knowledge by Description", P.A.S., X (1910-1).
Hume's conclusion from this argument is that, though the question of the reality of material bodies seems to be an existential question, and therefore one that is subject to experimental reason,—

"... here experience is, and must be entirely silent. The mind has never anything present to it but the perceptions; and cannot possibly reach any experience of their connexion with objects. The supposition of such a connexion is, therefore, without any foundation in reasoning. While this is a conclusion that rejects realism, it is not one that accepts idealism; it concludes simply that experimental reason is inapplicable to the question. So far as Hume is concerned, the trouble with realism — and the same goes for idealism, mutatis mutandis — is not that it is false, but that it makes positive assertions concerning a matter about which, on the basis of experimental reason, no positive assertion can be made.

Of the various arguments for the religious hypothesis, the one that most readily lends itself to experimental reasoning seems to be the argument from design.² Indeed in claiming to be a proof of God's existence, the primary element of the hypothesis, it explicitly appeals to inductive inferences based on analogy: it does not claim either that direct acquaintance with God is possible or that experience of an homologous kind with the creation, or the continued sustenance, of the universe is possible. It is, therefore, weakened at the outset as an experimental argument by having to rely on a kind of argument with a relatively low degree of probability — if any at all.

¹ Enquiry, 153. Stace, op. cit., expresses in modern terms much of the substance of Hume's argument and his conclusions. For differing views, see A.M. Quinton, "The Problem of Perception", Mind, LXIV (1955); C.D. Broad, "Some Elementary Reflexions on Sense-Perception", Philosophy, XXVII (1952); and Armstrong, op. cit., III.

² See A. Flew, God and Philosophy (London: Hutchinson, 1966), III.
In the form that Hume discusses the argument from design, the analogy to the creation of the universe is drawn from human artefacts whose complex and well coordinated arrangement proves that they must have had an artificer whose purposeful creation they are. This can be inferred even if we are unacquainted with the artificer or were absent during the act of artefaction. An even more "glorious display of intelligence" than may be inferred from human artefacts is provided by "the order, beauty, and wise arrangement of the universe"; hence we may infer that the universe is the creation of a proportionately greater artificer — God.

The cogency of this as of any other argument from analogy depends on the degree of resemblance between the inferred case and its observed analogue. In the Enquiry, Hume confines himself to criticising the analogy on the grounds of a numerical distinction: we have observed the conjunction between human artefact and artificer often enough for the second to be inferred from the first; but the universe is a unique "production" whose like we have never been able to observe in conjunction with its supposed maker. This makes the analogy so remote that "the religious hypothesis . . . must be considered only as a particular method of accounting for the visible phenomena of the universe".

If experimental reason is able to infer, as one among other remote possibilities, the existence of God (or gods) from the order of the

1 Enquiry, 135.

2 For a fuller and more telling criticism of the teleological argument see Hume's Dialogues, particularly IV-VII.

3 Enquiry, 139. In Dialogues, V, he enumerates some of the other, less attractive inferences deducible from the "visible phenomena of the universe".
universe, it proves entirely incapable of inferring that this Designer has any of the additional attributes predicated of God in the religious hypothesis, or orthodox varieties of the hypothesis, current in Hume's day. Among these attributes Hume considers the alleged continuing benevolent intervention of God in the affairs of his creation, and the dispensation of redress for both virtue and vice in the form of post-mortem reward and punishment; in the language of the time, these secondary postulates were "a particular providence" and "a future state".  

Hume contends that neither of these could justly be inferred from the state of the universe. The effort to do so infringes that rule of just reasoning which requires that the inferred cause be proportioned to the observed effect. In attributing to the designer of the universe perfect intelligence and goodness, "infinite perfection" that "can intend nothing but what is altogether good and laudable", or a "divine providence" and "a supreme distributive justice", theologians attribute more to the cause than is evident in the effect:

"Allowing, therefore, the gods to be the authors of the existence or order of the universe; it follows, that they possess that precise degree of power, intelligence, and benevolence, which appears in their workmanship ... So far as the traces of any attributes, at present, appear, so far may we conclude these attributes to exist ... We can never be allowed to mount up from the universe, the effect, to Jupiter, the cause; and then descend downwards, to infer any new effect from that cause ... The knowledge of the cause being derived solely from the effect, they must be exactly adjusted to each other."  

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1 Enquiry, 132.  
2 Ibid., 19.  
3 Ibid., 100 f.  
4 Ibid., 140.  
5 Ibid., 137. The references to "gods" and "Jupiter" are explained by Hume's device of attributing the argument to a protagonist who adopts the part of Epicurus.
"You persist in imagining, that, if we grant that divine existence, for which you so earnestly contend, you may safely infer consequences from it, and add something to the experienced order of nature, by arguing from the attributes which you ascribe to your gods. You seem not to remember, that all your reasonings on this subject can only be drawn from effects to causes; and that every argument, deduced from causes to effects, must of necessity be a gross sophism; since it is impossible for you to know anything of the cause, but what you have antecedently, not inferred, but discovered to the full, in the effect." 1

Hume's criticism of the teleological argument in the Enquiry hinges on the closeness or remoteness of the analogy between an artefact and the universe. If the analogy is closer than he will allow, the precise proportioning of cause to effect is not necessary:

"If you saw, for instance, a half-finished building, surrounded with heaps of brick and stone and mortar, and all the instruments of masonry, could you not infer from the effect, that it was a work of design and contrivance? And could you not return again, from this inferred cause, to infer new additions to the effect, and conclude, that the building would soon be finished, and receive all the further improvements, which art could bestow upon it?" 2

In the Dialogues, insistence on the proximity of the analogy is condemned as anthropocentric: 3 in the Enquiry, the emphasis in his rebuttal is again on the uniqueness of the universe:

"The Deity is known to us only by his productions, and is a single being in the universe, not comprehended under any species or genus, from whose experienced attributes or qualities, we can, by analogy,

1 Ibid., 140. 2 Ibid., 142 f.

3 Dialogues, III: "... By representing the Deity as so ... similar to a human mind, we are guilty of the grossest and most narrow partiality, and make ourselves the model of the whole universe."
infer any attribute or quality in him."¹

Discounting other inherent defects of the teleological argument — discussion of which is confined to the Dialogues — what is needed to support Hume's disquisition on the subject in the Enquiry is a criterion of resemblance or degree of analogousness. In applying his own unstated criterion, Hume concludes that the resources of experimental reason are exhausted when, from the observed state of the universe, we infer "a Being, so remote and incomprehensible, who bears much less analogy to any other being in the universe than the sun to a waxen taper, and who discovers himself only by some faint traces or outlines, beyond which we have no authority to ascribe to him any attribute or perfection.

Consequently, beyond the possible conclusion that the universe has a designer, "no new fact can ever be inferred from the religious hypothesis; no event foreseen or foretold; no reward or punishment expected or dreaded, beyond what is already known by practice and observation."²

Although experimental reason seems incapable of inferring much of the religious hypothesis by reasoning directly from the observed state of the universe, it may be capable of providing rational support for theology by certifying indirect evidence for the hypothesis. Such would be the case if experimental reason could certify the veracity of human testimony for the historicity of miracles which in turn guarantee the divine origin of revelatory religion. This confirmatory role of allegedly historical events was in Hume's day — and often still is — the interpretation put on miracles by theologians and religious philosophers.³

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¹ Enquiry, 144.
² Ibid., 146.
³ Loc.cit.
Many critics fail to see any purpose in Hume's essay on miracles (Enquiry X) beyond, perhaps, a desire on his part to "attract attention, and excite that 'murmur among the zealots' by which the author desired to be distinguished". Consequently the essay is deemed to be irrelevant to the general epistemological doctrines of the Enquiry. In fact, what Hume investigates is very much an epistemological question: it is whether "human testimony can have such force as to prove a miracle, and make it a just foundation for any such system of religion".

His negative answer to this question is based on, and is strictly consistent with, the epistemological principles enunciated in his doctrine regarding experimental reason. The conclusions attained by the use of this faculty, Hume has already argued, are only probable; and the probability may be expressed as a numerical function of the quantitative nature of the relevant experience. Frequent and unexceptioned experience provides a degree of probability approaching 1, but still less than the certainty attainable by deductive inference or that afforded by arguments from complete enumeration. Hume designates the highest degree of empirical probability "proofs" in distinction to the lesser "probabilities" afforded by inductive inferences drawn from fewer or from more variable experiences. Thus, to cite Hume's examples, we have proof of the incendiary properties of fire but only a probability for the purgative properties of rhubarb. Those natural operations for whose regularity experience affords empirical proof are termed "laws of nature".

1 Selby-Bigge, Introduction to the Enquiry, xii.
2 This view, which seems always to be associated with the attribution of ulterior motives to Hume, is shared by Selby-Bigge (op. cit., viii), Kemp Smith (Hume's Dialogues, 46 and 49 f.), and A.E. Taylor (op. cit., IX).
3 Enquiry, 127.
4 Ibid., 56 n.
5 Ibid., 57
6 Loc. cit. & 127.
The degree of probability attaching to the veracity of human testimony does not usually attain quite the standard of a proof; but considering the good repute and tested honesty of individual witnesses, certain testimony may attain even that high degree of credibility. This, however, will be the case only when there is nothing in the testimony itself or in the circumstances under which the testimony is delivered that would vitiate its credibility. If, on the other hand, the attested fact is incompatible with, or foreign to, previous experience, its credibility will be reduced inasmuch as it relies for its credence on experimental reason. The evidence for the unlikelihood of the attested event will be contrary evidence to that for the reliability of human testimony; and the net probability of the latter will be a residue obtained by subtracting the probability of the former.

Hume discusses two genera of unlikely events, natural and supernatural. The former are characterised by their rarity or unprecedentedness; the latter, by being 'contrary to experience' or 'violations of the laws of nature' — terms that are interchangeable for Hume since laws of nature are what "firm and unalterable experience has established". Among the supernatural events, Hume distinguishes two species: the magical and the miraculous. Both species are of a kind, and differ only in the

1 Ibid., 112 f. 2 Loc. cit. and Enquiry X passim. 3 Ibid., 114
4 Hume's practice of calling both the genus and either species "miraculous" has resulted in criticism that would be obviated by more consistent terminology. In fact, Hume's first definition (p. 114) relates to the supernatural, and his second (p. 115) to the miraculous. His examples also refer variously to the genus and its species. Taylor, who complains that Hume manufactures new definitions to suit his purpose (op. cit., 337) could be answered by reference to the different types of event that Hume considers with each new definition.
circumstances under which they occur: the miraculous in connection
with claims of mediate or immediate divine intervention, and the magic-
al unconnected with such claims. Hume thus defines a miracle as "a
transgression of a law of nature by a particular volition of the Deity,
or by the interposition of some invisible agent". What Hume aims to
question in Enquiry X is whether this species of event can be support-
ed by sufficient empirical evidence to constitute indirect experi-
mental evidence for the truth of the religious hypothesis which miracles
are claimed to attest.

That it cannot be so supported follows, in Hume's view, from the
fact that the evidence for the occurrence of the miracle, that is, the
evidence of human testimony, is incompatible with the evidence to the
contrary, that is, the evidence of the inviolability of natural law.
Granting even that evidence in favour of the former amounts to a proof,
that for the latter is of an equal magnitude. Consequently, the residual
probability in favour of the reliability of miraculous occurrences can
under optimum conditions amount to 0. This is to say that the determi-
 nations of experimental reason on this question are inconclusive:
"Our evidence, then, for the truth of the Christian religion is less
than the evidence for the truth of our senses . . . when they are
considered merely as external evidences . . . "
" . . . A miracle can never be proved, so as to be the foundation of
a system of religion." 3
" . . . No testimony is sufficient to establish a miracle, unless the
testimony be of such a kind, that its falsehood would be more mirac-
ulous, than the fact, which it endeavours to establish; and even in
that case there is a mutual destruction of arguments, and the superi-
or only gives us an assurance suitable to that degree of force,

1 Enquiry, 115. 2 Ibid., 109. 3 Ibid., 127.
In his secondary arguments Hume goes on to contend that the degree of probability for the veracity of human testimony concerning the miraculous has, as a matter of historical fact, been considerably less than that for the regularity of nature. Thus, an experimental calculus tends to falsify rather than to verify historical accounts of miracles. But this extension is not essential to his case: it suffices for the purpose of his investigation into the applicability of experimental reason to theology to show that the residual probability in favour of the religious hypothesis is at best far short of empirical "proof". Of course, appeal to God as the omnipotent agent of miracles is not a legitimate device; for this assumes the question at issue — whether the proof for miracles can provide proof for the religious hypothesis. It is this, Hume maintains, that experimental reason is incapable of doing:

"I am the better pleased with the method of reasoning here delivered as I think it may serve to confound those dangerous friends or disguised enemies to the Christian Religion, who have undertaken to defend it by the principles of human reason . . . and it is a sure method of exposing it to put it to such a trial as it is, by no means, fitted to endure."  

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1 Ibid., 115 f.
2 Ibid., 116 - 122.
3 Ibid., 129 f.
VI. PERCEPTION.

To hold that abstract and experimental reason exhaust the limits of rational knowledge is not to say that they exhaust the limits of the human understanding. Hume's reiterated references to the incapacity of "reason" to elicit conclusions in the fields of aesthetics and ethics, divinity and perception (see III above) assert no more than that such conclusions are neither demonstrably nor probably calculable; but this does not entail that they are therefore past human understanding. On the contrary, since Hume holds that there are objects of the understanding other than 'relations of ideas' and 'matters of fact', and since the varieties of reason are limited only to 'relations of ideas' and to 'matters of fact', it follows that for Hume there exist other, non-inferential, modes of understanding. Of these, perhaps the most important is what Hume calls "perception"; and the objects of this faculty are the "perceptions".

The only clue to the meaning of this generic term is provided by Hume's definitions of its species and the examples he gives of its sub-species or classes. Kemp Smith uses the term "components of experience" as an expression roughly synonymous with Hume's "perceptions".

1 Cf. Kemp Smith's distinction between "'knowledge' in the strict and in the broader sense of the term", The Philosophy of David Hume, XV.
2 Ibid., V.
Under this head are included all those 'mental' phenomena and stimuli with which we are supposed to be immediately, that is, non-inferentially, acquainted. This genus is perhaps best understood if we consider it as the sum of what Hume claims to be its component species.

One such species consists of the "impressions", which Hume defines as "all our more lively perceptions, when we hear, or see, or feel, or love, or hate, or desire, or will". The impressions fall into two classes. The first is coextensive with what is called (by philosophers who profess the representative theory of perception) "sense data" or "immediate objects of awareness". In Hume's scheme, these form the class of "sensations" or, as he sometimes calls them, "objects of external sense". Between the dualist's sense data and Hume's sensations there is this major distinction that, while the former are taken as evidence of mediate objects of awareness, the latter are not associated by Hume with any such entities that act as their source. More precisely, Hume maintains that if there are such entities, say, material bodies, then their existence can neither be inferred by reason (see IV and V above) nor apprehended by sense perception:

"When men follow this blind and powerful instinct of nature, they always suppose the very images, presented by the senses, to be the external objects . . . But this universal and primary opinion of all men is soon destroyed by the slightest philosophy, which teaches us, that nothing can ever be present to the mind but an image or perception . . . "

The second class of impression comprises what Hume calls the "sentiments" (or "objects of internal sense"). These might be described as the psychological counterparts of the sensory sensations: they

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1 Enquiry, 18.  
2 Ibid., 151 f.
include such feelings, assuming that they can be identified, as are associated with the 'psychological commotions' not directly evoked by the stimulation of sense receptors. They may, however, be indirectly associated with such stimulation: the sentiment of jealousy, for example, can be aroused by a visual or an auditory sensation.

The second species of perception includes "ideas", defined as "the less lively perceptions, of which we are conscious, when we reflect on any of those sensations or movements above mentioned." This species comprises two classes: ideas of the memory and ideas of the imagination, terms which Hume apparently considers familiar enough not to require independent definition. His treatment of the species of ideas consists in a discussion of the features that distinguish it from, and relate it to, the species of impressions. It is a peculiarly difficult and contentious part of Hume's theory. Since it is central to Hume's thesis that perceptions are the basic elements in our experience of the universe, he deliberately omits any reference to what would normally be taken as the criterion for distinguishing between impressions and ideas: namely, the objective or publicly accessible nature of impressions or of their source.

What he offers instead is, first, a quantitative distinction which permits impressions to be recognized by the greater degree of 'vivacity' 'force' or 'liveliness', with which they are perceived as compared to that with which ideas are perceived. One difficulty that this criterion

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1 Ibid., 18.
2 Examples of these classes are provided in Enquiry II and III.
3 On the need for such an objective criterion see Flew, Hume's Philosophy of Belief, 46 f.; Passmore, op. cit., 158; Price, Hume's Theory of the External World, passim.
encounters is the problem of mensuration. It is not clear at what precise degree of vivacity — or even how we are to establish at what degree of vivacity — a perception is transformed from membership in the species of ideas into membership in the species of perceptions. In itself, this is not an insuperable difficulty: for it need not follow from the fact that a proposed distinction is not precisely determinable that the distinction is non-existent. But Hume admits a further weakness in the doctrine when he concedes that an idea may have the vivacity of an impression to a mind "disordered by disease or madness". 1 Apart from blurring the quantitative nature of the distinction, this concession seems to be inconsistent with it.

A second distinction between the species of perception involves the claim that the ideas are "weaker copies" or "images" of impressions. Experimental proof of this is provided (A) by the fact that all 'simple' ideas (that is, ideas that are not analyzable into component ideas) can be traced to antecedent impressions; and (B) by the fact that a sensory deficiency, either organic or circumstantial, results in the irremedial absence of the correlative idea. 2 This empirically necessary association of every idea with an impression is extended by Hume into a theory of meaning. It is, roughly, a 'label' theory which demands that for every term there shall be a determinate idea, one which can be traced back to an impression. 3 All definition must, thus, be ultimately ostensive, with the terms attaching not to 'things' but rather to impressions.

1 Enquiry, 17.
2 Ibid., 18 f., 62, 78.
3 Ibid., 19 ff.
4 Ibid., 22, 62, 74, 158 n.
Against (A) it may be argued that the task of relating each individual term to a determinate idea derived from an impression presents insuperable procedural difficulties. In a reference to this problem, Quine\(^1\) suggests that the difficulty might be overcome by accepting as basic linguistic units not only words but also extended sentences whose meaning is learnt "by a direct conditioning of the whole utterance to some sensory stimulation". In such cases, then, the meaning of an individual word for which no appropriate impression can be isolated may be considered as representing a fragment of the sentence learnt as a whole.

A more fundamental objection is that of Flew\(^2\) who argues that the whole enterprise of trying to trace the meaning of terms back to impressions is, if not erroneous, at least superfluous. He points out that a person with an organic defect, say, blindness, which prevents him from experiencing a specific type of impression, say, colour, can still form ideas of what he has not experienced through the intermediacy of instruments. Such a person may utilize a colour meter which clicks in characteristic ways in the presence of different colours. So far as the use of colour terminology goes, the blind man will be on an equal footing with the sighted man notwithstanding that the former has had no experience of the relevant impression; for both will be equally well informed in which cases it is correct to say "\(x\) is red" and in which cases it is incorrect.

This Flew uses as an argument against (B), which Hume takes to prove the necessity for sensible experience as the criterion for the determinacy of ideas and as the bearer of meaning. Such a device, however, does not seem to me to refute the dependence of meaning on impressions. First,

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2 Flew, *Hume's Philosophy of Belief*, 40 ff.
even if the blind man can depend on the machine to inform him of variations in colour, it still does not release him (as Flew suggests it does) from dependence on impressions: it merely shifts the dependence from one variety of impression, the visual, to another, the auditory. Second, it seems to me at least arguable whether it is correct to say that the sighted and the blind man "mean" the same when they both utter "x is red." For the blind man, the locution has at least the additional meaning that his apprehension of redness is mediated by the machine. Third, even if it is conceded that knowledge of when and when not to apply a locution is sufficient ground for adjudging its meaning to be known, then the blind man may be said to know the meaning of such relatively primitive colour locutions as "x is red"; but it is doubtful whether by the same criterion he can be said to comprehend such locutions as "I find pale blue rather restful on the eyes."

Leaving aside the question of the validity of Hume's proofs, there remains another kind of difficulty with regard to the theory of perception. This concerns the sense in which ideas are supposed to be "images" of impressions. One way of interpreting the relationship is to consider the idea as some sort of pictorial or iconic representation of the impression, as a photograph is a representation of the person pictured — except that the idea is a 'mental' rather than a material representation of its correlative impression. One variety or another of the iconic interpretation has dominated exegesis of Hume; and it is against an iconic theory of perception attributed to Hume that much criticism of his theory of perception is directed. Flew, for example, holds that Hume's theory cannot correctly describe the relation of ideas to impressions.

1 Ibid., 35 f., and see Ch. II passim.
in all cases because, while it is true that some people ideate in pictorial images, many others think in abstract or non-pictorial terms.

This, and allied criticism, would be quite valid if Hume actually held that the relationship was an iconic one. The notion that this was Hume's intention arises, I believe, from a literal reading of Hume's metaphorical description of ideas as "mental images" of impressions; and from an undue emphasis by commentators on examples drawn from visual perceptions which easily lend themselves to an iconic interpretation. But of course Hume's list of perceptions include much more than visual experiences, and it becomes nonsensical to speak of iconic representations of, say, olfactory or gustatory impressions, and even more so of emotional or volitional ones. The characterization of ideas as "weaker copies" or "fainter images" of impressions makes more sense, and is more consistent with Hume's whole treatment of the relationship in Enquiry III, if the noun is taken in a figurative sense and the emphasis is shifted from the noun to the adjective: the idea of a visual impression is thus a weaker, more fleeting picture of the thing imagined than is the experience of the thing seen; to remember a taste is to have a weaker perception of that taste (but not so indiscernible that thinking of it cannot make the mouth water); and to think of a past grudge is not to feel the original fury, but still to evoke faint stirrings of anger. If such an interpretation fails to remove all the difficulties.

1 See, for example, MacNabb, David Hume, 35 f.; Zabeeh, op. cit., 69 ff.; Basson, op. cit., 30 ff.; Furlong, op. cit., 62; Prichard, op. cit., 17 f.

inherent in Hume's theory of perception, it does at least remove those that cluster round an iconic interpretation of the theory.

Hume claims that ideas are marked by yet a third differentia, one whose discovery he considered to be his main contribution to epistemology. The primary perceptions, impressions, impinge on the consciousness in disordered succession, a kaleidoscopic jumble of sensations and sentiments that provide awareness only of the momentary experience. But it is obviously untrue to say that our only perception of the world consists in this 'chaos of fragmentary things' (Helen Keller) or to suggest that such patterns as do emerge from the shards of experience are the product of deliberate reason. Perceptions are integrated into wholes; but Hume maintains that the integration occurs not at the level of sensible experience but rather at the level of ideas. We are saved from kaleidoscopi
tism by the associative powers of the memory and the imagination:

"It is evident that there is a principle of connexion between the different thoughts or ideas of the mind, and that, in their appearance to the memory or imagination, they introduce each other with a certain degree of method and regularity. . . . Even in our wildest and most wandering reveries, nay in our very dreams, we shall find, if we reflect, that the imagination ran not altogether at adventures, but that there was still a connexion upheld among the different ideas, which succeeded each other." 4

Hume's quarrel with the sort of realism exemplified by G.E. Moore boils down to the question of the separability of the elements of

1 Abstract, 31. 2 Enquiry, 42, 55, 63, 73.
3 On association as a "power" or "force", see Smith, The Philosophy of David Hume, 239 n.
4 Enquiry, 23.
perceptual experience. Both would agree that we always perceive ordered wholes. Hume takes this as evidence for the 'translation' of impressions into ideas and the peculiar associative power at work among the ideas. Moore takes it as evidence for the claim that what we perceive are wholes: a fact reflected in the language of perception: "I see my hand"; and not, "I experience an amorphous pinkness . . . and this experience I call 'seeing my hand'." 1

1 For a detailed linguistic argument in favour of realism, see Chisholm, op.cit.

If the findings of science and the conclusions of philosophy are granted some mutual relevance, it may be of interest to note that studies in the physiology of perception, while dealing in concepts quite different from those of Hume, give rise to a system that organizes the elements of experience along lines analogous to Hume's theory of perception. The physical units of sensation consist of episodic electrical potentials which are conducted along the fibres of the nervous system to the brain. The data transmitted by the nerve impulse is itself incoherent and undifferentiated:

". . . In a given conductor it is always identical in character: its individual duration, its speed of propagation, its amplitude, its form are invariables . . . It is of the same nature as a Morse signal, but without even the distinction of longs and shorts. What varies within a message is its total duration and the frequency of the individual signals." (H. Piéron, The Sensations: Their Functions, Processes and Mechanisms; transl. by Pirenne and Abbott (London: Frederick Muller, 1952), 412).

The succession of impulses is translated into recognizable sensations at the last stage of the electrical relay by integration within the "associative system of the cortex" (loc.cit.). By virtue of the association and interpretation of the signals, the human organism is able to engage in responsive behaviour by emitting electrical potentials in the reverse direction from the brain to the nerves controlling the motor organs:

"But before planned voluntary action is possible, there must occur
The associative elements which, when added to other ideas and impressions, provide our perceptions with their coherence are "resemblance" "contiguity" and "cause".\(^1\) Hume's theory requires that these elements be themselves traced back to impressions since, failing this, the very terms would be 'absolutely without meaning', and since these elements are themselves perceptual particulars which combine with other perceptual particulars. Hume's solution to this problem is to find the original impression for the idea of cause in a sentiment evoked by the regular conjunction of similar successive pairs of events.\(^2\) It seems to have escaped the notice of Hume's critics that no solution is offered for the equally mysterious origins of the remaining associative ideas. But assuming that resemblance and contiguity, as well as cause, are cashable as sentiments, his theory of perception results in the conclusion that the apparent order of our perceptions is one imposed by the perceiving agent: "'Twill be easy to conceive of what vast consequence these principles must be in the science of human nature, if we consider, that so far as regards the mind, [the associative ideas] are the only links that bind the parts of the universe together. . . . They are really to us the cement of the universe . . . "\(^3\)

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\(^1\) Enquiry 23 f. and 50 ff. Kemp Smith reduces Hume's associative principles to one, namely 'the law of redintegration': "Any part of a single state of mind tends, if reproduced, to re-instate the remainder; or Any element tends to reproduce those elements with which it has formed one state of mind" (The Philosophy of David Hume, 250 n.).

\(^2\) Enquiry, 71 and 78.

\(^3\) Abstract, 31.
Of the five modes of understanding, perception is, for Hume, the most fundamental: all the others involve a marshalling of impressions and ideas in various configurations. However remote the final product of such a configuration may seem to be from its original perceptual material, it is ultimately analysable into component perceptions derived in the first instance from impressions. Differences among modes of understanding depend on variations in the mix and in the transformation or processing of this original perceptual material. Thus the validity of a conclusion pertaining to any given mode of understanding is established both by examining the correctness of the procedures involved in reaching the conclusion and by resolving argument and conclusion into their perceptual elements. The crucial stage of this resolution is the analysis of the components into impressions: unless this final step is possible, the entire argument under consideration is rendered literally senseless. Even in abstract reason, which deals exclusively with relations among ideas, impressions are the controlling factor: they are used, not to determine the correctness of the reasoning process involved, but to ascertain the currency of the ideas operated upon in that process. The doctrine of the derivation of ideas from impressions accounts for Hume's peculiar treatment of paradoxes emanating from apparent contradictions between sense experience and mathematical abstractions (see IV above).

The bearing of perceptual experience, particularly of impressions, on experimental reason is more intimate. First, the analysability of 'chains of reasoning' into component perceptions and, ultimately, impressions obtains not only for abstract, but also for experimental, arguments.

1 Enquiry, 19.  
2 Ibid., 61.  
3 Ibid., 22.  
4 Ibid., 32, 46.
In the case of the latter, Hume claims to have made such an analysis possible by tracing to its parent impression the idea common to all such arguments (this assumes, of course, that the other elements appearing as variables in experimental arguments present no reductive problem):

"... When many uniform instances appear, and the same object is always followed by the same event; we then begin to entertain the notion of cause and connexion. We then feel a new sentiment or impression, to wit, a customary connexion in the thought or imagination between one object and its usual attendant; and this sentiment is the original of that idea which we seek for." ¹

Second, while abstract reason deals exclusively with ideas, experimental reason normally operates on perceptual elements at least one of which is a present impression (or the present memory of a past impression) with which the reasoning agent is directly acquainted:

"All our reasonings concerning fact are of the same nature ... It is constantly supposed that there is a connexion between the present fact and that which is inferred from it." ²

Third, the whole experimental calculus of probability is a mathematical description of the degree of enlivenment with which the component ideas are provided by the relative frequency of their parent impressions:

"... When the mind looks forward to discover the event, which may result from the throw of ... a dye, it considers the turning up of each particular side as alike probable ... But finding a greater number of sides concur in the one event than in the other, the mind is carried more frequently to that event ... This concurrence of several views in one particular event begets immediately, by an inexplicable contrivance of nature, the sentiment of belief, and gives that event the advantage over its antagonist, which is supported by a smaller number of views, and recurs less frequently ..."

¹ Ibid., 78. For Hume's arguments against the possibility of other impressions as being the source of our idea of cause, see ibid., VII.
² Ibid., 26 f.; and see also 45 f.
to the mind... The case is the same with the probability of causes, as with that of chances. ¹

Thus, in contrast to the subsidiary role played by impressions in the field of abstract reason, they are integral to experimental reason both as elements entering into, or forming part of, its calculations and as factors determining the validity of these calculations.

There remain to be discussed the relationship of perceptions to value judgements and that of perceptions to the religious hypothesis. Consideration of the former is reserved for VII below. As for the latter, it would be reasonable to expect that Hume's theory of perception should favour, or at least be compatible with, a theology based on the argument from religious experience. The proponents of such a theology claim to have knowledge of God on the impeccably Humean grounds of a direct experience of the deity through some impression that affords evidence to the sense or sentiment of the divine existence.

Whether Hume would have to acknowledge the infrangibility of the argument from religious experience actually involves two distinct though related questions: whether a second hand claim to such an experience is weighty enough to warrant credence; and whether a first hand experience of this order is convincing proof of the religious hypothesis to the person undergoing the experience. Philosophical discussion of the problem is generally confined to the former, that is the weaker, version of the argument; ² and it is not difficult to show — as Hume has shown in

¹ Ibid., 57.
his essay on miracles — that the balance of credibility does not weigh in favour of the reputed religious experience (see IV above and Enquiry X). The report that a religious experience has occurred is not itself a religious experience; hence it cannot count as an impression validating the religious hypothesis by perceptual evidence:

"Our evidence, then, for the truth of the Christian religion is less than the evidence for the truth of our senses; because, even in the first authors of our religion, it was no greater; and it is evident it must diminish in passing from them to their disciples; nor can any one rest such confidence in their testimony, as in the immediate object of his senses."

Hume's theory of perception seems to permit a counter-argument to disbelief in reports of a religious experience along the lines that such incredulity is analogous to that with which a blind man might regard reports of a visual experience. That is, one might err in disbelieving a claim for the occurrence of an impression merely because one happens to be congenitally incapable of experiencing such an impression. In point of fact, however, the blind man — unlike the religious sceptic — does not disbelieve reports of an experience which he is incapable of sharing.

The difference between the two cases lies in this that the blind man lives in an environment the majority of whose people concur in relating mutually compatible accounts of visual experiences. Experience has taught him to trust these accounts both because there is no apparent reason for those who relate them to deceive him and, more important, because the truth of the accounts is circumstantially supported by

1 Enquiry, 109.

2 In Enquiry 113 f., Hume discusses a case where incredulity is even less justified than in the present case, and he concludes that incredulity is warranted where the report conflicts with, or goes beyond, the evidence of previous perceptual experience or its analogies.
the success of predictions based on such accounts — if this success is not otherwise explicable than by assuming a visual sense.

Such a justification for credence forms part of Hume's argument in Enquiry X. It seems to lead to the consequence that belief in the religious hypothesis would be justified on the argument from religious experience if a majority of mankind concurred in avowing such experience, if they had no interest in lying about it, and if the hypothesis were circumstantially evidenced by predictive success. One may carry the analogy between religious and visual experience even a stage further by asking whether it would not serve to convince the sceptic if, like a blind man restored to sight, he were granted the faculty of sensing such an experience himself. This is to broach the second of our two questions: namely, whether a first hand religious experience, than which there can be no stronger evidence, is sufficient to prove the religious hypothesis.

The answer, from the point of view of Hume's theory of perception, is that such an experience is insufficient to establish the hypothesis. The religious experience, if we are to credit those who have reported on it from first hand, consists of an awareness of an emanative or an immanent entity whose presence is manifest at a specific level, or to a specific faculty, of the subject's consciousness. Granting that the experience is neither illusory nor hallucinatory, and granting also that its authenticity need not be established by its being reproducible or amenable to public inspection, the experience itself can convey no more than that there is such an entity present to the consciousness. What the perception cannot establish is that the entity is omnipotent or providential or infinitely good or the creator of the universe.

1 See E. Underhill, Mysticism (London: Methuen, 1960), Part 1, V.
or that it punishes the wicked and rewards the just in an afterlife. These accretions to the original perception of the divine presence are inferences regarding its nature; and, as such, they are subject to Hume's criticism of experimental arguments for the religious hypothesis.
VII. TASTE.

There is little discussion in the first Enquiry of that faculty by which we distinguish "vice and virtue" and "beauty and deformity". Although Enquiry VIII is ostensibly about a topic closely related to ethics, it is in fact largely concerned with a discussion of causality and with the demolition of yet another spurious source for the notion of causality, — the feeling supposedly engendered by the exercise of free will. The direct references that Hume does make to the faculty employed in evaluative judgements amount to a germinal account of the moral sense or, more correctly, the moral sentiment theory elaborated in the second Enquiry.

Reference has already been made (see IV and V above) to the inapplicability of abstract reason to value judgements, and to the incidental and auxiliary role played in this field by experimental reason. Hume contends that value judgements in both ethics and aesthetics are the expression of an immediate impression relative to a unique sentiment:

"... A late Philosopher has taught us, by the most convincing Arguments, that Morality is nothing in the abstract Nature of Things, but is entirely relative to the Sentiment or mental Taste of each

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1 Enquiry, 102 f.

2 It is incidental because the determinations of mental taste coincide contingently with what experimental reason calculates to be socially beneficial or harmful; and it is auxiliary because experimental reason can inform us only of the means of attaining our ethical ends, but has no part in selecting these ends. (See V above and second Enquiry, I,)
particular Being; in the same Manner as the Distinctions of sweet and bitter, hot and cold, arise from the particular Feeling of each Sense or Organ.\(^1\)

Strictly speaking, therefore, mental taste belongs among the perceptions; and it is as a specialized perception that Hume clearly intends it to be viewed:

"Moral Perceptions . . . ought not to be class’d with the \([\text{rational}]\) Operations of the Understanding, but with the Tastes or Sentiments;\(^2\)"

and

"[It is] the various species of sentiment which discriminate vice and virtue.\(^3\)"

Its consideration apart from the other perceptions in this thesis is accounted for by Hume's singling out of this perception among the others in the envoy of the *Enquiry* (pp. 163-5) and by the fact that Hume attributes certain unique characteristics to this faculty in both the first and the second *Enquiries*.

The status of mental taste as a perception implies that the determinations of the ethical faculty are subjective, or relative to the perceiver, in the sense that moral judgements do not refer to some property that inheres in the object of perceptual contemplation, but rather that they reflect the sentiments evoked in the moral agent by contemplation of the object. Both Broad\(^4\) and Lillie\(^5\) argue that Hume is saved from ethical subjectivism by his supplementary thesis which relates the terms "good" and "bad" not only to the immediate sentiment of the perceiver but also to what is deemed "good" and "bad" by the majority.

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\(^1\) *Enquiry* (ed. Mossner), 18 n.
\(^2\) *Loc. cit.*
\(^3\) *Enquiry*, 10.


of mankind. Broad goes on to deduce from this principle the consequence that the settlement of ethical disputes reduces to a statistical technique: "x is good" is true if most men would feel the sentiment of approval on contemplating x, and it is false if most men would not feel this sentiment. Broad implies that he might accept a thoroughgoing subjective theory whose consequence is the irreconcilability of ethical disputes, but not one that entails the repugnant consequence which he attributes to Hume's theory.

The evidence, however, does not support the view that Hume's theory is rendered objective by the principle of 'the common consent of mankind'. It is a principle of which Hume makes a special use; and this, not only with regard to mental taste, but with regard to all the perceptions. Hume's solution to the private language problem, which seems inseparable from any sense data theory, is not to reject the privacy of sense data — he is committed to the view that these are "entirely relative to the Sentiment... of each particular Being" — but to make locutions regarding private sense data mutually intelligible by postulating a perceptual apparatus that is more or less common to all members of the human species:

"... The faculties of the mind are supposed to be naturally alike in every individual; otherwise nothing could be more fruitless than to reason or dispute together; it were impossible, if men affix the same ideas to their terms, that they could so long form different opinions of the same subject; especially when they communicate their views..." ¹

This postulate is not to be confused with epistemic publicity; in fact, it is an alternative to epistemic publicity. Again, like the supposed coincidence between the determinations of mental taste and the

¹ Enquiry, 80.
experimental calculus of social utility, that between the mental taste of a particular being and the majority of mankind is contingent. The ultimate criterion is therefore not objective. It need coincide neither with considerations of utility nor with the majority view: it is still the private sentiment of approval or opprobrium that arbitrates in the evaluative sphere. Hume is quite unequivocal in his assessment that, where there occurs a contrariety between the judgements of taste and of reason, between the subjective and the objective, between the private sentiment and the common consent of mankind, it is the former that prevails:

"What though philosophical meditations establish a different opinion or conjecture; that everything is right with regard to the WHOLE, and that the qualities, which disturb society, are, in the main, as beneficial, and are as suitable to the primary intention of nature as those which more directly promote its happiness and welfare? Are such remote and uncertain speculations able to counterbalance the sentiments which arise from the natural and immediate view of the objects? . . . Both [ethical and aesthetic] distinctions are founded in the natural sentiments of the human mind . . . ."¹

Whether such a personalized ethic or its associated personalized theory of perception is philosophically tenable is another question; but at least it does not commit the crude naturalistic error of committing ethical disputes to a popularity poll for decision.

Since taste is an impression, the relation of that faculty to spheres other than value judgements is implicitly contained in Hume's discussion of the relationship of perception in general to these other spheres. The Enquiry does, however, refer explicitly to the inapplicability of ethical judgements to the validation of elements of the religious hypothesis.

¹ Ibid., 102 f.; and see also 165.
Although it is not as common as the effort to derive ethics from theology, the reverse procedure — the derivation of theology from ethics — has also been attempted by various philosophers. Kant, for example, considers it an inseparable consequence of the quest for moral perfection by imperfect beings that there shall exist the possibility of attaining this perfection, if not in the finitude of earthly space and mortal span, then in an immaterial environment and an infinite existence. Again, 'pure practical reason' requires that the coincidence of virtue and happiness be a necessary one. But since, in the phenomenal sphere, it is patently a contingent coincidence, it follows for Kant that we need to postulate a perfectly just agent who will harmonize virtue and happiness in the noumenal sphere. Thus, from the facts of phenomenal ethics, Kant claims to be able to derive the immortality of the soul and the existence of God.¹

While Hume's formulation is rather different from that of Kant, he too considers the same two questions explored by his successor: whether extra-ethical conclusions can be deduced from ethical premises; and whether 'a particular providence and a future state' can be inferred from the requirement that justice be fulfilled. Kant's answer is in the affirmative on both scores; but he concedes that his conclusion is "a theoretical proposition, not demonstrable as such".² For Hume, since it is neither demonstrable nor deductively inferable, the conclusion does not follow at all:

"Are there any marks of a distributive justice in the world? If you answer in the affirmative, I conclude, that, since justice here exerts

² Ibid., 219.
itself, it is satisfied. If you reply in the negative, I conclude, that you have then no reason to ascribe justice, in our sense of it, to the gods. If you hold a medium between affirmation and negation, by saying, that the justice of the gods, at present, exerts itself in part, but not in its full extent; I answer, that you have no reason to give it any particular extent, but only so far as you see it, at present, exert itself."

In effect, this is an anticipatory reply to Kant. Hume would hold that if the coincidence of virtue and happiness is contingent, then it is contingent. Merely because we should like it to be necessary does not make it necessary. Hence, it does not follow from ethical premises that there is a supreme arbiter who assures the equitable distribution of just deserts that happen not to be meted out in this life, nor does it follow that there is a future state where these deserts are meted out. For such conclusions to be 'justly' inferred, it would need to be shown that the relationship between actions having an ethical content and the just retribution for such actions is an analytic relationship, or that this relationship is known from experience to be 'firm and unalterable'. Kant does not claim — and Hume denies — that the relationship is either logically necessary or experimentally probable.

Even if it were the case that one relationship or the other obtained, this would still be insufficient to validate the inference from ethical premises to theological conclusion. For the fact that virtue must logically be rewarded, or the fact that virtue is always rewarded, does not logically entail the proposition that this operation is effected by God, nor does it entail the proposition that an eternal span is required for its attainment. Nor is it true that either of these

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1 Enquiry, 141 f.
theological propositions is rendered highly probable in the calculus of experimental reason by the observed frequency of conjunctions among ethical actions and their due reward.

Finally, even if a logical or an experimental bond could be established between compensatory redress on the one hand and the existence of God and the immortality of the soul on the other, such an inference would still not suffice to establish God's oneness, his creative power, his universal benevolence, his omnipotence, his omniscience, or any element of the religious hypothesis other than that a deity (or deities) provide compensatory redress in eternity for actions having an ethical content.
It is widely held that Hume's writings on religion and the implications of his epistemological doctrines constitute, at least implicitly, a rejection or denial of the religious hypothesis:

"... The teaching of the Dialogues is much more sheerly negative than has generally been held... He is consciously, and deliberately, attacking the 'religious hypothesis,' and through it religion as such... Their influence... has been of the same wide-ranging character as, by universal consent, has been exercised by Hume's no less negatively inspired Treatise of Human Nature and by his Enquiries."¹

This seems to be a fair inference from Hume's pronouncements on the insufficiency of any of the faculties so far considered to establish the religious hypothesis. It may even be the case, as MacNabb takes it to be, that "the main enemy in the Enquiry is not metaphysics but religion".²

While the plausibility of such an inference is not in question, it is at least worth considering an alternative interpretation, one which Hume ostensibly advocates. Hume's doctrines concerning the relation between the four faculties and the religious hypothesis lead to the conclusion that, while none of the faculties is capable of establishing the hypothesis, none of them flatly contradicts the hypothesis; the faculties are simply inapplicable to the hypothesis.³ Hume's strictures in the Enquiry...

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¹ Kemp Smith, in the Preface to the Dialogues.
² "David Hume", The Encyclopedia of Philosophy, IV, 75.
³ See also Hume's Letters, I, 51 and 151.
are reserved not for the religious hypothesis but for attempts to prove the hypothesis by means of rational or perceptual or moral arguments; and in the envoy, it is not books of theology that Hume advocates committing to the flames, but theological works that contain abstract reasoning on topics other than quantity or number, or experimental reasoning on topics other than matters of fact and existence. Even the 'purple peroration' with which he concludes Enquiry X says in substance — even if it makes the point in flamboyant terms — only that, judged by the canons of experimental reason, there is a residual probability against credence in reports of miracles, the occurrence of transubstantiation, and like Christian articles of faith: "Mere reason is insufficient to convince us of [the] veracity [of the Christian religion]," and its miracles are "contrary to custom and experience."¹

It may even be argued that, ostensibly at least, the denial of the religious hypothesis would be incompatible with his stated doctrines. Abstractly considered, all existential propositions are equally true; therefore the proposition "God exists" may be true. The conclusions of experimental reason are all more or less probable; hence theological propositions, in so far as they are existential, are at least possibly true. What we know from perception is fortuitously limited to what we happen to have apprehended by sense or sentiment; and there remains the possibility that we may experience new percepts related to religion. The inference from ethics to theology is a case of unjust reasoning; but unjust reasoning does not necessarily render the conclusion false, any more than just reasoning (as in the case of the Indian prince²) renders it true. The conclusion that appears to be most consonant

¹ Enquiry, 131.
² Ibid., 113 f.
with these doctrines is the view that, as far as it lies in the power of these faculties to determine, there is no positive evidence for the religious hypothesis; and that it is therefore proper to withhold credence from the hypothesis.

This consequence does not exclude the possibility of apprehending religious cognitions by other means; and, if we accept Hume's doctrines at face value, we find that he does provide a cognitive medium — faith — by virtue of which we are able to acquiesce in religious beliefs. What distinguishes his treatment of this from his treatment of the other irrational faculties lies in the fact that with regard to faith he makes no effort to account for, or even claim, mutual intelligibility or a common human body of religious cognitions. In the case of perceptions, he postulated a perceptual equipment common to all the members of the human species; and he accounted for agreement concerning ethical judgements through the coincidence of such judgements with the conclusions of experimental reason in calculating the social utility of moral acts. In the case of religious judgements, however, there seems to be no conveniently calculable parallel against which conflicting religious claims can be tested. It follows, therefore, that concerning religious doctrines there can be no fruitful disputation: every man must consult his individual religious consciousness, the faculty of faith.

Of course, neither Hume's agnostic conclusion regarding the inapplicability of four faculties to the religious hypothesis nor his gnostic alternative based on the faculty of faith has escaped the notice of his commentators. But while they notice it, they also dismiss it as a prudential device and hence as insincere:

1 Ibid., 130, 131, 135, 165.
"... When Hume was writing his Dialogues, freedom of discussion in Britain was complete, subject only to certain agreed limitations – that there be no advocacy of atheism and no direct challenge to the supreme claims of the Christian faith. ... In this outward deference to current beliefs and practices Hume was conscious of taking the ancients, especially Cicero, as his model; and it was a game into which he could zestfully enter.

"Hume's methods of meeting these conformist requirements vary with each of his chief works; but in the main they are those of Pierre Bayle – namely, to maintain that there is no surer method of rendering religion doubtful than to subject it to the tests of reason and evidence, and at the same time to speak of it as resting solely on revelation."

B.A.O. Williams agrees that Hume employed a common contrivance to escape censure as an atheist:

"One such method was to claim that one was criticising not Christianity, but superstitious perversions of it; another was to claim that in destroying pretensions to rational argument in support of religious doctrines, one was only making way for Faith, on which they should properly rest." Kant also claimed to be removing Reason to make way for Faith. "The difference is that he meant it, and Hume and Bayle did not."

This view, while it is compatible with the evidence, relies largely on a motivational interpretation which, I believe, misconstrues Hume's character and distorts his philosophy (see II above). The opposing view, which takes serious cognizance of Hume's assertions concerning the capacity of faith to apprehend some positive elements of a religious hypothesis, is not merely a naively literal acceptance of Hume's ostensible doctrines, although it is true that its main evidence is textual. It is

1 Kemp Smith, in Hume's Dialogues, 39 ff.
2 Williams, in Pears (ed.), David Hume, a Symposium, 77.
a view that coheres as well, if not better, than its opposite with the undisputed elements of his faculty theory of knowledge. It is also one that agrees with Jessop’s estimation that "we are unlikely to reach a just understanding of either the man or his work unless we take into account his judgement upon himself". If we do this, we find that Hume certainly did not consider himself to be an atheist; he denied that appellation where it would have been easiest for him to have acknowledged it — namely, in the company of the militant French Philosophes whose views he is alleged to have shared. But if Hume himself subscribed to cognitions of faith, it is clear that they were far removed from the Church dogmas of his time. Consequently, even if it is unjust to consider him an atheist in the philosophical sense, his contemporaries were probably right in considering him an 'Infidel' in the ecclesiastical sense. Hume’s was a mitigated faith which excluded much and admitted little. Its nature and limits are perhaps best summed up in a passage from a letter in which he comments on a sermon dealing with the efficacy of prayer:

"I have read Mr. Leechman’s Sermon with a great deal of pleasure and think it a very good one; though I am sorry to find the author to be a rank atheist. You know (or ought to know) that Plato says there are three kinds of atheists. The first who deny a deity, the second who deny his providence, the third who assert that he is influenced by prayers or sacrifices. I find Mr. Leechman is an atheist of the last kind... As to the argument, I could wish Mr. Leechman would in the second edition answer this objection both to devotion and prayer, and indeed to everything we commonly call religion, except the practice of morality and the assent of the understanding [not of reason] to the proposition that God exists."
In proposing that faith is an independent faculty for the apprehension of the irrational concepts of religion, Hume's theory accords with those of theologians who assert the primacy of faith over reason in that particular sphere. And it also agrees with the doctrines of philosophers who, while wishing to maintain as true some elements of the religious hypothesis, have abandoned as impossible the task of providing such elements with 'intellectual proofs'. So much is granted, be it ever so reluctantly and circuitously, even by Hume's most vehement opponents.

A striking instance of this is provided by A.E. Taylor who, after denoting Hume's remarks on the insufficiency of reason and the need for faith as "a mere piece of mockery", restates what is, in effect, Hume's position:

"... It would involve an obvious circle in our reasoning if we alleged the occurrence of miraculous events as the ground for adopting a theistic metaphysic ... And I think it follows that we cannot expect to arrive at a metaphysic of any great worth so long as we confine our contemplation to the domain of formal logic, or epistemology, or even of experimental science."¹

The same position is restated elsewhere by Taylor:

"It would certainly be the grossest presumption to maintain that the Absolute can contain no higher types of finite individuality than those presented by human society; on the other hand, it would be equally presumptuous to assert that we have reasoned knowledge of their existence and their direct social relation with ourselves. Hence we must, I think, be content to say that the hypothesis, so far as it seems to be suggested to any one of us by the concrete facts of his own individual experience, is a matter for the legitimate exercise of Faith."²

¹ Taylor, op. cit., 363.

Unless we take the position that Taylor meant it while Hume and Bayle did not (see reference to B.A.O. Williams above), this seems to be an admirable restatement of Hume's rational agnosticism coupled with the doctrine of religious cognition by faith. (Cf. Enquiry, 127 and 129 ff.)
It is possible to take Hume’s doctrine as going even beyond this point. I consider that, in establishing a sharp epistemological demarcation between religious and non-religious cognitions, Hume has anticipated in eighteenth century terms the kind of distinction that Wittgenstein has drawn in twentieth century terms.¹ Wittgenstein’s thesis can be summed up as maintaining that, while religious and non-religious (especially empirical) locutions share the same vocabulary — "belief," "historicity," "evidence," "reasons," "grounds," and so on — this vocabulary takes on entirely different shades of meaning when it is employed in religious and in non-religious contexts.

To take only one instance: in empirical discourse, the term "believe" (as in "I believe that Joe is married") suggests a reckoning with direct observational evidence or documentary evidence or reliable reports. In the absence of any such evidence, the assertion of belief would be irrelevant or meaningless. But such is not the case in respect of assertions concerning religious beliefs:

"Whatever believing in God may be, it can’t be believing in something we can test, or find means of testing... The mere fact that someone says they believe on evidence doesn’t tell me enough for me to be able to say now whether I can say of a sentence ‘God exists’ that your evidence is unsatisfactory or insufficient..."

"I mean, if a man said to me after a dream that he believed in the Last Judgement, I’d try to find what sort of impression it gave him... I can’t treat these words as I normally treat ‘I believe so and so’. It would be entirely besides the point, and also if he said his friend so and so and his grandfather had had the dream and believed, it would be entirely beside the point."²

The same appreciation by Hume of the applicative disparity between

² Ibid., 60 and 62.
the religious and the non-religious uses of "believe" is to be found in Boswell's account of his interview with the dying philosopher:

"But I maintained my Faith. I told him that I beleived the Christian Religion as I beleived History. Said [Hume]: 'You do not beleive it as you beleive the Revolution'. . . "

Again, neither for Hume (as here interpreted) nor for Wittgenstein does the denial of a theological assertion entail its contradictory: it is not a matter of "yes" or "no", of theism or atheism. Rather, it is for Hume a matter of the employment of different faculties, and for Wittgenstein a matter of different planes of meaning:

"... Religion is founded on Faith, not on reason; and it is a sure method of exposing it to put it to such a trial as it is, by no means, fitted to endure."2

"Suppose that someone believed in the Last Judgement, and I don't, does this mean that I believe the opposite to him, just that there won't be such a thing? I would say: 'not at all, or not always.' . . . "If some said: 'Wittgenstein, do you believe in this?' I'd say: 'No.' 'Do you contradict the man?' I'd say: 'No.' . . . "It isn't a question of my being anywhere near him, but on an entirely different plane, which you could express by saying: 'You mean something altogether different, Wittgenstein.'"3

Hume's method of investigating the relation of faith to cognitive spheres other than religion does not consist — as in the analogous case of his treatment of the other faculties — of an analysis of what we can believe on faith in these cognitive spheres. Rather, his investigation turns on what we can infer regarding these spheres, once we have assented by faith to the proposition that God exists.

1 Dialogues, 77. 2 Enquiry, 130.
3 Wittgenstein, Lectures and Conversations, 53.
In relation to matters of fact, the question that Hume examines is whether we can account for specific instances of causal conjunctions in terms of immediate volitions of God:

"Instead of saying that one billiard-ball moves another by a force which it has derived from the author of nature, it is the Deity himself, they say, who, by a particular volition, moves the second ball, being determined to this operation by the impulse of the first ball, in consequence of those general laws which he has laid down to himself in the government of the universe."¹

That this postulate is itself not supported by experimental reasoning has already been argued (see V above). The question now is whether, assuming the postulate, it can provide experimental reason with a better basis for its calculations than that provided by Hume's descriptive account of the causal calculus. To this, Hume proposes a negative answer. It is to the effect that, if we are unable by the use of our faculties to observe the actual causal operation of one present body on another present body, we are certainly in no better position to exercise our faculties in observing the operation of "a mind, even the supreme mind" either on itself or on body:

"We surely comprehend as little the operations of one as of the other. Is it more difficult to conceive that motion may arise from impulse than that it may arise from volition? All we know is our profound ignorance in both cases."²

But even if the divine volition explanation is the correct one, it will be of no use in increasing our predictive accuracy. Either we shall have to concede that God's inscrutability makes all predictions uncertain. Or if we claim that God's volitions act on regular principles, we shall still have to depend on experimental reason to elicit from our observations of

¹ Enquiry, 70. ² Ibid., 72 f.
what 'causes' God conjoins with what 'effects', and with what degree of regularity, in order to infer the likelihood of such conjunctions occurring in the future.

A religious solution to the problem of induction fails to solve or to dissolve the problem: it merely shifts our attention from the observational investigation of conjunctions among events to the investigation by the same means of conjunctions between divine volition and events. Hume's argument tends not so much to exclude the possibility of the religious solution as to call into question its usefulness either for predictive purposes or as an explanation of causal conjunctions. And since there seem to be no independent arguments in its favour this particular solution is discarded.

Analogous tactics may be employed in discounting the relevance of God's existence and his supposed attributes to the question of whether "the perceptions of the senses be produced by external objects, resembling them". Starting from the position that there is a duality of perceptions and objects to which these perceptions relate, our acceptance of the postulate that it is God who assures the coincidence of these two types of entity does not provide us with any more information as to the mechanism by which it is achieved than does any other theory claiming to explain the coincidence. And again, even if it is granted that God effects the coincidence, and even if we understood the mechanism whereby he does this, such knowledge would not enhance our acquaintance with these external bodies; for (by the terms of the dualistic theory) we would still be limited to what is apprehended in perception. Neither would it enhance our ability to infer any relationship thought to exist among perceptions.

1 Ibid., 153.
or between perceptions and objects; since such inferences would still have to depend on the experimental calculus of what these relations have been found in experience to be, or on the experimental calculus of what God has been observed to make these relations be.

Hume's argument on this topic relies on two other considerations. The first of these is the claim that the question of the relationship of perceptions to external objects is a question of fact; and, as such, the only just means of determining the nature of the relationship is by the calculus of experimental reasoning. This implicitly excludes any hypothesis based on the supposed regulation of perceptions with objects by divine intervention, since we are excluded (in Hume's theory) from observing any such regulatory process by reason of the fact that our sensory apprehensions are limited to the apprehension of impressions. The second consideration relates to the absurd consequences which Hume claims, follow from "recourse to the veracity of the supreme Being, in order to prove the veracity of our senses":

"If his veracity were at all concerned in this matter, our senses would be entirely infallible; because it is not possible that he can ever deceive. Not to mention, that, if the external world be once called in question, we shall be at a loss to find arguments, by which we may prove the existence of that Being or any of his attributes."

Against the first, it might be urged that if Hume's doctrine implicitly excludes the possibility of our being aware of divine regulation, then it is the doctrine that is wrong rather than the excluded hypothesis. His second argument seems to contain more serious weaknesses. It is by no means clear, for example, that the absurd consequences which he claims to draw from the proposition are in fact entailed by it. But even if his

1 Loc. cit. 2 Loc. cit.
deduction is correct, it might be held, as indeed Hume himself suggests in another connection,¹ that this (unlike the truth of its consequences) has no relevance to the validity of an argument. Hume can, however, rely on a second line of defence against the divine regulation of perceptions with objects: namely, his arguments against hypothesizing the dualism of percepts and objects in any form. If we can have no knowledge of objects in the first instance, then presumably there is no point in attempting to explain how such unknown objects relate to percepts. Ultimately, therefore the validity of his objections to the religious explanation depends on the strength — or weakness — of his theory of perception.

In considering the relation of God's existence to the sphere of ethics, Hume limits himself to a discussion of the ethical consequences of the doctrine of divine predestination.² His argument is the popular but unrigorous one that, if all human actions are preordained by God, then either such actions "can have no moral turpitude at all" or "they must involve our Creator in the same guilt". Hume examines some of the possible escapes from this apparent dilemma: for example, the theory that individual ills really serve to enhance a beneficent whole. What he claims to be the flaws in such devices, together with the 'absurdity' and 'impiety' of the conclusions entailed by the doctrine of predestination, lead him to deduce that the doctrine itself "cannot possibly be true". Logically, of course, the doctrine can be true: we may accept either of the impious consequences; or we may find that the doctrine entails a quite different and acceptable consequence; or the terms "good" and "evil" in their ethical sense are properly applicable to predestined actions; or these terms are applicable to actions that are predestined but that we

¹ Ibid., 96. ² Ibid., 99 ff.
do not know to be predestined. However, taking into account the limited number of factors with which Hume operates, and the interpretation that he puts on them, it is correct to say that the doctrine of predestination is incompatible, not with God's existence, but with the concept of a perfectly good God or, if the perfect goodness of God is retained, with the existence of evil in the world.

Whether God's existence is relevant to ethics is not bound up exclusively with the doctrine of predestination; and it is not a question that is automatically decided in the negative by the simple expedient of discrediting that doctrine. However, Hume's theory of experimental reason can be said to imply a tentatively negative answer to the problem, even if we disregard the dubious doctrine of predestination and its dubious refutation. From God's existence alone, nothing can be inferred except what, if anything, is entailed by 'existence'. Consequently, in order for God to become relevant to ethics, we require independent knowledge of one or more additional premises: that God desires moral conduct from mankind, or that the Bible constitutes God's moral legislation for the world. Both these premises incorporate matters of fact; and their validity is therefore to be weighed by the standards of experimental reason. But experimental reason supports neither: for nothing can be inductively inferred about God's attributes or his governance of the world except what we can observe in the world, and this is hardly such as to warrant belief in an overall beneficent governor;¹ and, by the canons of experimental reason the Bible strikes Hume as the heritage of "a barbarous and ignorant people, written in an age when they were still more barbarous."²

Nevertheless, it is still consistent with Hume's doctrines for us to accept either or both additional premises on faith, in the same way that

¹ Ibid., 137 and 141 f. ² Ibid., 130.
it is possible to take the primary premise — God's existence — on faith. But if this is so, it follows from the character of the apprehensions of faith that ethical disputes will take the form of mutually contradictory but mutually incontestable assertions regarding what A's God desires or what A's sacred scriptures enjoin as opposed to what B's God desires or what B's sacred scriptures enjoin. And the solution by faith will leave unresolved the question of whether an action is morally good because it is divinely prescribed, or whether it is divinely prescribed because it is morally good. If the former is the case, then the question arises whether a previously 'good' action can become morally reprehensible merely as a consequence of a change in the divine prescription; and if the latter is the case, then the religious solution merely transfers the problem from a question of what it is that constitutes the good for man to a question of what it is that constitutes the good for God. Hence, while it is conceivable that faith and theology do have some bearing on moral behaviour, neither seems to go very far in solving any of the fundamental problems involved in the cognition of evaluative judgements.
IX. CONCLUDING REMARKS.

The primary object of the present thesis has been to present Hume's first Enquiry as a systematic account of his 'mental geography' or faculty theory of knowledge. Although this is what the Enquiry claims to be, Hume's many commentators either have not recognized it as such or, ignoring the claim, have treated it as a collection of essays on various topics. The foregoing presentation has inverted Hume's practice of selecting individual cognitive spheres or characteristic problems in individual cognitive spheres and training on them in turn each of the mental faculties. Hume's technique was, in effect, this: "We can know nothing about such and such a subject by means of this or that or the other faculty; but we can know something about it by the application of the remaining faculty; and what we can so know, constitutes the limit of what we can legitimately claim to know about the subject at all." In the present thesis, the relation between the faculties and the cognitive spheres has been investigated as follows: "This faculty tells us something, if only to a limited extent, about such and such a subject; but it tells us nothing either way about this, that, or the other subject."

By either method of exposition, we find Hume arguing that abstract reason can elicit knowledge in the field of relations of ideas, but that it is inapplicable to matters of fact, value judgements, and theology; that experimental reason is apt for the estimation of probabilities in the field of matters of fact, but that its calculations are at best inconclusive.
when they are concerned with percepts, value judgements, and theology; that perception is the proper means of identifying our impressions and ideas, but that its powers do not extend into the sphere of relations of ideas, value judgements, or theology; that mental taste determines the nature of value judgements, but that these judgements cannot then be applied to the field of theology; and that faith is the proper foundation for theological beliefs, but that these beliefs have no bearing on matters of fact, percept or value judgements.

Since either style of presentation naturally results in the conclusion that a great deal of supposed knowledge is ill founded, and since Hume is much concerned with this aspect of his theory, there has been a tendency to construe Hume's philosophy as advocating some form of scepticism or epistemological agnosticism (see references in I above). Such an interpretation ignores, or at least plays down, Hume's doctrines concerning the possibility of positive knowledge in the major fields of human intellectual endeavour — even if that knowledge is limited, and even if in many instances it is 'irrational'. I consider that the attribution to Hume of variously defined species of scepticism, atheism, phenomenalism, and other extreme doctrines results from an imbalanced view that isolates his negative conclusions from his positive conclusions; and that this in turn stems from a disregard for the faculty theory of knowledge which incorporates both kinds of conclusion.

In the process of reconstructing Hume's epistemological map, I have attempted incidentally to evaluate some, but by no means all, of the solutions that Hume offers to the problems coming within the scope of his work. Among other points elaborated beyond the treatment accorded to them by Hume, this thesis has included some comments on the 'problem of induction', the rational and ethical arguments for the religious hypothesis,
and some other problems which, in their present form, owe much to much to the manner in which Hume originally drew attention to them in the Enquiry.

Finally, if we view the Enquiry as the summation of a faculty theory of knowledge, this suggests a rather different conception to that usually accepted regarding the place of the Enquiry among Hume's philosophical writings and, in particular, regarding the relation of that work to the Treatise. The Treatise may be viewed, in accordance with this interpretation and with its stated aim, as the detailed development of one particular aspect of the mental geography: namely, the extent to which knowledge is attainable in various cognitive fields through the application of experimental reason. Since experimental reason has only a limited application, and since the Treatise deals with a range of topics many of which lie outside of these limits, it is not surprising to find that the Treatise has a predominantly sceptical tendency and, consequently, that those commentators who take the Treatise as the primary text for the exegesis of Hume conclude that Hume's philosophy is 'sheerly negative'.

Similarly, the Dialogues may be viewed as a detailed examination of another fragment of the mental geography: namely, the conclusions for theology of submitting the religious hypothesis to the test of experimental and, to a lesser extent, of abstract reasoning. And again, since it forms part of Hume's theory that this is to submit the hypothesis to a test which it is 'by no means fitted to endure', it is not surprising to find the Dialogues containing conclusions that are unfavourable to the hypothesis, or to find that these conclusions are taken to reflect Hume's final, sheerly negative, position on that subject.

Similarly, too, the second Enquiry may be viewed as developing yet another aspect of the same theory: this time, the results of the correct application of the moral sentiment to ethical cognitions and an examination
of the supplementary and confirmatory role played in this field by experimental reason applied to the concomitant matters of fact. Here too, perhaps, it is not surprising to find, since Hume was at last presenting a predominantly positive doctrine, that he could describe this work (in his autobiographical essay) as "incomparably the best" of all his writings; and that, perhaps for the same reason, the second Enquiry is preeminent in the estimation of his critics, while at the same time the first Enquiry — which presents in full that theory of which his other works are partial elaborations — languishes in relative neglect.
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