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DAVID HUME AS A CRITIC OF SAINT THOMAS AQUINAS ON THE NATURE OF EXPERIENCE AND THE OBJECTS OF PERCEPTION

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PREFACE

In a letter commenting on work completed on this thesis at the time it was written, Prof. Brenton Stearns suggested that I include some sort of introductory remarks on my reasons for choosing to compare David Hume and St. Thomas Aquinas on the subject of the nature of experience and the objects of perception, given that they are very different, and Hume was not concerned with Aquinas as such in his work. There are at least two sides to the answer to this question, one philosophical and historical, the other theological. The second not having directly to do with the subject matter of the thesis, it seemed appropriate to mention both together in a preface.

The idea for this thesis grew out of a paper surveying and comparing in a summary fashion A.N. Whitehead and W.V.O. Quine on the philosophy of logic. In that paper, I argued that their views on both logic and metaphysics could not be divorced from implicit and explicit claims about the nature of experience. Quine's "Ontological Relativity," I argued, was a consequence of a doctrine of experience close in many respects to Hume, read as a phenomenalist (a reading I

have not found sufficient reason to abandon, as will be evident from the text). Whitehead's metaphysics, on the other hand, is empirically based, at least in intent, suggesting that, for whatever reasons, he had not accepted the same restrictions on what it is for a phenomenon to be "empirical" accepted by Quine.

I have not returned to Whitehead and Quine since that paper, and I would not know what to say about them now. In Hume and Aquinas I found a more accessible phenomenalist and metaphysician, respectively, and resolved to examine Hume's reasons for restricting the realm of knowledge to the realm of "perceptions," and Aquinas' alternative account of empiricism. The question whether empiricism entails phenomenalism, the belief that the objects of knowledge are the experiences by means of which empirical knowledge is gained *per se*, then, is the large issue at stake. We cannot establish conclusively that it does not, for the arguments must be taken as they are produced, and we need not suppose that Hume's arguments are the only possible arguments for this position. However, I gained an impression as an undergraduate I hope here to discredit that it was Hume who had closed the issue against Aquinas conclusively.

In the pages that follow, I argue that Hume's arguments for restricting the realm of knowledge to the realm of appearance either assume as obvious that if experience provides the means to empirical knowledge, the objects of knowledge must be experiences as such, or take for granted a theory about the nature of thought that is false. Particularly important with respect to the latter is Hume's account

of universals, and I attempt to show that Hume uses arguments against the notion that we entertain ideas "abstract in our conception of them" that are disastrous for his crucial analogy between thinking and imaging. Using Aquinas as an example of someone who does not accept Hume's restriction of empirical knowledge to the realm of appearance, finally, I have tried to show that Hume does not and could not, on his basic epistemological premises, successfully criticize the principal tenets of Aquinas' account of perception and of the way in which we profit from experience. Of particular importance here, of course, is the Aristotelian doctrine of substance, which I discuss at some length.

In choosing and, to some extent, defending Aquinas as a representative of the "antient" philosophy I do not, of course, commit myself to either to his philosophical or theological vision _in toto_ . I am not convinced that nothing of interest has gone on in philosophy since his time. His theological work is not entirely undeserving of Eastern Orthodox censures against the rigorous systematization of what is not meant to be a system, but a reliable guide for the imagination of those who together attempt to wrestle in prayer, action and thought with a Deity so completely transcending our capacities for a positive understanding, i.e. adequate to its object, as the Christian's Trinity. Nevertheless, Aquinas' failings are all the failings of a great mind, and it is rightly said that often more may be learned from the failings of great thinkers than from the most impressive accomplishments of earnest but mediocre

dabblers.

Hume is also of interest to the theologian. Perhaps the best, and certainly the most influential philosopical critics of orthodox Christian belief and practice in this century have been, in various ways and to various extents, disciples of Hume. The critique of miracles and the corresponding rejection of the supernatural, the fact/value distinction drawn as Hume draws it, making of doctrines either matters of fact divorced from any moral content or statements of peculiar desires there is little reason to believe may be fulfilled, empirical criteria of knowledge such that theological claims cannot possibly receive experimental support -- in all these respects and in many others, Hume has had a very great influence on philosophically inclined believers and critics of religious belief alike. My own exposure to Hume's effect on the theological and philosophical traditions began with a reading of New Essays in Philosophical Theology , edited by Antony Flew and Alasdair MacIntyre, as a beginning student of theology. Some years later, I came upon a response to many of the contributors' arguments in the form of a little book by a disciple of St. Thomas, Eric Mascall, entitled Words and Images , in which he argued that the theists in the debate erred chiefly in allowing a doctrine of experience and the ways in which experience is related to knowledge both faulty in itself and, ultimately, fatal to religious belief in general and orthodox Christian belief in particular.

Since reading Mascall, I have sought to understand both Hume and

Aquinas on the question raised by Mascall more fully. Moreover, having these matters in mind when reading theology, I have come increasingly to agree with Mascall at least to this extent. Much present Christian theological reflection suffers from having made assumptions without sufficient philosophical reflection on their consequences, many of which are directly or indirectly related to Hume's doctrine of experience and perception and its descendents. If, having accepted some account of experience such that it would be impossible to make sense of what it would be to encounter in experience God the Holy Trinity, the Word Incarnate, the Blessed Virgin and the Saints, we begin to use non-theological categories of one kind or another to explain what talk of such things is <u>really</u> about, it will not take long for some perceptive soul rightly to suggest that it would be much simpler simply to speak in terms of the categories indicated. (So argues David Brown in <u>The Divine Trinity</u> concerning recent tendencies toward Deism in theology). My point is this. <u>If</u> the Christian faith is true in some non-Pickwickian sense, the theologian must recognize a challenge in the form of a doctrine of knowledge and experience such as Hume's for what it is: a challenge to the possibility of his discipline. This thesis is an attempt to take up this challenge, though I do not discuss implications of what I have argued for the discipline of theology here.

For those who do not share my theological concerns, the subject of Hume's doctrine of experience and knowledge need not be wholly

without interest, however. Hume's work is an important part of the Enlightenment critique of philosophy before Newton. In comparing Hume's work with that of an important representative of the traditions he criticized, we may hope better to understand our own, post-Newtonian intellectual climate, and, in particular, the doctrines nearly all philosophers of note after Francis Bacon and Rene Descartes were concerned to replace.

* * *

I would like to thank Mr. Ross Emmett for the use both of his computer and his office for literally hundreds of hours, and for many of those diversions essential to sustaining effort over long periods of time in the form of spirited conversation. I am also grateful to my parents, James and Audrey Ingalls, who helped when ailing student finances made the future of this project look unpromising, and who have supported me in many ways over the past six years in University.

There is such a thing as parochialism in time as well as in space... In philosophy, as elsewhere, it is perfectly possible that our ancestors were wiser than we are; and if they were, we shall do well to be traditionally minded.

H.H. Price
Thinking and Experience

Crime is common. Logic is rare.

Sherlock Holmes
"The Adventure of the Copper Beeches"

CHAPTER I

HUME

(I Hume not a systematic critic of Aquinas)

Nowhere in David Hume's major epistemological works does he attempt a systematic interpretation and critique of St. Thomas Aquinas' empiricism. There are a variety of familiar historical reasons for this. The Aristotelian tradition in both metaphysics and in science was associated in the minds of many who followed Galileo with blind and uncritical allegiance to clearly problematic theses, and arrogant disparagement of all things new.[1] There is reason to believe that neither Aristotle nor St. Thomas were taught in the universities with the rigour and creativity necessary to attract the interest of students capable of creating a convincing sythesis of a new physics with metaphysics in the tradition of an ancient biology. Whatever the particular causes in Hume's own case, he shared the opinion of many: as Newton had dealt a fatal blow to the Greek physical tradition, Greek metaphysics was by the same action placed

beyond the need for serious consideration.

(II Resulting difficulties in exposition)

By reason of Hume's predisposition not directly and systematically to address himself to the Aristotelian empiricist tradition, there are a number of problems which must be faced in attempting to place Hume and Aquinas in critical debate. Hume was not in a position to make the best case that could be made for "the ancient philosophy," and did not do so. This is often evidenced in remarks which are addressed to "the Schoolmen." For that reason, it is important not only that we become clear about what criticisms Hume addressed to "the Schoolmen" in general and which might be taken as criticisms of Aquinas in particular, but also that we construct from his work the sort of critique we might expect him to give of Aquinas' positions stated and defended with greater clarity and rigour than the representations of them he himself entertained. And a similar charity must lead us to read Hume with intent to discuss his best case, not making too much of minor inconsistencies, and suggesting modifications where this would seem to strengthen his position.

(III Order of Exposition)

A second problem is one of order of exposition. Hume does not provide for us a ready-made order, and the issues which divide him from Aquinas on the nature of experience and the objects of perception have to do with closely related philosophical problems perennial in their centrality to the discipline of philosophy. A discussion of one can hardly be carried out without an understanding,

however temporary, with respect to the others. So, for example, our subject encompasses questions about the nature of mind, of concepts, of the relationship between the methods, assumptions, and working hypotheses of the various forms of disciplined enquiry, and the nature of logic. Any one of these might form a point of departure, and all are relevant to the discussion of any other.

(III Hermeneutical and evaluative problems -- dimensions of the problem of exposition)

There are at least two dimensions to the problem of exposition. The first has to do with the variety of more-or-less hermeneutical and evaluative questions we will wish to ask in connection with each of the problems addressed. There are at least four of these:

1. What are Hume's explicit and implicit criticisms of the tradition in which Aquinas stands on the particular problem in question?

2. In advancing such criticisms, with what picture of Aquinas' commitments as a member of that tradition is Hume operating?

3. What, in fact, does Aquinas believe, how adequate is Hume's characterization of it, and how might he improve his case to deal with Aquinas where he has not adequately understood him?

4. How adequate are Hume's arguments, considered as objections to Aquinas' actual views?

(V Philosophical problems to be addressed)

The second dimension is that of the philosophical problems to be discussed. It is useful to divide these into two major categories:

epistemological and ontological. Under the first fall the problems of the nature of sensation and perception, the nature of reason and of universals, and, finally, of our capacities for knowledge and the limits placed on the sorts of methods we may legitimately employ implicit in any account of our perceptual and mental capacities. Under the ontological category fall questions about the relation of mind to reality, and particularly the question of whether there is a legitimate distinction to be drawn between concepts and objects. In this first chapter we will be chiefly concerned with the first two hermeneutical and evaluative questions in connection with each of these problems. In the second we will be chiefly concerned with the latter two. Finally, in the third chapter we will summarize the discussion of the first two chapters and draw conclusions in the form of reasoned guesses about who is closest to the truth with respect to the questions discussed.

EPISTEMOLOGICAL PROBLEMS

Experience: The Nature of Sensation and Perception

(VI Major similarity and dissimilarity between Hume and Aquinas)

Nihil est in intellectu quod prius non fuerit in sensu. "Nothing is in the intellect that was not first in the sense." The famous empiricist dictum of St. Thomas is one to which David Hume could in good conscience give hearty assent. This granted, Hume is abundantly clear that he considers the medieval and Greek

empiricists not to have taken their starting point seriously. Peter Coffey notes in Epistemology that Aquinas and his philosophical disciples would have sympathized with the addition Leibniz made to the same dictum in arguing against John Locke: nisi intellectus ipse , "except the intellect itself."[2] It is by reason of their allowance for this sort of addition that Hume believes that his accusation has telling force. On his view, only in its original form is the dictum faithfully empiricist. Even then, it is acceptable only on a reading which places severe restrictions both on the sorts of experience we may rightly be said to have, and on the distinctions within experience we may legitimately make. Failure to abide by these strictures Hume takes to be the besetting rationalist sin of the Scholastics.

(VII Hume's two favoured forms of argument: #1)

Hume for the most part uses two types of arguments to establish his own position and to discredit alternatives. Appeals to common sense are intended to show either that his position is entailed or at least suggested by common sense, or to show that alternatives are inconsistent with it. In discussing the nature of experience, such appeals are made to support two key theses. The first is that all simple ideas are ultimately derived from simple impressions, which they resemble in all respects save for their "vivacity," or "forcefulness."[3] Hume understands these as indicating a capacity for producing belief, rather than as a difference between the "shades" of the less forceful and the more forceful impressions or

ideas. This is because the latter would imply a difference in kind between the two he wishes to avoid.[4] Second, there is the subsidiary claim that all complex ideas are derived from and are in principle analyzable into simple ideas. All ideas being either simple, admitting of "no distinction or separation," or complex, capable of being "distinguished into parts,"[5] any contrast between concepts and percepts such that they differ in kind is disallowed. It is with these arguments that we will be concerned in this section.

(VIII Hume's two favoured forms of argument: #2)

In subsequent sections we will be concerned with arguments of a second type. Against alternative empiricist accounts of the objects of perception, Hume often uses _reductio ad absurdum_ arguments intended to show that the accounts are internally inconsistent. In particular, he attempts to demonstrate that they make distinctions which could not be made were empiricism true. If we were to make such distinctions, we would need information to which we can have no access by means of experience, and the use of mental faculties which we have no good reason to believe exist and which, if they did exist, would provide another source of knowledge independent of and apart from experience. Hume argues in this way against some of the most important distinctions made in Aquinas' metaphysics: between concepts and objects, essences and accidents, perceptions and selves or other "substances," reason and instinct, impulsive and volitional actions.

(IX Basic distinctions in Hume's epistemology)

When he sets out the distinctions which are to form the basis of his account of perception and experience, Hume appeals to common sense with reiterated invitations to refute the doctrines he proposes by producing counterexamples. Briefly, the account is as follows.

(X Perceptions: two senses)

The objects of experience Hume categorically terms "perceptions." The terminology is chosen with intent. Hume takes it as plain that experience is constituted by many particular instances of "perceiving," though his usage is ambiguous. He sometimes writes as if such perceptions were particular determinations of the sense, the simple and epistemologically basic units of experience. "Perceptions" in this sense (hereinafter "perceptions$_1$") are typically particular presented instances of sensible qualities. When Hume uses the word in this sense, he indicates simple ideas and impressions. Three sorts of these are distinguished.

> ...we may observe, that there are three different kinds of impressions convey'd by the senses. The first are those of the figure, bulk, motion and solidity of bodies. The second those of colours, tastes, smells, sound, heat and cold. The third are the pains and pleasures, that arise from the application of objects to our bodies, as by the cutting of our flesh with steel, and such like.[6]

In a second sense, "perceptions" are objects commonly indicated by thing words, e.g. "cat," or "dog." Presumably, however, there could be qualities or states of affairs which were not sensible in the straightforward sense in which those qualities are sensible all the instances of which are perceptions$_1$. Instances of these, so long

as they were constructs out of perceptions$_1$ in the same way that Hume believes things are, might be called "perceptions" in much the same way. Hence, hereinafter we will refer to all those perceptions which are not simple and epistemologically basic in Hume's scheme, but which Hume would characterize as constructs out of perceptions$_1$, as "perceptions$_2$." The word "perceptions" will be used without subscript to indicate both indifferently.

(XI Scepticism follows if perceptions$_1$ are not basic certainties)

Hume argues that failure to take "perceptions$_1$" as basic certainties leads to scepticism. What cannot be perceived cannot be known, and as all perception takes place by means of the senses, what cannot be sensed cannot be perceived. Hence, what is not sensible cannot be known. What we sense are, in the first place, perceptions$_1$. To postulate objects of perception which cannot be perceived is philosophically perverse, setting up as it does an object of knowledge which cannot be known and about which we have therefore every reason for being sceptical. Finally, Hume appeals to common sense, claiming that we <u>do</u> take them as basic, a fact implicit in our common practice.

> 'Tis certain, that almost all mankind, and even philosophers themselves, for the greatest part of their lives, take their perceptions to be their only objects, and suppose, that the very being, which is intimately present to the mind, is the real body or material existence.[7]

(XII Equivocation on "perceptions" in Hume's argument for taking

them to be epistemically fundamental)

Unfortunately, this last appeal is not convincing for at least two reasons. First, when we observe a thing such as a dog, our perception is not simple on Hume's criteria of simplicity, but complex. It is not a perception$_1$. Yet it is the epistemological primacy of perceptions$_1$ which it is the end of the appeal to support. Complex impressions, being composites, are not epistemologically primary on Hume's own account. Secondly, perceptions$_1$ cannot recur, even if the qualities of which they are examples may be perceived on more than one occasion. They are particular and concrete, not universal and abstract in their mode of being. Plainly, we do <u>not</u> commonly believe particular determinations of the senses to be the objects of experience except in those rare instances when we have reason to believe our senses are deceiving us. Similarly, in the case that the claim is that perceptions$_2$ are commonly taken to be the objects of perception, this cannot be supported by appeal to common sense. Hume himself grants that we commonly believe ourselves capable of distinguishing between bodies existing continuously and in independence of our perception of them, objects of perception, and our interrupted and changing perceptions of them. If the objects of perception are perceptions$_2$, this distinction cannot be made because perceptions$_2$ are constructed in some way out of perceptions$_1$, and hence do not differ in kind from them. For the same reason we can have no evidence in experience for a perception$_1$ existing unperceived, we can have no evidence

for a perception$_2$ existing unperceived. In his discussion of this distinction, Hume concludes that our common sense account of the objects of perception as existing continuously and independence of our perception of them is impossible, and no less so for being inevitable! Hence Hume's appeal to common sense in support of the claim that we commonly believe perceptions$_2$ to be the objects of experience goes awry in that the claim in question entails a consequence which is quite contrary to common sense. If common sense is the the judge, it is far more likely that cats and dogs exist continuously in interperceptual intervals and in independence of our perception of them than that they are constructs out of and not differing in kind from perceptions$_1$. This is not to say that Hume's claim is false, only that he has not successfully shown it to be native to common sense.

(XIII Impressions & ideas, simple & complex ideas)

All perceptions are either impressions or ideas. The two differ only with respect to the "force and liveliness" with which they are presented to the knowing subject.[8] Ideas are "images" of impressions employed in thinking and reasoning. Hume distinguishes between simple ideas, admitting of "no distinction nor separation,"[9] and complex ideas, including all others, each of which are capable of analysis into component simple ideas, at least in principle.

(XIV The priority of simple impressions)

Simple impressions, then are properly basic in Hume's

epistemological scheme, whether they are particular determinations of the senses or "passions" produced in us by them. Their priority is supported in the Treatise by means of a challenge to produce a counterexample to the claim that there corresponds to each simple impression a simple idea.[10] All complex ideas ultimately being derived from an analyzable into simple ideas, and all experience consisting of impressions and ideas, the priority Hume requires will follow from the truth of this claim. In the Enquiry Hume summarizes this in the claim that we cannot think what we have not felt .[11] It does not follow from this that all complex ideas correspond to impressions, for we are capable of imagining what we have not experienced by means of the power of the mind to "transpose, augment, compound and diminish" the materials upon which the imagination works.[12] Nevertheless, all complex ideas will be composed of simple ideas, and will not differ in kind from them.

(XV Impressions of sensation and reflection)

Impressions may further be divided into those which are of sensation, and those which are of reflection. "The first arises in the soul originally, from unknown causes."[13] The second arises out of desires and aversions produced by impressions of sensation, which themselves become a source of impressions and ideas,[14] that is, in short, of perceptions. Again, no exception is made to Hume's rule that all ideas are ultimately derived from the senses.[15]

(XVI Hume's criteria of ideas)

The sort of priority Hume gives to "impressions" is worthy of particular note. He does not merely mean to disallow innate ideas. A rationalist, believing in innate ideas, might happily grant some general empiricist-sounding claim about all knowledge being gained in dependence upon "impressions" or "experience." The granting of such a status to experience is not inconsistent with rationalism so long as the purportedly innate knowledge in question does not originate with the experience(s) occasioning its entertainment: its essential character is not conditioned in any important way by that experience. Hume argues that not only does experience occasion knowledge, but it is the origin of all knowledge, so that from an account of the nature of knowledge-producing experience may follow an account of the limits of possible knowledge. Accordingly, from the account of experience as a stream of "perceptions" represented by ideas not differing in kind from them Hume derives a test of ideas, or concepts. If an idea differs in kind from a perception, so that it could not have been derived from perceptions or from imaginative construction using materials so derived, it represents no possible object of knowledge. It is this test which is applied to metaphysical accounts of the nature of the objects of perception, and which leads Hume to the conclusion that metaphysics of any kind is impossible.[16]

(XVII Consequences of applying the imaginal criteria of ideas: exclusion of a logic of substantial identity)

The claim that thoughts cannot differ in kind from images has far reaching consequences. In the first place, a logic of substantial

identity is excluded. A logic of substantial identity is a logic of predication in which a distinction is made between those predicates which indicate properties which must be true of a thing if it is to retain its identity, i.e. its integrity as a thing of a certain kind, and those predicates which indicate properties which may vary without destroying the thing's identity. In such a logic, not all changes true of an individual material thing or substance in the order of being imply a change such that it cannot rightly be said to be the same thing before and after the change. It is the same thing because it exemplifies the same mode of being in each case, which it is the function of the first sort of predicates distinguished above to express. Similarly, change in the order of knowing which come with increased knowledge of the substance need call for no change in the defining formula indicating the substance's substantial identity. On Hume's view, the measure of the adequacy of our conception of something is the clarity of our idea of it. Here "idea" is understood on analogy with "image." He writes, "The appearances of objects to our senses are all consistent; and no difficulties can ever arise, but from the obscurity of the terms we make use of."[17] Hume also insists that if we are to have a "just notion" of composite things, "we must have a distinct idea of every part of them."[18] Given the place he allots to images in understanding and thought, it is difficult to see what standard of adequate conception Hume could provide other than the purported clarity and distinctness of the presentations of the senses and their representations in the mind.

Yet, if this standard is accepted, to develop or change a concept of anything in any way is to make it into another concept, of a different thing or things, strictly speaking. It can be said to be the same concept or to be a conceptualization of the same thing or things only in a Pickwickian sense, useful for certain purposes, but misleading insofar as it is taken literally.

(XVIII Consequences for Aquinas' account of the end of enquiry of Hume's imagist criteria of adequate conception)

Hume's criteria of adequate conception, if correct, strike at the very heart of Aristotle's and, therefore, Aquinas' account of the end of disciplined inquiry: "scientific" investigation in the broad and classical sense of that term. For both, the end of inquiry is a more developed conceptualization of one and the same object by means of repeated experiential contact with the object or with objects of that kind in the context of the application of the methods of inquiry proper to the sort of object(s) in question. The concept remains the same by reason of continuity in denotation, which both believed was compatible with even very profound differences in connotation. We might take as an example the way in which the connotation of a concept of a genus of physical objects might change while the denotation remained constant through changes from Aristotelian through Newtonian to modern natural science. Such continuity is impossible on Hume's account. To change an idea is to change the image or images which represent it, and while a slightly modified image may resemble its forerunner, it can be said to be identical

with it only for practical purposes.

> Every thing that is different is distinguishable, and every thing that is distinguishable may be separated...[19]

> Whatever is distinct, is distinguishable, and whatever is distinguishable, is separable by the thought or imagination. All perceptions are distinct. They are, therefore, distinguishable, and separable, and may be conceiv'd as separately existent, and may exist separately, without any contradiction or absurdity.[20]

Consequently, in a discussion of the notion of "time" Hume is able to write,

> ...nor can the mind, by revolving over a thousand times all its ideas of sensation, ever extract from them any new original idea, unless nature has so fram'd its faculties, that it feels some new original impression arise from such a contemplation.[21]

Repeated exposure to a material object or to instances of a kind of material object is therefore irrelevant to the development of concepts by means of which they are to be defined and described.

(XIX The importance to Hume of excluding a logic of substantial identity)

If the mind could gain a more adequate conceptualization of a numerically identical material object or of objects of a certain sort over time through exposure to it or to things of that kind, concepts could not be constituted by images or by collections of images, however associated. To change an image is to make a new image where all criteria of identity must be stated in terms of what may be

present to the sense qua sensible. For a concept to remain the same by reason of referring to the same object(s) while being modified in any way would require that the image(s) in question both remain unchanged with respect to their sensible qualites and change with respect to the same. This is contradictory. Therefore, either St. Thomas and Aristotle are wrong about the nature of conceptual development or concepts are not related to images in anything like the way Hume believes that they are.

(XX The end of rational enquiry can never be knowledge of essences)

When Hume insists that reason must terminate in what is remembered or sensed,[22] it is this point he is driving home. Rational inquiry cannot have as its end knowledge of anything like "essences" because essences as Hume's "Schoolmen" describe them could not possibly be associations of images. Yet essences could only be such associations if empiricism is true, according to Hume. Empiricism being true, the "Schoolmen" are both wrong and inconsistent with their profession of allegiance.

(XXI Consequence of applying the imaginal criteria of ideas: all contents of mind are individual, quantitatively and qualitatively determinate)

Another consequence of the claim that thoughts cannot differ in kind from perceptions is that, like all other contents of the mind, they are all quantitatively and qualitatively determinate, and hence particular.[23] Hence the common characterization of Hume as an

atomist with respect to both the objects and the mental means of knowledge, holding that all the contents of the mind, insofar as they are different, are distinct entities. It has been suggested by H.H. Price that Hume does not disallow continuity in that he allows the existence of complex impressions and hence, we would add, complex ideas.[24] While it cannot be denied that Hume grants a distinct status to complex ideas and impressions as opposed to simple, the nature of the distinction is not clearly stated, and in any case is not such as to sustain Price's claim. Hume maintains that all complex ideas have their origin ultimately in simple ideas. On the imagist theory of conception it is not easy to see how he could escape the conclusion that complex ideas and impressions are, in a straightforward way, composed of individual images and impressions presented by the senses or imagination together in spatio-temporal conjunction, nor why he would wish to. That an atomist reading of Hume is the best one is further evidenced by his repeated and emphatic statements on the capacity for separate existence of whatever may be distinguished by the mind, of which the passage from the Appendix to the Treatise quoted above is representative.

"Certain" and "Probable" Reasonings: Relations of Ideas and Matters of Fact

(XXII Hume's theory of thinking: two senses of "reason")

Hume's image test of ideas not only restricts the realm of conceivable objects to that of imaginable objects, but also sets the

stage for his account of our capacities for thought. Hume uses "reason" in at least two quite different senses, following a distinction between two distinct types of objects of inquiry. Hume recognizes that not all our beliefs are justified in the same way. Although he believes that all justification of beliefs, however complex, must ultimately be in terms of what is perceived or felt (within the limits on what we may perceive or feel he has discovered), we have beliefs both about what what is the case in the realm of experience, and about logical relations between ideas employed in discourse about that realm. The former objects of belief he calls "matters of fact," and the latter "relations of ideas." The two are distinguished in that all propositions expressing matters of fact are known _a posteriori_ and, for that reason, cannot be known to be true with the certainty of intuition or formal demonstration. To deny such propositions entails no contradiction.[25] Propositions expressing relations of ideas, on the other hand, are either intuitively or demonstrably certain, known _a priori_, and cannot be denied without the entailment of contradiction, so long as the meaning of their terms remains constant.[26] Justification of beliefs about relations of ideas can consist only in explaining the ideas in question so that the initially unrecognized relation in which they stand becomes clear. Justification of beliefs about matters of fact must lie in establishment of the fact that a certain habit of association is well-founded.

(XXIII Two senses of "reason" -- continued)

The two types of reasoning described above are so diverse as to suggest that it is misleading to indicate both using the same term. In the following passage, Hume means quite different things by "reasonings concerning existence," in the first part, and "reasoning or reflection" in the latter, as he himself implicitly recognizes.

> ...we can never have reason to believe that any object exists, of which we cannot form an idea. For, as all our reasonings concerning existence are deriv'd from causation, and as all our reasonings concerning causation are deriv'd from the experienced conjunction of objects, not from any reasoning or reflection, the same experience must give us a notion of these objects, and must remove all mystery from our conclusions.[27]

(XXIV Reasons for beliefs about matters of fact)

"Reasonings concerning existence" are more commonly referred to by Hume as "reasonings concerning matters of fact," or probable reasonings. His account of justified belief about matters of fact attempts to show that all such reasonings are the products of habit, sometimes guided by "general rules." Hence his claim that all probable reasonings is a species of sensation. In a passage in which this claim is made he goes on to say,

> When I am convinc'd of any principle, 'tis only an idea which strikes more strongly upon me. When I give the preference to one set of arguments above another, I do nothing but decide from my feeling concerning the superiority of their influence.[28]

And elsewhere

> According to my system, all reasonings are nothing but the effects of custom; and custom has no influence, but by

> enlivening the imagination, and giving us a strong conception of any object.[29]

Similarly,

> Without considering [beliefs acquired on the basis of experience, i.e. the conclusions of trains of "probable" reasonings or beliefs implicit in our practice and speech to which we came without conscious deliberation] as the effects of custom on the imagination, we shall lose ourselves in perpetual contradiction and absurdity.[30]

Later, he expresses this as a principle, the importance of which he emphasizes by the use of italics which have been deleted here.

> (A)ll our reasonings concerning causes and effects [i.e. a posteriori reasoning, concerning matters of fact], are derived from nothing but custom; and...belief is more properly an act of the sensitive, than of the cogitative part of our natures.[31]

(XXV Limitations on the authority of custom in reasoning concerning matters of fact)

Although Hume often emphasizes the importance of custom in the association of ideas, clearly this would be inadequate if he provided no criteria at all for distinguishing between epistemically legitimate and epistemically illegitimate customs. Without such criteria, it would follow that all customary ways of thinking about matters of fact, insofar as they are customary, are beyond question. As Norman Kemp Smith points out, however, Hume does limit the authority of custom by insisting that the philosopher operate in accordance with critical principles. So, for instance, Hume sets

forward a rule according to which any suggestion that objects may act differently in two otherwise identical sets of circumstances is to be rejected. Custom is subject to experience in that only those customs are legitimate which are products of experience.[32] By means of "general rules" governing the interpretation of experience, we are prevented from changing our beliefs every time an idea gains "force and vivacity," the capacity for initiating and sustaining belief.[33]

(XXVI The "general rule" mentioned assumes and requires the existence of continuously existing, mind-independent objects)

Hume's account of reasoning concerning matter of fact is more sophisticated than is sometimes allowed, then. He does not simply resolve even reasoning concerning matters of fact into psychology, as he is sometimes accused of doing. However, in this connection it is worthwhile to note with Kemp Smith that the rule mentioned above assumes and requires that the objects of experience, insofar as they are also objects of belief concerning them, be supposed objects existing continuously and in independence of our perception of them. Only so may they be described as determining one another in "a fixed and established manner."[34] Whether or not he is consistent in not so resolving it is thus an open question.

(XXVII Knowledge of relations of ideas)

"Reasoning or reflection" refers to an intuitive grasp of what can only be described as logical relations. How this intuition is to be reconciled with Hume's version of empiricism is not easy to

understand. As we have seen, on Hume's view, the contents of the mind are all qualitatively and quantitatively determinate, and therefore particular. If this were the case, then such entities could stand only in relations of single case continuity or conjunction because no particular could be repeated: anything which would serve to distinguish its recurrence from its first occurrence would serve to distinguish it as a distinct entity. Logical relations between classes of these qualitatively and quantitatively determinate simples or composites of such simples are not of this conjunctive kind. However, if this is so, what sort of relations can they be, and how can we know them, given Hume's claim about the contents of the mind?

(XXVIII Two Possible Directions for a Humean Account of Rational Intuition)

There are at least two possible directions Hume might turn. He might try to argue that logical relations may be analyzed as the products of a process of comparison of ideas in the mind. Understanding "ideas" on direct analogy with "images," the mind would recognize identity and difference between them, comparing many ideas to test for the logical properties of terms referring to complex constructs out of perceptions$_1$. On such an account, all valid arguments would be valid by reason of matches between particular ideas or patterns of ideas, and all invalid arguments invalid by reason of the lack of such matches. Hume's scepticism about inductive reasoning would follow. Given that logic is concerned only with arguments which ultimately can be analyzed in terms of identity

and/or difference, inductive reasoning is different in kind from logical reasoning. And if there are no logical canons of inductive reasoning, custom, guided by the limiting principles Hume seeks to expound, is at least a promising suggestion as a replacement.

(XXIX A difficulty for the first proposed Humean account of rational intuition)

There is, however, a difficulty for this account. Whatever account is given of the way in which it would work would have to account for our ability to call up the same ideas in connection with the same terms. This is impossible if no entities entertained by the mind can be entertained on more than one occasion. The reasons for this will be discussed later, in our argument to the effect that Hume must allow some mental entities which, while qualitatively determinate, are quantitatively indeterminate and therefore repeatable.

(XXX A second proposal for a Humean account of rational intuition)

A second direction might be to grant that some entities in the mind may recur and so may have more than one instance both in thought and in perception, and yet still to maintain that all the logical properties of the terms we use are in some way analyzable into relations of identity and difference between perceptions$_1$ falling under mental entities which may be entertained on more than one occasion and which may, therefore, have more than one instance. Hume, unfortunately, did not see the problem posed for his version of

empiricism in general and his imagist theory of thought in particular by formal relations. For that reason, neither direction is explored, and the reader is left wondering whether perhaps J.S. Mill was right in drawing from premises provided by the epistemological tradition derived from Hume the conclusion that there is no such thing as logical necessity.

(XXXI Two sorts of inference)

These musings aside, according to Hume himself, then, there are two sorts of inference. It is by means of our capacity for recognizing formal relations or "relations of ideas," the first, that we perceive relations of "resemblance, proportions in quantity and number, degrees of any quality, and contrariety."[35] The second sort has to do with association established by custom between images, the "inferences" of which Hume speaks both when he claims that inference from the sense is fundamental to perception,[36] and that inference does not necessarily require three ideas (an attack on the Aristotelian syllogism).[37]

(XXXII Hume not consistent with proposed psychologizing of logic)

While it is true that Hume draws consequences for logic directly from his account of experience (most notably in the exclusion of a logic of substantial identity), it is not true that he is entirely consistent with respect to his prior claim that even logic is to be accounted for by the science of nature, i.e. by an account of the logical operations of the mind showing them to rest on causally prior principles analogous to the mathematical principles of Newton's

physics. This happy inconsistency has the fortunate consequence that only once in the Treatise does Hume try to undermine logic, and the reliability of the process of drawing conclusions from premises in accordance with logical canons, by means of appeal to the psychological untrustworthiness of the human capacities for thought.[38] This is in spite of the fact that those relations which are known with certainty are not excluded from his dictum that all relations are complex ideas produced by association.[39] Were this true, there would be continuity in kind between the two types which we have distinguished and which he himself often distinguishes, sometimes emphatically. Such continuity would amount to the collapsing of logic into psychology. The problem of how to account for logic remains, of course. However, Hume is willing elsewhere to allow serious difficulties with his views, but challenges his critics to do better. The interpreter of St. Thomas cannot legitimately make much of the fact that Hume's theory of experience runs afoul of the familiar empiricist problem of how a priori knowledge is possible if St. Thomas has no less problematic an account himself.

(XXXIII The importance of Hume's dual account of reason for his critique of Aristotelian notions)

"Reason," then, can mean two things for Hume. On the one hand it may refer to the faculty of apprehending relations between ideas in imaginative comparison of them, and on the other it may refer to the association of images of discrete "perceptions" together constituting the content of experience, brought about either naturally or by

design. This dual account of reason must constantly be borne in mind in discussing Hume's attack on Aristotelian notions of the objects perceived by the senses and conceived by the intellect, and the processes of investigation and thought in which they figure. This distinction he takes to be commonsensical and clearly the property of all who might reasonably claim to be empiricists. When he uses reductio arguments against Aristotelian notions, it is inconsistency with this account of thought and the account of experience which it presupposes which he tries to demonstrate: "If this is true," he often says in effect, "it can be known only in one of two ways, and if it cannot be known in either way, it cannot be known at all."

Universals

(XXXIV Setting up the problems: a. The sort of universal which is at issue)

There are several meanings of the word "universal" which need to be distinguished. In the first place, a "universal" may be some property common to many things (e.g. a certain density), or a character constitutive of many things (e.g. that of being a horse), considered as existing in independence of mind.[40] This is the "universal" as it exists in the things which recognizably exemplify it. "Universal" may also occur in another sense as an adjective used

substantively with a definite or indefinite article, (e.g., "a universal" or "the universal").[41] In this sense, the word refers to an entirely adequate conceptualization of some property or character, an ideal limit to which our finite minds aspire but which they cannot attain. This corresponds to what Aquinas calls the species expressa , or species intelligibilis , which will be discussed presently. Third, words may be said to be "universals," by which is meant that they are terms which in normal use have or are capable of having general reference.[42] Such words are to be distinguished from the concepts which they express in speech and in articulate thought. Concepts may be "universal" in the sense that they are representations in thought of repeated or repeatable features of our environment.[43] They include our notions of qualities, relations, or patterns of qualities in relation, that may exist in diverse contexts.[44] Hence, when Aristotle defines universals at one point in the Metaphysics as that which is predicable of "the individual - the numerically one,"[45] "predicable" may indicate either a mind-dependent concept (the fourth sense of "universal" here distinguished) or an ideal conceptualization (second sense) of a repeated aspect, character or relation (first sense).

(XXXV The "problem of universals" involves the fourth sense of the word, distinguished above)

It is the fourth sense of "universal" which is the center of controversy about "the problem of universals." Though matters of

enormous philosophical importance turn on answers to the question, the immediate philosophical question at issue reads straightforwardly and is not difficult to grasp. Basically, the problem concerns "the degree of reality and significance attributable to the mental perception of a similarity between groups of individual beings that can only be expressed by a term common to all, such as 'humanity' or 'human nature.'"[46] Hume denies both that thinking involves entities representing similarities between the objects of perception in thought different in kind from the objects of perception, and that, if they did exist, they could be shown to stand in any intelligible relationship to the objects of perception. Aquinas disagrees on both counts.

(XXXVI Hume is committed to nominalism)

As a result of Hume's atomism with respect to the nature of experience, and the controlling analogy of imaging in his account of the relationship between the basic units of experience and the basic units of thought, Hume advocates a nominalistic answer to the question of the nature of universals. If the basic units of experience are determinate and individual, and the only <u>real</u> identity is unqualified equivalence, concepts cannot rightly be said to originate in experience unless they are likewise determinate and individual. They represent "perceptions," as opposed to a single "perception," only by association with a general term and by means of a habit called into play by the occurrence of that term in thought or speech. It is this habit which provides the mechanism of general

reference for the particular, determinate, imagistic concept.

(XXXVII Understanding of Hume on Universals crucial to our problem)

In order to assess the significance of Hume's account of the relationship between thought and experience for his case against St. Thomas on the nature of experience and the objects of perception, it is requisite that his account of the nature of universals be understood. That the objects of perception known through the external and internal senses are all individual, both Hume and Aquinas agree. They disagree on whether objects can remain self-identical individuals in a non-Pickwickian sense through change. But both must account for the fact that in the propositions in which our knowledge of the individual objects of perception is expressed, we must employ general terms. For an empiricist, it is vital that this relationship between objects and the concepts expressed by general terms be shown to be reconcilable to the fundamental empiricist claim that all knowledge is gained through the senses. This matter is particularly important in any discussion between Hume and Aquinas because of Hume's insistence that general terms imply the existence of nothing different in kind from the deliverances of the senses and, as mentioned, his subsequent attack on the terms of Aristotelian metaphysics as incompatible therewith. Aquinas, on the other hand, argues not only that the concepts expressd by general terms are fundamentally different from the objects of perception, but also that, if universals are the same in kind with perceptions, there is

no intelligible connection between thought and reality. In this he would support a modern rationalist, Brand Blanshard, who states the claim with characteristic clarity.

> Without universals, there would be no identities, and without identities, there would be no persons, no things, no recognition or prediction, no use of words, no kind of reasoning, not even the simplest kind of knowing.[47]

(XXXVIII Setting up the problem: Types of Universals - Blanshard's trio)

There are a number of distinctions, not all of which Hume allows are legitimate, which will figure in our discussion. The first set of these, propounded by Brand Blanshard, distinguish three different types of universals. Abstract universals are determinables divisible into determinate kinds or species. There are two sorts of these. On the one hand, qualitative universals indicate a range of qualities classed under a single title, e.g. a variety of shades of red indifferently referred to as instances of "redness." On the other hand, generic universals are those universals which have as their instances individual things. For example, the generic universal "tree," which is not a quality, would have as instances particular trees. Finally, specific universals are not divisible into kinds. So, for instance, a particular number or shade of a colour is not further divisible into kinds, but nonetheless is universal by reason of its potential for occurring in a number of instances, and is therefore a specific universal.[48] Hume, as we shall see, attempts to show

that we have need for universals in none of these senses, though H.H. Price has argued that he is charitably to be read as denying only what we have called abstract universals.[49]

(XXXIX Setting up the problem: Modes in which universals may exist)

There are at least three modes in which universals are sometimes claimed to exist which it will be useful to distinguish for the purposes of our discussion. There is first existence in particular things which are instances of them, qua particular. Second, there is existence in the mind of one who is capable of recognizing instances, where it exists qua universal. Finally, there is existence in independence both of particular instances of them and of minds entertaining them. So, for instance, Plato has some universals existing in this double independence in his realm of eidoi . While denying the existence of this purported third mode of existence for universals, Aquinas' case for his metaphysical account of the objects of perceptions rests crucially on our ability to make a distinction between universals existing in the first mode and universals existing in the second mode. Hume not only denies the existence of universals, but also the possibility of making this distinction, so that even if his account of universals is problematic, he may still have a case for denying Aquinas' claims about the nature and means of our knowledge of the objects of perception.

(XL Hume's Arguments: There are no universals -- introduction: Does resemblance require repetition? Hume's denial of this view)

As noted, Hume does not deny the existence of general terms, commonly employed in articulated thought and speech. What he does deny is that such terms express the content of some peculiar sort of abstract entity inspected by means of a peculiar human capacity for such inspection. Furthermore, he denies that either abstract entities or the faculty of apprehending them may be invoked to explain our capacity for employing general terms.[50] Instead, our ability to employ general terms is to be explained in terms of habits of association which are the products of experience.

(XLI What is meant by "repetition")

These denials are aimed at a commonplace of many accounts of the nature of thought, which K.B. Price has called "Generality by Entailment" in his article "Hume's Analysis of Generality,"[51] but which might better be called "Generality by Repetition." This is the view that general terms are general because they stand for ideas existing in an abstract and indeterminate mode, the content of which is repeated in the realm of experience in a concrete and determinate way. Ideas are capable of representing instances because they express in one mode of existence what exists in another in the objects the characteristics of which they represent.[52] Philosophers holding this commonplace have given very different accounts of the nature and status of the repeated idea, and of the processes by means of which we come to entertain them and to justify our use of them. Common is a claim about the relationship between ideas and things. Being quantitatively and perhaps qualitatively indeterminate as it exists

in the mind, the content represented by an idea may be repeated as quantitatively or qualitatively determinate in things. It is repetition in this sense which Hume's attack on ideas "abstract in our conception of them" is intended to undermine.

(XLII Hume's reasons for rejecting repetition: the mind can entertain only individual entities)

Hume's reasons for rejecting the "receiv'd view" are not hard to find. His atomism with respect to his epistemologically basic impressions and ideas precludes the possibility that there could be repetition among either ideas or impressions. Ideas differ only in "force and vivacity" from impressions, so that what is true of one is true of the other.[53] Hume writes, "no impression can become present to the mind, without being determin'd in its degrees both of quantity and quality."[54] Therefore, the mind can receive only what is quantitatively and qualitatively determinate, from which premise Hume does not fail to note that it follows that everything both in "fact and reality" and in "idea" is individual.[55] Were it true that the same quality or character could be present in different objects it would have to be the case that the mind could entertain what was not merely individual, i.e. qualitatively and quantitatively determinate. A repetition of some original could be distinguished from the original only by reason of some difference, in which case it could not be a repetition. Insofar as ideas or impressions admit of being distinguished from each other, they cannot be repeated.

(XLIII Hume's argument that there can be resemblance without

repetition)

We shall argue in due course both that Hume must and that, contrary to his own conclusions in certain polemical situations, he does, allow some "repetition" or recurrence in experience. It is interesting to note, however, that he provides an argument which, if successful, would show that simple ideas or impressions may resemble each other without any such repetition. In the Appendix to the Treatise he writes,

> 'Tis evident, that even differrent simple ideas may have a similarity or resemblance to each other; nor is it necessary, that the point or circumstance of resemblance shou'd be distinct or separable from that in which they differ. Blue and green are different simple ideas, but are more resembling than blue and scarlet ; tho' their perfect simplicity excludes all possibility of separation or distinction.[56]

Andrew Ushenko summarizes the argument well. "(A) common feature or respect would be a component in addition to the distinguishing feature of each of the resembling data, and a datum that has components would be complex and not simple."[57] Hume at least succeeds in placing the onus of proof on one who wishes to claim that all resemblance requires the repetition in instances of a universal. And he has arguments to show that that each of the two types of supposedly "abstract" general ideas distinguished above can be accounted for without supposing that we entertain any abstract ideas, entities different in kind from the simple impressions from which they are all ultimately derived.

(XLIV There is no process of abstraction)

In the section "Of abstract ideas" of the Treatise, Hume gives three positive arguments in support of the proposition " that the mind cannot form any notion of quantity or quality without forming a precise notion of the degrees of each ."[58] The first takes note at the start of Hume's principle that whatever may be distinguished among our ideas may also constitute separately existing objects of perception. It is therefore impossible to separate some abstract essence from the object of perception. Any such essence would have to be distinguished from the object of which it was the essence, in which case it would have to be a conceivable (i.e. imaginable), and therefore a possible object of experience, other than the object of which it is the purported "essence," and no less determinate than that object.[59] The second argument appeals to the origin of ideas in impressions of which they are "copies and representations," determinate in quality and quantity no less than the impressions themselves. Anticipating a possible objection, Hume gives a possible explanation of our capacity for confusion about objects of thought and experience determinate in this way.

> The confusion, in which impressions are sometimes involv'd, proceeds only from their faintness and unsteadiness, not from any capacity in the mind to receive any impression, which in its real existence has no particular degree nor proportion.[60]

Finally, Hume appeals to a commonplace of Scholasticism, "that every thing in nature is individual," his use of the example of a triangle

which must have "some precise proportion of sides and angles"[61] making clear that he here intends by "individual" a precisely determined particular.[62] Ideas not differing in kind from the impressions which are the epistemologically primary objects of experience must likewise, then, be "precisely determined particulars."

> Abstract ideas are therefore in themselves individual, however they may become general in their representation. The image in the mind is only that of a particular object, tho' the application of it in our reasoning be the same, as if it were universal.[63]

The generality of an idea is not to be accounted for by appeal to its intrinsic character, but rather by associations afforded it by the mind on the basis of experience.

(XLV There is no intellect)

There being no need to postulate the existence of a peculiar sort of mental object to explain our ability to employ general terms, on Hume's view, there is similarly no need to postulate mental machinery for their construction and examination. The supposition that we do require such faculties he attributes to the entertainment by those making supposition of a number of disreputable motives, the chief of which is a thoroughgoing philosophical dishonesty which attempts to avoid criticism based on clear thinking by means of appeal to unintelligible jargon, to which Hume refers as "obscure and uncertain" ideas.[64] The heart of his case against the intellect, however, is the case against abstract ideas. Being unable to conceive

anything different in kind from ideas or impressions,[65] the operations of the mind cannot extend to what cannot be represented as the manipulation and comparison of images. "(A)ll this creative power of the mind amounts to no more than the faculty of compounding, transposing, augmenting or diminishing the materials afforded us by the sense and experience."[66]

(XLVI Hume's restriction of knowledge to appearance is defended by the argument that conclusions about anything else could only be reached by an unjustifiable inference)

We have noted that Hume's refrain "reason must terminate in the memory or the senses" is directed against the notion that the end of disciplined inquiry of any kind can be knowledge of anything other than possible objects of the senses qua sensible. The "reason" to which Hume refers is the capacity for gaining knowledge not conditioned in kind by experience, postulated by the rationalists with whom he was directly concerned. By extension, it is easily read as including the nous poetikos of Aristotle or the agens intellectus of St. Thomas, as both are mental tools for the production of concepts different in kind from Hume's "perceptions," in either of the two senses in which Hume uses the word distinguished above. No amount of experience will justify an inference from experience to something different in kind from the objects of experience as Hume has described them, and it is as attempting to escape experience by means of inference that Hume would characterize those who, like the Schoolmen, proposed some object of knowledge

different in kind from his "perceptions." We may, then, with justice consider an argument in this form as Hume's major objection to the existence of Aquinas' _agens intellectus_, and of the "essences" which are to form the objects of discursive knowledge in his metaphysical scheme.

(XLVII A direct criticism of "the Schoolmen's" division of the capacities of mind into conception, judgment, and reasoning)

Hume does attack "the Schoolmen" on the capacities of mind directly, however. A footnote in the _Treatise_ takes issue with a "very remarkable error ... frequently inculcated in the schools ... and ... universally received by all logicians" which divides "the acts of the understanding ... into _conception_, _judgment_, and _reasoning_."[67] He defines the terms which he believes are falsely distinguished in the following way.

> Conception is defin'd to be the simple survey of one or more ideas: Judgment to be the separating or uniting of different ideas: Reasoning to be the separating or uniting of different ideas by the interposition of others, which show the relation they bear to each other.[68]

"Judgment" Hume rejects on the grounds that not every judgment separates or unites ideas, and gives as an example existential judgments, in which it is claimed that something exists. Such judgments, he claims, also provide examples of propositions which contain only one idea. Hence, he argues, we do not require a third idea in reasoning, and invokes his theory of causal reasoning to support the claim.

(XLVIII A construction of a more full Humean case against the Scholastic distinction)

From Hume's previous claims we may construct a fuller account of what he has in mind than he himself provides at this point in the text. As all reasoning concerning matters of fact is causal, and all causal reasoning the product of associations of ideas, our reasoning concerning such matters need have only two terms, the cause and the effect. The inference may be from cause to effect or _vice versa_. Such inferences are the stuff of Hume's "reason," "not only a true species of reasoning, but the strongest of all others, and more convincing than when we interpose another idea to connect the two extremes."[69] All three acts of the understanding, Hume concludes, when properly understood, i.e. as he understands them, collapse into the first.

> Whether we consider a single object, or several; whether we dwell on these objects, or run from them to others; and in whatever form or order we survey them, the act of the mind exceeds not a simple conception; and the only remarkable difference, which occurs on this occasion, is, when we join belief to the conception, are perswaded of the truth of what we conceive.[70]

Judging and reasoning are forms of conceiving, then.[71] They must be, on Hume's account, because were they anything else their terms could not be his _ideas_, nor could the processes of thought be modelled on the manipulation of images. The only account of belief consistent with his account of the nature of experience and relationship between perception and thought is one that makes the

difference between what might be fancied and what might be believed simply a difference in the "force and vivacity" with which they strike the knower. Any other difference would imply a difference in kind between them of the sort he has disallowed as inconsistent with empiricism. Judging and reasoning, then, affect only the force and vivacity of the ideas which are the subjects of judgment or reason. The beliefs in which they culminate are "strong and steady conception[s]...such as [approach] in some measure to...immediate impression[s]."[72]

(IXL Hume does not consistently account for mental capacities in terms of association of ideas)

Hume is not consistent in his own account of the powers of mind. In the passage just discussed, he does not claim that the species of reason founded on association is the only form of reasoning, only that it is the "strongest of all others." Yet, as was mentioned, there are at least two quite different sorts of "reason" which he himself sometimes distinguishes. The sort which has to do with relations of ideas alone issues in certainty. Conclusions reached by means of the sort of reasoning proper to matters of fact can only be probable. Yet it is this latter form which he here calls the "strongest"! Furthermore, Hume maintains at one point in the Treatise that mathematical objects are "objects of the fancy."[73] It is not clear from context what exactly this means, except that this claim is contrasted with the rationalist notion that mathematical objects "are of so refin'd and spiritual a nature, that they...must be

comprehended by a pure and intellectual view, of which the superior faculties of the soul are alone capable."[74] If he means that mathematical relationships are associative relationships between ideas, the charges of psychologism of which we attempted to show he was not entirely guilty return with alarmingly cogent evidence. If this is his view, it would seem false on the familiar argument that we do not change our mathematical beliefs by reason of the results of any empirical tests, nor does it make sense to suppose that there could be empirical circumstances which could call for such a revision. If, on the other hand, he means that mathematical objects are entertained in the same way "distinctions of reason" are entertained, this is at least problematic. We will discuss his "distinctions of reason" in greater detail below, but suffice it here to say that the capacity to make "distinctions of reason" as he describes it in the last part of the section on abstract ideas in the Treatise sounds very much like the capacity for abstraction he so painfully exorcised in the first part.

(L Judgments are the effect of custom, according to Hume)

A more promising interpretation of Hume's attack on the intellect than any of the above is suggested by his claim that judgements made on basis of experience, by which he seems to mean judgments made on the basis of association about matters of fact, must be seen as effects of custom on the imagination if we are not to lose ourselves in "perpetual contradiction and absurdity."[75] The contradictions and absurdities to which he is referring are those he

argues are implicit in the notion of ideas which are abstract in our conception of them, but it is at least plausible to suppose that the denial of ideas which are not images is not the major point here. The point of the attack is not that we have no capacity for genuinely *a priori* reasoning, not based on association, something he plainly denies at other points. Rather, it is to draw a clear distinction between *a priori* and *a posteriori* reasoning in epistemology, and claims about what *is* the case and about what *ought* to be the case in ethics. If all definitions are either trivial because true by convention, or tautologous, then Aquinas and the Schoolmen are in very serious trouble indeed. In metaphysics, this claim has the result that their basic metaphysical unit, the substance, or material object, is threatened as in some way fundamental to explanation. The most fundamental sort of explanation in the Aristotelian tradition is the specification of what a thing is by means of a definatory formula. But if all definitions are tautologous, it is entirely a matter of accident if a term's denotation remains constant with change in its connotation. Think, for example, of a horse. The denotation of "horse," Aquinas would maintain, remains constant through changes in its connotation brought about by developments in biology, physiochemistry, anatomy, or even quantum mechanics. "Horseness" is an objective fact about the world, and can be the object of a wide variety of very different studies in terms of very different sorts of disciplined inquiry employing very different methods. Some of those sorts of enquiry may not even recognize the

existence of our horse _qua_ an example of "horseness," as, for example, would be the case with a physicist's or a chemist's analysis of the properties of the beast and of his parts. This does not obscure, on Aquinas' view, the basic fact that all these different methods of enquiry are abstractions from our common sensible way of thinking and speaking about the world, including as it does the concept "horse." If Hume is right, "horseness" cannot be accepted as constituting in any sense an objective feature of the world, and if, for reasons of explanatory convenience, someone wished to do away with the notion altogether, we could give only pragmatic reasons for keeping the convention.

(LI The consequences for Aristotelian ethics of Hume's _a priori_ / _a posteriori_ distinction)

In ethics, Hume's doctrine has the result that Aristotelian ethics are plainly indefensible. If there are and can be no natural kinds, not merely because the lines between species are hard to draw, but because all kinds are mere conventions, the search for goods proper to members of a species can only be futile. First, attempting to specify "natural" characteristics of a species is an exercise of lexicographal self-indulgence, defining species into existence. It is mere self-deception to pretend that anything of significance turns on it. Second, what ought to be the case cannot be discovered by an examination of what, in fact, members of the species are and do, because there are no criteria beyond personal preference for choosing some members or some of the actions of some members as normative for

all members.

(LII Aquinas' intellectus is superfluous, Hume would argue)

The above criticism, if successful, would be by far the most damaging Humean attack on Aquinas' agens intellectus , rendering it superfluous. Moreover, so long as Hume was right in arguing that the objects of perception can be nothing else but the objects of the senses qua sensible, the attack would remain successful. This would be the case even if his own account of the nature of thought with its model of images were shown to be radically defective. The agens intellectus is not only to sort sensations, but to discover in sensations meaningful patterns, including teleological patterns. It is this fact which would rouse Hume's common accusation against those who disagree with his account of the objects of experience that they postulate a capacity for reason operating in independence of experience to gain knowledge of something which could not possibly be present in experience. And Hume might well point to Aquinas' arguments for the existence of a Deity to support his claim that Aquinas' empiricism is a matter of name only, because plainly nothing like even an anthropomorphically conceived Greek deity, let alone Aristotle's Deity or the God and Father of Our Lord Jesus Christ of Christianity, the existence of at least one of which we may assume Aquinas wished to demonstrate, could possibly be an object of experience on Hume's account of such objects.[76] And on Hume's own account and for the same reason, such a being could not be thought, either.

(LIII Hume's Arguments: There are no (a) generic universals)

Perception of individuals of a certain biological kind forms the normal case in Aristotelian and Thomist accounts of perception. For that reason, Hume's rejection of generic universals is of particular importance, although his case here is virtually identical to the sort of case he presents against qualitative universals, as we have defined these above. Given that all our ideas must be qualitatively and quantitatively determinate and individual, generic universals would have to be images either of all the members of the genus in all their qualitative and quantitative diversity at once, or of no member in particular. Both are simply impossible.

(LIV Hume's Arguments: There being no intellect and no abstract ideas, there are no (b) qualitative universals)

Though Hume does not use Blanshard's terminology, he usually discusses generic and qualitative universals together, and terms them "abstract." Here the challenge is to produce some sensible quality common to instances, as it was to produce some common pattern of qualities with generic universals. There is, however, no qualitatively determinate "redness" common to all various shades of red, each of which is no less determinate. The same results may be found by running the same mental test for any proposed exception. There is no quality over and above and separable from the determinate quality we experience in any given instance which may account for the fact that it is placed by means of qualitative terms in the same category with equally determinate but qualitatively different

instances. The mind is capable of entertaining only qualitatively and quantitatively determinate ideas. Therefore the mind entertains an idea of no quality repeated in instances of a general qualitative term when we use such terms. There are qualitative terms which are general in that they refer to qualitatively diverse instances, but there are no abstract qualitative universals which the mind could entertain, nor is it possible that there be any.[77]

(LV No "intentional identity" between concepts and things)

Aquinas does not accept Hume's claim that universals must resemble their instances in the respect of qualitative and quantitative determinacy. For that reason, he would not accept the arguments against the existence of generic and qualitative universals as cogent, resting as they do on this claim. Aquinas maintains that universals as they exist in the mind and universals as they exist in their instances are different in their mode of being, but that they are <u>intentionally</u> identical. What Aquinas means by this is roughly as follows. In articulated speech and thought, when we use a general term we draw attention to a certain range of things denoted by it. Nevertheless, we need not draw attention to each one individually because it is the connotation of the term which expresses that which is equally true of all its instances. This is true whether the connotation of the term is grasped explicitly, manifest in the ability to define or give a reasoned account of the meaning of the term, or whether it is grasped implicitly, in the ability simply to recognize and name instances. "Intention," then, is a relation of

meaning between a word and objects it denotes, though it come to be used in more specialized ways as part of Aquinas' technical vocabulary. To say that a concept or "mental word," in Aquinas' terms, is intentionally identical with objects it denotes is to claim that this relationship of meaning obtains between them, without implying numerical identity or identity in mode of being between the concept existing in the mind and that which it represents in thought.[78] The relationship consists in a likeness of form, that about a thing which places it in a specific class and determines its particular mode of being,[79] existing in one way in the mind and in another in things. This subject will be taken up in the second chapter, with the subject of the relationship of adequacy , between concept and that which is conceptualized, and truth , between propositions and that which they represent in thought.

(LVI Humean reason for rejecting Aquinas' account of the relationship between concept and thing)

Hume himself does not discuss the details of Aquinas' notion of "intentional identity," so we will leave a more detailed discussion for the second chapter. It is pertinent here to recall, however, that Hume would reject the notion of any sort of identity between concept and object of a sort that could not be perceived by the senses. If universals are not images, they cannot be compared with images with respect to their sensible characteristics, and sensible characteristics are the only ones of which we have any experience and knowledge, finally. Insofar as the identity between universals and

their instances cannot be specified in terms of sensible characteristics, they cannot be constructs out of the basic materials of experience, being different in kind from them. Hence they cannot be known, and we are unable even to conceive identity with respect to them, much less to be in a position to justify claims concerning such identity.

(LVII Aquinas' view contradicts evident fact that we can use general terms without an exact definition of them)

Hume might also argue against the notion that general terms refer to the instances which fall under them by reason of the repetition in the instances of the universal for which the general term stands on the following ground. It is obvious from our common practice that we can make use of general terms in a manner consistent with correct rules of usage without an exact definition of the term. This is suggestive, he might say. We ought not to look for some defining expression indicating the abstract content of a general term applying indifferently to all the instances covered by the term to explain our ability for consistently employing the term. We never have such definitions in mind when we use general terms. We can reason perfectly well without such definitions. What we do have in mind when we reason is a determinate image, i.e. a copy of an impression, or a set of such images. This is true of both kinds of reasoning, though the operations carried out differ in kind in each case, as we have seen. When we reason concerning matters of fact, we entertain an image or set of images together with a habit of

association called into play by the general term. This habit is to account for our ability to recognize instances and to employ the term consistently, enabling one to recognize resemblances and patterns of resembling qualities in either of the two sense of "resemblance" distinguished above. Confusion and consequent inability consistently to employ a general term may have its origin either in insufficiently developed associative habits or failure to entertain a clear image or set of images when using the general term. If these are both present, however, we have a "perfect" understanding of the term which needs no supplementation by a definatory formula of any kind.[80]

(LVII Two Humean objections to Aquinas' account of general terms

Hume might accuse Aquinas, then, of two errors. First, he appears to suppose that we must appeal to abstract ideas to account for our ability consistently to employ general terms. Yet Aquinas himself admits that we do not, in fact, usually have these in mind when we do have that ability, and even claims that these are discovered only by means of prolonged disciplined inquiry. Secondly, he appears to believe that we can employ a term consistently in reasoning without a "perfect" idea of it. In other words, Aquinas seems to think that understanding a word consists in something more than the fulfulment of the necessary and sufficient conditions for employing it consistently. If this were so, Hume might argue, we could not meaningfully disagree. Meaningful disagreement presupposes that both parties understand the same thing by the terms they use. Both sides must be talking about the same subject if their arguments

are not to address different subjects. Yet if both of the parties in a dispute can understand by a term something different and yet use a term with complete consistency so that it is not possible that the difference in meaning be found out from differences in usage, a most insidious form of skepticism about our ability to communicate with one another on any subject follows. His account, he would argue, avoids this problem. To understand a word involves the same conditions as the ability to use it consistently. In either case, we must have the capacity to entertain the appropriate idea or set of ideas, and the appropriate habits of association. If two parties in a dispute each use their terms consistently, there is no reason to believe they do not each have both the idea or ideas and the correct habits which together constitute a perfect understanding of any general term. If this is true of all the terms describing the problem about which they disagree, they understand each other's positions with respect to that problem perfectly.[81] We might expect Hume to insist, then, that Aquinas first two errors thus invite a form of radical skepticism according to which it would never be possible to know if one understood anyone else, whereas Hume's view avoids both errors and the scepticism which follows from them.

(LIX Aquinas' view places thought and speech beyond normal capacities: No process of selection of common characteristic, framing of universal. Just custom)

Hume plainly expresses his belief that previous attempts to give an account of the mind's capacity for thought have erred because they

supposed that the process of thought was more complex than it is. R.I. Aaron argues that his revolt against abstraction was aimed chiefly at the notion that, prior to the use of general words, there is a conscious selection of characteristics common to the instances falling under the particular general word in question, "followed by the framing of a universal."[82] It is custom , of which both animals and children as well as adults are capable, which plays the most important role in the process of thought.

> The common defect of those systems, which philosophers have employ'd to account for the actions of the mind, is, that they suppose such a subtilty and refinement of thought, as not only exceeds the capacity of mere animals, but even of children and the common people of our own species; who are notwithstanding susceptible of the same emotions and affections as persons of the most accomplish'd genius and understanding. Such a subtilty is a clear proof of the falsehood, as the contrary simplicity of the truth, of any system.[83]

Hume might be expected, then, to accuse Aquinas of an excess of "subtilty." The abstraction which Aquinas claims must go on before a child is able consistently to employ a single general term would be far beyond their power. (LX Hume's views on the nature of specific concepts are not easy to discern)

Hume's position with respect to specific universals is much more difficult to ascertain than his position with respect to generic and qualitative universals. While his account of abstract universals is

reasonably plain, there are quite different interpretations of his account of specific universals, and sometimes different judgements on the cogency of a single interpretation of his account. The difficulties have their origin in the fact that the textual evidence is often ambiguous. At some points, and particularly where he is concerned not so much to give his own view as to attack abstract universals, he seems to believe that all general ideas are particular "in our conception of them." This would presumably include specific ideas, such as particular numbers, shades of colour, and the like. In other places, and particularly where he is concerned to give some positive account of how it is possible for us consistently to employ general terms, he appears to allow that things may resemble each other by reason of some feature held in common, a claim which, taken strictly and at face value, is inconsistent with his denial of universals and his theory of general ideas.

(LXI An aside to examine Hume's positive account of generality)

In order properly to understand Hume on specific universals, we will have to engage in an aside at this point, to examine the general features of Hume's positive account of how terms corresponding to ideas which are particular and determinate nevertheless may have general reference. This will place us in a position to close this section with an examination of Hume's criticisms of distinctions central to Aquinas' metaphysics, having grasped the aspects of Hume's own account most important in his critique.

(LXII Hume's Positive Account of Generality)

In the section of the Treatise "Of Abstract Ideas" Hume first attacks abstract general ideas using the arguments we have outlined above. He then attempts to deal with what he perceives to be the "chief difficulty" remaining on the subject of "abstract ideas" in the sense of ideas having general reference, given his rejection of "abstract ideas" in the sense of mental ideas different in kind from impressions. The difficulty is that of how to account in terms of "experience and analogy" rather than in terms of "ultimate causes of our mental actions," of which we can have no knowledge, for "that custom, which so readily recalls every particular idea, for which we may have occasion, and is excited by any word or sound, to which we commonly annex it."[84] The first part of his attempt to deal with the difficulty takes the form of an account of how it is possible for a single idea to have general reference, given that we do not bear in mind all the instances falling under the term in conversation and articulate thought.

(LXIII Association of Ideas)

The difficulty Hume addresses with his account of general terms is basically the problem addressed by his account of the association of ideas as a whole. This is the problem posed by Hume's nominalistic account of experience, in which experience is represented as a succession of discrete units which may resemble each other, but which have no quality or character common to any group of them, strictly speaking. The relations in terms of which association of ideas is to be explained are to be extrinsic to the existence and nature of the

ideas so related. "Association" is the term Hume uses to indicate that which links our ideas both in conceiving the common objects of experience and in thinking and speaking about the things we conceive. He describes it as a "gentle force" which usually, but not always, binds ideas together,[85] and as a "habit" which moves the mind without reflection from one idea to another.[86] The force or habit is not blind, however, or it could not account for that measure of order and coherence that is sometimes found in some of our thoughts. Hume takes it as a "general rule" that wherever the mind "constantly and uniformly" moves between ideas without reason, that is, wherever there are associative habits in operation, there are "relations" between the associated ideas which help account for the fact that they are associated.[87] These "relations" (or "qualities" as he sometimes calls them) account both for the establishment of most associative links, and for the subsequent, generally reliable guidance of the mind along them. They are " resemblance , contiguity in time and place, and cause and effect ."[88]

> 'Tis plain, that in the course of our thinking, and in the constant revolution of our ideas, our imagination runs easily from one idea to any other that resembles it, and that this quality alone is to the fancy [i.e. the imagination] a sufficient bond and association. 'Tis likewise evident, that as the senses, in changing their objects, are necessitated to change them regularly, and take them as they lie contiguous to each other, the imagination must by long custom acquire the same method of thinking, and run along the parts of space and time in conceiving its objects. As to the connexion, that is made by the relation of cause and effect ... [it is] sufficient to observe, that there is no relation, which produces a stronger connexion in the fancy, and makes one

idea more readily recall another, than the relation of cause and effect betwixt their objects.[89]

(LXIV Four analogies for understanding Hume's account of the relationship between a general term and the idea with which it is associated)

Hume gives four instances he takes to be analogous to the act of the mind in recalling ideas on the cue of the occurrence of a word in speech or thought in Section 7 of the first Part of the Treatise, "Of Abstract Ideas." The first is that of mention of large numbers, where we have no idea of the number, as Hume has defined ideas. This inability to frame an idea, Hume notes, in no way encumbers our ability to use such large numbers in thought and reasoning. Here, he says, we need no positive idea, but only a custom, "a power of producing such an idea, by [the mind's] adequate idea of the decimals, under which the number is comprehended."[90] The second is that of habits brought into play by a single word, such as that of reciting a poem learned by rote, when all that is entertained by the mind at the start of the recitation is the opening word, and not the poem in its entirety. Thirdly, there is the example of our consistent use of general words such as "government, church, negotiation, conquest." Our inability to "annex distinct and compleat ideas" to these terms does not prevent us from speaking sensibly about governments and churches, negotiations and conquests. A custom acquired by "attributing certain relations to ideas" in common discourse keeps us within the bounds of what can be said given

ordinary usage, making us perceive our error when we go astray using an idea in _this_ situation by reason of the idea's relations we have come to know in _past_ situations.[91] Fourthly, Hume argues that attention to ordinary usage will convince us that the relation of resemblance between the individual ideas "collected together, and plac'd under a general term with a view to that resemblance, which they bear to each other" will account for "their entrance in the imagination" on appropriate occasions.[92] Hume concludes his list of examples with the comment that, even if the particulars of his account of the mechanics of general terms is wrong, given that he has shown all previous accounts untenable, some new account must be found. His has the advantages both of being the only available option, and of recognizing the fact that any account of the mechanics of general terms must appeal to custom. "If ideas be particular in their nature, and at the same time finite in their number, 'tis only by custom they can become general in their representation, and contain an infinite number of other ideas under them."[93]

(LXV Distinctions of reason)

The second part of Hume's attempt to give a positive account of how general ideas are formed and employed has to do with what he calls distinctions of reason, following the medieval tradition. The question of _distinctiones rationis_ interests Hume as an account of the resemblances by means of which ideas are customarily associated for these purposes. He is concerned to show that these resemblances, so crucial to his positive account of the nature of general ideas, do

not require the repetition in instances of universals under which they are subsumed which he has so rigorously denied in the negative part of his argument, the attack on abstract universals. Hence Hume presents the problem as being that of reconciling the possibility of making distinctions between things which are in fact inseparable and not distinct with his principle " that all ideas which are different , are separable ."[94] He uses "figure" as an example of a mode in which things might resemble each other, but which is not something really distinct from the things themselves.

> [I]f the figure be different from the body, their ideas must be separable as well as distinguishable; if they be not different, their ideas can neither be separable nor distinguishable. What then is meant by a distinction of reason, since it implies neither a difference nor separation?[95]

Hume answers that even in the simplicity of the impression of a "figur'd body" may be contained "many different resemblances and relations."[96] With exposure to different objects, resembling each other in certain respects, we learn to make distinctions of reason between each of the objects and the respects in which they resemble each other. This, maintains Hume, does not mean that in considering any one of the resembling objects we entertain anything different in kind from impressions. Rather, we look on the object of consideration in a certain way, accompanying our ideas "with a kind of reflexion, of which custom renders us, in a great measure, insensible."[97] He concludes his discussion with the following example.

> A person, who desires us to consider the figure of a globe of white marble without thinking on its colour, desires an impossibility; but his meaning is, that we shou'd consider the colour and figure together, but still keep in our eye the resemblance to the globe of black marble, or that to any other globe of whatever colour or substance.[98]

(LXVI Recent debates over Hume's theory of general ideas)

There has been a lively debate in this century over the way in which these materials ought to be interpreted. Some have argued that the imagist theory of thinking, though present, is not really crucial to his theory of general ideas. Kemp Smith believes that Hume's theory of thinking is a prop for a more fundamental epistemological claim, but that nevertheless the key to understanding Hume's intentions in the section is to be found in his (unsuccessful) attempt to account for "abstract ideas" or our ability to use general terms in a way that is consistent with his imagist theory of thinking. Richard Aaron admits the presence of the imagist theory of thinking in Hume, but argues Hume's discussion of general ideas is not merely a failed attempt to defend the restriction of concepts the mind is capable of entertaining to universals of sense. Hume makes a contribution to the problem of universals as such in the form of an attempt to replace repetition and recurrence in experience with resemblance. I will argue that Hume's theory of general ideas is an attempt to address problems posed by his imagist theory of thinking, and that it is no more defensible than his account of thought.

(LXVII Kemp Smith's critique: characterization of Hume's account

of universals)

Norman Kemp Smith characterizes Hume's account of universals in the following way. Hume is concerned to defend a form of empiricism, the central claim of which is that "perceptions" form all the materials of thought.[99] Passages where Hume chastises those who wish by some mysterious faculty of apprehension to gain knowledge of something other that appearances , i.e. "perceptions$_1$," and those common subjects of thought and speech constructed, as he believes, from them, "perceptions$_2$," support this reading. Kemp Smith reads Hume's defense of the claim that all perceptions are either impressions or correspondent images as an attempt to bolster this first claim. It follows from the second, but not from the first, that there can be no ideas "abstract in our conception of them" entertained by the mind. Hence, while Kemp Smith believes it true that Hume attempts to account for general terms postulating no entities different in kind from particular, determinate "perceptions," replacing abstraction with custom and instantiated universals with similarities between non-composite simples, he also believes that a rejection of both these claims does not endanger Hume's most important epistemological claim, limiting the realm of knowledge to the realm of appearances. He himself undertakes a critique of the second of the Humean claims here distinguished, arguing both that Hume assumes implicitly the existence of the abstract general ideas he explicitly denies, and that his account of distinctions of reason, far from extricating him from the problem,

demonstrates this failure. The resemblances which the mind requires to distinguish between those images which are to be subsumed under a general idea and those which are not must be universals, common to because repeated in their instances.[100]

(LXVIII Hume's analogies for understanding the relationship between word and idea are unsatisfactory as attempts to show that such an account is possible without appeal to ideas "abstract in our conception of them")

Kemp Smith attacks Hume's four analogies for the mind's action in entertaining a general idea on the grounds that none succeed in doing away with the necessity of ideas which are "abstract in our conception of them." The first, he argues, requires that we have an "idea of decimal" which could not possibly be an image. Against the recitation analogy, Kemp Smith argues that it in no way illuminates the role which is supposed to be played by the particular idea or ideas entertained as part of the general idea. Particular images are not part of abstract or general ideas in the way that the opening word is part of a poem, differing radically in kind from the associative customs which are the other components in Hume's abstract ideas. Thirdly, he argues that Hume gives his case away in admitting that we do not perceive that we have wrongly used a word by any process involving comparison or association of images, but rather by apprehension of relations in which the word stands with other words. Hume, he notes, later terms these "philosophical" relations, but nowhere suggests that "they are describable either as images or as

particulars."[101] Finally, Kemp Smith notes that Hume maintains that resemblance is not a natural relation, but rather philosophical, existing "only for consciousness when it compares [ideas]." Hume does not explain, he argues, how a relation which exists only when two ideas are both present to the imagination and compared can suggest one when only the other is present to the imagination. Hume appears to assume that the relation of resemblance exists as both a natural and a philosophical relation,[102] making resemblance both a necessary condition of association of ideas, and a product of such association.[103]

(LXIX K.B. Price's objection against Hume's account of general ideas that it requires that ideas which do not exist be associated with ideas which do exist)

A point similar to this last one about Hume's account of general ideas is raised by K.B. Price, who argues that Hume's doctrine requires that ideas be associated with ideas that are occurrent when they themselves are not occurrent. Hence, "A general idea is not one actually associated with others, but one which puts the mind in 'readiness' to introduce those which resemble it. It represents them by an association which is curtailed."[104] Established habit is to account for our ability to bring to mind a particular image potentially but not always actually associated with it whenever the term is used in speech and thought on the particular occasions which call for it.[105] Hume writes,

> After we have acquired a custom of [applying the same name to objects differing in quantity and quality but, by reason of their resemblances, falling under the same name], the hearing of that name revives the idea of one of these objects, and makes the imagination conceive it with all its particular circumstances and proportions. But as the same word is suppos'd to have been frequently applied to other individuals, that are different in many respects from that idea, which is immediately present to the mind; the word not being able to revive the idea of all these individuals, only touches the soul, if I may be allow'd so to speak, and revives that custom, which we have acquir'd by surveying them. They are not really and in fact present to the mind, but only in power; nor do we draw them all out distinctly in the imagination, but keep ourselves in a readiness to survey any of them, as we may be prompted by a present design or necessity. The word raises up an individual idea, along with a certain custom; and that custom produces any other individual one, for which we may have occasion.[106]

Price's complaint is important, because, Hume does not allow that things may have a potential mode of existence. We may have a concept of something which does not exist in reality, but given that what is true of impressions is true of ideas as well, we cannot have an idea which exists "a little bit" -- just enough to be associated with an occurrent idea. Things of any sort either exist or do not exist at any given time, "strictly speaking." The allowance for existence "in power" is inconsistent on Hume's part. Moreover, the inconsistency is not helped by the appeal to custom. Objects which in no sense exist cannot be associated even by such an all-pervasive force as custom.

(LXX Kemp Smith charges that Hume's "distinctions of reason" are inconsistent with his professed disbelief in abstract ideas)

Kemp Smith's critique of the second part of Hume's positive account of general ideas is no less trenchant than his critique of

the first. In allowing any sort of distinctions which imply no real separation in the objects of perception themselves, he argues that Hume is inconsistent with his former claim, which was not merely that the mind could not entertain images without entertaining the sensible qualities ingredient in them, but that the mind could entertain no ideas which were not images or sets of images associated in various ways, resembling the objects of perception in their qualitative and quantitative determinacy. In Hume's phrase, the mind can entertain no ideas abstract "in the mind's conception of them."[107] Kemp Smith goes on to argue,

> [T]hese 'distinctions of reason' are in no respect particulars. They are among the resemblances that have to be found before a 'general or abstract term' can be mentally entertained, i.e. before a custom or habit of 'representation' can come to be formed. And if such distinctions be thus allowed in the case of simple ideas, they must also be applicable to the objects, a triangle or a globe of white marble, into which these simples enter, and which, as Hume professes to maintain, though not always consistently, they <u>exhaustively</u> constitute. Hume is consequently not justified in holding, as he has done earlier in the section, that "abstract ideas are therefore <u>in themselves</u> individual, however they may become general in their representation." <u>Treatise</u> ,I,i,7 (20)[108]

On Kemp Smith's view, the discussion of "distinctions of reason" is an attempt to smuggle back what Hume has persistently rejected under another name.

(LXXI Kemp Smith's argument does not demonstrate that Hume must allow all kinds of abstract ideas)

In fairness to Hume, Kemp Smith's argument, even if cogent, does

not show that Hume must allow all sorts of abstract ideas. This conclusion need not follow from a demonstration that he must allow the existence of at least some universals, repeated in their instances. It might be argued, as indeed H.H. Price and other interpreters of Hume have argued, that Hume ought to be read as allowing only certain types of what we have called, following Blanshard, "specific" universals,[109] granting that he does say things plainly inconsistent with this. The purpose of his attack on universals is as well served by the elimination of abstract universals, qualitative and generic, as by the elimination of all universals. There is still a strong matters of fact/relations of ideas distinction to be made; there is knowledge of nothing beyond the deliverances of the senses "in the mode of presentational immediacy," as Whitehead might put it, or qua sensible, as we have put it above; the divorce of ethics from metaphysics is not endangered. Even if it were shown that Hume consistently wished to deny the existence of all universals, this slight adjustment in his views would be fully consistent with the general aims and consequences of his work.

(LXXII Aaron as a response to Kemp Smith)

R.I. Aaron, in his book The Theory of Universals attempts to shift the center of discussion of Hume's theory of universals from his imagist account of thinking to his account of resemblance without need for repetition of some common character or quality in the resembling items. He agrees with Kemp Smith, though he does not

mention him by name, that Hume nowhere demonstrates cogently that all abstract or general ideas must be images, or that the mind cannot entertain notions which cannot be represented by means of images.[110] He further agrees with Kemp Smith that Hume's account of "distinctions of reason" is inconsistent with this claim.[111] Against Kemp Smith, whom he at this point mentions by name, Aaron argues that Hume has a second account of universals which he did not himself clearly distinguish from the first, but which is, in fact, different from it, and which is not subject to the objections he takes to be decisive against Hume's imagist theory of thinking. This theory Aaron calls the "dispositional" or "propensity" theory of universals, and argues that Hume's examples in the section "Of abstract ideas" so forcefully criticized by Kemp Smith have been misread because they have not been read as attempts to support this theory.

(LXXIII Aaron interprets Hume's theory of universals as an attempt to replace repetition with resemblance and not chiefly as an attempt to vindicate an imagist theory of thought)

The centrepiece of Hume's theory of universals as Aaron understands it is not the imagist theory of thinking, but the account of resemblance we outlined briefly above. As in the version of Hume's theory which both Aaron and Kemp Smith agree is genuinely present in Hume's work and which both reject, the second theory Aaron believes he finds in Hume's work endeavors to replace abstraction with custom.[112] It is important to note, however, that this is not to

be understood as a rejection of "abstraction" in the sense of a process of thought terminating in mental entities different in kind from the objects of perception. Rather, he is rejecting "abstraction" as a process which terminates in the production of a mental entity representing in thought a certain quality or character common to and repeated in different objects. The imagist theory of thinking requires the rejection of abstraction in both senses. The second theory which Aaron believes is to be found in Hume's works rejects only the second sort.

(LXXIV Aaron's reading of Hume's analogies)

Aaron reads Hume's four "analogies" or "reflexions" concerning the mind's action in entertaining general ideas as attempts to show how this action is most usefully modelled on the way in which a habit or technique may be called into play by verbal cues. Contra Kemp Smith, on Aaron's reading Hume is not here concerned with the question of whether or not there are ideas abstract in our conception of them, the question of the imagist theory of thinking. Rather, we are to take our success at handling uncomprehended large numbers as an example of a useful technical accomplishment by means of ideas which are in some way deficient. Aaron maintains that Hume is here arguing from analogy that we ought to understand general ideas in this way, as "a most useful technical accomplishment without whose aid we could not reason nor...live out our full, human life," but which nevertheless "has in it something 'imperfect' and 'inadequate'."[113] Similarly, Aaron goes on to argue, Kemp Smith

finds the second example of the memory of the poem triggered by the first word as no analogy at all because he construes Hume as attempting to illustrate the relation between particular images and abstract ideas, whereas Hume is in fact concerned to "illustrate the way in which a person, once conditioned in a certain way, can be stimulated to the appropriate reaction by hearing or seeing a word."[114] Finally, in speaking of our ability to employ words like "government", "church", and so on, Aaron argues that "Hume is merely pointing out that we ordinarily use such words as these with a fair amount of success, even although they are not exactly defined by us."[115]

(LXXV Aaron's reading contrasted with that of Kemp Smith)

Aaron's interpretation might be contrasted with that of Kemp Smith, then, in the following way. Whereas Kemp Smith believes Hume is attempting to find convincing analogies for a purported ability on our part to use general terms without an adequate or complete <u>image</u> before our minds of all the instances which potentially might fall under it in conversation or thought, Aaron believes Hume is attempting to find analogies for our ability to use general terms without a complete <u>definition</u> of them. Certainly, Aaron would agree, if Hume were trying to show what Kemp Smith believes him to be trying to show, he would be in trouble, but he is not. And Aaron might add that because Hume's philosophically interesting contribution to debate on the problem of universals has nothing whatever to do with the imagist theory of thinking, which Aaron is quite willing to grant

may also be found in Hume's writings, nothing of great consequence follows from the fact that Hume's distinctions of reason are incompatible with the imagist theory of thinking, so long as they do not require a theory of generality involving repetion.[116]

(LXXVI Summary of Aaron's reading of Hume on general terms)

In summary, then, Aaron believes that there are three major components of Hume's account of general terms:

1. The ability to use such a term successfully is to be understood on the model of the successful mastery of a technique, whereby a single word covers a vast amount of material, most of which is not and may conceivably never be consciously entertained.

2. A general word, then, is to be understood not as a symbol in thought and speech for a peculiar sort of mental entity, but a stimuli reviving an acquired habit.

3. The significance or meaning of the general terms we use is not fixed when we use them. The ability consistently to employ a general term presupposes neither an exhaustive set of representative "ideas" in the sense of "images," nor a complete definition, to which nothing could be added.[117]

(LXXVII Kemp Smith vs. Aaron)

How might Kemp Smith respond to Aaron's readings of Hume on universals? Very likely first by insisting that he has undervalued the place of images in Hume's account of thought, and of impressions <u>qua</u> sensible as the the objects of perception. All of the negative part of Hume's account of general terms and ideas, his assault on the

existence of abstract universals, rests on the premise that what cannot be imagined in the strict sense of "entertained as resemblances of impressions and not differing in kind from them" cannot be thought . The imagist theory of thinking is crucial to the first and most important part of Hume's account, the rejection of ideas "abstract in our conception of them." By his own confession, he placed greater trust in the arguments for that rejection than in his own, positive account.[118] These facts suggest that Hume's analogies for the act of mind in recalling ideas on the occurrence of a general word in thought or speech is indeed an attempt to address the problem of how ideas can be general and still be associations of images and not, as Aaron suggests, chiefly attempts to show how custom might account for generality without supposing that that which a general idea connotes is repeated in its instances. These facts further suggest that Hume rejects the logical realist theories of generality because they are inconsistent with his imagist account of thought, requiring as they do that there be a process of abstraction terminating in an entity different in kind from the impressions which are Hume's objects of perception.

(LXXVIII Hume's theory of generality is an attempt to address a problem posed by his imagist theory of thought)

For Hume, then, it is the ability of the mind to use general ideas without images of possible instances falling under it which is the chief problem in his positive account of general terms, and only secondarily, if at all, the problem of how the mind uses general

ideas without images of possible instances falling under it which is the chief problem in his positive account of general terms, and only secondarily, if at all, the problem of how the mind uses general ideas without complete definitions . The "inadequacy" of our ideas is an inadequacy with respect to representational images, rather than definitions which both define and describe. Just as, then, the analogies or "reflexions" in the section "Of abstract ideas" are intended to deal with the role of custom in an account of general terms consistent with Hume's imagist theory of thinking, the concluding comments on "distinctions of reason" are intended to deal with the "resemblances" on which such custom is based in a way that is consistent with the same theory of thinking.

(LXXIX Return to the question of Hume's position with respect to specific universals)

Having a number of different interpretations of Hume on generality before us, we are in a position to ask first whether Hume intended to deny the existence of specific universals, and secondly, if he did, whether he succeeds in establishing the claim that resemblance in no case requires repetition.

(LXXX Why radical nominalism is impossible. Does resemblance require repetition? Hume's implicit qualification of his categorical denial, and why he has to make it)

The answer to the first question must be "yes," in spite of the

fact that there are many places where Hume speaks as if repetition occurred. We have argued that Hume's interest in his theory of generality is to show that the capacity of terms to have general reference can be accounted for in a way that is consistent with his imagist theory of thinking. Images, however, cannot be repeated on Hume's criteria. If an image can be distinguished in any way from another, it cannot be a repetition of it. If an image cannot be distinguished from another, it cannot be a repetition of it. If ideas are to be understood on analogy with images, the same must be true of them. It will not matter whether the idea is simple or complex. If the idea is complex, it will, on Hume's theory, be divisible into simples. It cannot be the case, however, that simples may be repeated, for the same reasons that images of any kind cannot be repeated. The argument is precisely analogous to one of the argument Hume gives in his attack on abstract universals. An image is a determinate particular. Insofar as it is determinate, it cannot be repeated. Furthermore, instances of specific terms must be determinate particulars if Hume is to be consistent, for he clearly states his belief that nothing but determinate particulars exist. He himself draws the conclusion from the fact that as all the epistemologically fundamental objects of perception are determinate particulars, all ideas in the mind must likewise be determinate particulars, dismissing the denial of this implication as a denial of empiricism. For Hume, empiricism entails not merely an imagist account of thinking, but an imagist account of thinking that is

radically nominalist. There is no repetition of qualities or quantities within the realm of possible experience or conception. Where Hume speaks as if he did not believe this, we ought to read him as making concessions to the common modes of speech the necessity of which he defends while maintaining that a moment's reflection would lead us to see the fact that these ways of speaking assume what is clearly "feigned": the endurance of objects through time.

(LXXXI Hume is unsuccessful in his bid altogether to do away with repetition in accounting for general ideas)

Does Hume succeed in doing away with all repetition in thought and experience? No. In explicating his doctrine of causality, Hume speaks of the constant conjunction of recurrent causes and effects. In explicating his doctrine of the association of ideas, he speaks of recurrent ideas. When he is not considering the question of ideas "abstract in our conception of them," he speaks of " blue and green " as "different simple ideas," and not the quantitatively determinate particulars which forms simple impressions and ideas in the opening pages of the Treatise and which form the measure by means of which he later dismisses abstract ideas. Of course, it may be argued that these inconsistencies are unimportant, accidental slips of the pen. This is perhaps true in some measure, especially with respect to generic and qualitative universals. If the qualities, relations, relational properties and individual objects which recur in our experience could all be analyzed as collections of certain sorts of specific universals, Hume could do without much of the recurrence he

is not sufficiently careful to exorcise. However, it is not at all obvious that Hume succeeds in doing away with repetition altogether. The ability to recognize what we conceive is fundamental to all thought, and recognition is of what recurs,[119] what happens again. We cannot express our thoughts without using general terms, and our thoughts are meaningful to us and to others only insofar as we are capable of recognizing instances of those terms. Such recognition may rest upon a more fundamental sort, so that, for instance, our concept of "dog" may ultimately be analyzed in terms of patterns of sensations each of which falls under a specific universal. However, recurrence has not been shown to be analyzed away. Hume's own rejection of recurrence follows from his imagist theory of thinking, which he believes is entailed by his empiricism. Why this should be so, however, is not clear. Why must we suppose, even given that we experience nothing and can conceive nothing qualitatively or quantitatively different in kind from $perceptions_1$, that the concepts by means of which we conceive them may not be different in kind from them, in at least the one respect of being quantitatively indeterminate? Furthermore, Hume's distinctions of reason will not help, because the doctrine of distinctions of reason is a doctrine purporting to account for similarity between objects. The question here is not one of similarity. If we wish to say that we cannot remember the <u>same</u> object we encountered because we cannot entertain the <u>same</u> idea twice, but one precisely similar, then it must be asked why we must suppose them

different if they are so precise in their similarity. If we wish to say that we can entertain not the same idea twice, nor two ideas precisely similar, but two ideas similar enough for the purposes of thought and speech, we must be able to specify the ways in which the second idea differs from the first. If we are not able to do this, it would appear that the only reason for saying that the two ideas are different is that it is required to save the theory of generality at issue. If we can do this, then it would seem possible to entertain the same idea on two occasions, as it would be only by this means that we could judge of the differences between the first idea and the second, similar to the first.[120]

(LXXXII Recurrence and the example of Heraclitus and Cratylus)

The problem with the denial of recurrence in Hume is a special case of the general problem posed by those who would deny recurrence in general, and Heraclitus and Cratylus come immediately to mind. If we cannot step into the same river once, as Cratylus claimed, because by virtue of every change which takes place within what we wrongly take to be the same river it is not what it was before that change, we cannot know anything. Our speech is filled with implicit lies about recurrence and identity through change. The same debilitating scepticism follows if we cannot identify any real repetition in our experience because we accept Hume's imagist theory of thinking as it is presented, for instance, in his discussion "Of Abstract Ideas." Let us say that we believe ourselves to remember a certain shade of blue encountered in the past or imagined on the basis of prior

familiarity with darker or lighter shades. If it is not the same shade that we entertain at present, we have no way of telling apart from memory. We could justify the claim that it is not only by means of the very capacity which would afford us the ability to recognize that it is . Insofar as we deny our capacity for recognizing the recurring shade and distinguishing it from other shades, we cannot discuss it intelligibly because we have no means to distinguish true from false claims about it.

(LXXXIII Abstraction cannot be replaced entirely by association, nor repetition by resemblance)

Abstraction, in the sense of a capacity for entertaining ideas different in kind from the objects of perception, cannot be entirely replaced by association, curtailed or otherwise. Similarly, repetition cannot be replaced by resemblance as Hume explicates resemblance in his account of distinctions of reason. Furthermore, Hume's central claims about the limits of knowledge and the nature and justification of belief do not depend upon the disallowal of all abstraction and all repetition. This is evident from what follows.

(LXXXIV Abstraction cannot be replaced by "curtailed association")

Hume's attempt to replace abstraction with curtailed association in an account of our capacities for thought goes awry first because his imagist theory of thinking leads him to categorically reject the potentiality/actuality distinction. An association which is not curtailed will not do because it is impossible for the mind

simultaneously to entertain ideas of all the items which might potentially fall under a term every time the term is used. Indeed, it is to deal with this problem that a theory of generality is designed to address in the first place.

(LXXXV Hume's "relations" are repeated qualities)

Hume's own attempt to account for the way in which the association of ideas is guided by relations testifies to his inability to explain our powers of conception and thought without recourse to repetition of the sort excluded by his imagist theory of thought. Relations, according to Hume, are qualities from which the associations of ideas making for general ideas arise and which guide the mind in subsequent employment of corresponding general terms. Hume's usage of the word "qualities" here implies that he means by it kind or class of qualities, as, of course, there are many ways in which things may resemble each other, for instance. Hume lists three of these: resemblance, contiguity and cause and effect.[121] Hume distinguishes between two subtypes of relation in this sense, on the basis of a distinction between two functions, either one or both of which a relation may fulfil.[122] A natural relation is "that quality, by which two ideas are connected together in the imagination, [such that] the one naturally introduces the other." A philosophical relation is "that particular circumstance, in which, even upon the arbitrary union of two ideas in the fancy, we may think proper to compare them."[123]

(LXXXVI Relations of contiguity and cause and effect cannot

account for association of ideas without supposing resembling causes and resembling effects)

Leaving aside resemblances themselves, which might fulfil either of these two functions, for a moment, it would seem that the relations of contiguity and cause and effect can fulfil this function only in ways that depend upon prior relations of resemblance. Cause and effect is, on Hume's view, a relation of "constant conjunction" -- it does not matter for our present purposes what the terms so conjoined are to be. To recognize any conjunction, we must be able to recognize ther terms, whether as the same terms or as instances of the same sorts of terms with which we are familiar. Recognition is thus dependent upon experienced similarity or resemblance. All relations, then, are not on equal footing. Resemblance is the sine qua non not of all association of ideas whatever, it is true, "for nothing is more free than [the imagination],"[124] but of all association which is to be justified in terms of experienced conjunction. Hume has not replaced an account of the relationship between concepts and the things (in the broadest possible sense) they represent in thought in terms of the ancient debate over universals by his theory of the association of ideas. His theory of the association of ideas rests upon some position on one side or another of this multi-faceted discussion. Hume cannot just talk about quantitatively and qualitatively distinct particulars in "reality" and "thought." At the very least he must speak of the mind's capacity for an awareness of similarities. If it is answered that similarities

are not things, it can be replied that this is what a realist who wishes to talk of abstraction, universals and repetition would want to say. In the absence of a cogent defense on Hume's part of some alternative, says the realist, why not read his account of associative relations of ideas as requiring the existence of repeated qualities which, with our capacity to recognize them, are presupposed in all association of ideas guided by experienced conjunction? Appeal to Hume's doctrine of distinctions of reason will not provide an easy way out of admitting that we are sometimes able to distinguish in thought what cannot exist apart "in reality," i.e. in perceptions, namely, characteristics and their qualitatively and quantitatively determinate instances. As Kemp Smith argues, if Hume's doctrine is an admission that the mind can separate in thought a quality from a $perception_1$ or a $perception_2$ which is not separable from it in reality, an interpretation Kemp Smith himself believes correct, he admits all a defender of a theory which accounts for generality in terms of abstraction and repetition requires.[125] If the doctrine is that resemblance involves only similarity and not repetition, then Hume is not relieved of responsibility for accounting for what "similarity" can be except an abstraction the content of which is repeated in its instances in the way that he maintains is impossible.[126] Furthermore, it is difficult to make any sense out of the notion that a simple might admit of various modes of resemblance considered qua simple. Aquinas is in a position to allow that something which is simple considered as a biological organism of

a certain type, for example, may nevertheless be considered as a composite of interrelated biological subsystems because of his doctrine of substantial identity, as was discussed above. Hume is not in a position to allow this, for the same reasons discussed above. Hence, there is good reason to believe that Hume does not succeed in doing away with repetition altogether either in his account of relations, or of resemblances.

(LXXXVII A charitable reading of Hume on Universals, a la Price)

While Hume explicitly dismisses all universals as inconsistent with empiricism, he is unsuccessful in his attempt to frame an adequate account of generality without recourse to repetition. It is not obvious, however, that only a radical nominalism is consistent with empiricism, so long as the purportedly repeated characteristics are possible objects of experience, and knowledge of them is gained through experience.[127] Indeed, Hume's central claim about our knowledge of the objects of perception, that they are known only qua sensible, is compatible with modification of his views about the nature of thought to allow for certain sorts of repeated specific universals, indicated in his account of the nature of experience. H.H. Price states this Humean limitation on universals of which we can have knowledge succinctly as follows. "Every universal which we are aware of has either been directly abstracted from sense-given or introspectively given instances, or can be wholly defined in terms of universals thus abstracted."[128] Hume's most important epistemological and ethical claims could still be maintained if he

allowed abstraction in either of the two senses Aaron distinguished, and not simply the first, which Aaron finds uncongenial. These slight modifications certainly do not take Hume out of the British empiricist tradition -- they are easily read as a strengthening of his own central epistemological claims by means of a return to "a Berkeleyan realism about universals expressing characteristics held in common by comparable images."[129]

(LXXXVIII Hume's Theory of Generality: Summary of his views, with a charitable amendment to his rejection of all universals)

Hume's theory of generality, then, is best read as an attempt to defend the restriction of knowledge to the objects of perceptions considered qua sensible. He himself believed that the defense of this thesis requires an imagist theory of thinking and a radical nominalism. We have argued both that the imagist theory of thinking fails because of the impossibility of association between what does and what does not exist, and that Hume did not establish that it is possible to make sense of generality given radical nominalism. The emendation suggested to make Hume's epistemological position as a whole defensible was to allow specific universals which exist in one mode in the mind, and are repeated in another mode in things, so long as they are directly abstracted from the deliverances of the senses, or can be defined in terms of universals abstracted in that way. Abstract universals, on the other hand, could be accounted for in much the way Hume wished to account for all universals. Impressions of a kind constituted by or definable in terms of the specific

universals Hume allows on this emendation appear in recurrent patterns, by reason of which recurrence the impressions are given a common name, and by reason of which patterns instances are recognized as falling under that name. In this way, abstract general terms would be accounted for in a way different from but dependent upon the particular sorts of specific universals the emended Hume would allow.

(LXXXIX Some untenable Aristotelian claims and distinctions which show that Aquinas is committed to an untenable -- because non-empirical -- theory of universals: introduction)

It is no accident that the section "Of Abstract Ideas" is placed very near the beginning of the _Treatise_ . Hume's account of generality supplies premises for many of his most important criticisms of claims and distinction which form integral parts of Aquinas' account of the way in which experience provides us with knowledge of the objects of perception. Two such premises are particularly important. First, there is the strong _a priori_ / _a posteriori_ distinction which makes conventions of all definitions, and the consequent argument form that a claim could be known in neither way, and is therefore worthless. Secondly, there is the insistence that rational inquiry terminates in the sensible _qua_ sensible, which is justified by the arguments supporting the nonexistence of all abstract universals and allowing only certain sorts of specific universals, and the consequent severe restrictions

on the abstractive powers of mind. When Hume advances this sort of argument, he is attempting to show both that the claim or distinction in question is impossible, and that one who would make such a claim could not consistently claim to be an empiricist. Any theory of thinking which would permit the claims or distinctions in question as possible would be inconsistent with empiricism.

(XC Untenable Aristotelian claims and distinctions: there being no intellect, and no abstract ideas, no knowledge of "essences," and therefore none of "substances" either)

The single most important doctrine in Aquinas' account of the objects of perception is that of substance , and Hume discusses the notion of substance in the Treatise before even he discusses abstract ideas. In order to understand the first point which Hume picks out for special attention in his discussion of "substance" in the Treatise , however, it is necessary to understand the distinction made with respect to the objects of perception on Aristotelian accounts between what is perceived per se , and what is perceived per accidens .

(XCI Outline of Aquinas' doctrine of substance)

Substances are individual physical objects.[130] In the Aristotelian tradition Aquinas receives and interprets, to say that a substance remains self-identical over time is to say that the matter of which it is composed exemplifies a certain structure or mode of integrity peculiar to things of its kind over a certain length of time. There is thus no single sort of criteria of identity applicable

to all sorts of physical objects. An individual substance's mode of integrity considered insofar as it resembles that of things of like kind is its generic essence. An individual's generic essence is the way of being by reason of which a substance may rightly be said to be the _same_ being over time in spite of those changes in its characteristic which do not imply change in the _kind_ of thing it is. The generic essence of a thing is specified by a definatory formula covering all instances of that kind. However, the sense organs which provide us with information about such entities do not provide a constant, unchanging set of impressions corresponding to each. We recognize this butterfly as being the same creature in spite of the very different sensible appearance it presents before as opposed to after metamorphosis. On this account, essences cannot be defined in terms of specific sorts of tastes, touches, smells and the other universals of sense. We must distinguish between these accidental qualities, the objects of the senses _qua_ sensible, and the substances of which they are the sensible qualities. Substances are the objects of sense perception considered _qua_ intelligible, i.e. as possible subjects of discourse and thought. When it is said that substances are never perceived _per se_, then, it is meant that we know about substances only through the medium of what are not themselves substances, but the sensible and _accidental_ qualities of substances: _per accidens_.[131]

(XCII Hume's critique of substance)

Hume as we have interpreted and amended him believes that the

objects of perception are all alike instances of specific sensible universals, or associated collections of these. Not surprisingly, then, he attacks the doctrine of substance by arguing that we cannot make the distinction between the intelligible objects of perception and the sensible characteristics through which they are known. To defenders of the doctrine of substance, Hume directs the following question, with his attempt to answer it on their behalf, aimed at showing that substances are not possible objects of experience. He wishes to know

> ...whether the idea of substance be deriv'd from the impressions of sensation or reflexion? If it be convey'd to us by our senses, I ask, which of them; and after what manner? If it be perceiv'd by the eyes, it must be a colour, if by the ears, a sound; if by the palate, a taste; and so of the other senses. But I believe none will assert, that substance is either a colour, or a sound, or a taste. The idea of substance must therefore be deriv'd from an impression of reflexion, if it really exist. But the impressions of reflexion resolve themselves into our passions and emotions; none of which can possibly represent a substance. We have therefore no idea of substance, distinct from that of a collection of particular qualities, nor have we any other meaning when we either talk or reason concerning it."[132]

Not only does Hume believe it impossible for substances to be the objects of perception, but he wishes to say that objects which we classify using generic general terms are not recognized in the same way instances of universals of sense are recognized, but in a quite different way. The sense in which substances are individuals or coherent wholes is quite different than the sense in which a particular determination of a sense organ is an individual. The

former is "feigned" to facilitate the purposes of conversation and thought, a product of associative habits rather than of any capacity on the part of the mind for entertaining ideas "abstract in our conception of them." "We have no impression [and therefore no idea] of self or substance, as something simple and individual."[133] The integrity of an impression or $perception_1$, of a particular instance of a universals of sense, is the only sort of integrity Hume allows is real. Whenever we call something "one" or apply the same name to it over time, or apply the same name to it and things like it, we submit to a useful self-deception. So, Hume turns immediately after the first quotation to the problem of explaining how we are fooled into believing that there are real individuals within the range of possible experience which are not instances of universals of sense or constructions out of such universals, i.e. which are individuals having a mode of integrity not specifiable in terms of universals of sense.

> The idea of substance [i.e. physical object or thing]...is nothing but a collection of simple ideas [i.e. instances of universals of sense], that are united by the imagination, and have a particular name assigned them, by which we are able to recall, either to ourselves or others, that collection.[134]

If they were anything else, they could only be an unknown, non-sensible something in which sensible qualities inhere, which is hardly a useful suggestion.[135] Alternatively, Hume accounts for them by saying that each idea of a substance begins as a group of

qualities "closely and inseparably connected by the relations of contiguity and causation" to which new ones are added over time.[136] The ("feigned") unity of the concept through such changes by addition Hume attributes to an associative "principle of union" between the sensible qualities together constituting the idea of a physical object.

> The principle of union being regarded as the chief part of the complex idea, gives entrance to whatever quality afterwards occurs, and is equally comprehended by it, as are the others, which first presented themselves.[137]

The principle of union mentioned here is the particular associative habit brought into play by the occurrence of a general term, which, together with an image or set of images, constitutes a general idea according to Hume's theory of generality. The doctrine is appealed to here to provide an alternative to a realist account of general terms, on which substances could be possible objects of experience. Hume is attempting to show that everything the realist means by the word "substance" is accounted for on his theory, in which they become complex linguistic conventions naming patterns of sense impressions, or "simple ideas."

(XCIII Hume and Aquinas on a "principle of union" among ideas)

The notion of a "principle of union" is of particular importance here. When we recognize an instance of a generic universal, Hume wants to say that the "principle of union and cohesion" among the "ideas" presented by the senses is an associative habit. On Aquinas'

view, it is not habit, and not anything that is merely true of the mind. Rather, it is the object's peculiar mode of integrity, its way of being, as named and recognized by the percipient. Insofar as an individual substance resembles all other things of like kind it is said to share with them an essence. In this sense, an essence is a repeated character or universal common to a kind of material object. Such a universal may exist in different modes in the mind, as a concept, and in things, as a mode of being true of a certain body of matter. Hence it is by reason of the same repeated character existing in both modes that we recognize a substance as an individual of this or that particular kind, and that the individual remains essentially the same individual in spite of many accidental or non-essential differences between what it is on one occasion when we recognize it and another. This being said, we need not be able adequately to express the repeated character propositionally to be able to recognize it and to discuss and think about it. We know a horse when we see one and we are able to think and speak about horses when we do not see one long before we could give any cogent account of what a horse _is_ . Similarly, we are able to recognize _this_ horse on various occasions without being able to express propositionally what we may call its "specific essence" or substance: that character, a fuller and more concrete version of the generic essence, which persists as the principle of integrity of a material object throughout its history and which accounts for its being called by the same name over time. It is at the _end_ of a process of inquiry that we are able to

express the (generic or specific) essence of a thing propositionally in a defining formula.[138]

(XCIV Survey of Hume's objections to substance)

It is an important denial with respect to the subject of our discussion, then, when Hume dismisses "substances," using the word in the sense of "essences," as unintelligible and so incapable of forming the principle of union between the sensible qualities in our idea of things (perceptions$_2$) or of kinds of things.[139] The accusation has several roots, most of which we have encountered. First, the doctrine of substances requires universals of a kind Hume believes we cannot entertain and about which we could gain no knowledge by means of the senses. Hence, talk about such universals or supposed instances of them can only be unintelligible. We cannot think what we cannot encounter in experience. As Hume succinctly puts it, "We have no perfect idea of any thing but of a perception. A substance is entirely different from a perception. We have, therefore, no idea of a substance."[140] Secondly, there is a cogent and consistently empiricist alternative to theories of perception and of mind which postulate substances. Hume's own theory, unlike them, does away with all entities which could not be objects of experience _per se_ by replacing abstractive powers of mind with associative powers of imagination.[141] Thirdly, the notion of a _single_ object having a number of _different_ constituents is impossible, if understood literally. Every exemplified quality or "perception$_1$" is distinct and separate from all others, Hume

argues.[142] Every possible object of experience, including our own physical and emotional states, is either such an exemplified quality or a pattern or collection of such qualities: perceptions$_2$. The only possible sorts of connection between objects of perception on either level are not intrinsic, but extrinsic:[143] association, in the mind, and constant conjunction, in experience. It may be useful to speak of a thing as an individual, but it cannot be true, strictly speaking. Things are collections or patterns of sensible qualities, in the final analysis, the analysis we use when we are speaking strictly. For these reasons, fourthly, Hume finds the definition of substance as "something which may exist by itself" indefensible.[144] For Hume, we can conceive of nothing which could exist in a mode different from that in which it exists when it is present to the mind, e.g. with the exception of universals of sense we have made on Hume's behalf, we can conceive nothing different in kind from impressions. Therefore, anything we can conceive must, in principle, be capable of existing.[145] Every simple impression is separable from every other in thought, and hence also in reality insofar as we are capable of knowing it. Hence all perceptions$_1$ are substances on the proposed definition, given Hume's premises.[146] Fifthly, it cannot ever be the end of disciplined enquiry to find out what a thing <u>is</u> . Were there something more to understanding a term than having the ability to employ it consistently, radical scepticism about our ability to communicate would follow, if the argument to this effect discussed earlier is

sound.

(XCV Hume's explanation of why the doctrine of substance was propounded and believed)

Finding the notion of substance so incredible and unintelligible as to make it remarkable that anyone should be so gullible as to believe it, Hume provides an interesting account of why some do. Through the frequent use of terms "wholly insignificant and unintelligible," incapable of expressing any idea we are capable of entertaining, philosophers come to be deceived into believing that the terms "have a secret meaning which [might be discovered] by reflection."[147]

> By this means these philosophers set themselves at ease, and arrive at last, by an illusion, at the same indifference, which the people attain by their stupidity, and true philosophers by their moderate scepticism. They need only say, that any phaenomenon, which puzzles them, arises from a faculty or an occult quality, and there is an end of all dispute and enquiry upon the matter.[148]

Not only, then, might we expect Hume to argue that St. Thomas is wrong, but that he is at best intellectually lazy with respect to this central concept of his metaphysics, and at worst dishonest.

(XCVI Some untenable Aristotelian claims and distinctions: teleology and Aristotelian causes)

In the concluding sentences of the section "Of the antient philosophy," Hume ridicules the Peripatetics for a purported inclination to project upon creatures and things other than human beings qualities which can apply only to human beings.[149]

Psychologically speaking, no doubt the strong wording of the assault is in part a consequence of popular discussions of Aristotelian science with their virulent ex post facto vindications of a lesson taught physics by Newton, namely, the advantages to be gained by excluding teleological explanation and searching for mathematically expressed principles. Epistemologically speaking, Hume's denial of teleology has its roots in the rejection of substances as the objects of perception and the primary objects of thought. If, strictly speaking, we have no knowledge of anything but instances falling under specific universals, our common modes of speech mislead us if they lead us to believe that there can be any basis in the objects of experience themselves for teleological explanation of their actions. Teleological explanations seem to postulate a connection between one state of a teleological process and another differing in kind from simple conjunction. Insofar as this is true such explanations cannot be had, because the only sort of connection between anything Hume believes we can entertain in either thought or experience is that of conjunction. Other sorts of connection can, on his premises, neither be postulated on the basis of experience nor even conceived.

(XCVII Some untenable Aristotelian claims and distinctions: discovery of causal powers by the mind)

The objection against teleological or formal causes extends to all the four types of causation distinguished by Aristotle and taken up by Aquinas, because for both of them the terms in causal relationships are the substances the existence of which Hume denies.

For Aquinas, when we give explanations, we trace the way in which substances are dependent upon each other for their existence and character.[150] The four causes are, then, four different general categories for classifying instances of dependence. Though each relation of dependence is purportedly of one of the four general kinds, the ways in which substances may depend upon each other are more varied than substances, as each substance may stand in many different relationships of dependence without in any way threatening its integrity. One cannot, on this account, completely understand a causal relationship without understanding the substances which form its terms. It may be useful to ignore this astounding diversity of modes of dependence in giving a causal account of something, and even to ignore the substantial character of the terms, and so to speak of them as composites of physical or chemical constituents, for instance. However, while this sort of procedure may for many purposes be practical, it always involves what can only be called a useful abstraction.

(XCVIII Hume's rejection of metaphysical non-reductionism)

Hume's metaphysics disallows this radical non-reductionism by two crucial reductions. The first restricts the content exemplified in all instances falling under a real universal, i.e. perceptions$_1$, to the content of that universal. There can thus be no individuals, in the strict sense of the word, which fall under more than one universal, and so no "substances" or constituents of substances differing intrinsically from things of their kind but not

ceasing to be things of that kind. While there can be individuals, there cannot be unique individuals.[151] The second is the reduction of all relations between such instances to conjunctive relationships, whether of presentation to the senses or association in the mind.[152] On the first reduction, the character of the terms standing in causal relationships cannot be important to understanding the relationships. Hume is old-fashioned enough to speak of objects as the terms of relationships, but his interpreters have been quite right to argue that there is little reason in his thought why objects could not be entirely replaced with events as the terms of causal relationships. The character of objects is not such in Hume's thought as to suggest any relevant difference between objects and events such that the latter could not be the terms in causal relationships. In either instance, we do not understand the causal relation. There is no intelligible principle connecting ideas in any way, whether in such a way as to facilitate our use of general terms, or to connect instances falling under these terms. In both cases, the "connecting principle remains unintelligible, since it operates 'naturally' only to produce the custom of associating the ideas, rather than to reveal dependencies in being."[153]

(IC Hume's argument that, if experience could reveal "dependencies in being," one view of a thing would suffice for knowledge of its causal properties)

Hume implies at one point in the Enquiry that one who believed experience could reveal "dependencies in being" would have to believe

that from one view of a thing could be gained knowledge of its causal properties.

> When we look about us towards external objects, and consider the operations of causes, we are never able, in a single instance, to discover any power or necessary connexion; any quality, which binds the effect to the cause, and renders the one an infallible consequence of the other.[154]

The reason Hume characterizes the dilemma of his critics of this matter as an inability to specify the quality which, when present, indicates causal dependency, is to be found in his doctrine of experience. Because our experience in the last analysis consists of nothing more than presented instances of qualites, when we are not deceiving ourselves for entirely respectable practical reasons, we must admit that the objects of knowledge are fields of presented appearances. Insofar as these fields can be represented as systematically relatable, we can have knowledge of them. Insofar as they cannot be represented in this way, we must remain without knowledge of them. From this perspective, then, it is natural that Hume represent alternative accounts of causal dependence and of the way in which we gain knowledge of it as postulating some quality which, when presented to us, indicates the presence of a power connecting the terms of the causal relation. It is also natural that he should then challenge his critics to give evidence that there is any such quality, arguing that if there were, it would enable us to foresee the effect given the cause without recourse to experience of

their conjunction.

(C Some untenable Aristotelian claims and distinctions: actuality and potentiality)

On much the same grounds that lead Hume to disallow that we might gain knowledge of causal dependence (in any non-conjunctive sense) through experience, he disallows the distinction between actuality and potentiality. The only sort of connnection that we can know is conjunction, whether among impressions or ideas. Alluding to the new physics of his time, Hume illustrates this point against a possible objection.

> As objects must either be conjoined or not, and as the mind must either be determined or not to pass from one object to another, it is impossible to admit of any medium betwixt chance and an absolute necessity. In weakening this conjunction and determination you do not change the nature of the necessity; since even in the operation of bodies these have different degrees of constancy and force, without producing a different species of that relation.[155]

The "necessity" of which Hume speaks is causal rather than formal. He wishes to disallow a medium between chance and necessity because he believes there is only one mode of causal relation. The degree of consistency with which ideas are conjoined in the mind or impressions conjoined in experience can have no bearing on the sort of relation existing between the items conjoined. Now either two ideas are conjoined or they are not, in any given case. There is then no distinction to be made "betwixt <u>power</u> and the <u>exercise</u> of it."[156] Where objects falling under a general term do not behave in the same

way under apparently similar circumstances we are not to conclude that they have potential for doing more than one sort of thing under those circumstances, but search for a more thorough analysis of the circumstances which will locate relevant differences between them.

> But philosophers, observing that almost in every part of nature, there is contained a vast variety of springs and principles, which are hid, by reason of their minuteness or remoteness, find, that it is at least possible the contrariety of events may not proceed from any contingency in the cause, but from the secret operation of contrary causes. This possibility is converted into certainty by farther observation, when they remark that, upon an exact scrutiny, a contrariety of effects always betrays a contrariety of causes, and proceeds from their mutual opposition.[157]

Hume goes so far as to claim that the "received philosophy" fails in that it cannot deal with this problem of instances where different effects follow from causes "to appearance exactly similar."[158]

(CI An aside on the significance of the potentiality/actuality distinction)

It is perhaps worthwhile to make a brief aside to note why the rejection of the potentiality/actuality distinction is of importance for understanding Hume as a critic of Aquinas' empiricism. Aquinas' account of perception is <u>causal</u> , and this distinction is central to the Aristotelian account of causality to which he falls heir. Aristotle writes in the <u>Metaphysics</u> ,

> [E]verything that comes to be moves towards a principle, i.e. an end. For that for the sake of which a thing is, is its principle, and the becoming is for the sake of the end; and the actuality is the end, and it is for the sake of

> this that the potentiality is acquired. For animals do not see in order that they may have sight, but they have sight that they may see. And similarly men have the art of building that they may build...[159]

Change is thus represented as the movement of substances from a state of deficiency with respect to the goods appropriate to their nature (potentiality) to a state of fulfilment with respect to those goods (actuality) under circumstances which may help or hinder this process at various times and in various respects. The relationship between a substance and that to which it stands in a relationship of potentiality need not be merely external, however. An acorn, for instance, stands in a relation of potentiality to a great many different oak trees, one of which it may become, according to the circumstances under which it grows. It has, however, no potentiality with respect to becoming a rabbit. In some way, the capacity for becoming an oak tree is implicit in the structure exemplified by the acorn even before first it begins to sprout. Another way of saying the same thing is that the oak tree exists potentially but not actually in the acorn. When Aquinas discusses knowledge as the movement of a human intellect from potentiality to actuality with respect to knowledge of some empirical phenomena (always in response to and dependence upon experience of it), he is propounding a causal account of the relation between what is known and the concept by means of which it is represented in thought. Hence it is worthy of especial note that if the Newtonian model of causal explanation which Hume accepts and develops is exclusive of the potentiality/actuality

distinction, Aquinas' account the relationship between concepts and that which they represent is undermined. Here, as elsewhere, the force of Hume's epistemology is to extend the overthrow of Aristotelian physics accomplished by Newton to metaphysics.

(CII Some untenable Aristotelian claims and distinctions: volitional vs. instinctive actions, customary vs. reasoned thoughts)

Hume denies, furthermore, that it is possible to draw a distinction in kind between impulsive and volitional actions. Once having granted that all events are "entirely loose or separate," sometimes conjoined but never connected,[160] and that the "events" which are the primary objects of perception in that we can perceive nothing in kind from them are particular impressions of sensible qualities, there can be no good grounds for supposing the connection between physical states and physical states different in kind from the connection between our motives in acting and the actions they motivate.[161] Moreover, observation of instances of either of these two species of events connected in this way produces in the mind the same sort of associative connection in each case.

> The same experienced union has the same effect on the mind, whether the united objects be motives, volition, and actions; or figure and motion. We may change the name of things [e.g. by distinguishing "impulsive" from "volitional" actions]; but their nature and their operation on the understanding never change.[162]

Aquinas maintains that, under certain conditions, men are capable not only of choosing their actions, but of choosing actions which in turn

form their character in such a way that, by reason of it, they become progressively more autonomous with respect to stimuli, motives and reasons which would move men of lesser character to action or prevent them from acting. This autonomy with respect to the ends our actions are intended to serve, which is central to Aquinas' understanding of human freedom, is denied by Hume. On Hume's account of it, experience could not possibly provide us with evidence to suggest that an action was free in the requisite sense,[163] nor could it provide us with reason to distinguish the exercise of this sort of freedom from mere arbitrariness, in which there is no intelligible connection to be found between actions and their causes.[164] Liberty he defines as "a power of acting or not acting, according to the determinations of the will."[165] The determinations of the will are as much products of causal series the members of which are linked merely conjunctively as are the movements of balls on a billiard table. The question of freedom in human beings as Hume understands it might be thought of on the analogy of the "freedom" of a ball to move in a given direction without impediment.

(CIII Some Untenable Aristotelian claims and distinctions: the distinction between instinct and reason)

With a similar argument, Hume denies yet another distinction in kind Aquinas wishes to draw between <u>instinct</u> and <u>reason</u> , and between <u>instinctual</u> and <u>rational</u> actions.

> [Those parts of animals' knowledge derived not from observation, experience or practice, but from "the original

> hand of nature," exceeding their ordinary capacities] we denominate instincts , and are so apt to admire as something very extraordinary, and inexplicable by all the disquisitions of human understanding. But our wonder will, perhaps, cease or diminish, when we consider, that the 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.[166]

The intellect, as a power facilitating the perception of objects different in kind from impressions, and of relations between the objects of perception different in kind from mere conjunction, "has no object," given Hume's account of experience. If we allow an intellect capable of entertaining generic universals, reason is a matter of entertaining universals, and developing our conception by testing claims about their instances using methods appropriate to claims of that particular sort. Apart from the small concession we have argued Hume must and implicitly does make to repeated universals, Hume argues that there are no universals entertained in the mind repeated in their instances, but only particular ideas associated in various ways. Thus, when he denies a difference in kind between instinct and reason, he is denying that we can know anything of principles which would explain how ideas are associated of a kind different from the associated ideas themselves. Insofar as the principles accounting for our ability to entertain and associate ideas cannot be represented as images and conjunctive associations of images, he would argue, we can have no knowledge of them.

Metaphysics and the Analogy of Newtonian Gravity

(CIV Summary of Hume's Epistemological Doctrines Relevant to our Discussion)

At the root, then, of all the epistemological sorts of criticisms Hume makes of claims Aquinas wishes to defend is a model of what it means to be an empiricist. The most important facet of this model is the conviction that empiricism entails that, in the last analysis, the objects of perception are the objects of the senses, whether external or internal, qua sensible. By this means any sort of representationalism is excluded, understoood as any theory of perception claiming that the senses represent or provide knowledge of entities different in kind from the deliverances of the senses. Hume also believes that empiricism commits one to an imagist theory of thought, according to which the mind can entertain nothing differing in kind from impressions , the particular deliverances of the senses. This leads to a radical nominalism. As all impressions are particular, and all entities entertained by the mind of like kind, so there can be no universals entertained by the mind: entities existing in the mind in a peculiarly mental mode of existence, repeatable in a different mode in the particular objects of perception. We have argued that Hume must make some small concessions to the logical

realists in the form of an allowance of a particular sort of specific universals, universals of sense. Hence, on our view, Hume's model of empiricism is to be read as consisting chiefly in the claim that the objects of perception and the objects of thought are the deliverances of the senses gua sensible. What is not sensible per se can neither be experienced nor known.

(CV Introduction: Hume's "Science of Human Nature" and the Analogy of Newton's Gravity)

We have discussed specific objections of a polemical sort which Hume gave and might give against alternative accounts of the nature of knowledge and the objects of knowledge. There is, however, an important supporting theme in Hume's epistemological works intended to strike responsive chords in the minds of his educated contemporaries, familiar with the work of Isaac Newton either directly or through popular presentations. Significantly, Hume nowhere attempts to make a case for pursuing mathematical "first principles" for his "Science of Human Nature" analogous to those of Newton's physics. This is true in spite of the fact that many parallels between the two involve importing into philosophical psychology principles which had their raison d'etre as part of Newton's physics in facilitating the mathematization of the subject. These facts suggest that, while Hume has been recognized by philosophically inclined social scientists as an important figure in that history which has culminated in this century with an explicit search for a mathematical science of man as such, his own concern

with Newton was as a tutor of empiricism: the rejection of knowledge apart from experience, and the recognition of limitations to knowledge.

(CVI Two Dimensions of the Analogy)

In particular, Hume draws on aspects of Newton's account of gravitation as an analogue for two aspects of his own account of knowledge. The first is the restriction of knowledge of objects to knowledge of things insofar as they appear, and knowledge of principles to knowledge of extrinsic relationships between things insofar as they appear. The second, which follows from the first, is the elimination of teleology from explanation. Teleology, as it turns out, is something true of the world only insofar as we regard it as frustrating or as providing the means for the fulfilment of our desires, and is not true that there are non-human teleological phenomena. We can know something about what <u>is</u> the case, and what will happen given a set of principles which tell us what to expect given that these conditions obtain, and what effect the expected consequence may have on our purposes and desires. Our knowledge of appearances, however, can provide us with no knowledge of teleological processes outside ourselves, and, perhaps, were Hume to be completely consistent, no knowledge even of allegedly teleological capacities on our own part. By these doctrines Hume disposes of metaphysics in general, and, for our purposes, Aquinas' metaphysical account of the objects of perception in particular.

(CVII The First Dimension of the Analogy)

First, there is the restriction of knowledge to appearance. We have already devoted considerable attention to the restriction in kind on the objects of knowledge, and to the dependence of the mind upon experience for gaining knowledge of the relationship between perceptions$_1$ in the formation of concepts of things, and between perceptions$_2$ in knowledge of causal relationships between things. So long as experience does not lead the mind astray in causing it to form associative habits which do not enable us to get through the routines of ordinary thought and action, we need no further knowledge of the objects we conceive. "Just as Newton was able to calculate the effects of gravity, without ever perceiving its essence, so Hume is content to chart the course and consequence of the associative force, without inquiring into its ultimate foundation."[167] This is a happy circumstance, since no further knowledge of the objects of perception is possible for the same reason that Newton could only tentatively give some explanation of gravity beyond a description of its effects, mathematically expressed: experience provided no clue, even under experimental conditions. The relevant difference, of course, is that while Newton hesitantly speculated about the matter,[168] and did not rule out that, with further investigation, experience would provide relevant evidence,[169] Hume's limitations on our knowledge of the principles binding together the "bundles of qualities" which populate his world of perception and the principles binding together the ideas which populate the mind are limitations in principle, susceptible to revision under no conceivable

circumstances. The force of the analogy lies in the fact that, in both cases, it appears possible to say something of great importance about the realm of experience while claiming no knowledge of the sorts of things to which explanations of the same sort of phenomena appealed in previous times.

(CVIII Second Dimension of the analogy)

Roughly speaking, for both Aristotle and Aquinas, the most fundamental sort of explanation to be given of the actions of things in the material world are in terms of essences. Particular actions of an object or, more especially, a living being, are to be accounted for as particular attempts to realize some good or natural state appropriate to things of that kind, given limitations of a given set of circumstances, and in the presence of or following in causal succession upon some "efficient cause." A formal cause is the nature or essence of a thing, so that an understanding of the good or natural state in terms of which a thing or animal's action is to be explained requires at least a partial knowledge of the telos of things of that kind. Hence teleology is fundamental to much explanation on Aquinas' view. Now Newton's physics, by its insistence on dealing only with quantifiable variables, and explanation in terms of mathematically expressed laws stating functional relationships between such variables, conclusively discredited Aristotelian physics in both the scientific and the popular mind. Newton's account of gravity was interpreted and popularized as an example of how explanation of a rigorous and mathematical sort could be given

without recourse to metaphysical notions, and particularly without recourse to teleological phenomena like essences, natures and teloi . The analogy between the relationship between Aristotle's physics and Newton's gravity, on the one hand, and Aristotles's metaphysics and psychology and Hume's account of our mental capacities, on the other, is an attempt to draw on the psychological force of Newton's critique of Aristotle, as symbolized by his doctrine of gravitation. Just as Newton's restrictions on the possible objects and principles of physics ended the reign of Aristotle in that science, Hume's implicit critique of teleological explanation, if sustained, is fatal to Aquinas' metaphysics and so his model of explanation.

(CIX Examples of Hume's use of the Analogy)

Examples of the implicit reliance on this analogy abound. There is the rejection of those "most obscure metaphysical notions," " power , force , energy ," and " necessary connection ,"[170] reminiscent of Newton's unwillingness to go beyond a mathematically expressed description of the effects of gravitation in his account of it. Similarly, Hume tells us that he wishes to account for the association of ideas central to all thought by means of the notion of custom . In doing so, he explains in the Enquiry , he does not tell us the ultimate reason our ability to associate ideas, but only draws attention to "a principle of human nature, which is universally acknowledged, and which is well known by its effects."[171] In the Treatise , Hume goes so far as to make an illustration of how we ought to restrain ourselves from speculation in the absence of

evidence out of his treatment of "the principles of union or cohesion among our simple ideas" which "supply the place of that inseparable connexion, by which they are united in our memory."[172] He writes,

> Nothing is more requisite for a true philosopher, than to restrain the intemperate desire of searching into causes, and having establish'd any doctrine upon a sufficient number of experiments, rest contented with that, when he sees a farther examination would lead him into obscure and uncertain speculations. In that case his enquiry wou'd be much better employ'd in examining the effects than the causes of his principle.[173]

Both the "ultimate reasons" for all the associative processes which operate in our thought[174] and all the processes which might stand behind the ordered succession of exemplified qualities in the realm of experience[175] are and must remain unknown. "These ultimate springs and principles are totally shut up from human curiosity and inquiry."[176]

(CX Conclusion: Hume's Critique of Metaphysics and the Gravitation Analogy)

In advancing an epistemological critique of Aquinas' metaphysics, then, we might expect Hume to draw on this analogy to lend credence to his argument that the principles which are to account for our capacities for thought and serve to <u>organize</u> the deliverances of the senses do not and cannot require that we suppose the objects of perception different in kind from the deliverances of the senses.[177] Just as Newton refused to go beyond the evidence and commit himself to a theory of gravity, Hume would argue, Aquinas

goes awry either in trying to judge of matters to which no evidence of the senses could possibly be relevant, or in using his terms equivocally, so that they could not be tested.[178]

The Science of Man and the Influence of Newton

(CXI The Science of Man and the Influence of Newton: Introduction -- Hume is a philosophical anthropologist, not a psychologist)

It is arguable that Hume, largely by reason of the influence of Newton, contributed to the history of experimental psychology in a number of ways. In particular, Hume's scepticism about metaphysics, the severe restrictions he placed on the sorts of properties which might justifiably be attributed to human beings, following the example of Newton's restrictions on empirical physical properties of objects, his determinism, and his tendency to regard human beings in both physical and mental aspects as mechanisms , served to help remove the gulf between physical and mental phenomena which plagued the speculations of scientists in an era of increasing physiological and physical knowledge. Nevertheless, Hume himself did not practice experimental psychology. His anthropology is philosophical, not in the pejorative sense in which to say this would be to imply that it is uncritical, but in that it predates the widespread acceptance of the conviction that the investigative and explanatory methods of the natural sciences can and ought to be employed in the study of man,

with as few modifications as possible. Because his account predates that wide acceptance, Hume does not assume but rather gives arguments for the claim that the objects of study in physics and in what we now term psychology are sufficiently similar to make this conviction plausible. Hume's reflections on the "Science of Human Nature" show him to be a philosophical anthropologist rather than a psychologist, in spite of any historical connections with modern psychology.

(CXII The Science of Man and the Influence of Newton: Newton's Rules of Reasoning)

Hume does not advocate a mathematical science of human nature. Nevertheless, it is worth noting that for each of Newton's rules of reasoning as listed in the Mathematical Principles of Natural Philosophy an equivalent or close analogue may be found governing Hume's procedure in his study of human nature.[179] Newton's first rule reads,

> We are to admit no more causes of natural things than such as are both true and sufficient to explain their appearances ... for Nature is pleased with simplicity and affects not the pomp of superfluous causes.[180]

Accordingly, Hume makes much of the importance of restricting terms occurring in explanations to those indicating appearances, as we have seen, and in doing so remarks often on the uselessness of appeal to entities, powers, or hypotheses he terms "occult" or "abstract."[181] Similarly, earlier we quoted a passage in the Treatise which reads much like Newton's second rule, " to the same

natural effects we must, so far as possible, assign the same causes."[182] Hume's critique of abstraction as an attempt to go beyond what can be known on the basis of experience finds an analogue in Newton's third rule, in which he attempts to check the temptation to "relinquish the evidence of experiments for the sake of dreams and vain fictions of our own devising" by replacing explanation in terms of "qualities of bodies...known to us by experiments" with the explanations in terms of abstract properties, claims about which cannot be subject to experimental test."[183]

> The qualities of bodies, which admit neither intensification nor remission of degrees, and which are found to belong to all bodies within the reach of our experiments, are to be esteemed the universal qualities of all bodies whatever.[184]

Hume differs from Newton in that he wants to make a firm distinction between those "abstract" properties, some of which are true of "all bodies whatever," which he characterizes as trivial conventions known *a priori*, and those properties of bodies which can be known only *a posteriori*. This is not Newton's distinction between qualities which can, given the present state of knowledge, appear as variables in formulae used in physical explanation, and qualities which cannot because they cannot be varied under observable conditions. The revolt against abstraction is common, and perhaps Hume thought of himself as providing philosophical underpinnings for this rule by corelating the distinction it makes with his *a priori* / *a posteriori* distinction.[185] While Newton wants to say that we cannot explain

in terms of a certain set of qualities not subject to experimental investigation, Hume formulates an epistemological dictum about the status of all properties our knowledge of which is independent of experience.

(CXIII Newton's fourth rule and Hume's restriction of knowledge to the realm of empirical hypotheses)

Finally, Hume advocates agnosticism with respect to any hypothesis which cannot be established on the basis of experience as he understands it, and the acceptance as true of that hypothesis with respect to any given subject for which we have the most evidence of this kind. Likewise, Newton's fourth rule lays it down that in experimental philosophy,

> ... we are to look upon propositions inferred by general induction from phenomena as accurately or very nearly true, notwithstanding any contrary hypotheses that may be imagined, til such time as other phenomena occur by which they may either be made more accurate or liable to exceptions.[186]

(CXIV The Science of Man and the Influence of Newton: The similarities between the "natural" and the "moral" sciences justify the use of the same methods of investigation and the application of the same rules of reasoning in each)

In the introduction to the Treatise, Hume draws out what he believes to be the similarities between the "natural" and "moral" sciences, such that Newton's method in general and his rules of reasoning in particular may be employed in the investigation of

"moral" phenomena as well as "natural." Hume defends this extension in application of the "experimental philosophy" in the introduction to the Treatise .[187]

> ...to me it seems evident, that the essence of the mind being equally unknown to us with that of external bodies, it must be equally impossible to form any notion of its powers and qualities otherwise than from careful and exact experiments, and the observation of those particular effects, which result from its different circumstances and situations.[188]

It is noteworthy that Hume links the limits of what we can know and the consequent rejection of knowledge of "essences" with the claim that the "natural" and "moral" phenomena are similar in a way which justifies the use of common methods of investigation and explanation. In effect, by not requiring that the "powers and qualities" which can be the subject of "careful and exact experiments" be quantifiable and capable of isolation under experimental conditions, Hume extends the range of application of Newton's method as Hume evidently believes that method is crystallized in his rules of reasoning. The commonality between the two classes of "powers and qualities" lies, in Hume's view, in that we have only one sort of experience on which to base all our claims to knowledge. Experience is fundamentally of qualities, not of things different in kind from sensible qualites. Things are constructs out of and not differing in kind from sensible qualities. Explanation, then, will be in terms of qualites, not "natures" or "essences." The end of investigation will be the pursuit of general principles invoked in explanations expressing functional

relationships between qualities.[189] Insofar as this is not the end of investigation, the investigator is attempting to go beyond what can be known on the basis of experience.

> And tho' we must endeavor to render all our principles as universal as possible, by tracing up our experiments to the utmost, and explaining all effects from the simplest and fewest causes, 'tis still certain we cannot go beyond experience; and any hypothesis, that pretends to discover the ultimate original qualities of human nature, ought at first to be rejected as presumptuous and chimerical.[190]

(CXV The constancy of human nature and Hume's rejection of methodological pluralism)

Hume, then, hopes to show human action to be a function of principles no less universal than that of Newtonian gravity. To that end, he insists that it is a matter of obvious common sense that the principle of like causes having like effects is as applicable to "moral" phenomena as "natural." If we should desire to study the Greeks or Romans, we need only study the French or the English, he writes.[191] The same motives will produce the same actions, whatever the age in question. Hence, while the qualities covered by the general principles of a "science of human nature" will differ from those of physics, say, procedure and explanation are in each case much the same. Hume, much like Newton, is to

> ...draw his evidence from experience and observation, refer all his propositions to their sensory origin, be parsimonious in his causal explanations, and proceed gradually to a few general principles governing all mental phenomena.[192]

The methodological pluralism of Aristotle and Aquinas, then, would fall under Hume's criticism as an attempt unnecessarily to complicate matters in the name of an indefensible and non-empirical account of experience and of the objects of perception. Having postulated objects different in kind from the deliverances of the senses which, for that reason, cannot be known on the evidence of the senses, given Hume's imagist theory of thought, they insist that there are distinctions between these objects such that they cannot be investigated in the same way, using the same models of inquiry and explanation. The dilemma, Hume would argue, is a false one. A false account of experience has led them to misconstrue the objects of perception as things which cannot be known. Arguments about why these unknowable objects cannot be investigated and explained in the same way are absurd: they cannot be investigated and explained at all. The senses can provide evidence concerning only entities not differing in kind from the deliverances of the senses.

THE ONTOLOGICAL PROBLEM

(CXVI The Ontological Question)

Simply stated, the ontological question regarding the nature of experience and the objects of perception is as follows. What are the objects of perception in common thought and speech, and how are they

related to thought about or involving them?[193] The question is not a psychological question about how our ideas of the common sense objects of perception are formed, but one about a logical relationship between things and the concepts which name and describe them. It is a question concerning the meaning and reference of such terms. Because Hume's primary objects of perception, $perceptions_1$, are not the things of common speech and thought, he must give an account of the latter and qualities attributed to the latter which are not straightforwardly "sensible," e.g. "the justice true of this judge," in terms of the former, and defend the rejection of accounts which do not attempt to do this entailed by his epistemological suppositions.

(CXVII Two sides to the Ontological problem)

The epistemological dimension of Hume's discussion of the nature of experience and the objects of perception contains both a critical and a constructive side. The critical side consists in his arguments for a certain measure of the limits of knowledge. The constructive side consists in an attempt to show how one might account for our ordinary thought and speech in terms consistent with the critical findings. Considering Hume as a potential critic of Aquinas, Hume's critique may thus be considered first as an attack on the possibility of justifying claims and making distinctions Aquinas wishes to make, and, secondly, as providing an alternative, purportedly more adequate account of each of the problems about which the claims were made or for the solution of which the distinctions were to be drawn. In the

same way, the ontological dimension of Hume's discussion of the nature of experience and the objects of perception is, for our purposes, profitably viewed as having two sides. The first is the critique of the notion of things existing continuously in inter-perceptual intervals and in independence of our perception of them. The second is an analysis of what those ordinary claims which seem to require the existence of such objects for their sense, do, in fact, require, attempting to explain them in a manner consistent with his epistemological position.

(CXVIII Hume's Critique of the notion of objects existing continuously in inter-perceptual intervals and of objects existing in independence of our perception of them: A. Not denying common sense "body")

In criticizing our notions of objects existing continuously and in independence of our perception of them, Hume does not deny that we commonly speak of bodies as if they had these characteristics, nor does he maintain that we ought to abandon these ways of speaking. He does not even suggest that we could. With his customary obeisance to common sense, Hume tells us at the outset of his discussion that it is "vain" to ask whether there is "body." The only reasonable question on the subject is the question why we believe in the existence of body.[194] His discussion indicates that he does not understand by this the psychological question "what <u>causes</u> us to believe that there is such a thing?" but rather, as H.H. Price puts it, " <u>given what characteristics of sense-impressions do we</u>

assert material-object propositions ?"[195] Understanding the question in this way, Hume's answer is intelligible, whether true or not. We are told that the qualities of constancy and coherence, when true of our perceptions$_1$, account for our belief.[196] Hume is attempting to account for a certain central aspect of our capacity for thought and speech, the means whereby we make sense of our experience. In this he resembles Aquinas. Where he differs from Aquinas is in his account of the nature of experience, and hence his task is to reconcile our common talk of "bodies," the objects we suppose exist continuously and in independence of our perception of them, with a correct account of the nature of experience.

(CXIX B. Three sorts of answers to question)

For Hume, there can be only three sorts of answers to the question, how our belief that the interruptions true of the perceptions$_1$ by means of which we come to know material objects are not true of the objects themselves. These answers are correlated with the faculties of sense, reason and imagination, respectively, because one such faculty at least must provide the means to knowledge of the qualities whereby we come to that belief.

(CXX C. The senses cannot provide us with the notion of mind-independent and continuously existing material objects)

Answers to the question stated above which suppose that we apprehend the qualities which lead us to attribute continued and independent existence to material things through the senses must necessarily fail. We have no knowledge of material objects as

something different in kind from $perceptions_1$ because we are incapable of entertaining universals other than those under which these fall. Therefore, on Hume's view, we can have no knowledge of the existence and nature of our own minds except as "a heap or collection of different perceptions, united together by certain relations and suppos'd, tho' falsely, to be endow'd with a perfect simplicity and identity."[197] The _senses_, then, can provide us with no means to distinguish between ourselves and our perceptions, because all the ideas and impressions of which we are aware are mind-dependent.[198] To suggest that the senses could provide us with evidence for the existence of objects existing continuously and in independence of mind would require that it be possible "to sense an object when we were not sensing it."[199]

(CXXI D. Reason cannot provide us with notion of mind-independent and continuously existing material object)

Hume assures us that "our reason neither does, nor is it possible it ever should, upon any supposition, give us an assurance of the continued and distinct existence of body."[200] Reason terminates in memory or sense, that is, in the mind-dependent deliverances of the senses _qua_ sensible. For that reason it can never give us knowledge of anything insofar as it is mind-independent. The unreasonable contrary "sentiment" is entertained by "the vulgar" because they "confound perceptions and objects, and attribute a distinct continued existence to the very things they feel or see."[201] Ignoring the interruptedness and mind-dependency of

perceptions$_1$ and perceptions$_2$, we pretend that these objects of experience are also objects of knowledge which do not share these qualities. The distinction is either impossible, if it implies a difference in kind, or illegitimate, as requiring an extension of thought about what does appear to the senses to what does not.[202]

(CXXII E. Imagination can provide us with fictitious notion of mind-independent and continuouly existing material object adequate to our intents, purposes)

The senses and reason being rejected, Hume gives an account of material object language in terms of imagination.[203] The constancy and coherence of certain of our perceptions permit us to interpret them as objects existing continuously and in independence of our perception of them.[204] The imagination facilitates this supposition in order that we may be able to connect the "past and present appearances" of what we imagine to be continuously existing material objects,[205] making our experience more coherent then it would be without this supposition.[206] The continuity that we attribute to the "object" on the basis of a patently nonexistent "equality" or changelessness is fictitious, whether affirmed implicitly, as an assumption in thought and speech, or explicitly, predicated of the impressions we interpret as different appearances of it. We are the victims of countless happy confusions every time we speak of material objects of any kind. The confusion is happy, because it is objects of this kind which are basic to our common modes of speech and thought, the objects of belief and reason.[207]

It would be impossible to regard the objects of experience as anything but sheerly immediate presentations, in A.N. Whitehead's "mode of presentational immediacy," were it not for our capacity for believing falsehoods of this kind.

(CXXIII Four aspects of Hume's account of material object language)

Hume's positive account of material objects is discussed under four headings: first, a principle of identity or individuation (principium individuationis), secondly, "a reason why the resemblance of our broken and interrupted perceptions induces us to attribute an identity to them", thirdly, an "account of that propensity, which this illusion gives, to unite these broken appearances by a continu'd existence", and, finally, an explanation of "that force and vivacity of conception which arises from the propensity."[208]

(CXXIV Hume's principium individuationis for material objects)

Hume proposes as the principle of individuation for material objects that fictional invariableness and uninterruptedness of an object through time such that "the mind can trace it in the different periods of its existence, without any break of the view, and without being oblig'd to form the idea of multiplicity or number."[209] The mind individuates objects in the field of experience in accordance with essentially pragmatic considerations, whether these are made explicit or whether they remain implicit, as in common speech and thought. So long as it remains useful to individuate objects in the

field of experience in this way rather than in that , and does not lead to significant errors in expectations, nothing more is required for criteria of individuation than appropriate established habits of association.

(CXXV Two relations which guide the mind in distinguishing objects and kinds of objects)

We attribute identity to interrupted perceptions partly as a result of two relations of resemblance. The first, resemblance between perceptions, forms the basis of the second, "the resemblance, which the act of the mind in surveying a succession of resembling objects bears to that in surveying an identical object."[210] The ease with which the mind moves from an impression or idea to one resembling it makes it easy to ignore minor differences between resembling, interrupted images, and the similarity of this procedure to entertaining identical images lends believability to the resulting fabrications by adding "force and vivacity" to them.

(CXXVI Individuation a means to resolve a peculiar sort of "perplexity")

It is not easy to discover how Hume's third aspect of his positive account differs from the second, insofar as the stated problem is concerned. In the third, he gives an alternative or perhaps complementary account of the same phenomena addressed in the second. Here, our propensity to unite interrupted perceptions in the fiction of a continuing and independently existing material object is represented as the product of a peculiar sort of "perplexity." This

"perplexity" has its origin in the manifest contradiction between the interruptedness of our perceptions and the identity we commonly ascribe to the material objects we claim to perceive arising from "the smooth passage of our thought along our resembling perceptions."[211] Uneased, we resolve the tension either by denying an identity of object for the various perceptions where there is insufficient resemblance, or by affirming it, where this is sufficient resemblance. In the second instance, we fill inter-perceptual intervals artificially and preserve the identity of the "perceptions" which are the objects of the senses.

> When the exact resemblance of our perceptions makes us ascribe to them an identity, we may remove the seeming interruption by feigning a continu'd being, which may fill those intervals, and preserve a perfect and entire identity to our perceptions.[212]

(CXXVII Hume's account of the strength of our belief in continuously existing, mind independent objects)

Finally, Hume endeavors to explain the strength of our belief in these fictional, continuously existing, mind-independent entities. In a series of sufficiently resembling impressions or ideas, he maintains, the "mind falls so easily from the one perception to the other, that it scarce perceives the change, but retains in the second a considerable share in the vivacity of the first."[213] Moreover, once we have gained the habit of associating ideas in such resembling series together in the manner required for thinking about a few material objects, when new objects are presented to us, we recognize

their similarity to other "constant and coherent objects," and attribute that status to them.[214]

(CXXVIII Rejection of Substantial Identity)

Hume must account for material objects in the sense of continuously existing and mind-independent objects differing in kind from perceptions$_1$ as fictions for several reasons. The first, with which we have dealt at some length, is that he maintains that we can have no knowledge through the senses of anything different in kind from the deliverances of the senses. The second, also discussed above, is the rejection of any potentiality / actuality distinction. Hume attempts at one point in the Treatise to argue that we must suppose that our perceptions exist unperceived.[215] However, if this distinction cannot be made, material objects cannot even be regarded as constructions out of "actual or possible" deliverances of the senses, in the sense that they exist as potential patterns of sensation when they are not actually being perceived. Much less can they be interpreted as actually existing substances which, during the course of their existence, are potentially objects of sensation. Only where "possibility" is interpreted entirely in counterfactual terms, as implicit claims about what would be perceived under circumstances different from the ones which actually obtain, could material objects be regarded as constructions of the first kind, given Hume's insistence that we know nothing that is not qualitatively and quantitatively determinate. And this suggestion goes no distance at all toward making the second cogent. Strictly speaking, what we

observe through the senses is mind-dependent and does not exist when it is not perceived. Speaking as we commonly and, Hume believes, inevitably, do, we observe objects which are public in that their existence is not dependent upon the minds of those who perceive them, and in that they exist continuously in intervals where they are perceived by no one. We can neither avoid speaking in a way that implies a falsehood nor deny consequences validly drawn from inescapable premises.

(CXXIX Hume on identity and material objects)

A third reason why Hume must account for material objects as fictions has to do with his doctrine of identity . According to Hume, for something to remain identical is for it to remain "constant and unchangeable" through time.[216] Anything which can be distinguished from anything else either in number or in kind cannot strictly speaking truthfully be said to be identical with it, although qualities or objects closely resembling each other or causally related may often be identified for the purposes of ordinary thought and speech.[217] Furthermore, the only sort of identity of which we can have knowledge is perceived identity in the sense of sensible identity, "derived from the whole united appearance and the comparison of particular objects."[218] Now, in fact and strictly speaking, we never perceive any object which remains self-identical over any appreciable length of time according to these austere standards. Every time we blink, for instance, we have perceptions numerically distinct from the first when we open our eyes. Each

perception$_1$ is a distinct object,[219] and perceptions$_1$ alone are self-identical <u>strictly speaking</u>. The self-identity of the continuously existing and mind-independent objects under discussion is "equivalent to the occurrence of a series of numerically different particulars, whether qualitatively similar to each other or qualitatively dissimilar."[220] Were such objects <u>literally</u> self-identical, their identity would consist in some consciously, i.e. actually, entertained impression, remaining invariant throughout a lifetime.[221] That they plainly are not literally self-identical, Hume maintains, is unimportant so long as they are united by a principle of union allowing them to be regarded as identical for the purposes of common thought and speech. Hence, in summary, the "constancy and coherence" of the impressions which lead the imagination to form notions of Hume's material objects or perceptions$_2$ is not the "constancy and coherence" either of objects different in kind from perceptions, of potential perceptions, or of perceptions which are identical "strictly speaking."

CXXX The nature of the constancy which must be true of our perceptions if we are to assert material object propositions)

The "constancy" of which Hume speaks cannot be defined in terms of exactly resembling impressions.[222] While the idea or set of ideas associated with a term must remain constant if a general term is to retain the same meaning, the same constancy could not be required of perceptions believed to be of objects falling under that term. We never have <u>exactly</u> the same impression of any material thing

twice, even if it is true, as we have argued Hume must admit, that we might have an experience of precisely the same exemplified quality twice. The sense in which impressions of material objects must be "constant" is that they either closely resemble each other, or match patterns of ideas associated by the mind, so as to trigger associative habits which permit their consideration under a generic term or a proper name.

(CXXXI A Humean Critique of Aquinas: Perceptions and Objects)

In some sense, Aquinas too gives an account of the self-identity through time of material objects in terms of "constancy and coherence." By reading him in that way, at least, a comparison may be brought about instructive for an understanding of the critique we might expect Hume to make of Aquinas' account of what we have called the ontological question regarding the nature of experience and the objects of perception. For Aquinas, the measure of the coherence of information provided by the senses is simply our ability to make sense of it in thought and speech. This is true whether the thought and speech in question is based on those common habits of speech and action to which our ability to speak in unspecialized and common sense terms bear witness, or whether it is based on those specialized habits which are the fruit of immersion and participation in traditions of disciplined inquiry. In either case, our habits of thought and traditions of inquiry, which allow us to recognize and to discover the coherence of the deliverances of the senses, are dependent upon and shaped by a prior "constancy" of <u>nature</u> or <u>essence</u>

true of the continuously existing, mind-independent objects with which we are brought in to a relation of knowledge by means of the senses. On Aquinas' view, then, insofar as we wish to understand "the passing show" presented by the senses, we must seek explanations in terms of relations between intrinsically teleological systems and organisms, different in kind from the deliverances of the senses. The mathematically expressed laws of Newton with which Hume and his contemporaries were so justly impressed may be both useful and true, Aquinas might allow. A similar claim might, though this is less probable, be made for the principles of Hume's "Science of Human Nature." But the material objects to which the laws apply are instances of a character that is potentially repeatable, a universal incarnate in matter, providing the matter informed by it with a telos appropriate to things of its kind.

(CXXXII A Humean reason for rejecting the notion that the association of ideas in a concept of a material object or class of material objects might be explained by means of appeal to anything true of objects existing independently of mind)

Hume, of course, does not directly address Aquinas' position. He does, however, criticize as "monstrous offspring of contrary principles"[223] those philosophical systems which he represents as attempting to resolve the tension between our practice in speaking of material objects and the knowledge that they are impossible by attributing continuous existence to objects in inter-perceptual intervals. There is first the argument from common sense, discussed

early in this chapter, to the effect that the distinction between objects and perceptions is "not comprehended by the generality of mankind, who, as they perceive only one being, can never assent to the opinion of a double existence and representation."[224] This argument, as we have seen, rests on an equivocation. It is not clear at all that, if "perceptions" are understood as presented instances of sensible qualities "the generality of mankind" do not or at least could not, were it pointed out to them, distinguish between these and "objects" understood as "what any common man means by a hat, or shoe, or stone."[225]

(CXXXIII A second argument from the nature of experience)

More interesting and more representative of Hume's philosophical position is his argument from the nature of experience. The only objects we can know to exist with certainty are "immediately present perceptions," he argues. We are able to reason concerning objects which are not immediately present only on the basis of past experience of conjunction between "perceptions" which were immediately present. We have never experienced conjunction, let alone connection, between objects in the sense of things differing in kind from perceptions_1 and perceptions in either the first or second sense. Experience provides us, therefore, with no justification for inferring anything from experienced conjunctions of perceptions concerning such objects.[226] It is, therefore, inconsistent on the part of those who deny that "perceptions" exist unperceived to believe that the objects of perception may exist continuously in

inter-perceptual intervals.

(CXXXIV Concluding Summary)

Several aspects of this critique are particularly worthy of note. The first is that it presupposes the account of the nature of experience and the capacities of mind discussed in the epistemological section, including the limitations on the sorts of universals the mind can entertain and the atomistic model of experience. The second is that it is his concern to deal with scepticism that leads Hume to represent one who wishes to make a distinction between the things of common speech on the one hand and the deliverances of the senses on the other as caught in the dilemma of affirming both that the objects of perception are and are not impressions by postulating continuously existing and mind-independent material objects. Though they differ widely in their accounts of them, both Hume and Descartes are very much concerned to do away with debilitating scepticism by founding knowledge on basic certainties. Hume, believing rationalism untenable and having learned from Berkeley the sceptical consequences of representationalism, sees anyone who wishes to make such a distinction as either a rationalist or a representationalist, or, which is worse than either alone, both at once. If they are not to fall victim of Hume's arguments against both these positions, they must accept his description of their dilemma as accurate. A third aspect is that Hume reads traditional accounts of material objects in terms of "substance" as making a truly bizarre set of claims. Corresponding to any thing that might be

designated in common speech there is an unchanging, simple substratum to which all the sensible qualities true of it over the course of its existence are attached. The simplicity of this object is not the simplicity of a $perception_1$, because it is not sensible *per se*, so it cannot be comprehended. Hence the nature of the substance in which the qualities inhere and the manner in which they inhere in the substance cannot even be conceived, given the imagist theory of thinking we have outlined, even with the modifications we have made on Hume's behalf. Why someone would wish seriously to argue anything so indefensible as the claim that there are unknowable somethings which support in an intrinsically unintelligible fashion the deliverances of the senses is comprehensible only as the product of psychological processes. Hence Hume's speculations that such a person must at some point have been led astray by inferring too much from the ease with which the mind considers various perceptions under the same terms.[227]

ENDNOTES - CHAPTER ONE

1. For a historical account of this association, see Edward Grant, "A New Look at Medieval Cosmology, 1200-1687," Proceedings of the American Philosophical Society 129 (1985):417-432.

2. Peter Coffey, Epistemology , 2 vols. (Gloucester, Mass.: Peter Smith, 1970), 1:250.

3. Hume later amends this, saying that they differ with respect to the feeling with which they strike the mind. David Hume, A Treatise of Human Nature , ed. L.A. Selby-Bigge (Oxford: At the Clarendon Press, 1978), p. 636.

4. Ibid., pp. 630-631.

5. Ibid., p. 2.

6. Ibid., p. 192.

7. Ibid., p. 206.

8. Ibid., p. 1.

9. Ibid., p. 2.

10. Ibid., p. 4.

11. David Hume, An Enquiry Concerning Human Understanding , in E.A. Burtt, ed., The English Philosophers from Bacon to Mill (New York: Random House, 1939), p. 622.

12. Hume, Treatise , p. 4.

13. Ibid., p. 7.

14. Ibid.

15. This is not quite true. Hume does give the counterexample in both the Treatise and the Enquiry of a shade of blue which we had never seen but which we would very likely be able to imagine, given experience of shades lighter and darker than it. The exception he

believes not to be significant enough to require modification of his claim.

16. F.C. Copleston, A History of Philosophy , Vol. 5: Hobbes to Hume (London: Burns Oates and Washbourne Ltd., 1959), p. 266.

17. Hume, Treatise , p. 639.

18. Ibid., p. 28.

19. Ibid., p. 36.

20. Ibid., p. 634.

21. Ibid., p. 37.

22. Hume, Enquiry , p. 612.

23. Hume, Treatise , p. 19.

24. H.H. Price, Hume's Theory of the External World , (Oxford: At the Clarendon Press, 1940) p. 74.

25. Hume, Enquiry , p. 598.

26. Copleston, History , 5:274; Hume, Enquiry , p. 598.

27. Hume, Treatise , p. 172. Emphasis mine. Similarly, in the Enquiry Hume notes that all reasonings are either demonstrative (= "reasoning or reflection" in the passage from the Treatise quoted), or moral (= "reasonings concerning existence" or concerning "matters of fact").

28. Ibid., p. 103.

29. Ibid., p. 149.

30. Ibid., p. 155.

31. Hume, Treatise , pp. 187-188.

32. Norman Kemp Smith, The Philosophy of David Hume (London/Melbourne/Toronto: Macmillan; New York: St. Martin's Press, 1966), p. 382.

33. Hume, Treatise , p. 632. Hume gives an example at this point of how we maintain our beliefs about the relative sizes of objects in spite of the evidence of our eyes to the effect that things are smaller as they are farther away.

34. Kemp Smith, Philosophy , p. 383.

35. Hume, Treatise , p. 79. Italics deleted.

36. Ibid., p. 97; Cf. Hume, Enquiry , p. 610.

37. Ibid.

38. Ibid., p. 180.

39. Ibid., p. 13.

40. Coffey, Epistemology , 1:258.

41. Ibid.

42. Ibid.

43. Ibid.

44. Brand Blanshard, "Reply to Mr. Clayton," in The Philosophy of Brand Blanshard , ed. Paul Arthur Schilpp, The Library of Living Philosophers, vol. XV (LaSalle, Illinois: Open Court, 1980), p. 869.

45. Aristotle Metaphysics 3:4. $999^{b}34$. p. 1579.

46. David Knowles, The Evolution of Medieval Thought (New York: Random House, 1962), p. 107.

47. Brand Blanshard, Reason and Analysis (LaSalle, Illinois: Open Court, 1962), p. 393.

48. Blanshard "Reply" pp. 869-871.

49. H.H. Price, Theory , p. 4.

50. H.H. Price, Thinking and Experience , (London: Hutchinson's, 1953), p.304.

51. K.B. Price, "Hume's Analysis of Generality," The Philosophical Review 59 (1950):61.

52. K.B. Price's own account is that ideas are representations of their instances because they are repeated in their instances. This formulation is unsatisfactory, because its truth would entail that it is the idea rather than the content it expresses which is repeated in its instances, suggesting some form of monist idealist metaphysics. I am indebted to Prof. J. Bailey of the University of Manitoba for

bringing this to my attention.

53. Hume, Treatise , p. 19.

54. Ibid.

55. Ibid.

56. Hume, Treatise , p. 637.

57. Andrew Ushenko, "Hume's Theory of General Ideas," The Review of Metaphysics 9 (1955):245.

58. Hume, Treatise , p. 18.

59. Ibid., pp. 18-19.

60. Ibid., p. 19.

61. Ibid.

62. R.I. Aaron, The Theory of Universals (Oxford: At the Clarendon Press, 1967), p. 70.

63. Hume, Treatise , p. 20.

64. Hume, Enquiry , p. 594; Hume, Treatise , p. 72.

65. Hume, Enquiry , p. 594.

66. Hume, Treatise , p. 96.

67. Ibid.

68. Ibid., p. 97.

69. Ibid.

70. Ibid.

71. Aaron, Universals , p. 84.

72. Hume, Treatise , p. 97.

73. Ibid., p. 72.

74. Ibid.

75. See Hume's Enquiry , p. 674.

76. See restrictions on objects of thought mentioned in the text to this point, and indicated in the Enquiry , pp. 594, 599-600.

77. For Hume's argument, see Hume, Treatise , p. 19. For a modern argument with a similar conclusion, see Blanshard's "Reply," pp. 869-870.

78. Robert W. Schmidt, The Domain of Logic According to Saint Thomas Aquinas (The Hague: Martinus Nijhoff, 1966), p. 100.

79. Copleston, History , Vol.2: Mediaeval Philosophy: Augustine to Scotus , p. 327.

80. Hume, Treatise , pp. 74-75.

81. Cf. Hume, Enquiry , pp. 633-634.

82. Aaron, Universals , p. 80.

83. Hume, Treatise , p. 177.

84. Ibid., p. 22.

85. Ibid., p. 10.

86. Ibid., p. 92.

87. Ibid.

88. Ibid., p. 11.

89. Ibid., p. 11. St. Thomas gives an account of the principles of association that is ostensibly very similar to, but in fact different from, Hume's account. For instance, Aquinas lists the same principles, with the exception only of "cause and effect," for which he accounts as a kind of "propinquity or contiguity," and which is replaced on the list with "contrariety or contrast." [John K. Ryan, "Aquinas and Hume on the Laws of Association," New Scholasticism 12 (1938):370.] There is good reason to believe the similarity between the lists is not accidental. Ryan quotes a passage in Samuel Taylor Coleridge's Biographia Literaria , in which a friend of Coleridge, a Sir James Mackintosh, is described as having been shown a copy of Aquinas' commentary on Aristotle's Parva Naturalia which had belonged to Hume, and which had notes in Hume's handwriting in the margins. It was precisely this work which, Coleridge notes, contained the discussion which had brought to his attention the similarity between Hume's and Aquinas' respective discussions of this subject. Ryan quotes Coleridge, "The main thoughts were the same in both, the

order of thoughts was the same, and even the illustrations differed only by Hume's occasional substitution of more modern examples." [Ryan, "Laws," p. 36.] The problem Hume is addressing is not Aquinas', however. Hume's theory of association is an attempt to address a problem created by his imagist theory of thinking and the nominalism which followed upon it. Aquinas has neither an imagist theory of thinking nor a nominalist account of generality.

90. Hume, Treatise , p. 23.

91. Ibid.

92. Ibid., pp. 23-24.

93. Ibid., p. 24.

94. Ibid.

95. Ibid., pp. 24-25.

96. Ibid., p. 25.

97. Ibid.

98. Ibid.

99. Kemp Smith, Philosophy , p. 260.

100. Ibid., p. 263.

101. Ibid., p. 264.

102. Ibid.

103. Kemp Smith uses the wording on p. 94 to describe Hume's treatment of relations in the section of the Treatise , "Of Relations." The assertion that Hume has done likewise in the section currently under discussion is found, in different words, on page 95.

104. K.B. Price, "Analysis of Generality," The Philosophical Review , p. 70.

105. Hume does not himself explicity make the distinction between actuality and potentiality which we have made here. Elsewhere he attacks the distinction in general. However, it is evident from the quotation of the Treatise which follows that implicitly he does make the distinction, or at least that he requires the distinction if any sense is to be made of his explicit claims. We quote the passage in full because of its importance both here and for that later

discussion.

106. Hume, Treatise , pp. 20-21.

107. Kemp Smith, Philosophy , p. 266.

108. Ibid., p. 266.

109. Blanshard allows numbers as specific universals. Whether such an allowance would be consistent with Hume's central epistemological theses is a question we leave open at present.

110. Aaron, Universals , p. 70.

111. Ibid.

112. Ibid., p. 78.

113. Ibid., p. 76.

114. Ibid., p. 77.

115. Ibid.

116. Aaron grants that Hume is not always consistent in denying a theory of generality based on "repetition" of a universal which exists in the mind in one way, and in another, in independence of mind, in things. So, for instance, Aaron notes that in the Appendix to the Treatise Hume "asks what it is that enables us to group all simples together and to talk of them, for instance, under the abstract term simple idea . He finds the explanation in the fact that they 'resemble each other in their simplicity.'" Aaron, Universals , pp. 74-75.

117. Ibid., p. 78.

118. Hume, Treatise , p. 24. "But to tell the truth I place my chief confidence in what I have already prov'd concerning the impossibility of general ideas, according to the common method of explaining them."

119. Blanshard, Reason and Analysis , p.390.

120. In saying this, we do not suppose that concepts must be consciously entertained in recognizing instances of it. Typically, they are not.

121. Hume, Treatise , p. 11.

122. K.B. Price, "Analysis of Generality," p. 70.

123. Hume, Treatise , p. 13.

124. Ibid., p. 10.

125. Kemp Smith, Philosophy , p. 266.

126. K.B. Price, "Analysis of Generality," pp. 72-73.

127. Ibid., p. 73.

128. H.H. Price, Theory , p. 4.

129. Ushenko, "General Ideas," p. 239.

130. This is not entirely true. Both Aristotle and Aquinas allow for immaterial substances. It is true to the extent that the model for talk about substances is the mid-sized physical object, as we would say.

131. It is interesting to note that on the same sort of grounds St. Thomas might very well have allowed that Locke's primary/secondary qualities distinction could be both possible and perhaps useful for some purposes, a distinction Hume believes impossible [Enquiry , p. 682]. He would be free to grant that there might be a distinction to be made between the constituents and qualities of the things we experience not distinguished by the scientifically untrained mind and the unaided senses, but which we come to believe in many important ways explain the events we do so distinguish. Aquinas could not allow, however, that there was a distinction to be drawn between those qualities which become evident to us through experience and are true of the object itself and those which are not true of the object itself, but which appear to us. Rather, he might say, qualities which exist in one mode in the objects of perception may exist in another in the mind.

132. Hume, Treatise , p. 17.

133. Ibid., p. 633.

134. Ibid., p. 16.

135. Ibid.

136. Ibid.

137. Ibid.

138. The distinction between generic and specific essence is a knotty problem for Thomist accounts of universals, because St. Thomas' doctrine seems to make the criteria of identity for a thing that character which it holds in common with things of its kind, if any. This seems counterintuitive. Surely the criteria of identity for this horse must have some special connection with that which makes this horse in particular what it is as opposed to that which makes all things of its kind horses. This is not the place to take this question up, but it is worth keeping in mind as part of a considerable difficulty advanced against Aristotelian theories of the relationship between matter and form or essence.

139. Cf. Hume, Treatise , p. 212.

140. Ibid., p. 234. Hume is quick to add that, by the same reasoning, the notion of accidents is undermined. We can conceive nothing different in kind from the sensible accidents of Aristotelian substances, so we can have no idea what it would be for such accidents to inhere in something different in kind from them. Once this is grasped, it is very easy indeed to see why Humeans can make no sense whatever of the claims of Aquinas and his followers that the deliverances of the sense are the means to knowledge but in no important sense the objects of knowledge.

141. James Collins, A History of Modern European Philosophy , (Milwaukee: The Bruce Publishing Company, 1954), p. 415.

142. Hume, Treatise , p. 222. Hence Hume's insistence that to have a just notion of any of those composite things we falsely consider as individual requires that we have an idea, in the sense of an "image," of each part. Hume, Treatise , p. 28.

143. Ibid., p. 223.

144. Ibid.

145. Ibid. "Whatever is clearly conceiv'd may exist; and whatever is clearly conceiv'd, after any manner, may exist after the same manner."

146. Ibid.; Cf. Ibid., p. 634. "Whatever is distinct, is distinguishable; and whatever is distinguishable, is separable by the thought or imagination. All perceptions are distinct. They are, therefore, distinguishable, and separable, and may be conceiv'd as separately existing, and may exist separately, without any contradiction or absurdity."

147. Ibid., p. 224.

148. Ibid.

149. Ibid., pp. 224-225.

150. Note Hume's wording when he criticizes the notion that knowledge of causal relationships could be gained through one presentation of the terms, by means of "such penetration into their essences as may discover the dependence of the one upon the other." Ibid., p. 86.

151. It is important to bear in mind that we are "speaking strictly" here. The individuals of which we are speaking are the individuals falling under universals included in that small class of those universals we have argued Hume must and implicitly does allow are repeated in their instances.

152. Hume, Enquiry , p. 622; Hume, Treatise , pp. 167-168.

153. Collins, History , p. 428.

154. Hume, Enquiry , p. 622.

155. Hume, Treatise , p. 171.

156. Ibid.

157. Hume, Enquiry ,Burtt, p. 638.

158. Ibid., p. 612.

159. Aristotle Metaphysics 9:8. $1050^{a}7$-12. p. 1658.

160. Ibid., p. 630.

161. Ibid., p. 638.

162. Ibid., p. 640.

163. Aquinas also maintains that a rational basis for choice of the ends our actions are to serve may be found in a formal concept of man and his abilities and potentialities derived from the Aristotelian ethics and metaphysics and a Christian theological anthropological tradition, both of which he inherits and interprets. This is a matter for another thesis, however.

164. Hume, Enquiry , p. 644.

165. Ibid., p. 673.

166. Ibid., p. 652.

167. Collins, History , p. 416.

168. Cf. A letter to Robert Boyle, reprinted in Isaac Newton, Newton's Philosophy of Nature , comp. and ed. H.S. Thayer (New York: Hafner Publishing Co., 1953), pp. 112-116.

169. James H. Noxon, Hume's Philosophical Development (Oxford: At the Clarendon Press, 1975), pp. 48-54 passim.

170. Hume, Enquiry , p. 621.

171. Ibid., p. 610.

172. Hume, Treatise , p. 12.

173. Ibid., p. 13. Hume is even more explicit in the Enquiry , pp. 601-602.

> "Hence we may discover the reason why no philosopher, who is rational and modest, has ever pretended to assign the ultimate cause of any natural operation, or to show distinctly the action of that power, which produces any single effect in the universe. It is confessed, that the utmost effort of human reason is to reduce the principles, productive of natural phenomena, to a greater simplicity, and to resolve the many particular effects into a few general causes, by means of reasonings from analogy, experience, and observation. But as to the causes of these general causes, we should in vain attempt their discovery; nor shall we ever be able to satisfy ourselves, by any particular explication of them. These ultimate springs and principles are totally shut up from the human curiosity and enquiry. Elasticity, gravity, cohesion of parts, communication of motion by impulse; these are probably the ultimate causes and principles which we shall ever discover in nature; and we may esteem ourselves sufficiently happy, if, by accurate enquiry and reasoning, we can trace up the particular phenomena to, or near to, these general principles. The most perfect philosophy of the natural kind only staves off our ignorance a little longer: as perhaps the most perfect philosophy of the moral or metaphysical kind serves only to discover larger portions of it. Thus the observation of human blindness and weakness is the result of all philosophy, and meets us at every turn, in spite of our endeavors to elude or avoid it."

174. e.g. Hume, Enquiry , p. 628.

175. e.g. Ibid., p. 606.

176. Ibid., p. 601.

177. Ibid., p. 606. Hume argues here for precisely this claim. There is no reason, if we know nothing different in kind from the deliverances of the senses, for preferring one account of their "secret," i.e. non-sensible, nature, over another. And given that we cannot conceive anything non-sensible, we talk and think nonsense when we consider such alternative accounts.

178. Hume, Enquiry , pp. 633-634.

> "For as 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, and each party turn themselves on all sides, in search of arguments which may give them the victory over their antagonists. It is true, if men attempt the discussion of questions which lie entirely beyond the reach of human capacity, such as those concerning the origin of worlds, or the economy of the intellectual system or region of spirits, they may long beat the air in their fruitless contests, and never arrive at any determinate conclusion. But if the question regard any subject of common life and experience, nothing, one would think, could preserve the dispute so long undecided but some ambiguous expressions, and hinder them from grappling with each other."

The philosophically important consequences we have argued Hume rightly or wrongly draws from Newton's account of gravitation, and employs in the course of setting forth his account of causality, ought not to hide from us the fact that Hume's theory of causality is in at least one respect inconsistent with Newtonian physics. Hume makes spatio-temporal contiguity a condition of causal relation. This is a question on which Newton himself officially refused to judge. Nevertheless, his interpreters, unsatisfied with the prospect of treating Newton's account as a set of useful fictions important chiefly for the mathematical precision they lent to attempts to predict and control physical phenomena, very often took this claim to be inconsistent with Newton's account. Hume himself tells us that he regards his arguments for this condition as merely probable, and that of greater importance are his arguments for constant conjunction as constitutive of causal relatedness, though I do not know and will not hazard a guess whether he had Newton and his interpreters in mind when he said this. The difficulty presented by the fact that Hume

accepts spatial and temporal contiguity as a condition of causal relatedness for the view that Hume draws heavily on the influence of Newton's implicit and explicit critique of Aristotelian physics does not seem insuperable, however. It could conceivably be explained in a number of unremarkable ways. I am indebted to Prof. Brenton Stearns for suggesting that the question be at least raised.

179. Collins, History , p. 408.

180. Newton, Philosophy of Nature , p. 3.

181. Cf. Collins, History , p. 408.

182. Newton, Philosophy of Nature , p. 3.

183. Ibid., pp. 3-4.

184. Ibid., p. 3.

185. We cannot agree with Nicholas Capaldi's attempt to show that many of Hume's key doctrines are not dependent upon his theory of perception and his imagist theory of mind. For example, Capaldi claims that "In no way does Hume's analysis of causation depend upon his theory of perception: it is rather an explanation of the transition from an Aristotelian to a Newtonian physics." [Nicholas Capaldi, David Hume: The Newtonian Philosopher (Boston: Twayne Publishers, 1975), p. 58.] Capaldi is right to draw attention to the importance of Newton's criticism of Aristotelian physics for Hume's understanding of his philosophical task. However, the contrast he sets up is not obviously cogent. Why should we not suppose that Hume's analysis of causation and explanation is the product of an attempt to provide philosophical underpinnings for the startling anti-Aristotelian claims of Newton's physics by replacing Aristotelian metaphysics with his theory of perception as the source of philosophical "first principles" in terms of which our experience is to be interpreted?

186. Newton, Philosophy of Nature , p. 5. This rule appears to have at least two possible targets. On the one hand, it addresses Descartes' claim that we ought not to believe a hypothesis the contrary of which is conceivable by making the test of all theories a matter of their ability to withstand empirical test, rather than a test of conceivability. On the other, it presses home an important distinctive feature of the place of mathematics in explanation in Newton's physics. Phenomena are not merely to be described in terms of quantifiable properties. Hypotheses are to explain in ways that make them open to testing, so that they may be rejected, should the evidence warrant it. Acceptable hypotheses describe phenomena in such a way that they permit prediction and in some instances control.

187. Hume, Treatise , p. xvi.

188. Ibid. p. xvii.

189. Hume calls such principles "general causes." Many "particular effects" are placed under a few such causes "by means of reasonings from analogy, experience, and observation." Hume, Enquiry , p. 601.

190. Hume, Treatise , p. xvii. Cf. Ibid., pp. 22-23.

191. Hume, Enquiry , p. 635.

192. Collins, History , p. 408.

193. Copleston, History , 2:139.

194. Hume, Treatise , p. 187.

195. H.H. Price, Theory , p.15.

196. Ibid., p.15.; Hume, Treatise , pp. 194-199.

197. Hume, Treatise , p. 207. Hume's argues this point a few pages later in the Treatise as follows. An impression could only represent a substance in mind insofar as it resembled it, and impressions have none of the peculiar characteristics of substances. This seems to contradict claims we have cited to the effect that every impression fulfils the specification for being a substance. Hume is here thinking of substance not as "something existing by itself," but as something different in kind from and supporting the qualities which we perceive by means of the senses.

198. Ibid., p. 189. Edwin Allaire has a succinct and compelling analysis of the source of Hume's rejection of substance, of particular interest here by reason of the fact that it makes very clear the reason why Hume does not believe the deliverances of the senses as such can provide us with justification for the distinction between ourselves and other things. Allaire points to three historical stages in the development of Hume's case. Descartes provided philosophy with the claim that the only entities which we are capable of knowing with certainty are properties of the mind. Berkeley developed this tradition by means of an argument against representationalism, the notion that these entities known with certainty represent things other than and differing in kind from themselves. Representationalism, so understood, he argues, must always end in scepticism, because we can know nothing certain about what is not mind-dependent, and all our evidence for the existence

and nature of things existing in independence of mind is and must itself be mind-dependent. Berkeley concludes that we must do away with all notions of objects of knowledge different in kind from the deliverances of the senses, alone known with certainty, except those of the minds which entertain such objects, e.g. of humans, angels and God. Hence he adds to the tradition received from Descartes that only entities known with certainty exist, and that they are "ideas," deliverances of the senses and copies of them. Hume simply takes Berkeley's denial of our knowledge of objects different in kind from the deliverances of the senses and extends it to all such objects, including minds. In this way Hume finally does away with the notion of "substance" in anything like its classical sense altogether, including the substantial "I" of the Cartesian cogito . Or so he believes. While what is known with certainty, namely, the deliverances of the senses, are properties of mind, mind itself is unknowable. We are capable of perceiving and hence also of knowing only perceptions. Edwin Allaire, "The Attack on Substance: Descartes to Hume," Dialogue 3 (1964-1965):284-287.

199. H.H. Price, Theory , p. 15.

200. Hume, Treatise , p. 193.

201. Ibid.

202. H.H. Price, Theory , p. 25.

203. Hume, Treatise , p. 193.

204. Ibid., pp. 194-195.

205. Ibid., p. 197.

206. Ibid.

207. Kemp Smith, Philosophy , p. 499.

208. Hume, Treatise , pp. 199-200.

209. Ibid., p. 201.

210. Ibid., p. 205.

211. Ibid., p. 206.

212. Ibid., p. 208.

213. Ibid.

214. Ibid., p. 209.

215. Ibid., p. 214.

216. Ibid., p. 14.

217. See, for example, Ibid., p. 216.

218. Ibid., p. 637.

219. Collins, History , p. 437.

220. H.H. Price, Theory , p. 47.

221. Collins, History , p. 437.

222. H.H. Price, Theory , p. 33. In the discussion of "constancy" in the Treatise Hume seems to imply that it is. He writes,

> "When we fix our thought on any object, and suppose it to continue the same for some time; 'tis evident we suppose the change to lie only in the time, and never exert ourselves to produce any new image or idea of the object. The faculties of the mind repose themselves in a manner, and take no more exercise, than what is necessary to continue that idea, of which we were formerly possest, and which subsists without variation or interruption. [Hume, Treatise , p. 203] Perhaps Hume is best read as insisting that the identity of a thing rests in the fact that it can, for all practical purposes, be considered so and thus be represented in thought by a single idea or a specific set of ideas, together with the appropriate habits of association.

223. Hume, Treatise , p. 215.

224. Ibid., p. 202.

225. Ibid.

226. Ibid., p. 212.

227. Ibid., pp. 61-62.

CHAPTER II

AQUINAS

(I Introduction -- no theory of knowledge in modern sense in St. Thomas)

It is a commonplace that St. Thomas does not have a theory of knowledge in the modern sense of that term. He is not concerned with scepticism in the way that philosophy has been in recent centuries, and particularly since Descartes. So, for example, he is not concerned to give a logically tight argument from intuited basic certainties to the existence of the "actual" objects of knowledge, on some accont of them remarkable chiefly for the genius and complexity of the arguments which support it and the bewilderment of common sense to which it leads. Aquinas is a pre-Kantian philosopher in very many ways.[1]

(II Role of Common Sense in St. Thomas)

How deeply Hume misunderstands the philosophical intentions of the Medieval Aristotelians he criticizes is manifest in the fact that

he repeatedly represents them as having attempted to undermine or bewilder common sense in the interest of bizarre and counter-intuitive metaphysical monstrosities. There is much truth in William James' characterization of Scholasticism as "Common sense rendered pedantic," though whether or not one accepts the pejorative connotations of the claim will depend largely upon the vision of the philosophical task one accepts. Aquinas is concerned to refine common sense, to render it more precise, but not at all to undermine or replace it.[2] Nevertheless, he does not use common sense in the way that Hume does. Hume, as was noted in the first chapter, uses common sense to bolster a version of empiricism commitment to the principle tenets of which is, in an important way, prior to the commitment to common sense. For example, as we have seen, his attempts to support his views by appeals to common sense are largely unsuccessful, but this has little effect on his most important arguments for his positions. Hume's central arguments assume empiricism. He attempts first to show indirectly that this assumption is justified by showing how it may be reconciled with common sense, and second to draw consequences directly by arguments from premises he believes are constitutive of empiricism. Following Descartes, Hume identifies basic certainties, simple ideas and impressions, in answer to scepticism. He proceeds in a quite different way, however, attempting to establish limits to justifiable belief, and arguing both that within these limits lie all our most important claims to knowledge, and that none of these claims admit of the certainty

demanded by the sceptic. Subsequently, he praises the lack of concern for this shortcoming evident in common thought and speech. Aquinas, on the other hand, often argues from the fact that a certain philosophical claim would lead to conclusions contrary to common sense, e.g. a counterintuitive scepticism, that it is false. The move is not merely naive. As we shall see in this chapter, the giving of such a role to common sense is a natural consequence of the way in which St. Thomas saw the tasks of philosophy: analysis and clarification of what is known only implicitly or in an unclear way, and the pursuit of precision of statement and rigour of argumentation with respect to it.

(III Why metaphysics occupies most of Aquinas' attention rather than epistemology)

To claim that common sense is in an important way more fundamental to the philosophical enterprise as Aquinas envisions it than it is for Hume is not to say that Aquinas' philosophical views are, in whole or in part, more nearly common-sensical. This must be argued. It does draw attention to the fact that Aquinas does not begin from a set of claims about what he believes to be epistemologically basic. Rather, he takes common sense and sense trained in one or other of the various traditions of disciplined inquiry to be evident or noncontroversial,[3] in need of justification only when they cannot be reconciled with what is known with greater certainty, according to the norms of the appropriate discipline. The problems before him are metaphysical, concerning the

nature of our capacities for knowledge and the nature of the world such that the exercise of those capacities may, at least on occasion, lead to knowledge. Hume, in contrast to this, on the basis of an account of what he believes to be epistemologically basic, attempts to establish a single model of investigation as applicable in fields where it was not previously applied.

(IV Justification of the reversal of the order in which the two major sections occur in this chapter)

The difference in the order in which Aquinas and Hume treat epistemological and metaphysical problems is reflected in the different order in which the sections corresponding to each of these types of problems occur in chapter one and chapter two. In this, the second chapter, we will discuss Aquinas' answer to the ontological problem posed in the first chapter straightaway. In addition to being in accordance with Aquinas' practice and conviction with respect to the nature of philosophical inquiry, this order has the advantage of permitting us to introduce a number of terms that will recur throughout the remainder of this work, and to set the stage for an examination of Hume considered as a critic of St. Thomas.

THE ONTOLOGICAL PROBLEM

(V The Ontological Question - Again)

The same question that was asked of Hume must now be asked of Aquinas. What are the objects of perception in common thought and

speech, and how are they related to thought about or involving them? The short answer to the first part of this question is "substances," and to the second, "by means of an intentional identity with respect to form between concepts and that which they represent in thought." We will discuss each in turn.

(VI The doctrine of substance as the objects of perception: a response to the transitoriness of our experience)

In order properly to grasp the significance of the notion of substance it is necessary to recognize the original problem to which it is addressed: how knowledge is possible, given that the senses present us with constant change. Plato had addressed this problem by refusing to allow that the objects of knowledge are identical with the objects of sense perception, proceeding to deal with problems involved in that opinion. Aristotle, wishing to identify the objects of knowledge with the objects of percepion, could not avoid this problem. Hence, he sought objects which a) could be <u>known</u> by means of the senses, and yet which b) endured through changes evidenced by the senses.[4]

(VII Endurance and the Problem of Reliable Subjects of Predication)

Aristotle requires objects of perception that can endure through change because the objects of perception must be "reliable subjects of predication."[5] What this means may be illustrated by Cratylus' river, which cannot be entered once. It is not a reliable subject of predication in that it is a new thing every time a change occurs,

whether or not any conscious being takes note of the change. We cannot gain in our knowledge of "the river," discovering previously unknown qualities, relations and relational properties true of it, and predicating them of it, because there is no real subject of predication, no single object of which various sorts of predicables many be true on various occasions. There are either many "rivers," each with a determinate set of applicable predicates, existing in rapid temporal succession, or there are no rivers at all, but only collections of constitutive qualities, relations and relational properties designated by a single term.

(VIII Hume compared with Aristotle and Aquinas on change in our common sense objects of perception and knowledge)

Hume, of course, rejects the existence of any but certain specific universals, and so allows only a "feigned" unity among predicables, and not a real subject of predication (as defined above) in his analysis of material object terms. Talk of enduring objects is, on this view, a sloppy but convenient way of talking about recurring universals of sense, strictly and inconveniently speaking. Aristotle and Aquinas, on the other hand, maintain that we can have knowledge of "the river" because it remains the same river, in the sense of sameness that is required if there is to be knowledge of it, so long as it remains an instance of the single generic universal "river," whatever other sorts of universals it may instantiate at various times in its history as predicables true of it at those times.

(IX Formal unity as an answer to Heraclitus and Cratylus)

Aristotle, and so also Aquinas, following him, maintains that the epistemologically basic objects of knowledge are reliable subjects of predication because they instantiate a single "form." It is sufficient here to define it as that about any object by virtue of which it is a thing of a particular kind, and by virtue of which it is recognized as an instance of that kind in perception. Objects which exemplify a form may also exemplify many other universals, but only universals in other categories.[7] Granting Heraclitus and Cratylus' point that the river is constantly changing, the conclusion that it cannot, for that reason, be known, is avoided. So long as it does not change in respect of being a river, we can have knowledge of it, though some of this knowledge will be of matters true of it at a certain time or at various times in its history. Qualitative and quantitative change and diversity are not, merely as such, incompatible with endurance, but only when they obtain with respect to the formal unity or "substantial identity" of the enduring object.

(X Substance)

According to Aquinas, the basic objects of knowledge and perception are substances. These are not, however, defined simply as instances falling under concepts which express forms, for the doctrine of substance is not simply a doctrine about how we conceptualize what we encounter in experience, but also a doctrine about what sort of place the world is, independent of our perceptions of and reflection upon it, and a doctrine that provides the rationale

for his logic of predication. Hence, Aquinas defines substance as that which exists in itself.[8] This is to be understood by way of contrast with things which do not exist in themselves, but only as aspects of things other than themselves as, for example, the redness <u>of</u> yonder crabapple. Not every quality, relation or relational property is an aspect directly of a substance. For example, redness may be true in a given instance of a man's nose, and although the man is certainly a substance, the nose is not, so that redness is only indirectly predicable of the man. Nevertheless, the contrast remains that, while substances are not the substances <u>of</u> anything else, all other objects of knowledge and perception are, directly or indirectly, dependent upon substance for their existence.

(XI The Primacy of Substance)

While substance are not the only objects of knowledge and perception, then, they are nevertheless the primary objects in several respects. First, unlike other objects of knowledge and perception which do not exist in themselves but only "in another," substances may endure through change, it being understood that the disappearance of a quality is normally to be followed by the appearance of another in the same category.[9] Secondly, although it may often be possible to gain knowledge of things which exist only "in another" abstracted from knowledge of the substances upon which they are dependent for their existence and in which they inhere as properties or aspects, in the Aristotelian tradition, such knowledge is always less important than knowledge of them considered as

features of those substances. This is the case because the primary sort of knowledge is, on this account, knowledge of what a thing *is*,[10] i.e. its form, that about it which makes it a thing of this or that kind, accounting for its self-identity through change. Thirdly, substances are primary in that, although there are many senses in which a thing may be said to exist, i.e. many modes or ways of being, all other modes are dependent upon the substantial mode. They are, directly or indirectly, *of* substances, and cannot exist without them. While it is true that no material substance can exist without diverse, exemplified properties, most of these could be replaced by other in their same respective categories without affecting the identity of the substance.

(XII Accidents)

The secondary "objects" of perception and knowledge are called "accidents." Anthony Kenny quotes two of Aquinas' definitions: 1. *accidentis esse est inesse*, "for an accident to be is to be of," and 2. *accidens non est ens sed entis*, "an accident is not what is [i.e. that which exists in the primary mode of existence -- that of substance] but is of what is."[11] They are said to "inhere in" the substances of which they are aspects. It is important to note that accidents form a class only by virtue of the fact that they are all dependent modes of being, not by virtue of any positive characterization of some single sort of relation called "inherence."[12] The sense in which redness is an aspect of the crabapple and so is said to inhere in it is much different that the

relationship between the integrity of character and judgment true of a just judge. The metaphysical distinction between accident and substance in no way answers properly scientific questions about the structure and composition of crabapples and their colour, in the first example, or biographical and ethical questions about the nature and development of the judge's character, in the second. The distinction simply points to a general feature of the world, the recognition of which is implied by the distinction we draw in ordinary speech between objects and matters true of them.

(XIII What substances are not)

A number of misunderstandings of St. Thomas' doctrine of substance and of his distinction between substances and accidents must be avoided if he is not to be misrepresented. First, when it is claimed that accidents are dependent and substances independent modes of being, dependence and independence are to be understood solely in terms of the relation between objects and their properties. This doctrine does not at all suggest that substances are in no way dependent upon anything else for their existence. All material substances are dependent upon other material substances for their existence and character at any given time, and all finite substances whatever, material or immaterial, are together sustained in being by the creative Act of God, according to Aquinas. They are always dependent upon him directly for their existence, and sometimes directly, though more often indirectly, for their character. Secondly, substance is not a sort of pincushion into which aspects

are stuck and unstuck without providing any clue to the nature of the pincushion, and without modifying the pincushion in any way.[13] A substance is a determinate and therefore particular instance of an indeterminate and therefore universal and abstract form. We may learn of the nature of a substance by investigating the way in which its accidents are related in a single, integral whole. For instance, we might investigate the greenness and yellowness which at different times characterize a plant. We are not hindered by the fact that we observe only "accidents" of the plant in investigating the nature of the plant insofar as we need to understand it to explain the phenomenon in question. Furthermore, the plant does change when it turns yellow, for example, but it does not cease to be a plant, and to be the same plant. The plant is not some unchanging substratum. It changes, but not in such a way as to make it into a different sort of thing. Hence, thirdly, substances are not inert, as such, but are capable of qualitative and quantitative change, change in non-substantival categories.[14] They are unchanging only with respect to their form, and independent only with respect to their accidents.

(XIV Real and rationate being)

Aquinas distinguished between real being (ens naturae) and rationate being (ens rationis): existence in the realm of nature, and existence in the realm of reason.[15] Real being is distinct from rationate being in that what is "real" could exist in independence of our thought concerning it.[16] Hence unicorns have

real being, not in that they actually exist, but in that they are the sort of thing that, if they did exist, could exist in independence of thought in this way.[17] Rationate beings, on the other hand, are produced by the mind in attempting to conceptualize the world, and can have no existence apart from thought. The mind cannot entertain the objects it understands as they exist in the order of nature -- as material and determinate. It must entertain them by means of "entities"[18] having an existence independent of that which they represent in thought, but to which, in spite of this independence, they are related in such a way that they do not mislead the mind by misrepresenting it. The problem of the relationship between what is known and what is perceived is, for Aquinas, the problem of the existence and character of relationships between these two realms.

(XV Immateriality and rationate being)

It is easy fallaciously to read into Aquinas' distinction between real and rationate being a variant of the Cartesian dualism of extended and thinking substance. This impression may be strengthened by Aquinas' talk of immaterial forms, essences, natures, intellects and the like. This impression is inaccurate insofar as it attributes to Aquinas either the view that there is some mysterious mental stuff, analogous to more familiar matter, but distinct from it in kind, out of which all "immaterial" entities are made, or that to each material substance corresponds an immaterial substance to which it is attached in some way. Rather, material beings, insofar as they are actual, are quantitatively and qualitatively determinate and

hence individual. By reason of its composition and structure a material being is a thing of a particular kind, has properties which may also be properties of other beings, and, if it happens to be human, may have the ability both to recognize, name and think about individual material objects in terms of their kind and their properties. Those aspects of a thing which it shares with others, considered as common, are not quantitatively determinate, at least, and hence cannot be material. However, this is not an exciting superscientific tidbit about a realm beyond belief, beyond imagination, but about the realm of material objects insofar as they are not simply inchoate clumps of unintelligible stuff, but material things of _this_ or _that_ kind having _these_ properties. The material/immaterial distinction Aquinas wishes to draw here is not a distinction between ordinary physical objects and extraordinary spiritual objects linked in some mysterious way with them, but between the stuff which, when ordered appropriately, becomes a thing of this or that kind, and the order by virtue of which it is an individual of this or that kind. A scientific account of the composition and structure of objects like in kind or property may be both possible and desirable in any given instance. However, it in no way supplants the metaphysical claim, nor could such an account demonstrate that there is nothing "immaterial," in the sense in which Aquinas is using the term when he speaks of the immateriality of forms and properties, apart from philosophical arguments establishing the truth of some form of nominalism.

(XVI Immateriality of the human intellect, the Angels, and God)

Is that about a human being which makes him capable of recognizing, labelling, and thinking about things which recur qua recurrent, on Aquinas' view, "immaterial" in a sense of the word that expresses an unjustifiable dualism? This is less clear, but I do not think so. The immateriality of the intellect consists chiefly in its ability to receive what is not qualitatively and quantitatively determinate -- concepts or ideas. However, concepts or ideas are not in the mind as separate and independent substances, but as determinations or modifications of the substance in whose mind they are present. The relationship of meaning between concepts and the aspects of real being they represent in thought need not be jeopardized even if it were supposed that to each some neurophysiological correlate could be found, for instance. This is true as long as it is not supposed that the meaning expressed by the concept could be analyzed in terms simply of neurophysiological universals, a philosophical and not a scientific contention that is not obviously entailed by the denial of Cartesian non-material stuff out of which entities distinct from their material counterparts are constructed. More difficult is Aquinas' use of the notion of "immateriality" when he refers to immaterial substances . The soul after death, the Angels, and God, are all instances of substances existing immaterially, according to Aquinas. While it is true that he insists that the proper state of the soul is to be incarnate in matter, to allow that the soul might exist disincarnate appears to

imply that that about a thing which makes it a thing of this or that kind may exist apart from that which is structured. The Angels and God can only be immaterial in a quite different or a more developed sense of the word. The question whether Aquinas' use of the term in this sense is objectionable is a moot point, but cannot here be addressed.

(XVII Aquinas' "Intentio" and Intentionality)

In modern philosophical parlance, "intentionality" indicates the relation of the knower to the known.[19] The meaning is not unrelated to that of Aquinas' "intention," or concept, as we might say. In Aquinas, " intentio " indicates the way in which some object (in the widest possible sense of the term) is present to the intellect by virtue of the intellect's capacity for receiving it.[20] Having only rationate being, an intention can be present to the intellect, yet, by reason of a relation of likeness to something existing in the order of nature, an intention may represent it in thought. As substance is the primary mode of being in the order of nature, and, as such, is the primary object of knowledge and perception, Aquinas' position is best and most easily understood by beginning with intentions as they relate to substance. The relation of likeness constitutive of Aquinas' account of the relationship between concepts and things is not to be understood on analogy with the likeness of a picture to the scene it presents, but rather in

terms of systematic causal relatedness (of an unmistakeably Aristotelian sort), such that an explication of the meaning of a concept will describe that which the objects having real being which the concept represents in thought, well or badly, depending upon the adequacy of the concept. So, for instance, having developed the capacity to recognize a certain sort of animal, we may develop the capacity to name, describe and define it and explain its actions in dependence upon the senses, the deliverances of which are causal contacts with it. Such contacts are necessary but not sufficient to the acquisition or the development of a concept. What is also necessary is the action of the mind in forming a concept. Our concept "horse" is not at all like Northern Dancer or even less distinguished beasts in kind. But an account of the meaning of the term will partially describe or define any given instance of "horseness." This is a causal consequence of the intellect's reliance upon experience in the formation of the concept. Hence, on this account, so long as the mind is guided in its conceptualization of the objects of knowledge by experience, concepts need not be like the deliverances of the senses in kind to be empirical.[21] This constitutes the most important single difference between Hume and Aquinas with respect to this subject.

(XVIII " Intentio " and " species intelligibilis " : " species impressa " and " species expressa ")

St. Thomas treats learning as a species of change taking place in the one who learns. As such, it is analyzed in terms of actuality

and potentiality. The one who learns stands in a relation of potency with respect to all possible objects of knowledge. The senses are crucial to the actualization of any such potentiality, in that it is only be means of the senses that the movement of intellect toward knowledge of a thing is initiated and guided. However, knowledge consists in the reception of the form of the thing known, which exists there as "that which makes [the material object] a unity, or a thing,"[22] in a mode of existence proper to the receptive intellect, i.e. apart from the matter of the thing, abstractly. "Sensible knowledge unfolds in response to a physical alteration in the sense organ, but the process is fundamentally a movement of the form which exists in different modes in mind and in thing."[23] We do not, however, receive the form all at once, "clearly and distinctly." Our knowledge of a thing may be so vague as to prevent us from distinguishing it from things of its kind, or it may be merely clear enough that we can recognize it and use both a name for it and a term for things of its kind consistently, but without being able to give a definition or account of them, or it may be clearly defined. In the last case, we may be able to give a detailed analysis of what the thing is and what distinguishes it from other things of its kind. Even when we have grasped the denotation of a singular or general term, we may be very far from having grasped significantly its connotation. Hence there is a gap between the form of a thing insofar as it has potential for being grasped and so affording knowledge of a thing, and the form of a thing insofar as it is

grasped at any given time. The former Aquinas calls the "intelligible species" (species intelligibilis), or "expressed species" (species expressa), "species" indicating form, that about things which makes them things of this or that kind, and so classifiable by "species" in our more narrow, modern sense of the word. The latter he calls the concept (conceptio), impressed species (species impressa), or intention (intentio). We know an object insofar as we receive its form or intelligible species, but the form which is essential to the objects which exists in order of nature is represented in thought by a concept or intention which is an accident of the knower.

(XIX Activity and passivity in concept formation)

From one point of view, we are passive in the process of learning. The intellect is informed in the course of learning to recognize, speak, think about and investigate a subject. It receives a form it does not create. Nevertheless, from another point of view, we are active in learning. When we conceptualize a subject, the intellect creates a concept or intentional likeness of the thing which will represent it in thought. The ways in which we test our concepts in order to discover whether or not they are misleading us concerning the aspects of objects existing in the order of nature they represent are as varied as the sorts of possible objects of knowledge. In each case, the ideal to which our activity is intended to take us is provided by that which is known, and the means to knowledge of it are our own.

(XX First and Second Intentions - Introduction)

Aquinas distinguishes between first and second intentions,[24] according to their relationship to objects having real being.[25] First intentions are rationate likenesses of things which have real being. Hence they are said to have an immediate foundation in what is real. Second intenions are rationate likenesses of first intentions. Being once removed from the real, they are said to have a remote foundation in the real.[26] St. Thomas' own favored example of genus, species and difference with respect to the categorization of substance will serve to illustrate the distinction although, of course, not all intentions represent substances or classes of substances in thought.

(XXI First Intentions)

First intentions always represent individuals having real being. To use an example of the sort suggested above, we might have a first intention representing in thought a particular material object. For the purposes of thought, the intention is identified with that which it represents. Nevertheless, it is not the intention which is known, for the intention may be developed in response to perceived representationsal deficiency.[27] As a representation of an individual, the first intention may include in its meaning aspects of a thing which distinguish it from other things of its kind. Nevertheless, the first intention is potentially a universal, i.e., it could represent more than one substance, providing that these were identical with respect to all those aspects of the first object

recognized by the intellect in forming the intention in question. So, for example, if I form a concept of a particular cat, "George," the adequacy of the concept may be more or less adequate to the living and breathing feline. If it is less adequate, I am liable to mistake other cats for George -- the concept represents very few of those features which would serve to distinguish George from other cats. If it is more adequate, I am less likely to mistake other cats for George. Nevertheless, it is a concept I entertain when I think of George, and not a material cat. Hence, if there were another cat identical to George in all those respects by means of which I consciously or unconsciously distinguish George from other individuals of his kind, the concept "George" would include this cat also in its connotation. The intention, then, is neither universal nor particular *per se*, for it is the same whether there happen to be one or more things having real being which it might represent in thought.[28]

(XXII Second Intentions - A: Both terms of the relation constitutive of second intentions have only rationate being)

Second intentions differ from first chiefly in that, while first intentions consist in a relation, one term of which has only rationate being (the intention),[29] and the other having real being, both terms in the relation constitutive of second intentions are mental constructs, having only rationate being. Concepts of species (e.g. "humanity") and genus (e.g. "animals") are of this kind, as Aquinas maintains in a somewhat opaque passage in Concerning

Being and Essence .

> ...it cannot be said that ratio [i.e. that which is understood about something, expressed in a definition] of genus or species belongs to human nature according to the existence which it has in individuals according to its unity so that it is a one appropriate to all, which the ratio of the universal demands. If follows, therefore, that the ratio of species applies to human nature according to that existence (esse) which it has in the intellect.[30]

That is, when we say that both Plato and Socrates are men, predicating "humanity" of both, we do not mean by this that Plato and Socrates are the same being, under different names, but that Socrates is one determinate instance of the determinable concept "humanity," and Plato another. They are identical considered only insofar as they are both human, but different insofar as they are considered as determinate instances of humanity. Our first order concept "Socrates" is distinct from second order concepts such as "humanity" or "animal," which also signify Socrates "in the mode of a whole," indicating "implicitly and indistinctly all that is in the individual."[31] It does not indicate a character that is "one appropriate to all" substances of its kind. However, if we consider Socrates merely insofar as he is human, he does not differ from any other human.[32] Our second order concept, "humanity," thus consists in a relation of identity between all possible inferiors (concepts falling under it) with respect to a determinable character, those first order concepts falling under it being likenesses of particular and determinate instances. This character is expressed by

a single abstract term (e.g. "humanity"), the connotation of which we attempt to explicate in a definition of the term.

(XXIII Second Intentions - B: The intention of universality)

Aquinas often calls the second intention the intention of universality. By this he indicates that by means of second order concepts such as "humanity" and "animal" a number of things in the order of nature may be present to the mind at once as one concept, because second intentions are indifferent with respect to the aspects in which those things differ. The single concept "humanity," for instance, has many inferiors, and many different relations with its inferiors, but only one relation with respect to the nature in question, namely, that of identity.[33] The intention of universality, "though terminating in many, is nevertheless a single intention because it is the relation of one nature according to one manner of existing in the intellect."[34] On Aquinas' view, "animal" remains the same intention without regard to the intellect in which it occurs or to the inferior of which it is predicable, whether substantial (e.g. "Joe"), a species (e.g. homo sapiens), or a subclass distinguished in terms of some accidental quality true of its members in addition to the character indicated by species (e.g. "Caucasians").

(XXIV Summary of Aquinas' answer to the Ontological question, insofar as we have examined it)

We ought now to be in a position to fill with some content our short answers to the question "According to Aquinas, what are the

objects of perception in common thought and speech, and how are they related to thought about or involving them?" On Aquinas' view, there are many different sorts of subjects of knowledge, but all such subjects are ultimately dependent for their existence upon the primary objects of knowledge and perception, namely, substances. Substances need not be material, but they are modelled on mid-sized animate material objects like cats and trees. They are defined in terms of their independent mode of existence with respect to accidents, which cannot exist except as aspects or properties of substances. When Aquinas discusses their relationship to thought, knowledge of substances being archetypical of knowledge gained through experience, he sets forth his account in terms of ontological categories like the distinction between actuality and potentiality, substance and accident, material and immaterial being, real and rationate being, and so on. Human knowledge is portrayed, insofar as Aquinas believes this possible, as a special case of processes of a kind occurring throughout the natural world. So, for example, the relationship between concept and thing conceptualized is causal, although the understanding of causality is Aristotelian. It is a reception on the part of the knower of the form of the thing known, i.e. that about it which makes it a thing of such and such a kind, and which is specified where a definition is given in answer to question "What is it?" However, the knower does not, in receiving the form, become the same sort of thing as the thing known, so that Aquinas assures us that the form of that which is known is received

as an accident of the knower. Insofar as it is received, it is said to bring about a perfection of the intellect, i.e. to make actual the exercise of the mind's potential for knowledge with respect to that form. Our knowlege being imperfect, and it being the case that we can speak of classes of things and individuals belonging to those classes without a present example, Aquinas introduces the notion of intention or concept, which represents a thing insofar as we understand it or a class of things insofar as we have understood their shared character in thought, in the absence of the individual or an example of the class. First intentions are causal likenesses of individuals, evidenced by the capacity to recognize and think concerning that which they represent. They may include properties not predicated of the form of that individual in their definition, as they represent the object not merely insofar as it is an instance of a determinable form, but insofar as it is a determinate and individual object. Second intentions are likenesses of first intentions, but only insofar as the first intentions represent their objects according to the form they share with others of their kind.

(XXV Humean objections against this view -- Introduction)

What would Hume reply to Aquinas' answer to the ontological question, as we have sketched it? At almost every turn Aquinas makes claims Hume believes unjustifiable, postulates objects he believes inconceivable, and passes without comment over problems he thinks crucial. And this is not to mention the fact that the account is couched in puzzling terminology far removed from the conventions of

ordinary speech and thought, of precisely the sort Hume condemns as designed to obfuscate matters by avoiding the consequences of clear thinking. In the first place, Hume might complain, it is a clear consequence of empiricism that the objects of perception must be the qualitatively and quantitatively determinate deliverances of the senses, and if the objects of knowledge and belief are not these (as most of Hume's modern interpreters insist must be the case), then they cannot be anything fundamentally different in kind from them. Secondly, Aquinas' failure to respect the limits on knowledge entailed by empiricism leads him to postulate powers of mind to account for our ability to know things different in kind from the deliverances of the senses. Insofar as this is the case, it constitutes an abandonment of empiricism in favour of some brand or other of rationalism. Thirdly, the failure to take seriously empirical limits to knowledge evidences naivete with respect to the challenge to knowledge posed by scepticism. No sceptic worthy of the name will tolerate the supposition that the _real_ objects of knowledge, while never the objects of experience _per se_, are nevertheless known by means of mysterious faculties postulated especially to account for our knowledge of them. The distinction between objects and percepts and the distinction between substances and accidents both evidence this naivete, in that both postulate objects which are never the objects of the senses _per se_. Fourthly, the notion of substance rests on a faulty account of identity. And, finally, the notion that there is an unchanging, simple substratum

corresponding to each of the objects of common thought and speech is inconceivable, both in the literal sense, in which this is to say that it would have to be something different in kind from the sorts of things about which we are capable of thinking, and in the figurative sense, in which it is to say that it is preposterous. Even if there were such objects, it would be impossible to account for their relationship to the properties exemplified within our experience ascribed to them.

(XXVI Humean objections against Aquinas' answer -- A. Empiricism entails that the objects of perception must be the deliverances of the senses as such. Denial leads to representationalism)

Hume, as noted, takes as direct consequences of the doctrine that all our knowledge is gained by means of experience that the primary objects of perception are the quantitatively and qualitatively determinate deliverances of the senses, and that all other, secondary objects are like them in kind. The point is fundamental to Hume's position, and just how fundamental it is is indicated by the fact that he nowhere argues directly for it, but only indirectly, by drawing out the consequences which he believes follow on its denial. When he sets forward his distinctions between simple and complex impressions and ideas in the opening pages of the Treatise , he takes the implication as obvious. In other places he makes it plain that its denial is objectionable because it would require that we suppose the function of the senses to be the representation to us of something that could not be experienced. We

might expect Hume to follow Berkeley in presenting Aquinas with the option of believing that the senses represent to us "a something, I know not what," or something known in independence of the senses, our prior knowledge of which is either merely triggered by the senses or related to the senses in no important way. In either case, the objects of experience or perception could not be identified with the objects of knowledge, as Aquinas claims. This charge of a seriously flawed representationalism to Aquinas' account will be taken up in the second section of this chapter.

(XXVII Humean objections against Aquinas' answer -- B. Aquinas' intellectus represents a power for gaining knowledge in independence of the senses)

Hume also takes as a direct consequence of empiricism an imagist theory of thought, according to which our thought can consist only in the comparison and arrangement in associative patterns of ideas alike in kind to impressions. This, as we have noted, presents Hume with an unacknowledged difficulty with respect to formal concepts, a point which, we concluded, could not profitably be pressed by an advocate of St. Thomas in the absence of a preferable account. We will return to this. We have argued that Hume must at least allow, in the instance of universals of sense, corresponding entities in the mind different in kind from the quantitatively and qualitatively determinate deliverances of the senses. Whether Aquinas is right in advocating the view that the mind possesses much wider powers for entertaining a much wider range of entities of this kind will be

another matter to be discussed. Finally, it will have to be asked wither Aquinas might justifiably be accused of rationalism.

(XXVIII Humean objections against Aquinas' answer -- C. Aquinas does not adequately reckon with scepticism)

It must be admitted that Aquinas was not a sceptic about common sense claims to knowledge or claims to knowledge made on the basis of disciplined inquiry legitimated according to the canons of the tradition of inquiry in question. He is not concerned with demostrating the existence of the things of which we believe our senses inform us, or with arguments to show that esse est percipii is not true of the objects of perception acceptable to a Berkeleyan or Humean. In fact, as has been mentioned, he often argues from the fact that a claim would lead to scepticism that it cannot be tolerated. This subject will be raised briefly in the second part of the chapter. To discuss it in detail would take us very far afield.

(XXIX Humean objections against Aquinas' answer -- D. Nominalism, the imagist theory of thinking, and Hume's criteria of identity)

From the imagist theory of thinking follows the radical nominalism advocated by Hume in the section of the Treatise discussed at some length in chapter one, "Of Abstract Ideas." It is from this source that Hume has his theory of identity, strictly speaking, according to which supposedly different items are identical if and only if there exist no differentia, whether qualitative or quantitative, by means of which they could be distinguished. So, for

instance, if the red ball gains a scratch, disfiguring the surface, it cannot, so long as we are speaking strictly, be said to be the same ball before and after the scratching. We ignore this in common speech simply out of convenience. On the modification of Hume's nominalism to allow universals of sense, Hume must allow that, in their case, there can be conditions which serve to distinguish occurrences of the universal quantitatively, but not qualitatively. We might reformulate a Humean principle of identity along the following lines. "Supposedly different items are identical if and only if there exist no qualitative differentia specifiable in terms of sense which would serve to distinguish them." And perhaps we ought also to include relative differentia, such as might be specified by spatio-temporal terms. Professor Brenton Stearns has suggested to me that Hume would not allow that a series of qualitatively indistinguishable sense data formed a numerically identical object, and this seems probable. With or without the additional condition, substances fail Hume's test for identity both because their principle of identity, their form, is abstract and indeterminate, and therefore cannot be defined in terms of sense, and because the substances, considered not merely as exemplifying a form but rather as determinate, exemplify different sensible qualities at different times. Each such difference would serve as a differentia precluding identity on Hume's account of identity. Whether Hume's criteria are overly strict will need to be discussed.

(XXX Humean Objections against Aquinas' answer - E. Substance)

The previous four Humean objections against Aquinas' answer to the ontological question are epistemological in character. The fifth objection is against the notion of substance itself, an ontological objection. There are at least two proposed definitions of substance given by Hume to which he objects. One is the definition mentioned above, according to which the term designates an "unchanging simple substratum" corresponding to the common objects of thought and speech. Another is the definition, also mentioned earlier, according to which substance is "something which may exist by itself." Considered as characterizations of Aquinas' doctrine, both definitions miss their mark. Aquinas would find them as inadequate as does Hume, and for at least some of the same reasons. The first definition seems to express the "pincushion" view, according to which attributes are pins stuck in a cushion of which they tell no tale. This is not Aquinas' view, as explained. Similarly, the second definition does not express anything like Aquinas' doctrine. Aquinas does not say that substances in general may exist without accidents, nor that substances are generally dependent on nothing outside themselves for their existence and character. The independence ascribed to substance is simply with respect to accidents, and this would need to be expressed by any definition claiming to explain his view. Of course, Hume was not addressing Aquinas in particular, but surely, had he been familiar with a more adequate doctrine of substance in the "antient" philosophy that the one he attributes to them generally, he would more adequately have represented it.

(XXXI The most important ontological difference between Hume and Aquinas lies in Hume's disallowance and Aquinas' allowance of a variety of modes of being)

The really important difference with respect to ontology between Hume and Aquinas is that Hume wishes to permit only one real as opposed to "feigned" mode of existence to all things: that common to impressions and ideas. This is the mode of existence of a quantitatively and qualitatively determinate deliverance of sense, an "internal and perishing existence."[35] Because this mode of existence is supposed to be common to the objects we perceive and conceive and the images and thoughts by means of which we consider them, Hume disallows that something which in reality may be inseparable (e.g. this apple and the redness true of it) may in thought be distinguished and considered separately. Aquinas, on the other hand, holds "existence" to be a predicate, though applied in different senses, related to each other analogically.[36] He can hold this view because he believes that what is inseparable in reality may yet be separable in thought. Hence, even "being," which notion enters (on this view) implicitly or explicitly into our every thought, may be considered in abstraction from things said to exist. It is granted that it is a peculiar sort of predicate, suffering from the fact that, as Peter Coffey puts it, being of all notions "widest in extension" it is "poorest in intension."[37]

(XXXII Reasons for turning to epistemological matters)

Hume's arguments against the notion of various modes of being

are epistemological. He does have such arguments, though he never addresses the question by name. Rather, he attempts to establish for simple ideas and impressions a primacy which would preclude any such distinction. However, we have argued that he must allow one such distinction, so that, on the revised interpretation of Hume we have given, the status of perceptions$_1$ does not preclude all, but only most, of the distinctions Aquinas wishes to make. As Aquinas' answer to the ontological question cannot be tenable without this sort of distinction, we will have to return to epistemological questions properly to evaluate it in the light of Hume's philosophy. We will then be in a better position to discuss the relative merits of Hume's own answer, given the status he attributes to perceptions$_1$.

EPISTEMOLOGICAL PROBLEMS

Experience: The Nature of Sensation and Perception

(XXXIII Introduction: Aquinas on Sensation and Perception)

Austin Farrer, in Faith and Speculation gives the following formulation of the empiricist principle, the sine qua non of what it is to be an empiricist. "We can think about [and so can have knowledge of] no reality about which we can do nothing but think."[38] We must be able to be acted upon or to act upon the objects of knowledge, or to understand them on analogy with things

upon which we can act, as, for instance, when we understand the motion of the planets in terms of laws we believe account for the movement of familiar objects around us.[39] This view is very close in spirit to Aquinas' dictum. What is worthy of note in comparing such a formulation to Hume's version of empiricism is that it places epistemological priority upon objects and their acts rather than upon sensations or ideas. On Aquinas' view, our knowledge begins not with sensations, from which objects different in kind from them are (invalidly) inferred, but from the ability to recognize an object (in a sense wider than "substance," but of which "substance" is archetypical) or kind of action. We begin to have conceptual, reflexive knowledge when we can name what we recognize, and use the name consistently in speech. Were it possible to analyze a term in terms of universals of sense, it could only follow on prior knowledge of this sort, on Aquinas' view.

> ...the human intellect does not immediately, in first apprehending a thing, have complete knowledge; rather, it first apprehends only one aspect of the thing - namely its whatness [Footnote: What the thing is, its essence, whether generic or specific...], which is the primary and proper object of the intellect - and only then can it understand the properties, accidents and relationships incidental to the thing's essence.[40]

On this view, knowledge is first a relationship between objects considered as wholes. Only secondarily is it a relationship between constituent parts of the knower and the known, or between their respective actions. That which is produced in the knower in response

to what is known, i.e. the deliverances of the senses and concepts or intentions, is of tertiary importance at best.

(XXXIV Phantasms and Aquinas' litany of sensory powers)

Aquinas' closest equivalent to Hume's "perception" is "phantasm." "Phantasm" indicates both sense percepts and "pictures," to use a visual metaphor, produced in the percipient by the imagination, like the deliverances of the senses in kind, but generally unlike them in intensity.[41] Our capacities for entertaining phantasms are sensation, on the one hand, and imagination, on the other. Imagination (phantasia or imaginatio) is distinct from sensation in that in the exercise of the imagination we are able to take active part in the formation of sensory images and of associative relationships between them, and we are able to conserve what is presented to the senses for later reference[42] on the prompting of memory. Aquinas categorizes imagination as one of four "interior" senses. In addition to imagination, there is the common sense (sensus communis), that "enduring and pervasive centre of awareness from which the special senses are derived and to which they refer."[43] Because of their reference to this centre of awareness, according to Aquinas, we are able to distinguish and sort through the deliverances of the external senses[44] and to recognize the common sensibles, those qualities which are not the proper object of any one sense organ, but of more than one, like shape, number, size, and movement, for instance.[45] Thirdly, there is our ability to apprehend what cannot properly be said to be the

objects of the senses as such, as, for instance, the utility of a thing. Fourthly, memory conserves our experience in such a way that we may profit from it in the future.[45]

(XXXV Our faculties are distinguished by their objects and their activities)

It is commonplace quickly to reply to a list such as Aquinas' list of interior senses that it belongs to a discredited faculty psychology, rejected on much the same sorts of grounds that have led psychologists to be suspicious of explanations in terms of "instincts" or "natures." Whenever an interesting human capacity or activity in which intelligence is manifest is discussed, it is "explained" by postulating a corresponding "faculty," just as, so the argument runs, puzzling behaviour is easily "explained" by postulating a corresponding "instinct," or chalking it up to human "nature." The answer to this accusation is that it rests on a misunderstanding of Aquinas' intent. For better or for worse, Aquinas is not addressing a question of modern psychology. He is simply listing the various sorts of capacities we evidently have, given the various sorts of thing we evidently know, an unabashedly common sense (in our modern sense of the term) sort of procedure. He is explaining in the sense that he is making distinctions intended to enable us to direct our attention to aspects which we might otherwise neglect, and to think more precisely than would be possible without the distinctions. He is not replacing the investigation of all that might be found were the phenomena considered abstractly as exemplifying the

concepts of this or that tradition of disciplined inquiry.

(XXXVI Sensation and Abstraction Contrasted)

Whatever may be said about Aquinas' philosophical psychology, it is the relationship between sensation and conception that is of interest here, and we need not decide finally on the former to investigate the latter. The two most important elements in this relation are our capacities for sensation and abstraction.[46] The former includes all our abilities for receiving, organizing and recalling the objects of knowledge and perception as they are present to us _qua_ sensible, and the latter all our abilities for receiving and forming concepts of the objects of knowledge and perception, and organizing and recalling them as they are present to us _qua_ conceivable or knowable.

(XXXVII Phantasms and Intentions Contrasted)

Aquinas contrasts the objects of knowledge as they are expressed in the proper objects of the sense organs (phantasms) and as they are expressed in the concepts which approximate the form which is the proper object of the intellect[47] in a number of ways. Phantasms are spatially and temporally determinate individuals,[48] whereas concepts may abstract from determining conditions, whether spatial, temporal, qualitative or quantitative, and represent the object in a mode of being appropriate to universals, i.e. immaterial in the restricted sense discussed earlier.[49] Whereas phantasms are signs, representing to us contact with a possible object of knowledge that is subjective in that this particular contact is true only of

us,[50] the same is true, on this account, of concepts of either order. Intentional existence is mind-dependent, but its dependence is not defined with respect to any mind in particular.[51] Individuals may form intentions in response to the deliverances of the objects of knowledge as such, but essences or forms of the objects of knowledge insofar as the subjective contacts of one or many people with those objects resulted in the formation of concepts expressing their respective forms or essences. While intentions are not public in the sense that they are potential objects of experience for many perceiving subjects, they are public in that when they are expressed in aural, visual or tactile symbols, they are communicable. Moreover, phantasms, being material, are not knowable as such. Only the universals of which they are the bearers are knowable. In all these respects, then, phantasms differ from concepts, and not merely with respect to "force and vivacity," as in Hume's account of the relationship between "impressions" and "ideas."

(XXXVIII For Aquinas, the epistemologically crucial relation of identity between phantasms and concepts is identity with respect to the qualitative and generic universals entertained in the senses and the intellect in modes of being appropriate to each, and not merely the specific universals)

Aquinas' allowance for differences in kind between phantasms and concepts, and between both and the objects known by means of them, does not lead him to countenance scepticism. He is not concerned with identity between what is known and what is conceived expressed in

universals of sense, as would be the case if the relationship were stricty analogous to the relationship between an image and the concept imaged. Rather, the epistemologically important sort of identity between them is identity with respect to that about an object which makes it a thing of a particular sort, including both qualitative and generic universals, as well as the specific universals we have argued Hume must allow. So long as there is identity with respect to the universal in question, there need not be identity with respect to the mode of being in which it exists or is entertained.

> ...when it is said that that understanding is false which understands a thing other than as it is, the statement is true if 'other than' refers to the thing understood. For the understanding is false whenever one understands a thing to be other than it is; hence the understanding would be false if one should so abstract the species of stone from matter that he would understand it to exist apart from matter, as Plato held.
>
> The proposition, however, would not be true if 'other than' were taken as referring to the one understanding. For there is no falsity if the mode of understanding in the one who understands is different from the mode of existing in the thing - a thing understood is in the one who understands in an immaterial way, according to the mode of a material reality.[53]

In perception, then, form or some other universal exists first in the particular object as that about it which makes it an thing of this or that kind (the biological structure by virtue of which the frog is a frog, the various properties of the leaf such that it is a yellow leaf, and so on). It then exists in the senses or the imagination stimulated by memory in an inchoate manner as determinative of their

particular deliverances. Thirdly, it exists in the intellect insofar as it is adequately represented by the intention formed by the intellect in dependence upon the senses. Fourthly, it may be viewed as existing in the percipient as such, in which case it is said to inform the percipient accidentally, as was discussed earlier.[54]

(XXXIX Aquinas' critique of representationalism and his arguments for the claim that sensations and concepts are primarily means and only secondarily objects of knowledge)

Aquinas is aware of the objection against this account that, because the objects of knowledge must be what is immediately present to the mind, all other supposed "objects" of knowledge must be known by means of inferences which prove invalid because they move to objects different in kind from the objects of perception, properly so called. This is, in essence, Berkeley's objection against Locke. Aquinas, however, would argue that Locke's error consisted not in taking the senses to be means through which we are presented with objects different in kind from sensations, but in allowing the premise that the objects of knowledge must be what is immediately present to the mind. On Aquinas' view, both phantasms and concepts represent to us what is different in kind from either, but the way to avoid scepticism is not to deny the existence of what is presented, but to deny that the proper objects of knowledge are what is immediately present to conscious awareness in the form of sensations, concepts, or thoughts. He justifies the claim that sensations and concepts are merely the media of knowledge and only secondarily

objects of knowledge by means of arguments derived from Aristotle's Metaphysics , the first appealing to common sense, the second complaining that the denial of the claim subverts reason.

> Some have held that our cognitive faculties know only what is experienced within them, for instance, that the senses perceive only the impressions made on the organs...The opinion, however, is obviously false for two reasons. First, because the things understood are the same as the objects of science [i.e. knowledge or understanding]. Therefore, if the things we understand were only species existing in the soul, it would follow that none of the sciences would be concerned with things existing outside the soul...
>
> Second, because a consequence would be the error of the ancient philosophers who said that all appearances are true , implying that contradictory opinions could at the same time be true. [He gives the example of a healthy man who tastes honey and finds it sweet, and a sick man who, trying the same honey, finds it bitter.][55]

(XL Aquinas' first argument and the validity of the appeal to Common Sense)

It is worthy of note that Hume's argument for the status of "perceptions" as the objects of perception and knowledge rested first upon an appeal to common sense, just as does Aquinas' argument for the quite different status he wishes to attribute to phantasms and intentions. Perhaps the fact that such an appeal is made rather than providing a demonstration of the claim in accordance with previously established principles ought to be taken as indicative of how fundamental to their respective account of knowledge is the status of the deliverances of the senses. The sceptic may press either by casting doubt upon the status attributed, but Hume, his appeal to

common sense failing, would problably reply simply by insisting that the point is obvious to any who consider it carefully. Aquinas, in characteristic fashion, would probably quote Aristotle to the effect that it is not possible to know anything if there is nothing about which we can suspend doubt, and that the unrelenting sceptic seeks reasons where there is none to be found.[56] Here, at least, Aquinas and Aristotle are closer to Newton than is Hume. For both, the critical mind is the one disciplined in the investigative and evaluative practices of traditions of inquiry, so that epistemologically important scepticism is scepticism which is justified according to the standards appropriate for justified belief in that instance. For Hume, the critical mind is the one which operates in the recognition of the limitations on what can be known and the means to knowledge implicit in his epistemological scheme.

(XLI Aquinas' second argument and the truth and falsity of propositions)

Aquinas' second argument is both intriguing and difficult. His example assumes the existence of entities existing in independence of the knowing subject as a common referent for the "honey" to which the healthy man refers when he predicates sweetness of it (hereinafter "$honey_1$"), and the honey to which the sick man refers, predicating bitterness of it (hereinafter "$honey_2$"). Only if "$honey_1$" and "$honey_2$" are the same is it the case that both sweetness and its contrary are "at the same time and in the same respect" predicated of it, yielding a contradiction. Yet this

identity is precisely what one who believes that "the senses perceive only the impressions made on the organs" will deny. On this supposition, "honey" in each case refers to a complex of sensations true of the man in question, and the relation between "$honey_1$" and "$honey_2$" is left without answer and without the possibility of being answered. Taken at face value, then, Aquinas' argument fails on account of assuming that the objects of perception are not the deliverances of the senses, the point at issue.

(XLII Aquinas' second argument -- Reference and the truth and falsity of propositions about matters of fact)

There would seem, however, to be an issue of legitimate concern behind Aquinas' argument concerning the reference of the terms of which we make use in propositions about matters of fact. As the discussion above indicated, it is only when the terms of the propositions we utter have the same referent, not defined in terms of what is true only of one or the other of us, that the question of truth and falsity may arise.[57] Otherwise, when we make claims on which we both agree we can have no idea whether we are talking about the same thing, whether our agreement is significant or not. As Aquinas might put it, if the objects of knowledge and perception are not public, remaining the <u>same</u> objects without regard to the percipient in question, the terms of our language cannot be public in the sense that they are "communicable," because they do not have the <u>same</u> reference. Hence, Aquinas might continue, the decision to take an ontological category, substance, as of primary epistemological

import, and to regard phantasms and intentions merely as means to knowledge of them is at least partially vindicated. Substances are public, so that it is at least possible that there be intersubjective standards of truth and falsity concerning them, as are their various states, relations, properties, characters, actions, tendencies, and so on, about which propositions may be affirmed and denied as well.

(XLIII The sceptic's reply to the objection against the claim that "the senses perceive only the impressions made on the organs" that it undermines rationality by denying the common referents for the terms of propositions)

How might a thoroughgoing sceptic reply to the arguments we have advanced on Aquinas' behalf? A sceptic might grant that the consequences St. Thomas draws from the claim that our cognitive faculties known only what is experienced within them do in fact follow, but simply accept the consequences and add the argument to the arsenal of arguments of similar conclusion. The pith of the argument used as an objection to the claim at issue is still an appeal to common sense against scepticism. The second argument is really an appeal of the same kind as the first, urging us to accepts substances as the objects of knowledge and perception in order to escape counterintuitive conclusions. The sceptic, not having vested interests in the conceptual status quo , will be willing simply to dismiss the intuitions of common sense as false or at least incapable of justification. Furthermore, the sceptic might add, if one were not to be a sceptic, one need not take substances as the basic

ontological category, as defining the basic sort of public entity. For instance, it has been argued that "one cannot actually tell whether this substance is the same as some previously seen substance unless one can identify it by reference to properties it has."[58] Properties, events, or some other sort of thing might be taken as the primary "objects" of perception and knowledge.

(XLIV A Humean reply to the objection against the claim that "the senses perceive only the impressions made on the organs" that it undermines rationality by denying common referents for the terms of propositions)

The sceptic has not exhausted the possible replies. One might, as does Hume, give up the supposition that the entities which are primary in the order of perception or experience are primary in the order of knowledge and belief. So Hume makes perceptions$_1$ primary in the former, and allows that the objects of belief and knowledge are the hats and dogs of ordinary speech and thought. But how, Aquinas might answer, will this enable Hume to gain public objects, such that the dilemma is overcome? Consistent with his usual practice, we might expect Hume to reply somewhat as follows. We cannot seriously be sceptical about matters of common experience and to which or common speech attests. Just as it is senseless to ask "whether there be body," and only sensible to ask concerning the conditions under which we speak of body, we cannot avoid the supposition that there are other beings much like us of which we are aware through our senses, their action and speech being so closely

analogous to our own in so many ways. So long as their speech and actions continue to be in accordance with the supposition that their world of perception is systematically related to ours, the sceptical question is without point. We cannot sustain the doubt it would suggest. For all the purposes of common thought and speech, our world is public. What is important, however, is that our perceptions and conventions for organizing our experience be systematically related, so that we can detect illusion when we or others are deceived by their senses. Moreover, the philosopher need not show exactly in what their being systematically related consists in order to make the claim with justice, but may grant that it is a matter of "original causes," of which Hume, for one, does not pretend to speak. All that need be done is point to the fact that we ordinarily have no reason for supposing the contrary from the actions and speech of our fellows, and that, when we do have some reason for supposing the contrary in some particular case, there is ususally explanation to be found to account for the abnormality, lending further support to the supposition of systematic interrelatedness.

(XLV A possible Thomist reply to Hume's account of the "public" character of the objects of perception and knowledge such that significant discourse is possible)

What might a Thomist reply to the sceptic and the Humean? To the sceptic, perhaps only an elaboration of what has already been said. It is unreasonable to ask a question native to a tradition of inquiry and simultaneously to call into question the legitimacy of all the

tradition's means for its answering. All of our various traditions of inquiry in both common life and the special disciplines assume the existence of public objects of inquiry. If it is replied that philosophy is a distinct discipline, with its own questions and traditions of inquiry, this is easily granted. But, a Thomist would add, philosophy does not rest on a distinct sort of experience, but reflects upon traditions of inquiry and their assumptions and conclusions which are at least potentially common or public, if they are not actually so. To the Humean, the question might be addressed, if we cannot get on without thinking and acting as if our terms referred to public objects, events, properties and the like, in what lies the justification for taking the deliverances of the senses to be the objects rather than the means of knowledge and perception? Hume does not argue for this claim,[59] it is not at all self-evident, and leads to a wide variety of counterintuitive consequences. Hume himself grants that reasoning concerning matter of fact is dependent upon belief in a causal order of objects. Moreover, Hume's insistence that to suppose the objects of knowledge and perception different in kind from the deliverances of the senses will terminate in scepticism is problematic. In the first place, as we have seen, Hume must himself allow a distinction in kind between perceptions and concepts, at least in the instance of universals of sense. Furthermore, as Hume himself grants, he has no compelling answer to scepticism in the form of an argument that conclusively refutes all forms of it, but only the sure conviction that the firmly

established habits of nature will not be overcome by the "scholastic quibbles" of the sceptics. Scepticism need follow from distinctions in kind between objects, sensations and concepts only where it is granted that the latter two are primarily objects and not means to knowledge, and, the premise not being obviously true and having objectionable consequences, it requires independent support that is not forthcoming to be cogent.

(XLVI A problem with Hume's account of the common, public subjects of predication)

The Humean suggestion that systematic relatedness among our perceptions may account for the "sameness" true of objects as they are perceived by different percipients, such that reason is not undermined, without appealing to anything different in kind from the deliverances of the senses, resembles scepticism in one respect, at least. It is not a suggestion that can be finally refuted. If the suggestion has bizarre consequences, they are not demonstrably false, except on the supposition of common sense premises the Humean would deny. However, as we have shown, Aquinas' position, that phantasms and intentions are means and not primarily objects of perception, has not the same counterintuitive consequences.

(XLVII Hume does not succed in providing criteria for distinguishing between psychological and physical phenomena consistent with his epistemological scheme)

There remains a further reason for believing Aquinas closer to the truth on this matter than Hume in that Hume does not successfully

account for the "sameness" true of public objects. In an important way, for Hume all our "sense impressions" are on a level. All of them being "distinct and separate existences," they tell no tale as to their relationship to any other things. In particular, we cannot know external physical objects by means of them, insofar as these differ in kind from them. Rather, the constancy and coherence of certain "internal and perishing existences," the perceptions which alone are present to the mind,[60] determines the mind, activating "principles of the imagination which make us suppose that some objects exist unperceived."[61] It is thus the "patterns or sequences" in which pereptions occur which is to account for our ability to distinguish "external" from "internal" perceptions, and reality from illusion.[62] "External" perceptions occur in conjunctive series, the members of which either sufficiently resemble each other or change in an ordered and identifiable fashion so that they may be considered together whenever such a series occurs, whereas "internal" perceptions, _ex hypothesi_, must be "wild" or unpredictable.[63] Yet, as William Haymond argues, this is inconsistent with Hume's general position. Hume does not wish to say that "wild" perceptions are uncaused, a position that is indefensible in any case.[64] We do, in fact, distinguish between reality and illusion, though perhaps too seldom, and when we do, we do not say that our illusion was without cause, but that the cause was the wrong one. How, then, is Hume to account for constancy and coherence among our "internal" impressions? In doing so, he must not undermine his

own Science of Human Nature, the essence of which is to analyze psychological phenomena in terms of certain mechanisms, which, as all causal principles must be, on Hume's view, can only be laws of association covering certain sorts of experienced "constant conjunctions."[65] Yet he must not make us completely incapable of distinguishing between illusion and reality in allowing that "internal" impressions cannot be defined in terms of a lack of causal regularity, i.e. constant conjunction. He does, in fact, make such an allowance concerning our "passions," but he immediately adds that the connections between our passions are not of a sort to lead us to suppose that they are external. This begs the question in what the difference between external and internal impressions, physical and psychological phenomena consists.[66]

(XLVIII There is reason to believe Aquinas' view that phantasms are the means rather than the objects of knowledge and perception is closer to the truth than Hume's view that they are, in an important way, the objects of perception)

Hume, then, does not successfully account for the distinction between psychological and physical phenomena.[67] As a consequence, he is unable to account for our ability to distinguish between reality and illusion, and so falls prey to Aquinas' objection against supposing phantasms or intentnions to be the objects of perception that, having rejected objects which are public and so different in kind from the deliverances of the senses as the primary or archetypical objects of knowledge and perception, it will always be

impossible to make this distinction.

(IL Identity -- Introduction)

The question must be asked whether Aquinas' account of that "sameness" or identity which he argues is a necessary condition of the exercise of reason is in any way preferable to that given by Hume, which we have argued is severely problematic in important ways. In order properly to answer this question, it will be necessary briefly to discuss the notion of judgment as it pertains to the affirmation and denial of propositions, the notion of reciprocity, and the notions of connotation and denotation.

(L Judgments and Propositions)

Aquinas restricts "judgment" to the affirmation and denial of propositions. The terms of propositions being intentions of either the first or second order, the relationship that is affirmed or denied in judgment is rationate and not real. In this way, two problems which plague accounts of judgment are circumvented. The first is that of whether perception, as such, involves judgment. To this, Aquinas would answer "no." We generally do not form propositions expressing the content of our experience, and only when there is particular occasion for doing so consider the objects of perception in sufficient abstraction to do so. On the other hand, when we learn to distinguish a certain object in or repeated feature of our environment, our learning inevitably involves the ability to consider that object or feature intentionally, i.e. as represented in thought by a concept, and it is but a short step to judgment and

propositional thought concerning it. Hence Aquinas need not suppose us constantly to be judging. A second problem is that posed by negative propositions. Because propositions express rationate and not real relations, it need not be thought that propositions like "The dog is not white" predicate peculiar negative properties, in this case "not-whiteness," of quite unremarkable objects of perception and knowledge, here the canine in question.

(LI Two major differences between Hume and Aquinas on Identity)

The rationate relation between the subject and predicate terms in all propositions is a relation of identity or non-identity, according to Aquinas. By virtue of this claim, Aquinas' account of identity may be distinguished from that of Hume in two fundamental ways. As we have read Hume, he does not do away entirely with the notion of identity, but restricts it to identity with respect to universals of sense, all other forms being "feigned" and "identical" only for certain practical purposes. Furthermore, as we have read him, he does not categorically deny that identity with respect to content is compatible with difference in mode of being, for he must allow that a particular shade of green (the content) may exist either in the mind as a concept or as an instance of that shade in particular deliverances of the senses (the modes of being). However, Aquinas allows a larger class of universals with respect to which such identity is possible, and a much greater variety of modes of being in which they may exist. A second major difference between Hume and Aquinas on identity is that Aquinas allows relations of identity

which are not reciprocal, as well as those which are, whereas Hume does not. This will require some explanation.

(LII Reciprocity)

Reciprocity is a relationship of equivalence in meaning between concepts. So, for instance, Plato and Socrates considered as individuals, are different, and the concepts which express our understanding of them differ in meaning. Plato and Socrates considered merely insofar as they are human are the same, and the terms which express our understanding of them so understood are equivalent in meaning. For Hume, as noted, identity in the strict sense can only be identity with respect to universals of sense. Hume also insists that what can be distinguished in thought can also, "without any absurdity or contradiction," exist apart in reality. The clear implication, although one that Hume himself does not draw, not having looked at the problem in this way, is that a single simple impression or idea cannot be an instance of more than one universals of sense. If an impression was an example of more than one universal, it would be possible to distinguish in thought what was not in reality distinguishable. This would, in turn, undermine Hume's imagist account of thought, and much of the reasoning behind his most scathing remarks on the "unintelligible cavils" of the Scholastics, as we have seen. Aquinas, on the other hand, distinguishing between real and rationate existence, allows that what is not distinct really may be distinguished rationately. The objects of perception and knowledge as they are conceived likewise include more than the

various class concepts under which they may be placed, and in particular, the concepts of genus and species in the case of material substances. Such objects may be considered together as a class under a second order concept, and hence as identical with respect to the second order concept in question, but not with respect to first order concepts as such or with respect to the real being of the objects represented in thought by either sort of concept.[68]

(LIII Connotation and Denotation)

"Connotation" indicates that character or those properties in terms of which the meaning of a concept is specified.[69] "Denotation" indicates that object or class of objects to which a concept refers. The distinction is important, because it is a consequence of Hume's restriction on the sorts of objects we can perceive and the universals we can entertain that the meaning or connotation of a concept can be distinguished from its denotation only in the case of universals of sense, which, as was discussed earlier, undermines the entire fabric of Aquinas' account of the end of disciplined inquiry, i.e. knowledge of essences. On Aquinas' account, the connotation of a concept may change through changes in science, for example, while its denotation remains constant. This is true because the form of a thing remains constant, so that the concept does not change with respect to the form it represents in thought, but only with respect to our understanding of it. Identity with respect to the connotation of a term cannot be distinguished in this way by Hume because of Hume's imagist theory of thinking. The

relationship between objects and concept being, on this view, closely analogous to the relationship between scene and image, to change a concept, either by altering an image or the habits of association by means of which other instances of the same sort of thing are recognized, is to change the sort of objects which might be represented by means of it. To change the connotation, ultimately analyzable in terms only of sense, is thus to change the denotation, at least potentially. The self-identity of a concept, except for certain practical purposes, is incompatible with any change whatever in respect either to denotation or connotation.

(LIV Identity and the public character of the objects of perception and knowledge in Aquinas)

The most important form of identity in Aquinas' metaphysics is unity in substance, either in the primary sense of that word, in which it indicates "a subsistent individual or supposit," or in the secondary sense in which it indicates form or "whatness."[70] The most important type of identity in Aquinas' epistemological scheme is unity in form, the content of which is imperfectly expressed in the definition of the corresponding concept.[71] The two sorts of entities are never perfectly identifiable,[72] for a number of reasons. However adequately a concept may express the form of a thing insofar as it can be understood, or its character considered as an individual, the concept differs from the thing in not sharing with it its matter, in the case of material substance, or its actuality, in the case of material and immaterial substances alike. Moreover, the

concept differs from the form of the thing and from its individual character insofar as it can be understood in that it constantly falls short of providing a fully adequate comprehension. As we have seen, class concepts which are not reciprocal with respect to their inferiors are not perfectly identifiable with them, but only for the purposes of representation in thought.[73] Yet this is sufficient for the public, communicable nature of knowledge and the public character of the objects of knowledge as possible objects present to many in their subjective experience. Just as a single substance or a kind of substance may have a variety of accidental properties and parts, so in thought our individual concepts may define and describe them in terms of many property-concepts. What is one, from one point of view, may from another point of view be diverse. So long as we are capable of consistently correlating the subjects of predication with substances, objects, events, and so on, having properties, intersubjective standards of truth and falsity concerning claims about them is at least possible. This may be true even where we do not have such standards at a given time or have not formulated them where we do have them.[74]

(LV Objections against the Logic of Identity)

We have noted that Hume's objections against any sort of identity which is supposed to be compatible with diversity, other than that diversity in kind between universals of sense and the impressions and ideas which fall under them which we have argued he must allow, stems from his imagist theory of thought. Identity with

respect to concepts other than universals of sense undermines the entire sense of Hume's claim that we cannot think what we have not felt or cannot feel. The objection against the view that a judgment may express "a duality of connotation in its subject and predicate terms and a unity of denotation in its copula,"[75] that identity is incompatible with diversity is often made by philosophers who do not share many of Hume's fundamental philosophical convictions, among them many of the great nineteenth century idealists. We may hope, therefore, to profit from W.P. Montague's lucid discussion of the chief idealist objection against Aristotelian accounts of identity. He writes

> The objections of the idealists hinge apparently on the fact that a judgment, S is P, asserts an identity while implying diversity. If P is not different from S, then S is P means only S is S. If P is different from S, then S is P means S is not S. Now if S and P are identical in the same sense in which they are different, then...we have on our hands a serious indictment of the Aristotelian judgment and a crying need to replace it...[76]

To this objection Montague replies that the diversity of the subject and predicate terms of a proposition affirmed or denied in judgment is connotative, whereas their unity is denotative.[77] Each affirmative judgment claims that in some subject or set of subjects may be found this property or set of properties, not as distinct parts, but as aspects of a single whole. Montague, believing that the principle of individuation for such individuals is spatio-temporal location, gives the example of the "solid singleness" of a point P_n, the co-ordinates of which are "the eternally diverse lines

X_n and Y_n."[78] The analogy is useful, even given Aquinas' somewhat different account of indivduation of material substances. What is important here is not the question of what fixes the denotation of this or that substantival concept or, considered abstractly, all such concepts generally, but rather the truth of the claim that singularity of denotation is compatible with diversity of connotation.

(LVI Hume's "perceptions" must "really" be one while "rationately" diverse)

The Humean will be tempted to reply that it has been merely asserted and not shown that identity and diversity are not contraries per se . However, Hume's epistemologically basic simple impressions must themselves be "substantial" unities, the various properties of which we distinguish in thought. This was touched upon when it was noted that for Hume the relationship between a universal and its inferiors could only be reciprocal, given that what can be distinguished in thought must be capable of existing apart in reality. It is plain, however, that our "simple" impression of a green rectangular expanse occupying a certain position in the perceptual field of a certain percipient at a certain place and time has a very great number of relational properties true of it as well as at least two straightforwardly sensible properties which may not exist "by themselves": a certain shade of greenness and a certain rectangular shape. If we say that the universal includes both the greenness and the rectangularity which we artificially distinguish,

we do not solve the difficulty how the distinction is possible. Moreover, even if we grant that all the relational properties true of a simple impression may be defined in terms of universals of sense (which is doubtful), if there are to be universals, there must be abstraction from those circumstances indicated by such properties at some point or the universal will have only one instance. This would be to reintroduce the thoroughgoing nominalism which we have argued cannot be sustained. There is, then, some justification for the neo-Scholastic complaint against Hume that, "so far from denying the existence of entities that exist in themselves, he seems to have multiplied these beyond the wildest dreams of all previous philosophers" by making substances of what are accidents produced in the percipient by the objects of knowledge, according to Aquinas' scheme. These are purported to be the objects of perception and from which the objects of knowledge and belief do not differ in kind.[79]

(LVII Hume as a critic of Aquinas' account of perception and his imagist theory of thought)

The most important difference between Hume and Aquinas' respective accounts of the nature of the relation between sensation and perception stem from the fact that Hume accepts and Aquinas does not accept the claim that if knowledge is dependent upon the senses, the objects of knowledge and perception, our concepts of them, and

the deliverances of the senses must be alike in kind. Hume, insisting that the relationship between concept and object is closely analogous to the relationship between a scene and an image of it, would point by point deny the fundamental tenets of Aquinas' philosophy on this premise. From it follows the supposition that simple ideas form, in an important sense, the objects of knowledge, requiring a subsequent account of the public character of the common objects of perception and knowledge and our concepts of them in terms of systematic relatedness of the sense impressions of various percipients, rather than in terms of ontological categories. From it, too, follows the claim that we cannot experience anything different in kind from the deliverances of the senses (in the broad sense in which this includes the passions and the shades of feeling introduced by habitual practice of certain routines), with the result that Aquinas' distinction between different modes of being appropriate to object, phantasm, and concept would be disallowed with only a small set of exceptions. The distinction between real and rationate existence must similarly be rejected, there being no substantial self in terms of independence and dependence upon which these modes of existence may be defined. Indeed, from this premise follows the rejection of all that cannot be imagined, that is, all that is not qualitatively and quantitatively determinate, as inconceivable and unintelligible, including most of the central concepts and distinctions of Aristotelian metaphysics. The only intelligible form of identity being identity with respect to universals of sense, the notion of

substantial identity and the corresponding logic of predication must be rejected. The connotation of substantival general terms must be explicated in terms of universals of sense, so that it cannot be the end of disciplined inquiry to gain a more adequate grasp of a thing's nature. Aquinas' account of judgment as an operation different in kind from conception must be rejected. It requires forms of identity between subject and predicate(s), and between the corresponding objects and properties, which Hume believes impossible. With respect to the first, Hume would object that it involves identity with respect to generic and qualitative universals. With respect to the second, he would object that this account rests on the supposition that what can be distinguished in thought may not always exist apart in reality.

(LVIII Problems for Hume's view)

While it must be granted that all these difficulties follow for Aquinas' account of the relation between sensation and conception once the central tenets of Hume's imagist theory of thought are granted, there are serious problems with these tenets. In the first place, the premise that perceptions are not primarily means to knowledge of things different in kind from them is defended only by an appeal to common sense. However, this claim has counterintuitive consequences which do not follow from Aquinas' claim that phantasms (and intentions) are primarily means to knowledge of thing which differ in kind from them, so that, if common sense is the judge, Hume is worsted. Secondly, Hume must and, tacitly, does allow that the

mind can entertain entities different in kind from the deliverances of the sense, undermining his critique of abstraction on the grounds that any such distinction is impossible because it is unimaginable. Thirdly, his account of the public character of our concepts and the objects of belief they define and describe is unsatisfactory, not adequately accounting for the distinction between psychological and physical processes, and between reality and illusion. Fourthly, Hume is faced with a very great difficulty indeed to account for formal relationships between concepts in terms only of association of ideas and comparison of sensible images. These problems together cast doubt upon Hume's claim that from an account of our sensory capacites the empiricist may define the limits of possible knowledge. If the limits of the sorts of things we can experience are not fixed at universals covering the deliverances of the senses, a priori limits on what can form possible objects of knowledge will be difficult to set or discover. In the remainder of this chapter, we will be chiefly concerned with Aquinas' account of formal relations between concepts, knowledge of "objects" falling under qualitative universals, and the question of empirical method.

The Nature of Reason and of Universals

(LIX Aquinas' account of reason crucially depends upon his account of abstraction. Our discussion of reason will thus begin with a discusion of Humean objections to Aquinas' doctrine of abstraction)

According to Aquinas, intentions are abstract thought-objects, different in kind both from the objects of perception and knowledge they represent in thought and the deliverances of the senses in dependence upon which they are formed. Propositions affirm or deny relations of identity, called nexus . The terms of propositions are intentions, so that nexus resemble intentions in respect of being abstract and immaterial. Judgments are expressed in propositions, often affirming or denying something on the basis of certain evidence. To be reasonable in making a judgment is to apply evidence relevant to the nexus expressed by the proposition in which it issues. This is true of both a priori and a posteriori reasoning, although the type of evidence is different in each case. Hence Aquinas' account of reason depends crucially upon the existence of abstract and immaterial entities. Given that Hume disallows such entities with the exception only in the case of universals of sense, it is appropriate to begin our discussion of Aquinas' account of reason with a discussion of Hume's criticism of abstraction.

(LX Kemp Smith and Aaron maintain that Hume's imagist theory of thinking is not crucial to his fundamental position, which is the limitation of the knowledge to the realm of appearance)

As noted in chapter one, both Norman Kemp Smith and R.I. Aaron agree that Hume nowhere demonstrates that all abstract or general ideas must be images, or that the mind cannot entertain what cannot be represented by means of images. Aaron and Kemp Smith each go on to maintain that the imagist theory of thinking is not crucial to most

of Hume's central epistemological claims. Kemp Smith includes Hume's nominalistic account of generality, with its substitution of similarities for universals and custom for abstraction, among consequences of Hume's imagist theory not crucial to Hume's general position. It must be asked, however, in what does Hume's general position consist if not in the development of an imagist theory of mind and the working out of its consequences? Kemp Smith suggests that Hume's most important epistemological claim consists in the limitation of the realm of knowledge and perception to the realm of appearances, i.e. to the realm of the deliverances of the senses qua sensible. An examination of each of Hume's arguments for such a limitation will show, however, that each rests on the imagist theory of thinking all are agreed is inadequate.

(LXI Limitations Hume places on knowledge are, we shall attempt to show, consequent on his account of entities the mind can entertain)

Why must we limit the realm of knowledge to the realm of appearances, according to Hume? Chiefly because we cannot entertain concepts different in kind from the deliverances of the senses, so that there can be no intelligible relationship between experience and the object supposedly experienced insofar as the the object is supposed to be different in kind from perceptions$_1$. In Hume's critique of abstraction he provides the arguments he believes fatal to all accounts of the powers of mind which allow that we might conceive such objects, forming ideas "abstract in our conception of

them."

(LXII Summary of Hume's critique of abstraction)

As noted earlier, Hume argues that we cannot entertain abstract ideas corresponding to qualitative terms because this would require that there be some common determinate quality exemplified in every instance falling under the term. Hume believes this not only to be false, but impossible. Each instance of the determinate quality could be distinguished from the corresponding instance, categorized by the qualitative term, leaving their relationship unaccounted for. Against ideas "abstract in our conception of them" corresponding to generic terms, Hume objects that such ideas would have to image all or none of the members of the class denoted by the term, which is impossible. In particular, Hume objects to the notion of "essence" as indicating that which is common to a class of things alike in kind in the same way he comes to reject qualitative universals. What can be distinguished in thought can be distinguished in reality, he says, and if "essence" could be distinguished from the objects exemplifying it, the two could exist apart, having no relationship but that of conjunction. Moreover, if it is supposed that our idea of this or that essence indicates a mode of being that is indeterminate with respect to the deliverances of the senses, by means of which instances are known, Hume would reply that, the basic units of experience being determinate and individual, ideas cannot rightly be said to originate in experience unless they are likewise determinate and individual. Hence we could have no idea in terms of which the

self-identity of all the members of a class could be defined that was not itself self-identical and the same in kind with the deliverances of the senses.

(LXIII Each argument rests on the assumption that we cannot think what we cannot imagine)

In each of the above arguments, the assumption is made that we cannot think what we cannot imagine. Without this assumption, each argument loses its force. If our generic or qualitative concept is not an image, the consequences Hume draws from the supposition that we may entertain it do not follow. If it is true that if the relationship of image to scene imaged is not paradigmatic of the relationship between concept and that which is conceptualized, and if empiricism is true, so that concepts are formed in causal dependence upon experience, _contra_ Hume there are causal relationships between perceptions and what are different in kind from them. But in the absence of cogent arguments to the effect that thoughts are to be understood on analogy with images, there seems little reason to believe this to be a problem.

(LXIV Objection #1: Hume himself later grants a difference between impressions and some ideas)

It may be objected that we are not dealing fairly with Hume. He himself eventually grants, in the Appendix to the _Treatise_ and in the _Enquiry_ , that ideas and impressions may differ with respect to the way in which they feel in addition to differences of "force and vivacity." This could provide merely a stopgap solution to the

difficulty at hand, however. Either the difference in feeling arises from some difference in kind, or it does not. If it does not, the fundamental point remains that we cannot conceive anything different in kind from impressions. If it does, we must know in what this difference consists, and why it is not disallowed by Hume's own arguments.

(LXV Objection #2: We have ignored the fact that we have already allowed Hume specific concepts different in kind from impressions)

A second argument in Hume's defence might be that we are surely beating a horse we granted was dead long ago. Did we not agree to read Hume as allowing one class of ideas "abstract in our conception of them" corresponding to the specific universals exemplified in our simple ideas and impressions? Yes, indeed we did. A distinction must be made, however, between this plausible position, which we agreed to read Hume as holding, and the consequences of arguments which he presents against the notion of abstract ideas in general. It may be, and we maintain that it is the case that these arguments, if successful, would make impossible even the revised position we have attributed to Hume. Hume's arguments support the position that concept is to that which is conceptualized as image is to that which is imaged, with the addition of associative mechanism to account for the fictional identity we attribute to them when the resemblance is inexact.

(LXVI Hume's objections against overly "subtil" accounts of general ideas)

As noted previously, Hume not only presents arguments against abstraction in general, but also makes a number of claims about what he believes to be overly "subtil" accounts of general ideas. Hume maintains that accounts of generality which involve ideas "abstract in our conception of them" place common thought and speech beyond the capacity of ordinary folk, who are not generally philosophically inclined. He quite correctly notes that there is no conscious process of selecting properties which are to characterize a class of things exemplfying them culminating in the framing of a universal concept denoting the members of that class, and that such a process would be beyond the capacities of most people. He notes too that we have in mind no exact definition of most of the general words we are able to employ with consistency. From these premises Hume concludes that the having of an abstract idea is not a condition of the consistent employment of general terms. The conclusion does not follow, however. Aquinas would agree that we have no definition of mind when we employ a general term, and that in many cases we could not give a satisfactory account of the meaning of terms we use with great consistency if we were required to do so. He would further agree that we do not go through a process, whether conscious or unconscious, of <u>choosing</u> characteristics definitive of general terms, or at least not normally. These objections, then, do not touch on Aquinas' account of abstract ideas.

(LXVII The importance of recognition in Aquinas' account of conception)

That animals of varying degrees of biological sophistication are capable of recognizing objects, events or properties, seems evident from the fact that they respond in certain recognizably similar ways in the presence of objects, events or properties we might describe as the same in kind or similar in certain respects to each other. Aquinas, following Aristotle, thinks of conceptual knowledge partially on extended analogy with such phenomena. The same object, he maintains, may be present to organisms of very diverse kinds and levels of complexity, but the way in which the object is present to the organism will vary with the sorts of capacities for recognition that they have, respectively, and on the sort of organism they are.[80] "Things are received in a subject according to the nature of the subject."[81] Hence a worm, a dog and a human being may each recognize a rubber ball. The worm's response may be indistinguishable from its response to many other such obstructions we regard as much different from the ball. The dog may give evidence not only of recognizing this ball, and distinguishing it from rocks and coke bottles, but also of distinguishing it as that ball with which he often plays, and not just any ball whatever. A human being may not only recognize the ball and distinguish very many aspects of it, but name, describe, define, investigate, compare and classify it. This astoundingly rich range of human capacities, Aquinas maintains, is consequent upon our ability to consider things abstractly by means of concepts when they are not present to us directly in experience, which, in turn, permits the development of habits of mind which allow

us to distinguish and to recognize occurrences, objects and properties impossible to other animals. Intelligence is a function of the capacity for distinction and recognition, on this view.

(LXVIII Recognition and Abstraction)

Recognition, on Aquinas' view, always involves a certain level of "abstraction," in that if all properties of something present in experience at a given time are taken into account, including relational properties, it cannot be regarded as a recurrence. If is only by ignoring certain features of what is present in experience that we are able to make sense of experience. The ability to make distinctions in experience, the mark of a developed intelligence, is thus consequent on developed capacities for abstraction, on this view. What is recognized as the same animal perceived now under different circumstances than those in which the animal was perceived half an hour ago may be considered in respect of its being a mass with certain physical properties, a biological organism, a dog, a hound, a grey object, and so on. On this view, one object may have many aspects, and may be considered as having many aspects without the supposition that these are separate, independently existing objects in their own right, or that they stand to the object as parts to a whole.[82] Animals which share with man certin sensitive capacities must also share some capacity for "abstraction" in the limited sense of a capacity for ignoring certain aspects of the objects recognized and attending to others if they are to recognize and make distinction by means of those capacities. They have, then,

some analogue of human intelligigence, even if their abstractive capacities are extremely limited in scope. The difference between animal and human intelligence becomes a difference in kind as opposed to degree only insofar as humans are capable of reflection, meaning that they not only have certain capacities for recognition and for abstract representation of what is recognized, but may also consider their concepts as such, with the consequent capacities for articulate speech and thought and for the development of our capacities for abstraction in traditions of disciplined inquiry.

(LXIX Recognition and empirical intuition)

An important difference between Hume and Aquinas, then, is that Hume believes that it is a consequence of the dependence of thought upon the senses that we can form no concept the meaning of which cannot ultimately be analyzed in terms of universals of sense, all other "recognition" not being recogniton in the same sense, but the useful, though merely nominal, categorization of patterns of sense impressions. On Aquinas' view, empirical intuition is always dependent upon the senses, but is not limited to what is the same in kind with the deliverances of the senses. We are directly aware of repeated features in our experience os whatever kind, and there is no <u>inference</u> to what is different in kind from perceptions$_1$, just as there is no inference to Hume's simple impressions, directly present to us in experience.[83] Hence, on Aquinas' account, there can be no <u>a priori</u> limits placed on what can form a possible object of experience and knowledge on the basis of an analysis of what can be

present to the senses qua sensible. What we can recognize by means of the senses is a matter of fact, knowledge of which can only be derived from an examination of the distinctions in our experience which we do, in fact, make, in the various traditions of common speech and of disciplined inquiry, and in the skilled practices the Greeks considered together as examples of techne : skills, crafts or arts.

(LXX Why we need not be able adequately to define or to give an account of our general terms in order to employ them)

It is our capacity to recognize that which our general concepts denote, rather than our ability to explain what they mean which is crucial on Aquinas' account of general terms. It is true that we must in some way grasp a term's connotation if we are to use it meaningfully, but we can recognize phenomena we do not understand and which we cannot define or explain satisfactorily. Taken as an objection against Aquinas' position, then, Hume's rejection of accounts of general ideas in terms of abstract ideas which require that we be able to define such ideas in order consistently to employ the corresponding terms misses its mark. Futhermore, Hume does not show that one who speaks of "essences" must allow that, if they are conceived in dependence upon the senses, they must be perfectly knowable on first encounter with an example of them, as he maintains in the Treatise . On Aquinas' account of conceptualization, it is true that if we are capable of recognizing a single instance of a kind it is "sufficient for the intellectual apprehension of its

essence - more or less determinately - as a potential universal."[84] But this is much less exciting than it sounds. It means simply that, being able to recognize things of that kind, and so being able (perhaps only approximately) to fix the denotation of the corresponding term, we have fulfilled a necessary condition of developing a more adequate conceptualization of the common character to which the term refers.

(LXXI Why Aquinas' view does not place thought and speech beyond normal capacities)

Aquinas does not place thought and speech beyond normal capacities with his account of generality in terms of abstract ideas for much the same reasons that he need not suppose that we may adequately define or account for each general term we employ. We do not, on this view, select the characteristics of a species, for instance, but rather we discover them. The ability to recognize members of the species will precede any capacity on the part of the knower to form a concept of them, and the formation of an inadequate concept of them will precede the formation of a more satisfactory idea. In the normal case, having grasped the denotation of a term we seek to enrich the connotation of our corresponding concept. This is not to say that denotation may be fixed without any reference to connotation. Our grasp on that which a term connotes need not be conceptual, but may consist merely in the capacity to recognize and to name it.

(LXXII Why, on Aquinas' account, we need not have a perfect idea

of that concerning which we reason)

For these same sorts of reasons Aquinas' need not allow Hume that we must have a "perfect" idea of that concerning which we reason. So long as the denotation of a terms remains constant, the connotation with which we employ it may vary without ill effect. We are, of course, more likely to go awry in our reasoning concerning any phenomena the less we understand it, and the less we have tested our beliefs concerning it against experience, the more likely it is that our understanding will be poor. But, if empiricism is true, this is precisely what one would expect. It in no way jeopardizes our ability to reason concerning what we comprehend only imperfectly. The supposition that it might would appear simply to be a consequence of Hume's imagist theory of thinking, by appeal to which, as we have seen, he attempts to dismess Scholastic distinctions as making a mystery of what is plain. Furthermore, the position here outlined does not end in scepticism, as we suggested a Humean might argue it does. So long as participants in a conversation agree with respect to the denotation of their terms, there appears no reason why they might not often differ with respect to the connotation with which they employ them without the breakdown of meaningful conversation. Once again, if we assume that concepts are images, insofar as the concept for which a term stands as it is used by one speaker differs in any respect from the concept for which a terms stands as it is used by another speaker, meaningful discourse is undermined. If concepts are not images, but causal representations in thought of things

recognized in experience, so long as all participants in a discussion are agreed on that to which a term refers, they are indicating the same phenomena, even if they differ with respect to their respective levels of understanding of it.

(LXXIII Hume's argument from the principle that everything in nature is individual)

Another argument against abstract ideas, explained earlier, is of particular interest because it invokes a principle as "generally received" which is inherited from Scholasticism. On this argument, we cannot entertain abstract ideas because everything in nature is individual, and hence we can know and perceive only what is individual and determinate. Aquinas might answer in at least two ways. First, if the argument is to support the conclusion, it requires the disputed premise that concepts are alike in kind to what is known, a claim Hume himself cannot consistently sustain in all cases. Secondly, it is useful to distinguish between an individual and a particular. An individual has real being, whereas a particular does not. A particular is a first order concept regarded only insofar as it is an instance of a second order concept, differing from all other particulars of that kind only in name. An individual is that which is represented by a first order concept in thought, of which substances are archetypical, on Aquinas' view. There is much that turns on the distinction. Particulars are instances of only one universal. Socrates the particular man is Socrates considered only insofar as he is an instance of the concept "Man." Socrates the

individual is Socrates in all his actions, thoughts, properties, relations, and so on. What is doubtful about Hume's use of the dictum that everything in nature is individual, then, is that he seems to mean by "individual" what we have designated "particular," a reading borne out by the fact that he believes the principle that what can be distinguished in thought can be distinguished in reality as an independently existing substance follows from his account of ideas. Taken in this way, the dictum is manifestly false, with this principle, too. Even Hume's simple impressions are not so simple as to admit of classification under only one general term. Single sounds have both pitch and volume, single tactile sensations have temperature, shape and texture, and so on. If there were individuals which were merely particular, they could be distinguished from each other only numerically, _ex hypothesi_ . This claim is "generally received" as false. Even on the supposition of an imagist theory of thought, Hume's "simple ideas" must be accounted for as in some way being composites.

(LXXIV Summary of discussion of Abstraction)

Contra Kemp Smith and Aaron, then, each of Hume's arguments for the limitation of knowledge to the realm of appearance rests on an imagist theory of thought which presents difficulties with which he did not adequately deal. Furthermore, Hume's critique of abstract ideas does not address Aquinas' account, his description of

Scholastic distinctions and concepts being inadequate, with the result that his objections go awry. However, Aquinas' alternative account, with its allowance of generic and qualitative universals and use of the idea of "intellect," will need to be sketched in greater detail if it is to appear a consistently empiricist alternative to Hume's scheme. Hume's insistence that judgment and reasoning are merely forms of conception will need to be evaluated from St. Thomas' perspective in the light of this sketch, in particular, as Hume evidently believes these distinctions cannot be made by an empiricist.

(LXXV Neither Hume nor Aquinas intend a rationalist account of mind and its operations)

The crime of which Hume suspects the Scholastics is that of rationalism, proffering "an abstract sort of reason, modelled along mathematical lines and reliant solely upon general definitions and eternal verities, in dealing with practical problems."[85] In intent at least, Aquinas is not guilty, insisting as he does upon the mind's dependence upon the senses[86] even in our conception of immaterial substances,[87] and especially in the formation of our substantival concepts, formed only "by activities which supervene upon sensation."[88] Identifying the objects of perception and experience as the objects of knowledge,[89] Aquinas looks upon conception as the product of co-operation between the human intellect and human capacities for sensation. The intellect, far from circumventing sensation as a means to knowledge, provides the means

whereby we profit from sensation. He writes,

> Sense images are illuminated by the agent intellect and further, by its power, species are abstracted from them. They are illuminated because sense images, by the power of the agent intellect, are rendered apt to have...species abstracted from them, just as man's sense part receives heightened power from being joined to his intellectual part. The agent intellect, moreover, abstracts species from images, in that by its power we can consider specific natures without individuating conditions, and it is by likenesses of these natures that the possible intellect is informed.[90]

We ought not to be misled into thinking that Aquinas is saying something unduly mysterious here by his use of visual metaphors. The "illumination" referred to is to be interpreted in terms of the capacity described thereafter, and "likeness" here designates concept or intention, the mode in which that which is known is present as known in the knower. The contrast between agent and possible intellect (usually translated active and passive intellect in the literature) here indicates the distinction between the active role played by the knower in forming and developing concepts on the basis of experience, on the one hand, and the state of the knower once the habits of mind necessary for a concept's consistent use have been developed, on the other.

(LXXVI Introduction to Aquinas' model of thought: simple understanding and composition and division)

Aquinas distinguishes between two ways in which abstraction may occur: simple consideration (intelligentia indivisibilium) and composition and division (compositio et divisio).[91] The

distinction corresponds to the distinction between a term and a proposition. Having developed the capacity to entertain a certain concept and to employ it, two things are true of one. First, insofar as one is able to recognize instances of a concept and to evaluate the adequacy of some possible definitions of it, one knows what that which the concept represents in thought _is_ . Secondly, one has the capacity to think concerning it, to form and to understand propositions which contain it as a term.[92] Here we consider it not as having various aspects, but as one, whether that which the concept represents is a substance, a class of substances, an object in the broadest sense, a class of properties, an event or class of events, or something else. This sort of abstraction is what is meant by an undivided or simple consideration of something. We also assert and deny propositions which have as their terms such concepts. With respect to propositions, one may know, believe, or suppose some proposition true or false, and one may call to mind or consciously entertain the proposition in question as something known, believed, surmised or the like.[93] We will discuss both of these at greater length presently. As they will be mentioned often, this will serve to give some indication of their meaning.

(LXXVII Propositions, like concepts, are basic mental entities, but differ from concepts in that they are either true or false, whereas concepts may be more or less adequate)

Propositions and concepts are, according to Aquinas, basic mental entities, alike in that both have unity in meaning, though

they may have more than one object or relation, respectively, which they denote. Aquinas writes,

> When the intellect compares or contrasts one with another, it knows the two compared or contrasted under the aspect of that comparison or contrast - in the same way that, as mentioned, it knows parts in the light of the whole.[94]

As concepts may represent in thought both real and formal objects, so propositions may represent both real and formal relations. Propositions differ from concepts, however, in that they are either true or false. Concepts, as they occur in human minds at least, are always inadequate to their objects, although formal relations, on Aquinas' view, are either understood or not understood. Hence our concepts cannot be said to be true. They may, however, have what Peter Coffey calls "real objectivity" insofar as there are intersubjective standards with respect to their adequacy.[95] It is only in asserting and denying propositions that questions of truth and falsity arise.[96] Either the relation between the things which a proposition's terms represent in thought obtains or it does not. In the case of propositions which assert or deny matters of fact, each is to be tested according to the relevant norms of the tradition(s) of inquiry to which it belongs.[97] On the basis of a more adequate understanding of a given phenomena (e.g. Joe the cat lying prostrate on the couch), we may come to the conclusion that a relation formerly thought to obtain (e.g. Joe is sleeping), in fact does not, (e.g. Joe is dead), or _vice versa_ . Our increased understanding of the

relation in question will not make any propositions more or less true, (e.g. the proposition "Joe is sleeping" is false and was false when we believed it), however. Rather, our former assent to a false proposition was a part of something true of us, a faulty understanding. Understanding, as a property of rational beings is subject to more or less. Truth, in the sense in which we use it here, is a property of propositions as such, and is not subject to gradation.

(LXXVIII Judgment)

What Aquinas more often calls "composition and division" or "the intention of attribution" more recent philosophy has consistently termed "judgment," the act of affirming or denying a proposition.[98] In simple apprehension a concept is merely entertained. In composition something is affirmed of a subject and in division something is denied of a subject. The distinction between simple apprehension and composition and division is thus important to Aquinas, for, on this account, it is only in judgment that some mode of existence is affirmed or denied of that which concepts and propositions represent in thought, and in which our concepts are defined and their instances described, explained, and otherwise accounted for.[99] Moreover, reason is represented as a process of moving from one judgment to another[100] in accordance with standards appropriate to the formal or empirical discipline in question, not merely in terms of association of ideas. Hence Hume's claim that the act of the mind never exceeds conception cannot be a

matter of indifference to Aquinas even if Hume allowed all sorts of concepts different in kind from the deliverances of the senses.

(LXXIX A priori and a posteriori judgments)

Where Hume distinguishes between matters of fact and relations of ideas, Aquinas distinguishes a posteriori and a priori judgments. The parallel is inexact, however, for while Hume maintains that the power of the mind "never exceeds simple conception," understood as the formation of a mental image, the same agens intellectus which Aquinas' supposes forms concepts different in kind from the deliverances of the senses is crucial to his account of both and a priori and a posteriori judgment. This is evident from the following selection from the Summa .

> Now the proper object of the intellect is the whatness of things. Hence with respect to the whatness of things, speaking essentially, the intellect makes no mistakes. But with respect to whatever is incidental to the essence or whatness of a thing - when it relates one thing to another, either in combining and separating or else in reasoning - the mind can be mistaken. On this account also it cannot be in error with respect to those propositions which are known immediately when the essences [i.e. meanings] of their terms are known...
>
> Nevertheless, the intellect can be deceived about what a thing is, incidentally and with repect to composite things. This is not by reason of its organ, since the intellect is not a faculty that uses an organ, but by reason of some combination affecting a definition - for instance, a definition of one thing is false when applied to another (e.g., the definition of a circle applied to a triangle), or a definition can be false in itself if it implies an impossible combination (e.g., if the phrase 'winged rational animal' were taken to be the definition of anything).
>
> Thus with respect to simple things, where there are no combinations in their definitions, we cannot be deceived; as Aristotle says [Metaphysics 8, 10. 1052a1], if we fail

it is in not attaining them at all.[101]

The "infallibility" of a faculty with respect to its "proper object" to which Aquinas appeals here needs careful attention. Aquinas is merely saying in a different way what has been said before, namely, that error arises only when some state of affairs is reckoned to obtain which could be or is expressed propositionally. The mere entertainment of a sensation by the sense organs, or of a concept by the intellect, involves no possibility of falsehood, becauses truth and falsehood consist in an intentional relation between knower and what is known, and in merely entertaining a phantasm or a concept, no such relation exists. The "infallibility" of the intellect with respect to its proper object, the form or essence or meaning of a thing as it is present in the mind, does differ from the "infallibility" of the senses in an important respect, however. The intellect apprehends exclusive and inclusive relations of meaning between concepts, as, for instance, the meaning of the term "chair" includes the connotation but does not exhaust the denotation of "coloured object," and the meaning of "2+2" excludes the meaning of "5". However, whereas our concepts of things which, like chairs, have real being, may be inadequate, with the result that we judge wrongly concerning them, there is no question of the adequacy of our concepts of entities such as those of mathematics or formal logic. There is nothing existing in reality against which their adequacy might be measured. We either understand them or we do not. For such entities,

to be is to be understood. Nevertheless, we may generalize and say that the "infallibility" of the intellect consists in the fact that, given that it understands the concepts between which it apprehends or fails to apprehend a relation of connotative identity, the resulting judgment cannot go wrong. The evidence of this is introspective.[102] Taking any formal relation whatever, the terms of which are understood by any given person, justification of any proposition affirming or denying that relation must terminate with the apprehension or the failure to apprehend the relation on the part of that person. Hence Aquinas would agree with Hume's account of relations of ideas that if someone does not see that such a relation obtains as a matter of formal and not of empirical fact, there is nothing for it but to explain the terms or perhaps some part of the formal or empirical discipline to which the terms belong until he catches on. The introduction of the notion of intellect leads to a striking divergence with respect to the justification of *a priori* judgments, however. Aquinas maintains that such relations of ideas are relations of meaning between concepts as such, which is not an account that Hume could consistently adopt, as we shall see. Hence, for Aquinas, the evidence of the truth of any given *a priori* proposition is the evidence of the very intellect the existence of which Hume denies. Similarly, the introduction of the notion of the intellect leads to instructive divergence with respect to *a posteriori* judgment. Both Hume and Aquinas agree that all *a posteriori* judgments must ultimately be justified in terms of what is

experienced by means of the senses. Here the introduction of the intellect leads to the difference that Hume limits the realm of knowledge to the realm of appearance, with the consequence, discussed earlier, that Newton's method of testing evidence is hailed as capable of universal application, with the modification that not all terms need be quantifiable. Aquinas, believing that the mind may entertain a variety of genuinely different sorts of empirical concepts, is in a position to allow that the ways in which experience may provide evidence for _a posteriori_ judgments may vary with the nature of the object(s) of inquiry. Activities as diverse as those proper to the physicist, the farmer, the craftsman, the worshipper or the farmer may, he would maintain, yield knowledge. Aquinas does not attempt to replace either the philosophical analysis of the making of judgments proper to each such discipline or the practice of each discipline with the results of a philosophical search for common structures of knowledge.

(LXXX Composition and Division and knowledge of composites)

Aquinas believes all empirical disciplines share a common procedure of composition and division in the pursuit of knowledge of their objects. We begin with what Kant might term an "empirical intuition" of something, consisting merely in the ability to recognize some empirical object or phenomenon. From that indeterminate knowledge which consists merely in the ability to name what we recognize, the mind moves toward a more precise and well defined concept by means of the affirmation and denial of

propositions about the object on the basis of experience.[103] Hence, from the point of view that we know something by virtue of being able to recognize, name, and, consequently, reason concerning it, what is known is simple: one thing or class of things being represented in the mind by one concept. From the point of view that a single thing may have many properties and relations, and many parts, each with its own properties and relations, what is known is a composite of many parts and aspects capable of consideration in abstraction from their relationship to the particular object of knowledge in question. Unlike God, who apprehends all things all at once in a single act, we must develop our conceptualization of things in dependence upon partial views of it gained in experience, and express our knowledge, once gained, in long trains of propositions.

(LXXXI Hume as a critic of Aquinas' notion of judgment)

The option of accounting for our a priori knowledge in terms of relationships of meaning between concepts which are developed on the basis of experience is not open to Hume except in the case of universals of sense. On Hume's account, what a generic or qualitative terms means is to be analyzed in terms of universals of sense, for these are the only sorts of universals we may entertain as concepts. Hence there can be no relationship of meaning between generic and qualitative concepts as such, but only as analyzed in terms of universals of sense. For the same reason, Hume does not allow Aquinas' doctrine of a posteriori knowledge, denying the distinction between conception, judgment and reasoning. Believing as Hume does

that the justification of beliefs about matters of fact must consist in showing that a certain associative habit is well-founded, he cannot account for propositions in this way. We have argued that Hume's case for believing that justification of beliefs about matters of fact must consist in showing that an associative habit is well-founded rests on a problematic imagist theory of thought. Nevertheless, it is at least prima facie plausible for an empiricist to argue that the meaning of generic and qualitative concepts must ultimately be explicated in terms of specific universals, a claim that might be maintained without defending an imagist theory of thought.

(LXXXII A Thomist reply to the Humean question how concepts can be compared with and tested against experience if their meaning cannot be analyzed in terms of specific universals. Conception as the "simple and absolute" consideration of the objects of knowledge and experience)

How might St. Thomas respond to the charge that concepts cannot be tested against experience for adequacy (and so also propositions having such concepts as terms for truth) insofar as their meaning cannot be analyzed in terms of specific universals? Very likely first by arguing that what is crucial to empiricism about the origin of concepts is that we be able to recognize that which a concept represents in thought when it is encountered in experience. The reasons Hume provides for believing otherwise all presuppose his imagist theory of thought. If, as Hume himself must grant in the case

of specific universals, concepts are not images, it must be asked what they are. Aquinas' suggestion is that a concept is a modification of the intellect. An empirical concept conforms the intellect to that which is to be represented in thought in that it is formed in causal dependence upon that which is conceptualized through its effects upon the senses. "It is not a thing, nor is it in things. It is a way of comprehending things to which we are compelled by the deficiencies of our understandings."[104] Hume's objections against causal theories of perception center on the notion that causal relations can be known to exist only between entities alike in kind to perceptions, and that causal relations are relations of constant conjunction between such entities. His reasons for believing both propositions are also dependent upon his imagist theory of thought, however. Why is it impossible for us to know causal relationships between entities alike in kind between perceptions? Because perceptions are all that are present to us in experience. How is this known? We cannot conceive anything different in kind from perceptions, so our experience cannot but be irrelevant to claims about such entities. Why must causal relations be relations of constant conjunction between entities alike in kind to perceptions$_1$? Because of all the possible relationships imaginable between distinct perceptions$_1$, constant conjunction is the only suitable candidate, all others, such as resemblance or identity, being sometimes true and sometimes not true of the terms of causal relationships. If the imagist theory of thinking is false, as

we have argued, then it will not be Hume's arguments which show Aquinas' account of the relationship between concepts and objects to be unsatisfactory. If, on the other hand, Aquinas is close to the truth, in judging that some object present to the senses exemplifies a given concept, we may consciously distinguish both the concept which forms the subject of the proposition, (a potentially universal object of thought), the phantasm (a particular contact with the individual sensed), which represents a crucial stage in the causal relationship between concept and that which is conceptualized, and the interpretation of the latter as a concrete individual.[105] The same intellect which is to account for our capacity for propositional knowledge of objects different in kind from the deliverances of the senses[106] may also distinguish the various aspects and stages of the process through which it moves in coming to knowledge or justified belief. The important question is whether Aquinas' doctrine of the _agens intellectus_ is consistent with his professed empiricism. We will suggest a possible reason why Hume so easily believed the intellect superfluous to and a denial of empiricism, and then inquire into the cogency of Aristotle and Aquinas' reasons for their doctrine.

(LXXXIII Newtonian science and the apparent superfluousness of the intellect)

Reason must terminate in memory or sensation, declares Hume, drawing attention to an important divergence from Scholastic tradition. Aquinas' three acts of reason, conception, judgment, and

reason, each terminate in something conceptual or mental. In simple conception, the intellect forms a concept. In judgment, the intellect affirms or denies something of the subject conceived in the formation of a proposition. In reasoning, the intellect forms and tests accounts or explanations, uniting isolated bits of information. Hume has before him an archetype of knowledge that urges the importance of testing claims to understanding against immediate experience under controlled circumstances. Aquinas, following Aristotle the biologist, takes definition and classification as archetypical of the pursuit of empirical knowledge and explanation. Although Hume often speaks of "objects" as the terms in causal relationships, it is, as we have noted, the specification of the conditions under which certain properties, relations or kinds of events will occur that Hume regards as a typical causal explanation. Hence the close relation between explanation and description in the Humean tradition, and the psychological unimportance of concepts different in kind from the deliverances of the senses. Aquinas takes substances as, archetypically but not exhaustively, the terms in causal relationships. Understanding typically consists in classifying an object and defining its kind, and explanation in showing an action to be natural for a thing of that kind under the conditions which obtained. Hence inquiry is looked upon as a process of developing and testing concepts, and there is no psychological temptation to regard concepts as images. All this is not, of course, relevant to a formal analysis of the strength of Aquinas and Hume's arguments for their

respective positions. But if philosophy attempts to wrestle with problems which arise in the special disciplines which have or are widely believed to have far-reaching implications for many areas of thought and life, it can only be naive to ignore the presence of these problems in the writings of philosophers like Hume and Aquinas. Furthermore, if Hume's attempt to come to philosophical terms with the implications of the new science rests, as we have and shall argue, on a faulty account of the nature of thought, it is worthy of careful note that this does not mean that Aquinas' metaphysics can be grafted without comment on the assumptions, procedures and conclusions of later science.

(LXXXIV Aristotle and Aquinas' reasons for making use of the notion of intellect)

As was discussed earlier, Aristotle and Aquinas' distinction between substance and accident is an attempt to deal with the problem posed for a philosophical account of knowledge by constant change. The doctrine of intellect similarly attempts to address the problem of change by contrasting the constant change true of the common objects of knowledge as they exist, and their relative stability as they are represented in thought by means of concepts. This is not to say merely that thought falsifies experience by representing what is dynamic in terms of what is static. What it is saying must be understood in terms of the Aristotelian doctrine of matter.

(LXXXV Matter and the intellect)

If form is that about a material thing which makes it a thing of

this or that kind, say "dog," matter is that about a thing which makes it this or that thing, distinct from others of its kind, say "Fido, the obnoxious bulldog that habitually chews on the curtains and defecates on the stairs." All this to say that matter is the principle of individuality, according to the Aristotelian tradition. As substances are the most important sort of "individuals" in Aquinas' metaphysical scheme, naturally he thinks of matter primarily as that which distinguishes individual substances from others of their kind. Nevertheless, he distinguishes between "sensible" or changeable matter in the capacity of individuating substances,[107] and common or "intelligible matter," matter in the capacity of distinguishing kinds of material things which are not substances but which may be found in various substances, such as "flesh" or "bone." Matter in this capacity is said to be unchanging, in that it is viewed abstractly, and not as it is present to us through the senses. Hence matter considered quantitatively may legitimately be referred to as "intelligible" matter on this definition.[108] Matter is not what is understood about material objects. Rather, it is their character as a being a certain sort of thing, their actions, properties and relations: all aspects described in terms of universals which may also apply to other individuals. Hence Aquinas' insistence that the intellect apprehends only universally.[109] The intellect cannnot receive the matter of the thing -- that about it which makes it this individual rather than that, but only that about it which makes it a thing of this or that kind -- form, in the case

of substance, plus some characteristic which will serve to individuate the substance for the purposes of thought, or some other sort of universal where the "thing" in question is not a substance.[110] If the intellect is to understand, it must understand things immaterially, and hence the conviction that the intellect is immaterial.

(LXXXVI Has Hume successfully shown that the intellect is contrary or superfluous to empiricism, and so done away with the need for distinguishing between conception, judgment and reasoning; association of ideas and thinking; understanding the objects of perception in ontological rather than epistemological categories?)

The psychological reasons for the plausibility of Hume's attack on the intellect notwithstanding, it must be asked whether the force of his arguments suffices to confirm the intuition that the intellect must be rejected and powers of mind restricted to "compounding, transposing, augmenting or diminishing" materials afforded by sensation. Hume's argument that this must be the case because alternative hypotheses must allow that the mind can entertain what concepts different in kind from the deliverances of the senses is insufficient. We have seen that Hume himself must allow that general terms may express the content of some peculiar sort of entity inspected by a peculiar human capacity for such inspection in the case of universals of sense. His arguments to the effect that judgment and reasoning must be forms of conceiving seem to rest on the just fear that if they are not, their terms could not be Hume's

ideas, alike in kind to perceptions$_1$, and mental processes could not be modelled as the association and manipulation of images. This is precisely what is at stake, however. It does not constitute an objection independent of the first. Furthermore, the attempt to replace conception, judgment and reasoning with association of ideas founders on three separate counts in addition to the one already mentioned. First, Hume is unable to account for formal relations without appeal to such categories. Secondly, as K.B. Price showed in the first chapter, if association of ideas as Hume conceives it is to work as a substitute for judgment and reasoning, it must be the case that what does not exist may yet be associated with what does exist. Thirdly, as H.H. Price argues below, thinking may precede, and it is in any case different from, the use of symbols in thought, whether words or images. This suggests that thinking is wrongly represented as the effect merely of associative customs conjunctively linking copies of perceptions. The denial of the intellect leads to the counterintuitive consequence that the objects of perception must ultimately be what Hume calls "perceptions" and what Aquinas terms "phantasms." Given the truth of empiricism, an equally counterintuitive solipsism follows. Hume's arguments for restricting knowledge in this way to the realm of the senses require his imagist account of the nature of thought if they are to be cogent, as we have seen. The attack on the purported role of the intellect in reasoning in the form of a critique of the Aristotelian syllogism on he grounds that "inference does not require three ideas" rests on an

equivocation on "inference." Neither Aristotle nor Aquinas suggest that our unreflective expectations of future events based on past experience are "inferences" from past to future events. It is true that if there is no intellect to apprehend relations of meaning between terms Aristotelian logic is worthless as a model of mental capacities. However, Aristotle and his medieval disciples were not so muddled as to have disagreed with him that "inference does not require three ideas" given the sense in which he uses the term "inference." Hume's suggestion that the notion of intellect was invented for disreputable reasons, as a means to avoid the consequences of empiricism, obscure the truth with rhetoric, and give support to superstition is mere philosophical cheap shooting, as should be obvious from our discussion to this point.

(LXXXVII H.H. Price's arguments for the "Classical Theory of Thinking")

H.H. Price gives three arguments for what he calls the "classical theory of thinking." These may serve further to support the case for the necessity of something like Aquinas' _agens intellectus_ , and to cast doubt upon both the claim that the relationship between concept and object is analogous to that between picture and scene pictured, and the consequent nominalist account of general terms. This theory he identifies as the thesis that thinking, unlike other forms of cognition, is a process of inspecting peculiarly mental sort of objects.[111] Price contrasts this with the view that thinking consists in the manipulation of symbols,

whether words associated with objects by ostensive definition or images representing objects by reason of their resemblance to them.[112] First, Price notes that at any given time all that we are thinking is not symbolized either by words or images.[113] When for the first time we consider a matter, we struggle to find suitable words in which to express, or images by means of which to model, an understanding of it.[114] When once we have well grasped a matter, we have little need to think about the various aspects of our understanding of it, and hence little reason for symbolization of them in reasoning concerning it.[115] Secondly, Price appeals to our familiar experience of grasping for the right words in which to express or the right images by means of which to model a concept or a thought.[116] He argues that it cannot be symbols which guide our search, for symbols are its objects and not its means. Hence there must be some guide to the mind's search which is more fundamental to thought than the use of symbols.[117] Price's third point, an extension of the first, is that we are never aware of "an extended bit of thinking" such as an argument or a description all at once, suggesting once more that understanding does not consist merely in the use of symbols.[118] Price suggests, in much the way we might expect Aquinas to suggest, that our awareness of the "general drift" of such a bit of thinking consists in the awareness of an "intelligible object, dictating what symbols we are to produce and the order in which we are able to produce them."[119]

(LXXXVIII Aquinas on *a priori* judgment -- introduction)

As was noted in chapter one, Hume nowhere satisfactorily accounts for logical and other formal relations, and his resources for doing so, i.e. association of ideas and comparison of ideas understood on the analogy of images, are limited. It must be asked how Aquinas, claiming that all knowledge is derived from the contingent and particular deliverances of the senses, accounts for necessary and universal truths. If Aquinas is unable to draw a firm distinction in kind between *a posteriori* knowledge of contingent matter of fact and *a priori* knowledge of necessary truths, he stands in danger of the same confusion of psychology and logic to which Hume is prone.

(LXXXIX The role of the intellect in Aquinas' account of *a priori* judgment)

Aquinas accounts for necessary truth in accordance with his theory of judgment. In the case of contingent truths, we affirm or deny the identity or non-identity expressed by a proposition on the basis of evidence ultimately derived from the senses. In the case of necessary truths, the concepts are, from the hypothesis of empiricism, all ultimately derived from the senses, too, though the manner in which they are derived may be very complex. However, the evidence of the senses does not bear on the truth or falsity of an *a priori* proposition. So, for instance, no experimental evidence will

lead us to deny that 3+5=8, though sometimes experimental evidence may lead us to believe that what were formerly regarded as reliable subjects of addition are not, in fact, as reliable as we had thought. This is true, for example, of spatial and temporal units of measure after Einstein. Similarly, if all men are mortal and Socrates is a man, Socrates must be mortal. Evidence to the contrary will lead us to revise our opinions about men, mortality, or Socrates, perhaps, but not about the truth of the last identity given the first two. This being the case, Aquinas maintains that it is our capacity for considering things abstractly, that is, "divested of all the conditions of the contingent, actual, physical existence whereby alone they can be data or objects of sense experience"[120] that inspects our concepts and discovers in them properties such as universality and necessity which are true of no finite actually existing object (in the broadest possible sense of the term), the intellect.

(XC The properties of what has rationate being are not the properties of what has real being)

It may help to recall Aquinas' distinction between real and rationate existence. In conceptualizing anything whatever, whether material or immaterial, thought is dependent upon the senses for the formation of concepts, on Aquinas' account. Nevertheless, the concepts which we form on the basis of the senses are not themselves sensible. What has rationate existence has, as such, properties true of no real being. Hence Aquinas' distinguishes between sense and

intellect, our capacity for receiving and operating upon the deliverances of the senses, as such, and our capacity for receiving and operating upon what is known through the senses, insofar as we understand and conceptualize it. Just as concepts have properties not true of what they represent in thought, so they may have relations of a kind which things having real being cannot have.

(XCI Aquinas' use of the analogy of sight in discussing the powers of the intellect does not commit him to rationalism)

St. Thomas is often censured for having relied overmuch on the analogy of sight in his account of the operations of mind. In particular, empiricists like Hume are prone to accuse him of rationalism in this respect. It is true that, historically, the analogy has been misused, and that some who have misused it have been rationalists. Aquinas does not commit himself to rationalism merely by virtue of maintaining that our concepts are entities different in kind from the deliverances of the senses, however, so long as experience provides the means for the guidance of the process of concept-formation. No more, then, does Aquinas fall into rationalism when he claims that concepts may have properties peculiar to them as such, or that our capacity for recognizing these properties is not the same as our capacity for entertaining the deliverances of the senses and of imagination.

(XCII Aquinas' distinction between psychology and logic)

Aquinas need not confuse psychology and logic. While both logic and psychology are concerned with form as it exists in the knowing

subject, psychology differs from logic in an important way.[121] Psychology has as its primary subject the one who knows, and its concern with concepts is indirect. Hence it is the fact that this or that person has this or that concept and perhaps related biographical details that are of interest to the psychologist.[122] Logic, unlike psychology, is concerned neither with the objects of perception as really existing individuals, nor with the properties of objects as such. It is concerned with with individuals only insofar as they are represented in thought conceptually as particulars, "the ways in which the intellect looks at the nature which is in it by virtue of its operation of understanding and conceiving."[123] It is concerned with properties only "according to the manner of existence which [they have] in the soul inasmuch as [they are] abstracted from singulars and [are] applicable to many."[124] In a word, logic is concerned primarily with the intention as such, and only incidentally with that which the intention represents in thought. And as for a concept to be is for it to be understood, the logical properties of a concept are the properties it has by virtue of its existence as a modification of any intellect, properties it has without respect to the person having it.[125] In sum, the subject of psychology is the soul, the form of the body, and intentions fall under its purview only as accidental modifications of the soul. The subject of logic is the intention as such, and if its accidents so considered, which are its logical properties.

(XCII An illustration of the logic/psychology distinction)

It may help to use a concrete example. Let us suppose that a psychologist takes an interest in St. Thomas' beliefs about the existence and nature of God. He may be concerned better to understand the way in which Aquinas came to them and the influence of his education and his peers in this regard, and the way in which they effected or failed to effect his actions, his relations with others, his emotional development, or his aesthetic sensibilities. A philosopher or theologian, on the other hand, will be concerned with the truth of Aquinas' beliefs, and in the process of testing them may attempt to find internal contradictions or contradictions with well-known facts or well-established hypotheses, or to discover strengths and weaknesses in his supporting arguments. The interest in Aquinas' beliefs is common, but the two regard them from quite different points of view, in the light of quite different concerns.

(XCIV Having examined general Humean objections to regarding Aquinas' account of the powers of mind as faithfully empiricist, Hume's objections against specific Aristotelian concepts and distinctions must be addressed)

There is good reason to believe that Humean objections to Aquinas' account of the powers of mind do not make their case that it is not consistent with empiricism or that it is fatally flawed. In chapter one, it was noted that Hume takes issue with five fundamental aspects of Aristotelian philosophy as incompatible with empiricism. We may now return to a consideration of Hume's arguments against Aquinas' views with respect to these subjects.

(XCV Hume's strong a priori / a posteriori distinction, and his claim that "reason must terminate in memory or sense" both inform his arguments against Aristotelian doctrines, and both rest on his theory of thinking)

All of Hume's arguments to the effect that one who believes these doctrines or makes these distinctions cannot be an empiricist rest on a strong a priori / a posteriori distinction, such that all definitions become conventions, and the claim that reason must terminate in the sensible qua sensible. With respect to the a priori / a posteriori distinction, it must be granted that there is a difference in kind between statements which express what Aquinas' calls "rationate" relations, and statements which express matters of fact. The question then becomes, are all definitions conventions? It is true that all definitions must be conventions if public objects and events are accounted for in terms of systematic relatedness between the sense impressions of various percipients and not in terms of ontological categories. If, however, these are accounted for in terms of ontological categories, then it is at least possible that we may be able to identify objects and events we do not fully understand, and so attempt to express our understanding in a definition that is not merely conventional, but an attempt to express what is definitive of a public object. Hume's objection to accounting for public objects and events in terms of such categories is, of course, that because these differ in kind from the deliverances of the senses, they cannot be known. We have argued that

Hume's insistence that nothing can be known different in kind from the deliverances of the senses rests on an indefensible imagist theory of thinking, however, so that this objection on Hume's part is not telling. Therefore, Hume does not provide a cogent case for believing that all definitions must be conventions. Similarly, the claim that "reason must terminate in memory or sense" rests on the supposition of an imagist theory of thinking that disallows any capacity on the part of the mind for entertaining universals other than universals of sense. Once again, an imagist theory of thought being rejected, it cannot be allowed that Hume has made his case.

(XCVI Hume's objections against "substance")

Five Humean reasons for rejecting the doctrine of substance were distinguished. The first, that knowledge of them would require that we be able to entertain generic universals and to learn about instances falling under such universals through the senses does not suffice. Hume has not shown either that we cannot entertain generic universals or that sense experience could only be irrelevant as the source of knowledge concerning their instances. The second reason, that Hume has provided a consistently empiricist and cogent alternative to theories of perception and of thought which postulate entities different in kind from the deliverances of the senses is open to grave objection, as has been discussed. The third objection, that the notion of a <u>single</u> object having a number of <u>different</u> constituents is simply contradictory fails both because it rests on Hume' imagist theory of thought, from which he derives the conclusion

that what can be distinguished by the mind must be capable of separate existence in reality, and because his own "simple" impressions and ideas are not so simple as to fall only under one universal distinguishable by the mind. His own theory cannot get off the ground without the supposition that what is not distinct really may yet be distinguished by the mind. Hume is quite right, fourthly, to point out that the definition of substance as "something which may exist by itself" is indefensible. However, this is not Aquinas' definition. As Hume requires entities that meet Aquinas' definition of substance in terms of existence in independence with respect to accidents, nothing turns on the rejection of this stated definition. Finally, the objection against knowledge of substance as the end of disciplined inquiry that it would result in radical scepticism by introducing the supposition that there is more to understanding a term fully than is involved in having the capacity consistently to employ it is not cogent. So long as our concepts have the same denotation, considerable differences in the connotation with which various speakers employ them need not lead to a failure to communicate. In fact, it might be argued that such differences in connotation are common, and learning is very often a process of developing our understanding of concepts we can consistently employ in many contexts.

(XCVII Hume's objection against teleological explanation of "natural" phenomena and against formal causation)

The question of teleology is a thorny one. We cannot here

address the question of teleology in the non-human realm. It must be said, however, that Aquinas and the Peripatetics were not so childish as Hume might lead us to suppose in speaking of teleology in the natural world. If, in fact, the growth of the acorn into a mature oak tree is not a teleological process, analogous in certain respects to our own goal directed behaviour, but rather merely the product of physical processes in accordance with natural laws, the fact is not obvious, nor is the truth of the mechanistic Weltanshauung this seems to assume. Furthermore, neither Aquinas nor his philosophical forbears with respect to this matter claimed that teleology in nature always or even usually involved consciousness, much less conscious choice of ends appropriate to a given species. The charge of childish animism is an ad hominem designed to play upon the psychological effect upon the reader of the work of Newton in convincing the scientific community and, subsequently, the popular mind, of the importance of making physics mathematical.

(XCVIII Hume's objection against Aristotle's four categories of causes)

Hume's objection against teleological explanation has the same source and takes the same form as his objection against the remaining three sorts of explanation first distinguished by Aristotle. Each postulates between ontological entities different in kind from the deliverances of the senses connections different in kind from conjunction, which is the only causally relevant sort of "connection" there can be between the deliverances of the senses. If, however, it

is possible to know such objects, as we have argued it is at least as plausible as Hume's own suggestion, and cannot be ruled out on the grounds Hume has provided that there could be relations between them which were not merely conjunctive.

(IXC A second Humean objection against the notion that experience may reveal "dependencies in being")

Against the notion that experience might provide knowledge of "dependencies in being" Hume argues that this would imply that one view of a thing would suffice for knowledge of its causal properties. This would only be the case, however, if to causal properties there corresponded sensible qualities which represented them in sensation. If our concept of a thing is different in kind from concepts of particular quantitative determinations of the senses, our knowledge of its causal properties need not be represented as derived immediately from observation of peculiar sensible qualities. Rather, as Aquinas would maintain, it is derived from observation of that thing under various circumstances in which it acts in response to events in its environment. If we are capable of entertaining concepts which cannot be imagined, Hume's argument is not cogent.

(C Hume's rejection of the potentiality/actuality distinction)

The rejection of any distinction between a power and its exercise, potentiality and actuality, rests once more on the supposition that the objects of perception and knowledge have only one mode of being, that of deliverances of the senses, and one mode of causally relevant relation, conjunction. On these assumptions,

either our idea of power is derived from the exercise of a capacity and refers to the exercise of a capacity, or we can have no idea of power at all, its object being unimaginable.[126] Once again, if our reasons for rejecting the premises are sound, the conclusion is left without support.

(CI Hume's objection against the distinction between impulsive and volitional actions)

Contra Hume, it need not be the case that an empiricist cannot make the distinction between impulsive and volitional actions. It is worth noting that the psychological power of Hume's arguments to the effect that we cannot legitimately distinguish between impulsive and volitional actions are derived from the fledgling modern science of his time. Francis Bacon had criticized preceding natural philosophy for failing to explain in terms of particular sorts of occurrences (not substances), which he called "forms," governed by rules stating under what conditions an instance of a certain "form" will occur. Newton had captured the scientific world for this model, giving physical foundations for the new astronomy on Bacon's model, but with the development that the "rules" that state relationships between Bacon's "forms" (classes of empirical events, properties, or relations) are to be mathematically expressed. However, the logical power of Hume's arguments against the distinction is entirely derived from tenets of his faulty imagist theory of thought. It is true that, if the only form of connection is conjunctive, and the terms connected cannot refer to anything different in kind from the

deliverances of the senses, the distinction makes no sense. There being no agent apart from the sum of his actions described solely in terms of sense, it is impossible to distinguish some actions from others by virtue of their peculiar relation to the "agent" considered as a being exemplifying a mode of integrity peculiar to agents.[127] There is only the mode of integrity of the simple impression, and of actions, insofar as they can be represented as analyzable in terms of simple impressions or what is alike in kind to them. However, if we are able to perceive and gain knowledge concerning objects different in kind from the deliverances of the senses, exemplifying their own peculiar modes of integrity, then it would not be preposterous to suggest that they often stand in relationships to other such beings which are not merely conjunctive. So long as knowledge of such beings and relations is represented as being gained through the senses and by means of experience, there is no reason to deny to one who makes this distinction the name of empiricist.

(CII Hume's objection to the distinction between customary and reasoned thoughts)

With respect to the distinction between customary and reasoned thoughts, we have already seen that Hume cannot do without a priori knowledge of a kind for which he does not and, given his imagist theory of thinking, very probably cannot account. Hume has not shown that he can account for all thinking whatever in terms of custom. It may be, however, that this is not Hume's major point. If he is trying

to say that thinking about matters of fact rests on developed habits of mind rather than upon the intuitions of a rationalist intellect supposed to be found in all people, he has an ally in Aquinas. If I have understood Aquinas aright, he would say something like the following. If we are to profit from experience, we must develop habits of thought and action which enable us to categorize and think creatively concerning that which we encounter in experience. Rationality will thus here consist in procedures rooted in immersion in traditions of inquiry appropriate to the subject matter. Hence Aquinas would agree with William James that "no bells ring" when the truth on any given empirical question is found, at least if the "bells" are thought to be the property of all human beings without respect to their training. This is a straightforward consequence of accepting the claim that the intellect cannot operate in independence of the senses in investigating the truth of any empirical claim or theory, to which St. Thomas, Hume and James all assent.

ENDNOTES - CHAPTER TWO

1. Copleston, History 2:325.

2. In this he resembles Aristotle. For a discussion of Aristotle and common sense, see Edwin Hartman, Substance, Body and Soul: Aristotelian Investigations (Princeton, New Jersey: Princeton University Press, 1977), p. 30.

3. Not self-evident or indubitable.

4. Hartman, Investigations , p. 27; Cf. Aristotle Categories 5, 4a10.

5. Hartman, Investigations , p. 10.

6. It is, of course, misleading to speak of "predicates" here, because this is to suppose the very recurrence that is disallowed by Heraclitus and Cratylus' views.

7. A substance is not composed of substances, or it would not be one thing, but several. [Aristotle Metaphysics 7:13. $1039^{a}3$-10. p. 1640.] Nevertheless, the matter which at one time makes up a single substance may at another make more than one substance.

8. Peter Coffey, Ontology (Gloucester, Mass.: Peter Smith, 1970), p. 221.

9. Hartman, Investigations , p. 15. Hartman is discussing Aristotle, but the point is common to Aquinas.

10. Aristotle Metaphysics 7:1. $1028^{a}10$-$1028^{b}8$. pp. 1623-1624.

11. Anthony Kenny, Aquinas (Toronto: Oxford University Press, 1980), p. 36. Underlining added.

12. Coffey, Ontology , pp. 212.

13. Ibid., pp. 225-226.

14. Ibid., pp. 226-227.

15. Schmidt, Logic , p. 52. Schmidt quotes Aquinas to this effect, citing In IV Met. , 17, n. 736.

16. Coffey, Ontology , p. 44.

17. Ibid.

18. The scare quotes are used here to indicate that "entity" is not equivalent in meaning to "substance," as it is used here. On Aquinas' view, it would have a meaning derivative from and analogous to that of "substance," just as all other modes of being are dependent upon that of substance and are known by analogy with substance.

19. Saint Thomas Aquinas, Summae Theologiae: Latin text and English translation, Introductions, Notes, Appendices, and Glossaries , 60 vols. (Blackfriars in conjunction with Eyre and Spottiswoode, London, and McGraw-Hill Book Company, New York, c. 1964-), vol. 12: Human Intelligence (Ia. 84-89) , trans. and ed., Paul T. Durbin, with introduction, notes, appendices and glossary by the same, (1968), "Appendix 1: Ideas, Species, Images," p. 167.

20. Schmidt, Logic , pp. 306-308.

21. Aquinas, S.T. 1a. 85, 1. p. 57.

22. Meyrick H. Carre, Realists and Nominalists (Oxford: Oxford University Press, 1946), p. 72.

23. Ibid., pp. 83-84.

24. Aquinas, S.T. 1a. 85, 3 ad 1. pp. 67 & 69.

25. Schmidt, Logic , pp. 117-119. Schmidt quotes Aquinas' De Potentia 1. 1 ad 10.

26. Schmidt, Logic , p. 118.

27. Ibid., p. 114.

28. Ibid., p. 181.

29. Once more it must be emphasized that when it is said that something has only rationate being, it is not being claimed that it is made of immaterial stuff. It is only claimed that, considered as representing something else, it is inconsequential to what physical state or change of state in the person entertaining the intention it corresponds, and in which person the intention is formed. The

relation of meaning between intention and thing is unchanged in either case.

30. Saint Thomas Aquinas, Concerning Being and Essence , trans. Armand Maurer (Toronto: The Pontifical Institute of Medieval Studies, 1949), p. 18.

31. Ibid., p. 16.

32. Ibid., pp. 16-17.

33. Schmidt, Logic , p. 190.

34. Ibid.

35. Hume, Treatise , p. 194.

36. "When we say of the various classes of things which make up our experience that they are "real" (or "realities," or "beings"), we do not apply this predicate in altogether the same sense to the several classes; for as applied to each class it connotes the whole content of each, not merely the part in which this agrees with, but also the part in which it differs from, the others. Nor yet do we apply the concept of "being" in a totally different sense to each separate determinate mode of being...[We] must regard the notion of being, when predicated of its several modes, as partly the same and partly different; and this is what we mean when we say that the concept of being is analogical , that being is predicated analogically of its various modes ." Coffey, Ontology , p. 36.

37. Coffey, Ontology , p. 33.

38. Austin Farrer Faith and Speculation (London: Adam & Charles Black, 1967), pp. 22, 171.

39. Ibid., pp. 17-18.

40. Aquinas, S.T. 1a. 85, 5. p. 77.

41. Coffey, Epistemology , 1:256.

42. Carre, Realists and Nominalists , p. 83.

43. Ibid., p. 82.

44. Copleston, History , 2:379.

45. Carre, Realists and Nominalists , p. 82.

46. Copleston, History , 2:377.

47. Aquinas, S.T. 1a. 85, 5. p. 77.

48. Coffey, Epistemology , 1:256; Cf. Aquinas, S.T. 1a. 85, 1. p. 52.

49. Schmidt, Logic , p. 179.; Coffey, Epistemology , 1:290; Cf. Aquinas, S.T. 1a. 84, 2c (quoted by Schmidt).

50. Carre, Realists and Nominalists , p. 84. "Being sensed" or "being understood" are distinct from the thing sensed or understood, and sensing and understanding occur only in the subject, to use Aquinas' way of speaking. Cf. Aquinas, S.T. 1a. 85, 2. p. 63.

51. Kenny, Aquinas , p. 81.

52. This, as E.L. Mascall notes, places Aquinas in sharp contrast with philosophy in the tradition of Kant. The phenomena which were alone knowable on Kant's view are what cannot be known as such on Aquinas', and the noumena which on Kant's view cannot be known are precisely what can be known about things, on Aquinas' view. E.L. Mascall, Words and Images (London: Longman's, Green and Company, 1957), p. 38.

53. Aquinas, S.T. 1a. 85, 1. pp. 53, 55.

54. Schmidt, Logic , p. 195; Cf. Coffey, Epistemology 1:290.

55. Aquinas, S.T. 1a. 85, 2. pp. 59, 61.

56. Aristotle Metaphysics 4:6. $1011^{a}3$-14. p. 1596.

57. For a discussion of the concept of truth with respect to propositions, see Coffey, Ontology , pp. 158-159.

58. Hartman, Substance, Body and Soul , p. 47.

59. Wade L. Robison, "Hume's Scepticism," Dialogue 12 (1973):90.

60. Hume, Treatise , p. 212.

61. Robison, "Scepticism," p. 94.

62. William S. Haymond, "Hume's Phenomenalism," The Modern Schoolman 41 (March, 1964):215.

63. Ibid., p. 219.

64. Ibid., p. 220.

65. Ibid., p. 221.

66. Ibid.; Cf. Hume, Treatise , p. 195.

67. We will argue later that he also fails to account for the distinction between psychological and physical phenomena, on the one hand, and logical or formal phenomena, on the other.

68. Nicholas Wolterstorff charges that there is an "incurable ambiguity and incoherence" in St. Thomas' account as it pertains to substantival universals. If a universal of substance is common to its inferiors, he argues, the subjects to which those inferiors refer must be identical. So, for instance, if Plato and Socrates share the form "Man," the nature of Socrates must be identical in every respect with the nature of Plato. To speak of a form (e.g. "Man") as potentially universal, i.e. having more than one example in concrete existence, is absurd, on Wolterstorff's view. If an entity is one, it cannot be identical with many or with something other than itself. If Aquinas' doctrine of form is faulty, Wolterstorff has not shown it to be so, however. Aquinas need only reply that "Man" and substantival universals like it are abstract and indeterminate, so that determinate instances may be considered as identical with respect to this abstract character, without implying that they are in any way, considered as real (mind independent), actual (instantiated) and determinate existences, identical. The sense in which they are identical is a matter of the order of knowing, not of the order of being. Cf. Nicholas Wolterstorff, On Universals (Chicago: The University of Chicago Press, 1970), pp. 146-147.

69. A sort of synthetic paraphrase of definitions from several different dictionaries.

70. Schmidt, Logic , pp. 195-196. Schmidt notes In V Met. , 17, n. 1022.

71. Ibid., p. 196. Schmidt's references to Aquinas' works are too numerous to reproduce here.

72. Ibid., p. 198.

73. Ibid., p. 200.

74. Cf. Aquinas, S.T. 1a. 85, 5 ad 3. pp. 77, 79.

75. W.P. Montague, The Ways of Knowing (London: George Allen and Unwin Ltd.; New York: The Macmillan Company, 1925), p. 79.

76. Ibid., p. 84.

77. Ibid.

78. Ibid.

79. Coffey, Ontology , p. 215.

80. William E. May, "Knowledge of Causality in Hume and Aquinas," The Thomist 34 (1970):275.

81. Aquinas, S.T. 1a. 84, 1. p. 11.

82. Carre, Realists and Nominalists , p. 88; Cf. Aquinas, S.T. 1a. 85, 1 ad 1.

83. Coffey, Epistemology , 1:268.

84. Coffey, Epistemology , 1:280.

85. Collins, History , p. 449.

86. Aquinas, S.T. 1a. 84, 7. p. 41.

87. Coffey, Epistemology , 1:260.

88. Carre, Realists and Nominalists , p. 86.

89. Coffey, Epistemology , 1:290.

90. Aquinas, S.T. 1a. 85, 1 ad 4. p. 57.

91. Aquinas, S.T. 1a. 85, 1 ad 1. p. 53; Cf. Kenny, Aquinas , p. 62.

92. Kenny, Aquinas , pp. 66-67.

93. Ibid., p. 65.

94. Aquinas, S.T. 1a. 85. 4 ad 4. p. 75.

95. Coffey, Epistemology , 1:268.

96. Coffey, Epistemology , 1:268.

97. This is not to imply that there can be no criticism of traditions of inquiry summarily as incapable of producing knowledge, but it does make matters more complicated for one who wishes to do so than Hume believes.

98. Schmidt, Logic , p. 50.

99. Ibid. p. 235.

100. Aquinas, S.T. 1a. 85, 5. p. 77.

101. Aquinas, S.T. 1a. 85, 6. p. 81. Aquinas' use of "winged rational animal" as an example of a logically impossible definition is unfortunate, for, of course, there is no logical problem with it whatever. The point made is independent of the unfortunate illustration, however.

102. Coffey, Epistemology 1:234.

103. May, "Knowledge of Causality," p. 285; Aquinas, S.T. 1a. 18, 2; De Verit. 10, 1 ad 6.

104. Carre, p. 89; Cf. Schmidt, Logic , pp. 114, 117.

105. Coffey, Epistemology , 1:282; Aquinas, S.T. 1a. 85, 1 ad 5.

106. Copleston, History , 2:393-394.

107. Schmidt, Logic , p. 179.

108. For Aristotle's discussion of this distinction, see Metaphysics 7:10. p. 1635.

109. Schmidt, Logic , p. 181. Schmidt cites In II De An. , 5, n. 284; S.T. , 1a. 59, 1 ad 1, 12, 4c et. al.

110. Cf. Schmidt, Logic , p. 179; Carre, Realists and Nominalists , p. 92.

111. Price, Thinking and Experience , p. 301.

112. Ibid., p. 299.

113. Ibid., p. 305.

114. Ibid., p. 307.

115. Ibid., p. 308.

116. Ibid.

117. Ibid., p. 309.

118. Ibid., p. 312.

119. Ibid., p. 310.

120. Coffey, Epistemology , 1:242.

121. Schmidt p. 126.

122. Ibid.; Cf. In 1 Post. Anal. 2, n. 5.

123. Ibid., p. 127.; Cf. In 1 Sent. 19, 5, 2 ad 1.

124. Cf. Schmidt, Logic , pp. 183, 189? Schmidt notes In II De An. , 12, n. 378; S.T. 1a. 14, 12c.

125. Coffey, Epistemology , 1:257.

126. Cf. Hume, Treatise , pp. 171-172.

127. According to Aquinas, "A thing is indeterminate the more it expresses its nature independently of other things. In a word, the more immanent the process which sustains the thing, the more it possesses of reality. The further it is self-determined, the higher it is in the scale of being." Carre Realists and Nominalists p. 71.

CHAPTER THREE: SUMMARY AND CONCLUSIONS

SUMMARY

(I Introduction)

The subject of this work is Hume considered as a critic of Aquinas on the nature of experience and the objects of perception. The explication and evaluation of arguments has taken us far afield on more than one occasion in pursuit of a vision of the larger tapestries of argument and belief, from which we have abstracted material for the consideration of this question. In summarizing our discussion, we will attempt merely to draw attention to the most obvious and important outlines of the discussion.

(II Hume's two key theses and consequences Hume draws from them)

Hume's account of the nature of sensation and perception rests on two key theses, supported in no other way than by appeal to the common sense intuitions of the reader. He claims first that all "simple" ideas are ultimately derived from simple impressions, which they resemble in all respects save for their "vivacity" or "forcefulness." Secondly, Hume maintains that all "complex" ideas are

derived from and are in principle analyzable into simple ideas. We found reason later to disbelieve that the candidates for the basic simple ideas Hume chooses, namely, perceptions$_1$, are simple in the sense that they fall only under one concept. We also provided reasons for believing that Hume must allow a difference in kind between ideas and impressions, at least in the case of universals of sense. Hume himself, however, draws the conclusion from the two basic claims stated above that there can be no contrast with respect to kind between percepts and concepts. Ideas are "images" of impressions employed in thinking and reasoning. Failure to take perceptions$_1$ as basic certainties, Hume continues, inevitably leads to scepticism. This is true because knowledge of what is different in kind from the deliverances of the senses could only be reached by inferences from the latter to the former, which can only be invalid in every case. We noted that this need not be the case if empiricism is compatible with a causal theory of perception, and, for our purposes in this work, Aquinas' theory in particular. The contention that this is in fact the case is strengthened if, as we have argued, the reasons Hume provides for limiting empirical intuition to the deliverances of the senses as such are not cogent because they rest on a faulty theory of thinking.

(III Hume's criterion of identity)

An important Humean objection against all attempts to account for the objects of perception in ontological rather than epistemological categories is that there can be no identity in the

sense required insofar as such objects are said to be self-identical through time and change. On the basis of an examination of Hume's claims, we suggested the following as a statement of his criteria of identity. "Supposedly different items are identical if and only if there exist no qualitative differentia specifiable in terms of sense which would serve to distinguish them," with the provisio that Hume would probably wish to include relative differentia as sufficient to non-identity, too, such as might be specified in spatio-temporal terms. Hence Hume's repeated dictum that what may be distinguished in thought may exist separately in reality. We noted Montague's distinction between the denotative unity of two or more concepts in a single subject, expressed by propositions in Aquinas' account of judgment, drawing attention to the fact that Hume's own epistemologically basic "perceptions$_1$" must be "really" one and "rationately" diverse.

(IV Statement of Hume's radical nominalism)

Believing as Hume does that the basic units of experience are determinate and particular, and that the only <u>real</u> identity is unqualified equivalence, he also maintains that concepts cannot rightly be said to originate in experience unless they are alike in kind to the deliverances of the senses, particularly with respect to being determinate and individual. Hume argues the impossibility of the notion that the mind has the capacity to entertain generic concepts on the grounds that these would have to be <u>images</u> of all or none of the members of the class denoted by the corresponding term.

Similarly, against qualitative universals Hume presses a similar case, challenging all comers to indicate some sensible quality common to all instances of any qualitative concept. Furthermore, even if it were granted that thinking involves mental entities different in kind from perceptions$_1$, representing in thought similarities between the objects of perception, such entities could not stand in any intelligible relationship to the objects of perception.

(V Humean objections to logical realism)

Hume's most important reasons for believing that the mind can entertain no ideas "abstract in our conception of them" rest on the premise that ideas are images. He objects first that what can be distinguished in thought may exist separately in reality, and secondly, that the realm of knowledge is restricted to the realm of "appearance," i.e. the realm of what is present to the senses qua sensible. The modification of Hume's views in the light of criticism to the effect that he must, and tacitly does, allow specific concepts different in kind from the deliverances of the senses, while compatible with many of the consequences drawn from his imagist theory of thinking, is itself without justification in Hume's work once the imagist theory of thinking is rejected. Hence the Humean argument which we proposed on his behalf, that generic and qualitative concepts could have no intelligible connection to the deliverances of the senses because they could not be compared with the deliverances of the senses with respect to universals of sense, is cogent only insofar as antecedent arguments supporting the claim

that the mind can entertain only specific concepts are cogent. So too, Hume's denial of the possibility of distinguishing between universals existing qua particular and qua universal are supported by means of these same arguments.

(VI More Humean objections to logical realism)

Hume does state two objections against "subtil" accounts of general ideas, which suppose that general terms express the content of some peculiar sort of entity inspected by peculiar human capacity for such inspection which are independent of his imagist theory of thought. The first, that such accounts place thought and speech beyond ability of common folk, we argued is false. Aquinas' account does not require a conscious selection of properties in the formation of class concepts, but rather, merely the ability to recognize instances, with or without developed conceptual knowledge of their nature. The second objection, that we can use general terms without exact definitions of them, is true, but does not constitute an objection to Aquinas' "unintelligible cavils" on the subject. The reason has already been given in answer to the first objection. A third objection, developed on the basis of what Hume says elsewhere, is that we must have a "perfect" idea of whatever we are reasoning about, or our thinking will be muddled. Hume is explicit on the point that unclear thoughts are unclear in the same way that images are unclear, so that it is not difficult to interpret the notion of a "perfect" idea here. A perfect idea is a clear image or likeness of that which it represents in thought. Once more, insofar as the

imagist theory of thought is rejected, the objection loses its force. A reinterpretation of Hume's point, namely, that scepticism follows from the view that there is more to understanding a concept than is involved in the capacity to employ it consistently, was discussed. We argued first that this need not be the case if we distinguish between that level of understanding which suffices for the more or less correct employment of the term in connection with a certain denotation, and levels of understanding where the connotation of the term is grasped more adequately. It should be noted, secondly, that whatever is said about this, Hume's use of this argument is unjustified, because clearly the adequacy of many of our concepts does not consist in the clarity of images.

(VII Hume's rejection of Aquinas' intellectus)

Having rejected concept formation as a process terminating in the production of something different in kind from the deliverances of the senses, it is not surprising that Hume goes on to give reasons for rejecting the "intellect" to which Scholastics and rationalists appealed to account for the existence of such concepts and our awareness of them. Hume does not show that the limitation of powers of mind to the "compounding, transposing, augmenting or diminishing" of materials afforded by the senses qua sensible is a necessary consequence of empiricism, but assumes it. Moreover, his suggestion that the intellect was invented for disreputable (i.e. religious and superstitious) reasons is not borne out by an examination of the reasons given for it in the Aristotelian tradition. With respect to

his rejection of the distinction between conception, judgment, and reasoning, it is true that were judging and reasoning not forms of conceiving, their terms would not be his ideas, and mental processes involving them could not be modelled on manipulation of images. However, Hume's alternative account founders in at least four independent and important ways. First, Hume nowhere shows how it is possible to account for formal relations between concepts given only customary association of ideas. Secondly, as K.B. Price argues, Hume's alternative requires that ideas that are not occurrent, and hence which do not exist, given Hume's equation of existence with occurrence, be associated with what does. Thirdly, if H.H. Price is right in maintaining that thinking may precede the use of symbols, whether words or images, this suggests that concepts are not images, that thinking is not merely the product of customary relationships between images, that the relationship between concept and object need not be closely analogous to the relationship between image and what is pictured, and that the nominalism which follows from Hume's account is not a consequence of empiricism merely as such. Fourthly, while Hume's account entails counterintuitive consequences, such as the claim that perceptions are the _objects_ of knowledge, it is defended only by appeal to common sense intuition. This is particularly distressing in that his account of the public character of concepts and of the objects of belief does not account for distinction between psychological and physical processes. This renders Hume's account susceptible to Aquinas' objection against

taking either intentions or phantasms as the objects of knowledge, that it undermines rationality by denying a common, really existing subject, corresponding to the subject term of propositions about it. Ockham's razor has two edges. If Hume's alternative account of the powers of mind could meet these difficulties, he would be in a position to accuse Aquinas of multiplying entities without necessity. If, on the other hand, the agens intellectus or something like it is required adequately to account for the phenomena to be explained, there are no grounds for censure.[1]

(VIII Hume's attempt to specify the limits of knowledge)

Hume attempts, by an analysis of the deliverances of the senses as such, to derive an account of what sorts of claims may be understood and tested. This is the point of his claim that reason must terminate in memory or sense, with the consequent rejection of Aristotelian models of the end of rational enquiry on the grounds that essences could only be associations of images if empiricism is true. We have tried to show that Hume's belief that from an account of the deliverances of the senses can be derived an account of the limits of what can be known by means of the senses assumes the account he gives and provides no independent support for it. If the deliverances of the senses are the means and not the objects of perception and knowledge, the limits on what we can know are set not by what is true of the deliverances of the senses simply as such, but by our ability to recognize phenomena by means of them and so to make distinctions within our experience.

(IX Hume's fork)

From Hume's account of the limits of knowledge is derived his famous fork. On the one prong is knowledge of "relations of ideas," formal relationships, such as those of logic and mathematics. On the other prong is knowledge of "matters of fact," i.e. knowledge concerning "objects" not different in kind from the deliverances of the senses, individuated by the mind on the basis of purely pragmatic considerations, whether explicit or implicit. The first prong, we argued, was blunted in that Hume himself assumes that "relations of ideas" are different in kind from "matters of fact" in such a way that justification of beliefs about one is quite different than justification of beliefs about the other. Hume gives us no reason to believe that he is consistent in assuming this, for he repeatedly emphasizes that custom is to replace all "refin'd and spiritual" powers of mind in the account of the mind's operations. Furthermore, given his assumptions about the nature of concepts, there is very good reason to believe that Hume can give no account of such relations consistent with his views on matters such as the nature of concepts and their relation to the objects of knowledge and perception. Insofar as Hume's arguments against ideas "abstract in our conception of them" are unsound, the second prong is weakened. In rejecting Hume's restriction on what may count as "matters of fact" to claims about perceptions$_2$, the criteria for distinguishing between those categories and distinctions which are skewered by the prong and those which withstand its prodding is rejected.

(X Hume's *a priori* / *a posteriori* distinction and the triviality of definitions)

We pointed out that it is, at least *prima facie*, a plausible move on the part of a modern empiricist in the tradition of Hume to abandon the imagist theory of thinking, while maintaining the strong *a priori* / *a posteriori* distinction Hume draws and defends in terms of it. This would have the advantage of leaving the empiricist to follow suggestions for accounting for *a priori* knowledge more likely to bear fruit than Hume's "association of ideas," while leaving Hume's points against Scholasticism and rationalism largely intact. On such a view, as on Hume's view, definitions are either trivial, in that they are true by definition, or tautologous. Be that as it may, what is important for our purposes is that Hume carefully sets up the fork in terms of the imagist theory of concepts such an interpreter would be rejecting. Hume's use of the fork remains without cogent justification in his own work.

(XI Examples of Aristotelian doctrines Hume rejects)

Taking some examples from Aristotelian metaphysics discussed in the *Treatise*, we found that in each case, Hume's critique assumed the imagist theory of thought, and sometimes also did not deal with developed Scholastic views, such as those of Aquinas. In his argument to show that it is impossible that experience should reveal "dependencies in being," Hume makes use of the principle that what may be separated in thought may exist separately in reality. In this way he disposes of the terms of the causal relationship according to

theories of causality which describe these in terms of ontological rather than epistemological categories. The perceptions$_2$ which are the terms of the causal relation on Hume's account are analyzed to show that their only causally relevant property is constant conjunction. Hume adds that one who believed experience could reveal "dependencies in being" would have to believe that from one view of a thing could be gained knowledge of its causal properties. In reply, we argued that, having rejected the principle mentioned for reasons to which we have already alluded, the argument that our experience consists of nothing more than presented instances of qualities is not cogent. Experience must partially consist in awareness of individuals , in the restricted sense of this term, in which it is contrasted with particulars . Reasons for choosing substances as the individuals which are the primary objects of knowledge and perception in question may be independently considered.

(XII More Humean objections to Aristotelian doctrines)

Hume's substantive objections to teleological explanation of natural phenomena, the distinction between potentiality and actuality, and the distinctions in kind between impulsive and volitional actions and customary and reasoned thoughts, are the same objections raised against accounts of causation that suppose experience may reveal "dependencies in being." They suppose causal relations different in kind from conjunction and postulate entities as terms of the relation different in kind from perceptions$_1$.

(XIII Hume's rejection of methodological pluralism and the

"Science of Man")

Arguing that the method so fruitfully employed by Newton in the study of "natural" subjects ought to be extended to "moral" subjects, Hume draws on widespread familiarity on the part of his potential readers with at least popular evaluations of the significance of Newton's account of gravitation and physical explanation. In particular, the restriction of explanation to extrinsic relationships between appearances and the consequent elimination of teleology from explanation argue strongly for a universal method. This is not the place nor has the author the qualifications to embark upon a discussion of method in the social sciences. Nevertheless, it is worth pointing out that the psychological appeal of Hume's case that the two classes of phenomena are sufficiently alike in kind to justify the use of the same method in the study of each must be distinguished from the logical force of the arguments which support it. These latter are dependent upon an imagist theory of thought that is false. If, as Hume maintains, "perceptions" are the objects of perception, and we can form no concepts different in kind from perceptions, Hume's account of causality and hence also of explanation follow, and are applicable to all empirical phenomena whatever. Having defined the limits of experience and knowledge in this way, methodological pluralism can only be a bid on behalf of claims to knowledge for the truth or falsity of which there can be no evidence in experience.

(XIV Hume's account of the relationship between thought and

things)

There is both a critical and a constructive side to Hume's attempt to address what we have called the "Ontological Question" with respect to the nature of experience and the objects of perception: "What are the objects of perception in common thought and speech, and how are they related to thought about or involving them?" On the one hand, he analyzes the notion of objects existing continuously and in independence of our perception of them, rejecting all attempts to account for them in terms of ontological rather than epistemological categories. To this side of the discussion his critique of substance as an answer to the first part of the question may be assigned, as well. On the other hand, he provides an account of what Aquinas called "substances" in terms of "ideas" associated together for pragmatic reason, allowing that a necessary condition of reasoning concerning matters of fact is the belief in a causal order of continuously and independently existing objects.

(XV Hume's reasons for describing our notions of continuously existing and mind-independent objects as fictions)

We distinguished three reasons why Hume must account for continuously existing and mind-independent objects as fictions. First, he cannot allow that we have knowledge of anything different in kind from deliverances of the senses, which are "internal and perishing existences." Secondly, he does not allow a potentiality/actuality distinction, so that objects, far from being Aquinas' substances, potential objects of perception even when they

are not, in fact, perceived, cannot even be constructs out of "actual or possible" perceptions$_1$. Thirdly, on Hume's doctrine of identity, any difference whatever is incompatible with identity of what can be distinguished in terms of it. Reasons for differing with Hume on each of these points have already been indicated.

(XVI Objections to substance as the primary object of perception: A. Cannot entertain generic universals)

Most of Hume's reasons for rejecting substances as the primary object of perception and knowledge assume the imagist theory of thought. It is true that if substances are the primary objects of experience and knowledge we must have the capacity to entertain generic universals. However, Hume shows neither that this is impossible, nor that to suppose it possible is inconsistent with empiricism. Both Kemp Smith and Aaron recognize that Hume nowhere demonstrates cogently that all abstract or general ideas must be images, or that mind cannot entertain what cannot be imagined. And, in addition, it is not at all obvious that empiricism must lead to an imagist theory of thinking, and hence to nominalism. If a repeated characteristic is a possible object of experience, it is no less empirical for being repeated.

(XVII Objections to substance: B. A consistently empiricist alternative that does not require them)

A second Humean reason for rejecting substance as the primary object of perception and knowledge is that there is a consistently empiricist alternative to theories of perception and of mind which

postulate substances. This argument does not stand up to examination. There are serious weaknesses in Hume's account of perception, as discussed, and he demonstrates neither that the intellect, ideas "abstract in our conception of them," and knowledge of essences are incompatible with empiricism, nor that he can account for the relationship between the objects of perception and knowledge and thought concerning them.

(XVIII Objections to Substance: C. Identity and change are contraries *per se*)

Hume's objection from his theory of identity cannot be sustained, for reasons we have discussed. He does not successfully rule out the possibility of endurance through change.

(XIX Objections to Substance: D. Two definitions rejected as unsatisfactory)

The only potential *ontological* objection distilled from Hume's epistemological writings against Aquinas' account of the relationship between objects and concepts consisted in the rejection of both of two definitions of substance. The first defined it as an "unchanging simple substratum," the second as "something which may exist by itself." Neither of these indicate what Aquinas means by substance. Aquinas defines substance as "that which exists in itself," contrasting it with those accidents which exist only "in another." The doctrine is a response to the problem posed for knowledge by the transitoriness of our experience. If the objects of perception and empirical knowledge are to be reliable subjects of predication, they

must endure through change. Substance appears the best candidate for the primary category of objects of knowledge and perception, as it appears to be the primary sort of enduring thing. All other enduring things, whether parts, e.g. organs of a living being, or characteristics, e.g. disciplined habits of mind, are dependent for their existence upon the substances of which they are the parts or the characteristics.

(XX Hume's own account of common sense objects of perception)

Hume recognizes the importance of common sense objects, and attempts a constructive answer to the question of the objects of knowledge and perception in common thought and speech. He suggests that it is imagination which constructs these fictional entities, on the basis of (explicit or implicit) pragmatic considerations. By this means we resolve our perplexity about the fact that while our perceptions are constantly interrupted, we attribute identity and continued existence to material objects through interperceptual intervals. The strength of our belief in these fictional entities is explained in that the "vivacity" of the individual perceptions connected together by such fictions is cumulative, so that the impression of the series as a whole is much stronger than any particular perception by itself. Furthermore, over time we develop the habits of association necessary for the creation of such fictions, becoming more adept at their construction, so that we recognize in newly presented objects similarity to objects formerly encountered, and attribute to them the same fictional identity we

attributed to such objects in the past. Key here is that the "principle of identity" for all such objects is an associative custom true of our minds, not of substances existing in independence of us and of our perception of them.

(XXI Modes of being)

A very important difference between Hume and Aquinas is that Aquinas' allows of a variety of modes of being, while Hume allows only the one (or the indefinitely many, if his nominalism is taken seriously), appropriate to perceptions$_1$. For Aquinas, the epistemologically crucial relation between thought and thing is the relation of identity with respect to that about what is known and perceived which makes it a thing of this or that kind. Thoughts, things and sensations may be different in kind without threatening this identity, for both thoughts and sensations may be "likenesses" of that which they represent to the intellect and to the senses, respectively, by virtue of their systematic causal relatedness to that which they represent.

(XXII Hume's objection to causal theories of perception)

Hume objects to causal theories of perceptions, postulating as they do differences in kind between causes, and the impressions and ideas which are their effects. They are, he argues, indefensible forms of representationalism, particularly vicious because they must always end in scepticism. For the same reasons that the senses can provide us with no evidence of the existence and character of what is different in kind from the deliverances of the senses, they are mute

about any relations, causal or otherwise, between perceptions and such objects.

(XXIII A defence of St. Thomas' theory of perception)

The account of causation on which Aquinas' causal theory of perception depends is Aristotelian, and not in the tradition of post-Newtonian science: the terms of causal relations are, in the primary sense, substances, the objects of the primary form of empirical intuition. Kinds of explanation which have parts or aspects or relations as terms in causal relationships are not excluded, but are categorized as abstract. For that reason, Aquinas' theory does not fit neatly into the mould of Locke, for instance. He would not agree with Hume that his theory must end in that scepticism which Berkeley showed followed on Locke's theory of perception. St. Thomas provides two arguments for the claim that neither sensations nor concepts are primarily <u>objects</u> of knowledge, but are, rather, merely means to knowledge. The first, that scepticism would follow if the contrary were true, is unlikely to convince anyone not already convinced of the hard-nosed realism which is Aquinas' trademark. It does, however, draw attention to the fact that common sense plays a role in Aquinas that it does not play in Hume. Aquinas sees the task of philosophy as the analysis and clarification of what is known implicitly, in pursuit of precision of statement and rigour of argumentation. Hume appeals to common sense only selectively, to bolster positions which he does not hold <u>because</u> they are matters of common sense. The second argument is intriguing. Aquinas argues that,

on the supposition that either sensations or concepts are the objects of knowledge, we can never know if we judge rightly concerning the truth and falsity of propositions. There can be no intersubjective standards of evidence unless terms can be known to indicate the same phenomena when used by different speakers or thinkers. Hume attempts to replace _objects_ as what is primarily known and perceived, whether substances or otherwise, with systematic causal relatedness between the perceptions of various percipients. However, why we should reject _objects_ , and in particular _substances_ as what is known and perceived is not clear, if we reject Hume's imagist theory of thinking. Hume himself has no compelling answer to scepticism (or solipsism), for all the seriousness with which he treats the subject, save the advice that the one who is afflicted with sceptical doubts follow his example and play billiards with Adam Smith in order to forget them. Rejecting the premise that what is known is what is immediately present to the mind as such, on the grounds that there are no good reasons for believing this to be the case, though granting that it is a suggestion that is irrefutable (Samuel Johnson's refutation of Berkeleyan idealism notwithstanding), scepticism need not follow from distinctions in kind between objects, sensations and concepts.

(XXIV Aquinas' doctrine of judgment)

The notion of "judgment" plays a central role in Aquinas' account of knowledge, for it is only in judgments (composition and division), and not in concepts merely as such (simple consideration), that our knowledge is expressed. The _agens intellectus_ is crucial to

Aquinas' account of both the formation of concepts, mentioned earlier, and the making of *a priori* and *a posteriori* judgments. It is the intellect which forms both concepts and judgments in response to experience, and it is the intellect which examines concepts once they are formed, and discerns inclusive and exclusive relations of meaning between them.

(XXV Humean objections to Aquinas' doctrine of judgment)

Three Humean objections to Aquinas' doctrine of judgment were distinguished. The first, that there can be no relationship of meaning between generic and qualitative concepts as such follows on the restriction of universals which the mind can entertain to universals of sense. There may be good reasons for believing that our knowledge is restricted in this way, but the reasons Hume provides assume his imagist theory of thinking. The second, that there is no important distinction to be made between conception, judgment, and reasoning, is not demonstrated. There is good reason to believe the distinction between conception and judgment important, at least, for it provides a means to account for the distinction in kind between *a priori* and *a posteriori* knowledge. Finally, we have found reason to believe that the *intellectus* involved in judgment, according to Aquinas, is not incompatible with empiricism, broadly construed, and makes it possible both to account for *a priori* knowledge without allowing that knowledge of matter of fact is possible in independence of experience, and to account for the fact that we need not always use symbols of any kind in order to think.

CONCLUSIONS

(XXVI The nature of experience)

David Hume does not fare well considered as a critic of St. Thomas Aquinas on the nature of experience and the objects of perception. With respect to the nature of experience, Hume maintains that our knowledge of matter of fact is limited to the realm of appearance, the realm of the senses _qua_ sensible. Aquinas, on the other hand, maintains that our knowledge of matter of fact is derived from the senses _qua_ revelatory of the intelligible, of what can be thought and spoken. Although it is true that there may be reasons for believing Hume to be right independent of his imagist theory of thinking, Hume's own reasons assume the two key theses stated in the opening paragraphs of the _Treatise_ , the cornerstones of his developed imagist theory of thought. Hume development of an entire philosophical scheme to deal with classical problems consistent with these premises is brilliant, but ultimately wrong. Hume cannot, in the end, do away with an analysis of the relationship between thought and thing which allows the mind to distinguish aspects which are not separately existing parts in the objects of which they are the aspects. In criticizing Scholasticism, Hume does not recognize the significance of the problem of universals for the doctrines on which they disagree, and so continually assumes a theory of thinking and of the relationship between thought and reality with which Aquinas,

certainly, would immediately take issue.

(XXVII The objects of perception)

Hume accounts for the objects of perception in epistemological categories, as perceptions$_2$. Aquinas takes the metaphysical category, substance, as archetypical of the objects of perception and of knowledge. Once more, Hume's critique of Aquinas largely assumes the imagist theory of thinking and a model of the way in which experience provides evidence for propositions about matters of fact which characterizes this process as the establishment of associative habits in response to experience. There is a particularly strong irony here, however, in the fact that these habits are established in response to a repetition in experience that is denied in Hume's arguments against ideas "abstract in our conception of them." Where Hume does not assume the contentious theory of thought in criticizing the notion of substance, he does not characterize the Scholastic doctrine properly, and faults positions with which Aquinas has no more sympathy than himself.

(XXVIII Knowledge and experience)

For an empiricist, the objects of perception are the objects of empirical knowledge. Hence, in inquiring concerning the nature of experience and the objects of perception, the relationship between experience and knowledge must be addressed. Hume allows the existence of only a single mode of being, that of perceptions$_1$, arguing that what is known is what is immediately present to us in consciousness. All else is constructed out of perceptions$_1$, or

consists either in relations between them or relations between what is constructed out of them. Aquinas allows many modes of being, and does not accept the premise that what is known is what is immediately present to us in consciousness, whether sensations or concepts. For these reasons, Aquinas may consistently account for the relationship between perception and knowledge as a causal one, an aspect of a larger causal process going on between what is known and the knower as such. And neither the knower nor what is known are collections of perceptions$_1$. Hume does not provide a convincing account of how it is possible to account for knowledge without allowing for more than one mode of being, and, having granted a second in our specific concepts, he requires evidence independent of his imagist theory of thinking that is not forthcoming to support the supposition that Aquinas' causal theory of perception is impossible.

OUTSTANDING PROBLEMS

(XXIX Problems for Aquinas -- Introduction)

That Hume, generally, is not cogent as a critic of Aquinas on the nature of experience and the objects of perceptions does not at all entail that Aquinas' views are free of difficulty. It may be worthwhile briefly to draw attention to a few of these.

(XXX Knowledge of Individuals)

A very real and thorny problem with Aquinas' doctrine of substance as the objects of knowledge has to do with knowledge of

individuals. This dilemma has been convincingly expressed by Edwin Hartman in discussing Aristotle's doctrine of substance. Hartman points out that Aristotle's desire to identify the objects of perception with the objects of knowledge is at least apparently inconsistent with certain of his claims. Aristotle maintains that that the primary sort of thing in the order of being is the individual substance. Yet he also maintains that the mind knows things only universally and abstractly. How, then, is it possible to identify substances as the primary objects of knowledge, given that substances are typically material, when the powers for knowing are themselves immaterial and have as their primary objects what is immaterial and universal?[1] It is true that, having grasped that about a thing which makes it an object of this or that kind, we can distinguish it from others of its kind by noting properties which it has in peculiar combination. But in the order of being, in the case of humans at least, Aquinas' own theological commitments should lead him to entertain the suggestion that what makes Sam Sam is not that he was born at such and such a place at such and such a time, or any other accidental feature true of him, but his character and personality, developed and expressed through his history, and encompassing all aspects of that history. This is not at all easy to express. The best I can do at present is to say that it seems unsatisfactory to speak of the "essence" of a human being in particular as his or her principle of identity through time, for essence is that about a thing which makes it a thing of this or that

kind . It does not have to do with individuals as such. A similar reservation may require a second look on the adequacy of Aquinas' principle of idenitity for substances in other classes, though this is even less clear.

(XXXI Definition, categorization and explanation)

The most sympathetic interpreters of Aquinas, if they are honest, cannot pretend that his model of explanation, derived from the Aristotelian fourfold account of causality, may simply be grafted onto modern reflection upon the significance of scientific explanation. We have had occasion to champion Aquinas' willingness to recognize that different sorts of phenomena may demand different patterns of investigation and explanation, different ways of speaking and acting in pursuit of knowledge of them, respectively. However, this ought not to obscure the fact that his own philosophical account of explanation is a development of the reflections of a biologist upon philosophical questions arising out of his work. If, as has been argued here, Aquinas is right in portraying language not merely as a network of conventions, it may still be the case that this is a useful characterization of language as it functions in certain disciplines which aim at very precise but very abstract knowledge, such as the modern discipline of Physics. Taking Aquinas' tolerance of methodological and explanatory diversity as exemplary, an immense work remains to explore the relationship between the methods, explanations and theories of the various disciplines, and between these disciplines and common sense.

(XXXII Phenomenalism)

Finally, a Thomist has reason to fear that the tools of Aquinas' analysis of conception might fall into the hands of some latter day descendent of Hume, who might provide reasons independent of Hume's theory of thinking for restricting the realm of knowledge to the realm of appearance, as Hume understood this. Such an unsavoury soul might make good use of Aquinas' account of concept formation, eliminating many of the most important objections against Hume's empiricism, but placing them at the service of a sophisticated phenomenalism. From such as these, the prayers of the Angelic Doctor preserve us.

ENDNOTES - CHAPTER THREE

1. I am indebted to Prof. Bailey for this answer to Hume.

2. Hartman, Substance, Body and Soul , p. 21; For Aquinas' claim that "what is known first and essentially by [the intellect]" is "the whatness of material things which the intellect abstracts from sense images," see Aquinas, S.T. 1a. 85, 8. 12:87. For the claim that the " per se object of sense perception" is the external source of change in the sense organ, that is, the individual material substance, see S.T. vol. 11: Man (1a. 75-83) Latin text, English translation, Introduction, Notes, Appendices and Glossary by Timothy Suttor, 1a. 78, 3. p. 131.

BIBLIOGRAPHY

Aaron, Richard I. The Theory of Universals . Oxford: At the Clarendon Press, 1967.

Allaire, Edwin B. "The Attack on Substance: Descartes to Hume." Dialogue 3 (1964):284-287.

Aquinas, Saint Thomas. On Being and Essence . Translated by Armand Maurer. Toronto: The Pontifical Institute of Medieval Studies, 1949.

_____ . Summae Theologiae . 60 vols. Blackfriars in conjunction with Eyre and Spottiswoode, London, and McGraw-Hill Book Company, New York, c. 1964-. Vol. 11: Man (1a. 75-83) Latin text, English translation, Introduction, Notes, Appendices and Glossary by Timothy Suttor. Vol. 12: Human Intelligence (1a. 84-89) Latin text, English translation, Introduction, Notes, Appendices and Glossary by Paul T. Durbin.
All page numbers given with references to Aquinas' Summa refer to this edition.

Aristotle. The Complete Works of Aristotle . Edited by Jonathan Barnes. Princeton, N.J.: Princeton University Press, 1984.
All page numbers given with references to Aristotle's works refer to this edition.

Blanshard, Brand. Reason and Analysis . LaSalle, Illinois: Open Court Publishing Company, 1962.

Capaldi, Nicholas. David Hume: The Newtonian Philosopher . Boston: Twayne Publishers, 1975.

Carre, Meyrick H. Realists and Nominalists . Oxford: Oxford University Press, 1946.

Coffey, Peter. Epistemology . 2 vols. Gloucester, Mass.: Peter Smith, 1958.

Coffey, Peter. Ontology . Gloucester, Mass.: Peter Smith, 1970.

Collins, James. A History of Modern European Philosophy . Milwaukee: The Bruce Publishing Company, 1954.

Copleston, F.C. A History of Philosphy . Vol. 2: Mediaeval Philosophy: Augustine to Scotus . Vol. 5: Hobbes to Hume . London: Burns Oates and Washbourne, 1959.

Farrer, Austin. Faith and Speculation . London: Adam and Charles Black, 1967.

Grant, Edward. "A New Look at Medieval Cosmology, 1200-1687." Proceedings of the American Philosophical Society 129 (1985):417-432.

Hall, Roland. Fifty Years of Hume Scholarship . Edinburgh: Edinburgh University Press, 1978.

Hartman, Edwin. Substance, Body and Soul: Aristotelian Investigations . Princeton, N.J.: Princeton University Press, 1977.

Haymond, William S. "Hume's Phenomenalism." The Modern Schoolman 41 (March, 1964):209-226.

Hume, David. An Enquiry Concerning Human Understanding . In The English Philosophers from Bacon to Mill . Edited by E.A. Burtt. New York: Random House, 1939.

_____ . A Treatise of Human Nature . Edited by L.A. Selby-Bigge. Oxford: At the Clarendon Press, 1978.

Kemp Smith, Norman. The Philosophy of David Hume . London/Melbourne/Toronto: Macmillan; New York: St. Martin's Press, 1966.

Kenny, Anthony. Aquinas . Oxford, Toronto, Melbourne: Oxford University Press, 1980.

Knowles, David. The Evolution of Medieval Thought . New York: Random House, 1962.

Mascall, E.L. Words and Images . London: Longman's, Green and Company, 1957.

Montague, W.P. The Ways of Knowing . London: George Allen and Unwin, Ltd.; New York: The Macmillan Company, 1925.

Newton, Isaac. Newton's Philosophy of Nature . Compiled and edited by H.S. Thayer. New York: Hafner Publishing Company, 1953.

Noxon, James H. Hume's Philosophical Development . Oxford: At the Clarendon Press, 1975.

Price, H.H. Hume's Theory of the External World . Oxford: At the Clarendon Press, 1940.

_____ . Thinking and Experience . London: Hutchinson's, 1953.

Price, Kingsley Blake. "Hume's Analysis of Generality." The Philosophical Review 59 (1950):58-76.

Robison, Wade L. "Hume's Scepticism." Dialogue 12 (1973):87-99.

Ryan, John K. "Aquinas and Hume on the Laws of Association." New Scholasticism 12:366-367.

Schilpp, Paul Arthur. The Philosophy of Brand Blanshard . Library of Living Philosophers, vol. 15. LaSalle, Illinois: Open Court, 1980.

Schmidt, Robert W., S.J. The Domain of Logic According to Saint Thomas Aquinas . The Hague: Martinus Nijhoff, 1966.

Ushenko, Andrew. "Hume's Theory of General Ideas." The Review of Metaphysics 9:236-251.

Wolterstorff, Nicholas. On Universals . Chicago: The University of Chicago Press, 1970.