Chapter 4: CLASSICAL, SEVENTEENTH CENTURY RATIONALISM

§1 Introduction

Having identified a number of positive features of Greek rationalism it is appropriate to inquire whether these are also features of classical, seventeenth century rationalism. It will be argued that there are significant similarities between the two, while recognising that there are also significant differences. Table 3 [Appendix A, p.267 below] sets out some of the main similarities and differences, and should be referred to in relation to the following comparison.

Both Greek and Classical rationalism share the presumption of a supernatural order behind nature or the universe: the former an unspecified number of supernatural forces which infuse the heavens and human affairs; the latter, the God of Judaeo-Christianity: an omnipotent God who created the whole universe. Both postulate a personal spirit or animating force in each individual human: the soul or the mind; and in each case this spirit is responsible for individual human knowledge, action, and moral responsibility. Both postulate some unobservable, yet fundamental elements of knowledge. Greek rationalism postulates independently existing forms; classical rationalism mind-dependent ideas. Both reify mathematical reasoning and claim (or imply) that sense is an inferior way of knowing. Both claim or imply that the world of sense, or appearance(s) is deceptive, and that reality (which is the basis of knowledge) is much more fundamental, and quite different from appearance(s). And both thereby imply that there is some special, more difficult and profound method of probing the real nature of things, apart from sense perception or sense experience. Both imply, too, that "sense" is associated with the animal side of us, the animal passions and lusts, as contrasted with the intellectual and sublime element in humans, or "sweet reason". And finally, both conceive of science as a body of systematic knowledge, or a deductive system, upholding mathematics -- both its findings and methods -- as a model. The major differences between Greek and Classical rationalism, according to this analysis, are --

(i) The differences in the conceptions of the supernatural force(s) behind nature or the universe.

(ii) The classical rationalists appear to have had a much clearer conception of "the universe" -- God's creation -- as a complete

system (a large clock or machine), while the Greek notion of "fate" has become modified into the "modern" conception of causal "necessity", derived from God's omnipotence and plan.

(iii) A major change in the notion of "ideas" due to a long intervening period of evolution.

(iv) A consequent development in the notion of soul or mind. Whereas the Socratic notion of the soul involved (a) an animating force or seat of action; (b) the seat of knowledge; (c) the seat of moral responsibility; to these, classical rationalism adds: (d) the repository of ideas.

As we might expect of a philosophical movement or "whole outlook" which has persisted and evolved over two millenia -- and taken many specific forms -- the details of this system have varied. So the specific details of those characteristics of rationalism listed under #4, 5 and 6 of Table 3 have varied considerably. What is constant in all forms of rationalism is a range of **dichotomies** of, for example: (a) knowledge and opinion related to (b) two faculties of soul or mind, (c) sense and reason, (d) two ways of knowing, and what Anderson identified as (e) two ways of being or (f) two kinds of truth. No matter what specific forms these postulates of rationalism have taken, they are always manifested as fundamental divisions or dualisms.

In this chapter, evidence will be produced in support of this interpretation of rationalism; and most importantly, it will be argued that, as with the notion of soul in Greek ratioralism, the notion of mind is fundamental to this whole rationalist edifice, especially those dichotomies or dualisms listed, to which Anderson drew attention.

§2 Theological Assumptions of the Classical Rationalists

There can be little doubt about Descartes' dedication to Christianity or its importance in his philosophical writings [but see Keeling, 1968, p.18ff]. He made his views perfectly plain in a dedicatory letter to the learned men of the Sorbonne intended to introduce to them, with due humility, his *Meditations*. In that letter he said, in part:

> I have always thought that two topics -- namely God and the soul -- are prime examples of subjects where demonstrative proofs ought to be given with the aid of philosophy rather than theology. For us who are

> believers, it is enough to accept on faith that the human soul does not die with the body, and that God exists; ... The vital importance of the cause and the glory of God, to which the entire undertaking [i.e., the Meditations] is directed, here compel me to speak somewhat more freely about my own achievements than is my custom. [Cottingham, Stoothoff and Murdoch, 1984, Vol.II, p.3-5. *Note: Hereafter, this publication is referred to as "CSM", followed by the volume number and the page number, e.g.:* CSM,I,123.]

Unlike Descartes and Leibniz, Spinoza was born a Jew, and like many Jews, thoroughly educated in Hebrew, the Scriptures, Talmud and medieval Jewish classics; and in Latin as well [Donagan, 1988, p.9]. He was expelled from the Dutch Jewish community for heresy [Ibid, p.10, 13], but he remained dedicated to Hebrew studies, compiling a Compendium of Hebrew Grammar [Ibid, p.15]. It is reasonable to believe that he had difficulties reconciling his own developed and sincere religious beliefs, and commitment to philosophical inquiry [see Donagan, Ibid, p.9], with orthodox Judaism. One of his major philosophical concerns would have been to reconcile his belief in God with his demands for intellectual rigour; for as Hampshire points out: "God, essentially and by his nature, is wholly outside our experience, and cannot be properly described by imaginative analogy with anything within our experience; he must be conceived by an effort of pure thought" [Hampshire, 1951, p.24].

Spinoza's theological presuppositions are made clear in his major, and most mature work, the ***Ethics***. In the opening part, he includes a definition of God (along with other important definitions such as "Cause of Itself" and "Substance"): "By GOD (Deus) I understand a being absolutely infinite, that is, a substance consisting of infinite attributes, each of which expresses eternal and infinite essence" [*Ethics* 1, Definition 6]. Later, he proves from his definitions and axioms, that God necessarily exists [Ibid 1, Prop.11], and that apart from God "no substance can exist or be perceived" [Ibid 1, p.14]; "Whatever is, is in God, and nothing can exist or be conceived without God" [Ibid 1, p.15].

In the *Monadology*, Leibniz expresses his belief in Christian theology, saying:

> This is why the ultimate reason of things must lie in a necessary substance, in which the differentiation of the changes only exists eminently as in their source; and this is what we call *God*.
>
> Now since this substance is a sufficient reason of all this differentiation, which is itself likewise all connected, *there is only one God, and this God is enough*. [Leibniz, 1965, p.10]

§3 The Mind or the Soul

In examining the classical rationalist view of (the) mind, it is important to establish, first of all, that the notion of the mind in classical rationalism is essentially the Greek (Socratic) notion of the soul by another name, allowing that the assumed relationship between the soul and the forms in the one, is quite different from the relation between mind and ideas in the other. Evidence put forward in the following survey shows that there are good reasons for believing that the Greek notion of soul suited the theological presuppositions of the classical rationalists, and was for the most part transcribed into their apparently intellectualist terminology as the mind. But this body of evidence also shows that the notion of mind is primarily a theological notion, not a scientific one.

In speaking of Socrates, Xenophon described the soul as "the only seat of intelligence" [Memorabilia, I, II, 53, p.39; Loeb edition, 1953]. A.E.Taylor said "it was Socrates who, so far as can be seen, created the conception of the *soul* which has ever since dominated European thinking" [Taylor, 1951, p.139]; and "when Christianity came to the Graeco-Roman world it found the general conception of the soul which it needed already prepared for it by philosophy" [Ibid, p.140; see also Speake, 1979, p.308]; and the description which Taylor gives of the soul leaves us little room to doubt that it is what Descartes called the mind or consciousness. It should be noted that even among the Greeks there were those who identified mind and soul. Aristotle states that "Democritus roundly identifies soul and mind" [*De Anima*, 404a 27, and 405a 9; in McKeon, 1941, pp.539, 540]. According to Shaffer:

> It was Plato who was the first to make a sharp distinction between the mind and the body, holding that the mind could exist both before and after its residence in the body and could rule the body during that residence. St. Augustine further developed this distinction and theorized in more detail about the relation between the two. But it was Descartes who first developed a systematic theory of the natures and interrelationship of mind and body.
>
> For Descartes both body and mind were substances, but with utterly different basic natures. Body is extended and unthinking; mind is thinking and unextended. [Shaffer, in Edwards, ed., 1967; Vol.5, p.336-337]

In three separate passages, Descartes acknowledges that what he calls the mind is the soul, and that he prefers the term 'mind' because it avoids a certain ambiguity which attaches to 'soul'. Referring to one of his critics, Descartes

said: "I approve of his calling the rational soul the 'human mind', for by using this expression he avoids the ambiguity in the term 'soul', and he is following me in this respect" [CSM,I,296]. Elsewhere he said: "The substance in which thought immediately resides is called mind. I use the term 'mind' rather than 'soul' since the word 'soul' is ambiguous and is often applied to something corporeal" [CSM,II,114; see also CSM,II,246].

Sufficient has been said to establish that Descartes' conception of mind is historically linked to the ancient notion of the soul. It will now be shown that it is very much tied to, and dependent upon, Descartes' theological preconceptions; and these are integrated with his notion of mind by (a) its division of functions, and (b) its innate ideas. He believed human minds are no less a part of God's creation than material things; as he said, they are a very special part of all creation: "For the human mind has within it a sort of spark of the divine, in which the first seeds of useful ways of thinking are sown, seeds which, however neglected and stifled by studies which impede them, often bear fruit of their own accord" [CSM,I,17]. In a discussion of the will, Descartes makes it clear that he believes both our will and our understanding come from God: "From these considerations I perceive that the power of willing which I received from God is not, when considered in itself, the cause of my mistakes; ... Nor is my power of understanding to blame; for since my understanding comes from God, everything that I understand I undoubtedly understand correctly, and any error here is impossible" [CSM,II,40].

On the basis of the cogito, Descartes defines mind as that whose whole essence or nature consists in thinking:

> From this I knew I was a substance whose whole essence or nature is simply to think, and which does not require any place, or depend on any material thing, in order to exist. Accordingly this 'I' -- that is, the soul by which I am what I am -- is entirely distinct from the body, and indeed is easier to know than the body, and would not fail to be whatever it is, even if the body did not exist. [CSM,I 127. Where CSM translates "the soul", Sutcliffe, 1968, translates "the mind", p.54.]

Descartes claims the soul has only two functions: "the perception of the intellect and ... the determination of the will" [CSM,I,307]. This is explained more fully in *The Passions of the Soul:*

> Having thus considered all the functions belonging solely to the body, it is easy to recognize that there is nothing in us which we must attribute to our soul except our thoughts. These are of two principal

> kinds, some being actions of the soul and others its passions. Those I call its actions are all our volitions, for we experience them as proceeding directly from our soul and as seeming to depend on it alone. On the other hand, the various perceptions or modes of knowledge present in us may be called its passions, in a general sense, for it is often not our soul which makes them such as they are, and the soul always receives them from the things that are represented by them. [CSM,I,335]

Descartes maintained all our knowledge resides in the mind (or rational soul) [CSM,II,405]. However, he did not recognise any distinction of faculties of sense and reason, often attributed to classical rationalists [Kenny, 1968, p.173,174; c.f. Table 1, Appendix A].

Although Descartes maintained there was an unbridgeable distinction between the two substances, mind and body [see CSM,II,247,248], in several places he certainly seems to imply there is interaction between them. He claimed "that the principal effect of all the human passions is that they move and dispose the soul to want the things for which they prepare the body" [CSM,I,343]; "the soul will have different sensations corresponding to the different ways in which the entrances to the pores in the internal surface of the brain are opened by means of the nerves" [CSM,I,102]; and that it is by the mind's turning to memory traces imprinted on the brain that it remembers [CSM,II,247].

However, Descartes does not describe any of the characteristics of the mind. Telling us that the mind is that which thinks does not tell us what sort of thing it is, any more than defining something as that which digs; the latter might be a shovel, garden fork, plough, bulldozer, rabbit, elephant, wombat, or human. Curiously, Descartes could not recognise the difficulty his functional definition created when he responded to one of his critics [CSM,II,248-249].

It must be pointed out that since the mind is not a material thing or extended, the properties of material or extended things cannot be properties of mind. It follows that the only attributes of mind which Descartes lays claim to, and could lay claim to, are the powers which he lists. But what are those powers other than the power of knowing and the power of willing? That tells us no more than that which thinks is also that which knows or wills. It does not describe any characteristics of mind.

Spinoza's view of mind is much more difficult to understand and expound than Descartes'. It is certainly linked to God's intellect, and our ideas are linked to God's ideas. This is brought out in particular in the Corollary to Proposition 11 in Part 2 of the *Ethics*:

> **Prop. 11.** The first thing which constitutes the actual being of the human mind is nothing else than the idea of a particular thing actually existing. ...
>
> > *Corollary.* -- Hence it follows that the human mind is a part of the infinite intellect of God, and thus when we say that the human mind perceives this or that, we say nothing else than that God, not in so far as he is infinite, but in so far as he is explained through the nature of the human mind, or in so far as he constitutes the essence of the human mind, has this or that idea: ... [Spinoza, *Ethics*]

According to Spinoza, then, the human mind is **constituted by** an idea: the idea of the human body. However, Spinoza's definitions of mind and ideas certainly appear to be circular, the definition of mind depending upon the definition of idea, and vice versa: "By IDEA (*idea*) I understand a conception of the mind which the mind forms by reason of its being a thinking thing" [Ibid].

Spinoza gives no better description of mind than Descartes. However, his definition brings out two points: (i) the definitions of mind and ideas are interdependent, or circular; and (ii) his notion of mind is positively theological: it is part of, and dependent upon, God's mind.

According to Leibniz, what distinguishes humans from other animals, which he calls brutes, is their ability to know necessary and eternal truths. And it is this ability to attain reason "which we call the rational soul or **mind**" [*Monadology §29,* 1934, p.8], whereby Leibniz identified mind with (a part of) soul. This view is a little more fully explained in the *Principles of Nature and of Grace, Founded on Reason* [Ibid, p.24].

Leibniz claims that what distinguishes **the kind of mind** humans have from the **kinds of minds** animals have, is the kinds of truths they (can) contemplate: or their being able to recognise indubitable **connections between ideas**. This does not tell us anything about the minds involved. It is comparable to saying humans can distinguish colours whereas dogs cannot, without telling us anything about the characteristics of the eyes of each species. But it does mean that Leibniz is committed to defining the special kind of minds humans have in terms of ideas, so that once again we find this interdependence

between minds and ideas. And of course, Leibniz's attempt to distinguish two kinds of truths -- those of sense and intellect, or contingent and necessary -- depends totally upon the notion of mind: on a special kind of "rational" mind. The theological significance of Leibniz's views of mind and innate ideas is discussed at some length on p.83-86 below.

Before commenting further on the relationship between mind and ideas, it may help to examine the notion of ideas.

§4 Ideas

As noted, one very significant difference between Greek and classical rationalism is the role played by ideas in the latter. For Plato, the forms were independent entities; but for the classical rationalists, ideas are positively confined within minds, dependent upon minds, some being innate in minds. It will be appropriate, therefore, to begin with a brief outline of the evolution of the idea of ideas.

Hoernle [1924] traces the history of the notion of "idea", revealing how it has undergone subtle, yet significant changes. He divides this history, or evolution, into three main stages. The original Greek notion of "idea" related to a thing's manifest appearance or form [Ibid, p.22]. But there was a shift from recognising the manifest characteristics of a kind of thing by means of the senses to the view that a thing's "essential nature" or "essence" might "be discernible only by intellect or reason" [Ibid, p.23]. Thus, "For Plato, 'ideas' are 'real natures' or 'essences'" [Ibid, p.22]. On this Platonic view, ideas are connected with knowledge as opposed to opinion: they are universals, "not sensible, corporeal, geometrical, but 'invisible' and 'immaterial' objects to be apprehended by reason, not by the bodily eye" [Ibid, p.24]; they are "the objects of scientific knowledge" [Ibid, p.29].

The second main conception of ideas, according to Hoernle, is a medieval one indebted to Philo, Plotinus and St. Augustine, and this view is different from Plato's because of the changed importance of the relationship between ideas and God:

> For Plato the ideas, not God, are the supreme realities. On the other hand, when the Theism of Jewish and Christian thought came into contact with Greek philosophy, in the resulting give-and-take the balance was shifted in favour of God. If God is the supreme, and, indeed, the all-inclusive, reality, the "ideas" must somehow be conceived as part of His being or "essence". This was

> facilitated by their character as "ideal patterns", which only thought can apprehend. Thus God came to be regarded, not only as creating the world in accordance with these ideal patterns, but also as by His thought creating the patterns themselves. [Ibid, p.31-32]

The existence and nature of ideas "now depends on the existence and nature of the Divine Thinker" [Ibid, p.32]; there is a most important shift in the relation between mind and ideas: "for Plato the ideas, though they may be apprehended by mind, are in existence and nature independent of mind; for the mediaeval thinkers, they are dependent on God's mind, for God's mind expresses itself in what He thinks, and apart from the activity of His mind they are nothing" [Ibid, p.33].

This mediaeval view maintains that ideas are universals, but changes their independence of mind as in Plato's view, to a dependence upon mind. It should be emphasised that, according to Hoernle's account, under Christian influence ideas took on a theological significance they did not have in Plato's scheme.

The third theory of ideas which Hoernle considers "extends the dependence of "ideas" on mind to human minds, and, on the other hand, drops the restriction of the term to universals and ideals, so that it now covers any and every object of which any human mind is at any time aware" [Ibid, p.33].

Curiously, the history of ideas passed from the manifest character of sensible things, to universals independent of minds, to universals dependent upon God's mind, to particulars dependent upon specific human minds, (and, we might add, which Hoernle does not say), to the sense-data views of Russell and others.

Descartes on ideas

When Descartes, Locke, Spinoza, Leibniz, Berkeley, etc., spoke of ideas, that notion already had a long and significant history. Although to a modern reader their introduction of the notion of ideas appears to be innocent, it is not: it is already charged with philosophical and, more importantly, theological significance.

Kenny [1968, Ch.5] discusses Descartes' use of the term "ideas" in considerable detail. He points out that Descartes "was consciously giving [the term 'ideas'] a new sense" [Ibid, p.96], but that "it is not easy to make all his explanations cohere" [Ibid, p.97]. He points out "there is no simple one-to-one correspondence between words and ideas" [Ibid]; "All ideas ... purport to

be of things" [Ibid], yet there are ideas of God, angels, animals, men, sun, wax, heat, cold, colours, sounds, shapes, length, motion, time, thought and existence [Ibid]. Descartes uses the word "idea" in relation to (a) abilities, including "the ability to use words", (b) capacities, (c) such abstract universals as truth (or existence, see above), (d) particular actual experiences such as someone's 'actually feeling the heat of a particular fire" [Ibid, p.98].

> Even when the context makes clear that what is in question is an episode and not a capacity, Descartes seems inconsistent in the manner in which he speaks of ideas. Sometimes, ... an idea is an operation or act of the mind; at other times it is not so much an act of the mind as the object of *content* of such an act. This ambiguity was signaled by Descartes himself in the Preface to the *Meditations*. "In this term *idea* there is an equivocation: it may either be taken materially, as an act of my understanding ... or objectively, as what is represented by this act" (AT VII, 8; HR I, 138). [Ibid, p.99]

Kenny points out that Descartes is inconsistent in the way he describes the relation between a person and their ideas: Descartes uses a variety of verbs for these relations: "Thus I form' ideas ... or 'construct' them ... I also 'grasp' them ... (or) 'find them in myself ... 'bring them out of' my consciousness, 'as if out of a treasury' ...; they 'present themselves' to me ... and I 'notice' them ... (or) ... 'perceive' them ..., and my mind 'looks at them' ... " [Ibid, p.99-100)]. In fact, Kenny's discussion shows in effect that Descartes used the term "ideas" in a baffling variety of ways, gave a number of different and inconsistent accounts of it, so that it is impossible to say "all his explanations cohere".

In fact, Descartes says many things about ideas in all sorts of contexts, but gives no systematic account of his theory of ideas. Consequently it is not possible to give a coherent account of his theory of ideas here. What follows is a short compilation of various statements Descartes makes about ideas, but it also juxtaposes passages which certainly do not appear to be consistent, and is interspersed with some critical comment. It begins with definitions of "Thought" and "Idea" which Descartes provided in his *Replies to the Second Set of Objections* (to his *Meditations*), these being the most definitive account of ideas he gives:

> I. *Thought*. I use this term to include everything that is within us in such a way that we are immediately aware of it. Thus all the operations of the will, the intellect, the imagination and the senses are thoughts. I say 'immediately'

so as to exclude the consequences of thoughts; a voluntary movement, for example, originates in a thought but is not itself a thought.

II. *Idea*. I understand this term to mean the form of any given thought, immediate perception of which makes me aware of the thought. Hence, whenever I express something in words, and understand what I am saying, this very fact makes it certain that there is within me an idea of what is signified by the words in question. Thus it is not only the images depicted in the imagination which I call 'ideas'. Indeed, in so far as these images are in the corporeal imagination, that is, are depicted in some part of the brain, I do not call them 'ideas' at all; I call them 'ideas' only in so far as they give form to the mind itself, when it is directed towards that part of the brain. [CSM,II,113]

These two definitions are worthy of lengthy consideration, but that is not possible here. One somewhat lesser criticism will be made first and then a more substantive one. The last full sentence in definition II (beginning "Indeed") appears to be completely nonsensical, which is crucial since Descartes was attempting to define "idea". He says images "in the corporeal imagination" or "depicted in some part of the brain" are **not** "'ideas' at all". The problem then is: what is he referring to as "them" in the final passage? He cannot be saying "I call those images in some part of the brain **which are not ideas at all**, ideas only in so far as ... "; that would be a contradiction. But if he is not talking about those images in the brain, what does "them" refer to?

The more important criticisms however, relate to --

(i) these definitions as definitions, and
(ii) the circularity of (or interdependence between) the definitions of ideas and mind.

Two points must be made at the outset. Firstly, only the first sentence in each of these passages can be considered a definition; the remainder is amplification. Secondly, on Descartes' own view **we are our minds**, so when he speaks of "us", "we", "me" "I", he is referring to (our or his) mind(s). So if the first sentence in definition I is the definition, and the rest is amplification, the definition is clearly inadequate because it does not exclude things which Descartes wished to exclude, for example, voluntary movement. Descartes can exclude these from being thoughts by implying they are consequences of thoughts by introducing and bolstering the notion of

"that of which we are **immediately** aware". Of course "we" is a pronoun for our "**minds**", so the notion of thought depends upon the notion of mind. The outcome appears to be that, **by definition**, we (that is, minds) are immediately aware of certain things, thoughts and ideas, and thoughts and ideas are all we are immediately aware of; we are only mediately aware of other things. But this manoeuvre has important consequences. Descartes could not define thought or idea by the same "certain" rationalist method used to establish the notion of mind. Had he attempted to do so, the emptiness of his method would have been exposed in a plain circularity. If mind is that which thinks (that whose whole essence consists in thinking), and in thinking it must have or think thoughts which are distinct entities from mind -- for thinking without thoughts is as impossible or absurd as thoughts which are not thought by any thinking thing -- then, in order for the certainty of the definition of mind to succeed (as a rationalist "principle"), it is just as important to establish the existence of thoughts (as that whose whole essence consists in being thought), as to establish the existence of mind. The point may be expressed in this way: Descartes' view of mind and ideas is: mind is a thinking thing or a thing which thinks thoughts, and thoughts are the things that thinking things think. Having made that point, it can now be seen that precisely this same circularity occurs in the two definitions under scrutiny. If the first sentence in each is the definition concerned, and the rest is amplification, the two definitions stripped of all accretions are:

> I. *Thought*. [is] everything that is within us in such a way that we are immediately aware of it.
>
> II. *Idea*. [is] the form of any given thought, immediate perception of which makes me aware of the thought.

If the "I", "us", "we" and "me" are (first person) pronouns for mind, these definitions can be transcribed as:

> I. *Thought*. [is] everything that is within *mind* in such a way that *mind is* immediately aware of it.
>
> II. *Idea*. [is] the form of any given thought, immediate perception of which makes *mind* aware of the thought.

In this form, we can see that thought is that within mind of which mind is immediately aware; idea is the form of any thought, the perception of which form (by what?) makes mind immediately aware of the thought. Clearly these definitions are totally unirformative. When they are combined with the additional material dismissed previously as nonsensical, it is clear that the whole system of definitions is circular and vacuous:

> idea is the form of any thought;
> the perception of the form of thought (idea) is what makes mind immediately aware of the thought; and
> idea is that which gives form to the mind itself.

It must be concluded that neither minds nor ideas are satisfactorily defined, but rather, the attempted definitions are vacuous and circular.

Returning to other things Descartes said about ideas, he said we have:

(i) ideas -- of tickling, pain, and heat [CSM,I,84]; of objects which strike the senses [Ibid,I,105]; of light, sounds, smells, tastes, heat and other qualities of external objects [Ibid,I,139]; of colours and light [Ibid,I,153]; of a man, a chimera, the sky, an angel, or God [Ibid,I,25]; of a noise, the sun, feeling the fire; sirens, hippogriffs [Ibid,II,26]; of sensation (or idea) of heat (of the fire) [Ibid,II,26]; ideas which occur in dreaming [Ibid,II,27]; of the sun [Ibid,II,27]; of substances, modes or accidents [Ibid,II,27-8]; of stone, heat [Ibid]; of God as a supremely perfect being [Ibid,II,99]; of the soul [Ibid,II,129]; of God's understanding [Ibid,II,132];

(ii) innate ideas -- of a supremely intelligent, supremely powerful and supremely perfect being [Ibid,I,197]; of pain, colours, sounds and the like [Ibid,I,304]; a thing, truth, thought [Ibid,II,26].

He suggested some ideas appear to be innate, some adventitious, some invented by him [Ibid,II,p.26], yet a little earlier he said: "Some of my thoughts are as it were the images of things, and it is only in these cases that the term 'idea' is strictly appropriate -- for example, when I think of a man, or a chimera, or the sky, or an angel, or God." [Ibid,II,25]. Ideas are formed of the objects which strike the senses [Ibid,I,105], but even so, Descartes

argued that ideas which originate from external objects do not necessarily resemble those objects [Ibid,I 81f], and in support of that contention states: "everyone knows that the ideas of tickling and of pain, which are formed in our mind on the occasion of our being touched by external bodies, bear no resemblance to these bodies" [Ibid.I,82]. In fact, he recognises only the primary qualities in things. As with representationist theories of perception, a serious question arises whether we actually perceive things, or only the ideas we have of those things. That question appears to have been answered by the definitions of "thought" and "idea" just discussed; and is supported by Descartes' insistence that ideas do not necessarily resemble the objects that give rise to them, as well as by the following passage:

> Yet I previously accepted as wholly certain and evident many things which I afterwards realized were doubtful. What were these? The earth, sky, stars, and everything else that I apprehended with the senses. But what was it about them that I perceived clearly? Just the ideas, or thoughts, of such things appeared before my mind. [Ibid,II,24]

That being the case, Descartes' view of ideas appears to be a representative theory of perception. However, this account is further complicated by the claim that a major part of any of our ideas derived from sense is innate:

> ... if we bear well in mind the scope of our senses and what it is exactly that reaches our faculty of thinking by way of them, we must admit that in no case are the ideas of things presented to us by the senses just as we form them in our thinking. So much so that there is nothing in our ideas which is not innate to the mind or the faculty of thinking, with the sole exception of those circumstances which relate to experience, such as the fact that we judge that this or that idea which we now have immediately before our mind refers to a certain thing situated outside us. [Ibid,I,304]

Of those ideas which we might call impulses, some do not depend upon our will, yet "it does not follow that they must come from things located outside me" [Ibid,II,27]; ideas in dreams do not [Ibid]. However, it is important for Descartes theory of ideas of substances, especially of God, that these ideas have some basis beyond imagination. So he argues that all ideas have the same formal reality, which derives from our thought [Ibid,II,28], but in order to have objective reality, an idea cannot come from nothing, and must therefore derive its objective reality from its cause [Ibid,II,28-29]. By "objective reality of an idea" Descartes means "the being of the thing which is represented by an idea in so far as this exists in the idea" [Ibid,II,113]. This clearly begs the question as to whether any specific idea represents a

thing, or has an outside cause. If all we ever know are ideas, we cannot know these causes. At any rate, Descartes puts forward two inconsistent principles: (i) having an idea does not imply that it comes from a thing "located outside me", and (ii) ideas of substances cannot come from nothing. It must be asked why we would apply the first principle to ideas of dreaming and imagination, and the second to ideas of substances; and this issue is critical since, according to Descartes "The nature of an idea is such that of itself it requires no formal reality except what it derives from my thought" [Ibid,II,28].

Mind cannot be mistaken about (the formal reality of) ideas. The mind "finds within itself ideas of many things; and so long as it merely contemplates these ideas and does not affirm or deny the existence outside itself of anything resembling them, it cannot be mistaken [Ibid,I,197]. This view is repeated [Ibid,II,26]. Consequently Descartes concludes: "So it is clear to me, by the natural light, that the ideas in me are like <pictures, or> images which can easily fall short of the perfection of the things from which they are taken, but which cannot contain anything greater or more perfect" [Ibid,II,29].

This passage makes sense only if all ideas are images (or representations) of things, a view which several of Descartes' claims cited above repudiate. But this passage also implies that the only, or the major, way in which we can make mistakes is by mis-judging the similarity or correspondence between our ideas and the objects of which they are ideas. It must be emphasised here that, because of his theological presumptions, Descartes is forced into saying that our ideas, taken as modes of thought, cannot give rise to error. As noted previously, he says our power of understanding is not to blame for our mistakes since it "comes from God" [CSM,II,40, cited p.66 above]. So we have a kind of understanding that cannot be mistaken (in relation to ideas as ideas). This is what Descartes means by "by the natural light". But when we consider ideas in relation to the objects of which they are ideas, we can and do make mistakes. Thus we have two ways of knowing or understanding, and this division is intimately related to, and generated by Descartes' theological assumptions.

It has been shown that Descartes' views on ideas are anything but clear or consistent; that it would not be an exaggeration to say they are incoherent; that he does not, and could not, consistently apply the same methods,

principles or arguments to (a) ideas which are caused by things (outside us), (b) ideas of dreaming and imagination, and (c) innate ideas. He needs to uphold a causal basis of the first and the third, and needs to distinguish the causes of these two; but he cannot do so in a way that excludes an equally **real** cause of the ideas of imagination -- for on the argument that ideas of substances cannot come from nothing, ideas of imagination cannot either. It could be argued that his (or any) theory of ideas necessarily generates intractable problems in relation to both existence and truth.

Nevertheless an objection raised previously [p.72ff above] is vital, and has further consequences; that is, the notion of idea depends upon the notion of mind and is defined in relation to mind, and if the earlier argument is sound, minds and ideas (or thought) are, effectively, inter-defined in a circular way. According to that interpretation, a "thinking thing" or mind bereft of all "thoughts" or "ideas" is not simply an empty thing: it is a nonsense in precisely the same way that a thought (or idea) that is not thought (by some mind) is. This general argument raises other issues: whether the rationalists' attempts to distinguish between innate and non-innate ideas can be sustained; whether the distinction between innate truths or principles and others can be sustained. These issues raise the even more perplexing questions as to whether it is possible to distinguish innate ideas and truths (ideas and truths innate to mind) from mind itself, and if so, **how**. This issue is not clarified or made any simpler by Descartes' claim that some of our innate ideas "are merely modes of thinking" [CSM,I,198] or comparable to the **tendency** in certain families to contract diseases such as gout or stones, which view he defended by saying "I have never written or taken the view that the mind requires innate ideas which are something distinct from its own faculty of thinking" [Ibid,I,303]. According to Descartes' definition of mind, it <u>is</u> the faculty of thinking [see p.66, above].

§5 The Dichotomies of Classical Rationalism

In relation to the similarities between Greek and classical rationalism, it has been shown that both presuppose a supernatural order; both postulate an animating force in each individual human, the soul or the mind; and both postulate unobservable entities fundamental to knowledge: the forms or ideas [see Table 3, p.267 below]. It should not be necessary to deal with each of the other similarities point by point since, like the reification of mathematical reasoning, they are well-attested [see Table 1, p.264-5 below];

they may vary somewhat from philosopher to philosopher, and will be dealt with sufficiently in what follows. What needs to be established first and foremost is that, as with the notion of soul in Greek rationalism, the notion of mind generates the distinctive dichotomies associated with classical rationalism.

A number of divisions, dualisms or dichotomies have already been noted. The first, and perhaps most fundamental, is the division of mind and body into two utterly different substances [see p.65 above]. Descartes also divided the functions of the soul into two: the actions of the soul -- volitions, or will; and the passions of the soul -- its perceptions, modes of knowledge, or the understanding [p.66-67 above]. The third is Leibniz's claim that what distinguishes human minds from those of other animals is the ability to comprehend necessary or eternal truths, whereas the animals are restricted and governed by the senses [p.68 above]. The fourth is the division of things mental into mind and ideas [p 70 above], and the fifth of ideas and sensible things [p.70-71 above]. The sixth is the division of ideas into innate and those that are derived from (or in) our senses [p.74 above]. The seventh is the division of two ways of knowing: a way that cannot make mistakes (is indubitable or certain) and a way that can [see p.76 above].

It is obvious that any claims about divisions of faculties or functions of the mind; of sense and reason, or claims about different ways of knowing: *a priori* and *a posteriori*, arise out of and depend upon the notion of mind. It is equally clear that any divisions in kinds of ideas (clear and distinct, or innate, and others) or kinds of knowledge or principles (innate and otherwise) depend upon the notion of mind. And similarly, the distinction between kinds of truths: those that are necessary (because of the relationships between the ideas or concepts they contain), and other, contingent truths arise from and depend upon the notion of mind (which contains them). So over and above these basic arguments, it requires very little further evidence to prove that the dichotomies of classical rationalism arise out of the notion of mind. However, in presenting a more than ample amount of evidence in support of this claim, other features of rationalism will be brought out and elucidated. The first of these is how intimately the notions of mind and ideas are related to the theological presuppositions behind classical rationalism. They are not theoretical notions, but theological ones. The second is that those notions of system, reason and necessity identified with rationalism [see Table 1, Appendix A] are similarly theological rather than theoretical. Thirdly, in §6

it will be argued that the theological presuppositions of rationalism, coupled with the rationalist notion of mind, necessarily generate a conception of science. And fourthly, in §7 the material surveyed will be used to bring out certain distinctive features of rationalist method.

It has been argued that both the notions of mind and ideas have theological significance, and are both theological rather than scientific postulates. In this section, it is being argued that --

1. The dichotomies of classical rationalism flow from, and are generated by, the theological notion of mind.

2. The notion of innate ideas:

   (i) is introduced in the service of theology: as a means of relating human minds to God's purposes and ultimately to His mind and His ideas;

   (ii) is fundamental to the classical rationalist divisions or dichotomies of two ways of knowing: that of sense as opposed to reason: the indubitable way -- the way that leads to certainty, or comprehends necessary truths or *a priori* knowledge;

   (iii) is such that they cannot be distinguished from mind itself; effectively breaking down the distinction between mind and ideas.

Descartes believed God implanted in our minds certain eternal truths:

> ... I do not wish to suppose any others but those which follow inevitably from the eternal truths on which mathematicians have usually based their most certain and most evident demonstrations -- the truths, I say, according to which God himself has taught us that he has arranged all things in number, weight and measure. The knowledge of these truths is so natural to our souls that we cannot but judge them infallible when we conceive them distinctly, nor doubt that if God had created many worlds, they would be as true in each of them as in this one. [CSM,I,97].

Cottingham elucidates the theological significance of innate ideas in Descartes' thought:

> The 'first and most important' of these 'true ideas that are innate in us', says Descartes, is the idea of God. ... Having achieved knowledge of God we can proceed to knowledge of external reality, but even here the focus will still be inwards. We must, Descartes tells us, mistrust what might seem our most obvious and direct link with external reality, the senses, and rely instead on the truths which God has implanted in our souls [cf. *Principles* II 3: AT VIII 42; CSM,I,224]. The most important of these ideas are the mathematical concepts which enable us to understand the extended, corporeal universe. [1986, p.144]

Whatever else innate ideas may be supposed to do, their postulation is essential to Descartes' proof of the existence of God [CSM,I,197; II,47]. If they do nothing else, they fulfil a vital theological function.

In Spinoza's view, the human mind is part of God's intellect [*Ethics*, 2, p.xi], and the ideas we have are in some sense (either better or worse) reflections of God's ideas [Hampshire, 1951, p.87]. Of these three outstanding rationalists, Leibniz elucidates his view of the relationship between God, the human mind, and innate ideas most clearly -- even though he complicates the matter with different levels of souls or minds: the souls of monads, of non-human animals, and human minds.

According to Leibniz, monads are utterly simple substances [§1; throughout the following summary, references are to Leibniz's *Monadology*; the quotations are from Mary Morris' translation, 1934], having no extension and being indivisible; they are "the true atoms of nature ... the elements of things" [§3]. They cannot perish [§4], and they cannot be formed by any natural course of events [§5]; they "can only begin by creation and end by annihilation" [§6] unlike ordinary, transient things subject to growth and decay. Monads are not subject to interaction with other things [§7]. They "**must** have some qualities, otherwise they would not be beings at all" and it would not be possible to perceive changes. Each monad "**must** be different from every other" because in nature no two things are exactly alike [§§8,9, my emphases]. It is "impossible for a created monad to have a physical influence on the inner nature of another" [§51], but they are subject to change by an internal principle [§11]. The Cartesians were mistaken in believing minds alone are monads and that other animals do not have souls [§14]. "The explanation of perception must ... be sought in a simple substance" [§17]. So all created simple substances might be called souls, but because feeling is more than simple perception, Leibniz says that only those "whose perception is more distinct and is accompanied by memory" should be called souls [§19]. Animals have heightened perceptions

[§25] and memory [§26]. Leibniz's view recalls Socrates' when he says: "Men act like brutes in so far as the sequences of their perceptions arise through the principle of memory only, like those empirical physicians who have mere practice without theory. We are all merely empiricists as regards three-fourths of our actions" [Ibid, §28, p.8]. But the human soul or mind is superior to that of other animals insofar as we have knowledge of **necessary and eternal truths**, because we have **reason** and science, through which we come to a knowledge of God. "It is this in us which we call the rational soul or *mind*" [§29]. It is due to humans' unique ability to recognise necessary truths which not only raises us above other animals, but enables us to participate in **acts of reflection**, to consider the **self**, thus to consider **being**, **substance**, **simple** and **compound**, and the **immaterial** and **limitless nature of God** [§30]. Our reasoning is based on two major principles: the principle of contradiction and the principle of sufficient reason [§§31-32]. It is significant that, in these passages on the functions and features of **minds**, Leibniz distinguishes **two kinds of truths**:

> There are also two kinds of *truths*: truths of *reasoning* and truths of *fact*. Truths of reasoning are necessary and their opposite is impossible; those of fact are contingent and their opposite is possible. When a truth is necessary, the reason for it can be found by analysis, that is, by resolving it into simpler ideas and truths until the primary ones are reached. [Ibid,§33,p.9]

As mentioned previously, it is the distinguishing feature of human **minds** (amongst the animals) that they can recognise truths of reasoning; it is this feature of human **minds** which "gives us the sciences" and (it seems in conjunction with the scientific enterprise) raises us to knowledge of God (§29). Thus, minds are linked to a fundamental theological purpose, and it also appears that the fundamental (at least a vital) purpose of science is a theological one. Because of these features of our minds, the "speculative *theorems* and practical *canons*' of mathematics (can be) reduced by analysis to *definitions, axioms and postulates*" [§34], and "Finally there are simple ideas of which no definition can be given; there are also axioms or postulates, or in a word *primary principles*, which cannot be proved and have no need of proof. These are *identical propositions*, whose opposite contains an express contradiction" [Ibid,§35,p.9].

It is significant, also, that in the middle of this account of mind and ideas, Leibniz proceeds (as Descartes did) to establish the qualities of God: He is "the ultimate reason of things" [§38], and there is only one God [§39], He is

unlimited [§40], and His perfection is absolutely infinite [§41]. God's Understanding is "the region of eternal truths and of the ideas on which they depend" [§43]. Necessary truths depend solely on God's understanding, but are not arbitrary; whereas contingent truths are arbitrary, and their "principle is **fitness** or the choice of **the best**" [§46]. God is the source of everything: knowledge and will; and these are reflected in monads (and humans) as the perceptive and appetitive faculties [§48].

What is of vital interest here is how Leibniz projects innate knowledge (which is **from the region of God's understanding**: potentially infinite knowledge of the universe) into human souls which, as we have seen, are eternal substances directly created by God. Although monads do not interact, by a miraculous combination of active and passive characteristics [§52] "each simple substance has relations which express all the others, and that consequently it is a perpetual living mirror of the universe" [§56]. But the monads are not divinities [§60]; each has its own distinctive **perspective** of the universe [§57]; thus "The nature of the monad is representative, and consequently nothing can limit it to representing a part of things only, although it is true that its representation is confused as regards the detail of the whole universe and can only be distinct as regards a small part of things" [Ibid, §60, p.15]. Hence "a soul can only read in itself what is distinctly represented there; it is unable to develop all at once all the things that are folded within it, for they stretch to infinity" [§61]. Leibniz makes it clear that each monad "represents the whole universe" [§62, p.14], and argues, furthermore, that "since every monad is in its way a mirror of the universe, and since the universe is regulated in a perfect order, there must also be an order in that which represents it, that is to say in the perceptions of the soul, and consequently in the body, according to which order the universe is represented therein" [Ibid,§63,p.14-15].

That is to say, some of the perfect order of the universe is reflected in the perceptions of every soul: as innate ideas or innate principles. He goes on to distinguish between "souls in general", that is, the souls of monads and the minds of humans, and says: "souls in general are the living mirrors or images of the universe of created things, whereas minds are also images of the Divinity Himself, or the Author of nature, capable of knowing the system of the universe, and of imitating something of it by architectonic patterns, each mind being as it were a little divinity in its own department" [Ibid,§83,p18].

Apart from having some of the perfect order of the universe within them, human minds (being partly divine) have the further distinction of containing an image of God. It is this which enables us to enter "into a kind of society with God", so that God stands in the relation to humans as inventor to his machine, prince to subjects, father to his children [§84, p.18]; and "From this it is easy to conclude that the assemblage of all minds must make up the City of God, that is to say the most perfect possible state under the most perfect of monarchs" [Ibid,§85,p.19].

A few observations on the Monadology are in order. Clearly, it is an attempt to construct a complete account of God's universe, our place in it, the nature of our minds, and our knowledge of God's universe. On Leibniz's view, God is the creator of everything including, especially, the monads which are the ultimate, fundamental units of reality. The monads are the underpinning of the world of changing things of which we are aware by sense. The monads also explain the baffling fact of perception or "consciousness", which is not really baffling because, according to Leibniz, it is inherent in all things. Being kinds of souls themselves, the monads are the basis of all more complex souls and minds, and souls or minds are manifestations of God's original creation. The basis of all human knowledge, truths of reasoning, ideas of substance, etc., and of the limitless nature of God, of theorems and practical canons, identical propositions -- in short, the inherent characteristics of our soul or intellect -- derive from "the understanding of God": "the region of eternal truths and of the ideas on which they depend" [§43]. Significantly, our minds are distinguished from all others in being images of the Divinity, and thereby our key to an appreciation of God and his creation. Whatever else the *Monadology* attempts to do, it certainly attempts to give a theological account of minds, their characteristics, and of (innate) human knowledge.

A lengthy critique of rationalist views would be out of place here, but one or two observations on Leibniz's representationism are in order. Obviously the monads do not contain the whole universe, but they are said to contain wholly within themselves something that "is distinctly represented there" which represents the whole universe. The "perceptions of the soul" are not perceptions (by means of the senses) of the universe because monads are not subject to interaction with other things; but are "perceptions" of what is contained wholly within them: "representations" of the universe. In other

words, this knowledge is self-contained and complete within each monad or soul. There is, therefore, an ambiguity in the notion of the monads being "mirrors of the universe". If there is no interaction between monads and other things, the representations in each monad are **not**, and are not like, reflections of things in mirrors; but are more akin to paintings of things created without direct experience of those things -- no matter how reliable they are. Leibniz's account of the monads' perceptions creates a problem exactly parallel to that created by Plato's postulation of the mind's eye; that is, how the mind or a monad can be said to perceive without an organ or organs of perception.

The foregoing reading of Leibniz's treatment of innate ideas is confirmed by passages in his *New Essays on the Human Understanding* and in his *Principles of Nature and of Grace, Founded on Reason*. In the *New Essays*, dealing with Locke's rejection of innate ideas and his view of the mind as a blank sheet *(tabula rasa)*, Leibniz considers the alternative, that is "whether the soul contains originally the principles of various notions and doctrines, which external objects simply recall from time to time, as is my view and that of Plato, and even of the Schoolmen, and of all those who attribute this meaning to the passage from St. Paul (Rom.ii,15), where he says that **the law of God is writ in men's hearts**," and adds --

> ... Julius Scaliger in particular called [innate principles] *semina aeternitatis* and again zopyra, meaning to say living fires, flashes of light, hidden within us, but caused to appear by the contact of the senses, like the sparks which the chock of the flint strikes from the steel. And it is not an unreasonable belief that these flashes are a sign of something divine and eternal, which makes its appearance above all in necessary truths. [Ibid, p.143]

Leibniz makes it clear that we do not perceive these eternal truths in the mind directly but, as it were, infer their presence [Ibid, p.144-5]. Nevertheless, he argues, if our soul (or mind) was empty as Locke suggests, "apart from images borrowed from without", it would be nothing at all [Ibid, p.148]; therefore, it must contain something, which we can discover by reflection, and -- "... reflection is nothing but **an attention to what is in us**, and the senses do not give us **what we already bring with us**" [Ibid, p.146; my emphases]. "What is in us' is, of course, what God has implanted in our minds or souls when he originally created them [see *Monadology*, §6, cited p.18 above]: it is something of the perfect order of His universe, and our sense

experience merely serves to make explicit what is implicit, or brings it to our attention, as the analogy of the sparks from the flint indicates.

Leibniz, like Descartes, appeals to the "natural light" (of reason) which involves the recognition of knowledge God has implanted in us, that is, innate knowledge: "But what is called the *natural light* presupposes a distinct knowledge, and often enough the consideration of the nature of things is nothing else than the knowledge of the nature of our mind and of these innate ideas, for which there is no need to search outside" [op.cit., p.168; see also p.169]. So, according to Leibniz --

> The original proof of necessary truths comes from the understanding alone, and all other truths come from experiences or from observations of the senses. Our mind is capable of knowing both the one sort and the other, **but it is the source of the first**; whatever number of particular experiences we may have of a universal truth, we cannot assure ourselves of it for always by induction, without apprehending its necessity by reason. [Ibid, p.170; my emphasis]

Our soul, being a kind of reflection of God's universe (or knowledge?) contains, potentially, all that we can ever know:

> External sensible objects are only *mediate*, because they cannot act immediately on the soul. God alone is the *immediate external* object. It might be said that the soul itself is its own immediate *internal* object; but it is so only as containing ideas, or that which corresponds to things. For the soul is a little world, in which distinct ideas are a representation of God and confused ideas are a representation of the universe. [Ibid, p.172]

Essentially the same theological conception of mind, containing within itself some reflection or image of God, the universe, the perfect order of God's creation -- a little world like the great world outside -- is repeated in the *Principles of Nature and of Grace, Founded on Reason*: "the rational soul or *mind*, ... is not only a mirror of the universe of created things, but also an image of the Deity" [Ibid, p.28-29]. Again, it is mind or soul which links us, intellectually, with God, and provides us with the basis of a real understanding of his Creation; mind, with its inner structures or innate ideas and principles underpins science, and science leads to an understanding of God's Creation.

It is now possible to draw some broad conclusions about the rationalist conception of the mind and its innate ideas or innate knowledge. What appears common to these three rationalists, perhaps most explicit in Leibniz, but implicit in Descartes, is a theological view of human minds. Being partly divine, or something like God's mind, the human mind has within it the potential, if used properly, to unravel and understand the details of at least part of the workings of God's plan, part of which is innate in our minds. We can, if we choose to use our intellect or Reason, probe into the workings of things, discover God's laws of nature, find out why things must, of necessity, be as they are; we can at least come to recognise some parts of the great machine God created (or is), and why they operate as they do. This sort of view was hinted at by the thirteenth century Franciscan friar, Roger Bacon, long before the classical rationalists, when he said "since the creation of the world was God's handiwork, studying the world could be considered a form of piety" [quoted in Gay, 1966, p.14-15]. It is not unreasonable to suggest that this theological conception of the soul or mind and innate ideas was inherent (even if it was not thought out) in Descartes' philosophy, worked out along certain lines in Spinoza's, and developed along other lines, in considerable detail, in Leibniz's. While the mind was positively immaterial in Descartes' view, an aspect of God's mind in Spinoza's, and tied to corporeal bodies in Leibniz's, it has no generic characteristics on any of these views. But it has definite functions, and on each of these views it provides some connection with, or insight into, God's universe or system of thought, innate ideas and principles being amongst the most positive signs of, and keys to, this Divine connection.

One further critical point must be made: it concerns the notion of the relation between innate ideas and the mind. There is a problem with any ideas being said to be **in** the mind. If the mind is not an extended thing, we cannot possibly understand how anything could be **in** it, because "in" as we ordinarily understand it, is a spatial relation. However, over and above that problem, it is impossible to understand how we could distinguish any ideas which are innate **in** (or to) a mind and that mind itself, which raises the questions (a) whether, and if so how, we distinguish between minds and ideas, and (b) how we could distinguish between ideas which are innate in (or to) a mind, and ideas which are **in** a mind some other way.

§6 The Rationalist Conception of Science

An important component of the present account of rationalism is that it owed its impetus (in Greece and later in Europe) to attempts to reconcile established religious beliefs with science, science constituting a serious challenge to such beliefs. Consequently, according to this thesis, it is not possible to understand rationalism, to fully appreciate its character and influence in the history of European thought, unless we understand its approach to and conception of science. It is being argued that because rationalism is based in certain theological assumptions and the notion of soul or mind, it gives rise to a definite conception -- or rather misconception -- of science. In order to fully appreciate the point, we need to see seventeenth century rationalism in its historical context, and to do so, we must first of all return to Greek rationalism, for it is from the Greeks that later Europeans inherited their conception of science.

The notion of science as knowledge appears to begin with Socrates, and he was prepared to divide the sciences into practical and intellectual [*Theaetetus*, 258e]. Aristotle reinforced the general conception of science as knowledge by suggesting it was knowledge of a very distinctive kind -- knowledge of "something which cannot be other than it is" -- and linked to syllogism: demonstrative knowledge [*Posterior Analytics*, Book I, A, Ch.2].

In order to appreciate this ancient conception, we need to understand what bodies of practical and theoretical knowledge existed in Plato's time, and how they were regarded. Of the practical sciences, the name geometry (the measuring of land) suggests the Greeks may have learnt Egyptian and Messopotamian techniques of dividing rural land into plots after flooding. They were expert boat-builders [Bury, 1970, p.109f] and architects [Janson, 1962,p.90ff] both of which must have involved great skills in measurement and geometry as we know it. Some maps had been made following Hecataeus, c.500BC [Singer, 1941, p.12-13], and there was some knowledge of navigation. Medical science (or art) of an empirical nature was well established [Farrington, 1953, p.70,72-73]. Diogenes of Apollonia had distinguished and described the arteries and veins of the human body [Singer, op. cit., p.24-25]; the directors of gymnasia "possessed a wonderfully accurate knowledge of surface anatomy" and had sound techniques for handling dislocations [Farrington, op. cit., p.77]. This knowledge of both human and animal anatomy is nowhere more eloquently demonstrated than in the sculptures of the Parthenon attributed to Phidias [see Janson, 1962, p.108]. The studies of grammar and dialectic were

emerging out of the Greek interest in rhetoric and discourse. Before Plato was born, there had been two or three truly momentous scientific discoveries. There had long been an (largely religious) interest in astronomy; and it had been found that the moon shone by reflected light [Burnet, 1950, p.80]. Empedocles had shown that air was a substance, or not nothing [Ibid, p.72]. Pythagoras had discovered the relationship between the intervals of the musical scale and the mathematical relationships between the lengths of the taut strings which made them [Burnet, 1950, p.46ff; Farrington, op.cit.,p.50ff]. There had been a great deal of speculation by the pre-Socratic philosophers, but the steps taken in what we would call empirical science, though momentous, were few and spasmodic; and it is almost certain that no one at the time viewed them as the result of a systematic, scientific **method**; that is a modern notion. Although Empedocles' demonstration was strictly speaking an experiment, the notion of experiment was not established [c.f. Farrington, op.cit.,p.52,58-9]. No matter how important or contentious these discoveries may have been, at the time they must have appeared to be **oddities**. The disciplines in which real and steady advances were being made as a result of concentrated attention to problems and systematic thought, were arithmetic and geometry, and (being taken as sciences) there were few other disciplines that could be considered serious, rival **intellectual** disciplines or sciences.

Despite many later discoveries, this is the conception of science which was passed from the Greeks to European scholars and which "was almost universally taught in colleges and universities" at the time of the rise of classical rationalism [Clarke, 1992, *in* Cottingham (ed) p.259]. While this later view based science on what was gleaned by "sensory experience", it also upheld that "the cognitive faculties with which God has equipped us are completely reliable as long as they are used within the scope of their Creator's design" [Ibid, p.259-260]; and, paradoxically, the "paradigm of this type of knowledge was pure mathematics" [Ibid, p.259]. In summary, we can say that this conception of science is of knowledge of a very distinctive kind, of "something which cannot be other than it is", demonstrative knowledge acquired in a special way or by a special method and, being knowledge, must be contained within some mind.

The new science of Bacon and Galileo (the latter at least inspired by Pythagoreanism) [Koyre, 1964, p.59, 195], "took quantity and not quality as

the decisive factor in the explanation of change" [Scruton, 1986,p.22; see also Hampshire, 1951, p.33,6),73]. Science appeared to be concerned with quantitative issues, and mathematics seemed to be central to this process. The Platonic (essentially Pythagorean) view of mathematics as the epitome of sciences seemed justified in an age of immense optimism and faith. If it is assumed that the branches of mathematics are sciences, then it is not surprising that they should have held a special place in the rationalists' view of science. The mathematical disciplines were much more systematic than any other science at the time: they are models of sustained, clear, positive reasoning; they appeared to be at the forefront of the growing sciences of astronomy and physics, and seemed to make the new advances in those sciences possible. However, we should not overlook another, perhaps more potent, influence in shaping that view: theology.

It would be a mistake to assume that the views of Descartes, Spinoza and Leibniz are consistent and constitute a coherent whole. On the other hand, it would be a mistake to presume there is no general, underlying common assumptions between them [c.f. Clarke, *in* Cottingham (ed) 1992, p.258]. The three great classical rationalists all presupposed an omnipotent, omniscient God who either created all things, or was the cause of all things; and in Spinoza's case at least, this God was omnipresent. On the Christian view, based on the Creation story in *Genesis*, God pre-conceived a plan for the universe, had the all-powerful knowledge to foresee the consequences of that plan, had the power to implement it, and willed it to be so. No orthodox Christian or Jew would have countenanced any other view. According to Spinoza, God is to be identified with the universe, understands every aspect of the universe, but did not create it as on the Christian view. Nevertheless, according to both the Christian view and Spinoza's, all things necessarily flow from God or God's plan and will. On both views, all the mental and non-mental components of the universe are explicable by reference to God. God's omnipotent will is the necessity which lies behind all things: all process, change and laws. Naturally God is the cause behind all things, is superior to the things he created or caused to come into being, and so the cause of anything is superior to its effect, because it either is God, or causally closer to God. Explanation, which takes the same logical form as deduction, was conflated with causal explanation, and so any universal proposition which explains is of "higher" status than what it explains. This conception of the

role of God in nature changed during the seventeenth and eighteenth centuries, as indicated by Heimann:

> According to this interpretation, the mechanical philosophy conceived nature as a law-governed system in which God's relation to nature was viewed merely as a first cause, and the appeal by scientists to laws of nature established knowledge of nature as independent of divine providence. Associating the intellectual revolution of the seventeenth century with the secularisation of thought, Dijksterhuis concluded that "the mechanization of the world picture led with irresistible consistency to the conception of God as a retired engineer, and from this to His complete elimination was only a step'. [Heimann, 1979, p.249 *in* Burke, (ed.)]

Since God is a supremely perfect being [see CSM,I,128; p.197, 199], his handiwork -- the universe -- will reflect that perfection; as Descartes says: "... we must bear in mind the infinite power and goodness of God, and not be afraid that our imagination may over-estimate the vastness, beauty and perfection of his works" [CSM,I,248]. And since God is omniscient [CSM,II,40], he must have foreseen all the consequences of his plan for the creation of the universe down to the last detail. God's knowledge of the universe he created must be complete and systematic, and must have been so before the creation of that universe. Scruton points out that Descartes, like Spinoza, saw the physical world as a single and substantial system" [1986, p.45]; and that --

> Spinoza expresses his monism in a celebrated phrase; the world is *Deus sive Natura* -- 'God or Nature'. ... His theology is essentially impersonal, just as his conception of the physical world is essentially theological. All causality obeys a logical paradigm, and all explanation is really a form of proof. To understand the causality of things, therefore, is to understand a complex mental operation, undertaken by an infinite mind.
>
> Various consequences follow. ...since causality is a form of necessity, and since the divine nature is eternally and necessarily as it is, everything that happens in the world happens by necessity. [Ibid, p.48]

In the *Monadology*, Leibniz expresses a similar view: "This is why the ultimate reason of things must lie in a necessary substance, in which the differentiation of the changes only exists eminently as in their source; and this is what we call *God*" [1934,§38,p.10]; and "Moreover, it is evident from what I have just said that there are *a priori* reasons why things could not be otherwise than they are: namely, because God in regulating the whole had regard to each part, and particularly to each monad" [Ibid,§60,p.13].

It appears to be implicit in the notions of an omnipotent God creating the universe, this same omniscient God foreseeing all the consequences of his plan, along with the observed facts of change and process in this universe, that the system which God created continues to function, by necessity, according to his plan and will, in conformity with his laws (the Laws of Nature). Robert Boyle [1627-1691] understood God's relation to the universe in this way, and "stressed God's continued causal agency in nature, arguing that the laws of nature were God's decrees imposed by the divine will" [Heimann, 1979, p.256] On this view, God's universe functions in much the same way that a clock continues to work by its own mechanisms and natural principles [see Heimann, Ibid,p.262].

On this theological view, there appear to be two intimately related systems. First of all, there is the actual universe functioning like a huge machine [CSM,I,279] according to God's will, following the laws of nature which were either willed by God, or part of his nature. Secondly, there is God's knowledge of this universe, which forms a system that exactly reflects the material universe, its components, its laws, its causal interactions [see Hampshire, p.108]. (This system of knowledge may be remarkably unlike the world of process and decay which humans perceive, just as the "real" universe may be quite unlike what we believe it to be. But that does not matter for present purposes.) It was not only those seventeenth century scholars now better known as philosophers -- Descartes, Locke, Spinoza, Leibniz -- who held what may be called a theological mechanistic view of nature or the universe; it was shared in some form by those now better known in the history of science: Kepler [Heimann, op.cit.p.253], Boyle [Ibid, p.261], and Newton [Ibid,p.256,258]. On these theological assumptions, the quest for human knowledge, which is science [*scientia*; CSM,I,n10], is the attempt to acquire real understanding of God's creation, plan, and laws of nature, or effectively, of God's knowledge.

It must be emphasised that the notion of soul or mind played a vital role in this theological conception. It is clear enough that the human mind or soul, as the peculiarly divine element in the human animal, is conceived of as the moral element in humans, and also as the intellectual key to an understanding of God and the wonders of His Creation; and along with this theological conception of the soul or mind goes a theological conception of knowledge: it

is "truth" in the mind of God somehow imparted to, or acquired by, humans who will make the necessary intellectual pilgrimage to attain it.

To rationalists who accepted Judaism or the Judaeo-Christian religious view, it would appear that the features of this model are verified or confirmed by science's ability to explain certain things. If the universe is a logically conceived, systematic plan put into effect by God's will, we would expect it to show signs of logical order, and that this order would be evident even in small parts of the universe. When science discovers some general kind of fact, or law, it can then explain many particular cases of that general kind, and so explanation (of one kind) takes a form which has all the appearance of deduction. So it may appear to rationalists that every law discovered by science, and every particular fact explained by a law, is evidence of science's uncovering of the systematic, hierarchical, logical-deductive nature of God's knowledge and God's universe.

To some extent, then, the rationalist-theological conception of mathematics as the model for all sciences, and the conception of science as fundamentally the building up of knowledge into a deductive system, appears plausible and rational. Seen within the historical context described above, this must have seemed an extremely reasonable view to people of the age of classical rationalism, and more than reasonable to anyone at that time who accepted the theological assumptions described. However, this view will be examined later in relation to Anderson's implicit conception of science, and ultimately rejected as misleading and unsound.

It is clear that the foregoing are not scientific doctrines, but an important part of Christian theological thought which aimed to rationalise the creation story of Genesis, and reconcile it with scientific views and the scientific tradition inherited from the ancient world. While they are not scientific doctrines, it cannot be denied that they were significant assumptions which affected all Judaeo-Christian thinkers. Heimann points out: "Theological arguments were fundamental to the formulation of scientific concepts in the seventeenth century, and were of fundamental importance in the establishment of the mechanical world view." [Ibid, p.252]. Copernicus' heliocentric theory had a theological side to it. The centrality of the sun was, for Copernicus (reviving a form of neoplatonism) symbolic of the centrality of God in the visible world [Ibid, p.253; see also Koyre, op. cit., p.61]. At this time, it

is not possible to completely dissociate what appear to be purely scientific theories, from theological presuppositions.

On the basis of these kinds of considerations, it is suggested here that classical rationalism, as a philosophical **movement** (i.e., as comparable to a style in the history of art), is a product of the attempt to reconcile established (mainly Christian) religion with the growing importance and challenge of science. It was, after all, almost exclusively Christian thinkers who were advancing science in sixteenth and seventeenth century Europe. They could not help but be influenced by their theological beliefs, and intellectual integrity required them to reconcile one with the other -- or, what does not appear to have been an alternative for them, to sacrifice either their religious or their scientific beliefs.

The outline which follows may not have been stated explicitly by any rationalist thinker, but on the basis of what has been said, it seems to have been implicit in their thinking.

1. God created a complete, self-determined, integrated, physical system: the universe which functions according to God's laws, the Laws of Nature.

2. Because He was omniscient, God foresaw what the universe would be before He created it, and therefore had in His mind a complete, logically integrated, coherent system of knowledge of the universe, which exactly reflects or parallels the entities, processes and laws of the physical universe (system).

3. God's knowledge of the universe consists of a complex range of mental entities: judgments or truths which consist of perfect ideas or concepts, all of which correspond exactly to the order of the universe. God's knowledge of the universe is distinct from the universe and constitutes the total Truth.

4. God knows and foresaw every major and minor detail of the universe He created, and could deduce any detail about the universe from more fundamental facts and the Laws of Nature, so that His knowledge is, effectively, a complete, perfect deductive system.

Being distinct from, and pre-dating the universe, God's knowledge consists of Eternal Truths.

5. Science is a body of human knowledge of a very distinctive kind. It aspires to be a systematic body of logically related, true propositions: a deductive system.

6. The model of science to which it aspires, is God's perfect knowledge; thus science has a model of perfect, timeless or eternal truth, the Laws of Nature, and a deductive system. In principle, it is possible for science to discover the Laws of Nature and thus explain any part or detail of the physical universe from them -- although it would be impious to assume humans could possibly comprehend all of God's system or attain all of God's perfect knowledge.

7. There is, thus, an ultimate standard of Truth for any scientific theory or proposition, by which it may be judged, at least by God, and in principle, by humans.

8. It is, therefore, theoretically possible for humans to arrive at certainty, at truths settled for all time, on specific scientific issues.

9. No matter what humans discover about any part of the physical system (the universe), if they understood the whole system, or sufficient about a part of it, they would understand why those things they have discovered must, of necessity -- because of God's plan and will -- be the way they are. Logical necessity is merely a reflection, in the system of knowledge (thoughts/ ideas), of the Necessity of God's will in the physical system. Therefore explanation, which takes the form of logical deduction, is conflated with an account of causation.

10. God is perfection, and since God is the cause of the universe, the cause of the universe is perfect. Therefore, the nearer our explanations of things approach the ultimate cause, the nearer to perfection they are. Thus there is an hierarchy of Truths.

11. Our "key" to unlocking the secrets of God's universe, that is, to attaining "True" knowledge (comparable to God's knowledge, but necessarily inferior to it) is the innate structure (innate ideas, innate principles) of our own minds, which are God's special gift to humans as distinct from all other Creatures.

12. In order to attain knowledge of the universe, we have to use our senses, inferior and misleading as they are. As long as they are guided by Reason or Intellect, and are subordinated to our innate ideas and innate principles, they are an aid to the discovery of Truth; but on their own, they simply mislead us.

While no rationalist thinker explicitly stated these views, it is difficult to understand how any such thinker who accepted Judaism or Judaeo-Christian religious doctrine could have seriously rejected them, or some propositions very similar to them in import. They certainly approximate Leibniz's views outlined in some detail above. The crucial test of the foregoing outline of the rationalist conception of science is this: Could any seventeenth-century philosopher who completely accepted the biblical account of God and the Creation, who believed God was not arbitrary, who sought certainty, and who believed that science was knowledge, conceive of science in any other way? And the answer appears to be that it would be impossible for such philosophers to conceive of science in any other way. The fact that no rationalist philosopher ever described the whole case in this way does not alter the validity of this claim. The reason for saying that is that these assumptions would have been so obvious to them that they would not have felt the need to state them. It does not seem possible, therefore, to deny that some cluster of assumptions along these lines is inherent in classical rationalism. Whilever the conception of the two pre-existing systems is maintained, it is irrelevant that no human can ever aspire to understand the full range of God's knowledge; the fact remains that there is a conceptual model for science to aspire to, and this model gives not only meaning, but theological significance to the notions of knowledge, absolute truth, certainty, necessity, cause, effect, explanation, deduction, nature, laws of nature, etc.

It is being claimed here that the importance of the foregoing synthesis is that it draws together into an intelligible system a whole range of major

rationalist conceptions, and elucidates the place and significance of those conceptions within that system. It elucidates the relationships between an omnipotent, omniscient God who created the universe, human minds and innate ideas, the human will and moral responsibility. At the same time it elucidates the place and significance of those distinctively rationalist notions of system, necessity, laws of nature and reason. Assuming we accept the theological bases of this "whole outlook", this broad conception and its components make sense. The corollary of this interpretation is equally important; that is, it is being claimed also that if we do not understand the theological significance of any of these elements in classical rationalism -- the significance of an omnipotent, omniscient God, of the creation of the universe, of the divine nature of mind and innate ideas, of the will, reason, system, God's causal necessity, laws of nature, necessary or *a priori* truths -- we do not appreciate the "whole outlook" of those rationalists. And there is a further corollary being that, taken out of their theological (or rationalist) context, these conceptions are at best highly problematical, and at worst incoherent.

§7 Rationalist Method in Relation to Mind and Ideas

It has been argued that the notions of mind and ideas are fundamental to the classical rationalist position or "whole outlook", and serious doubts have been raised about the coherence of these notions. It is appropriate now to consider a range of questions of method raised by rationalist claims about mind and ideas. The three classical rationalists make dogmatic claims about mind. None produces any genuine evidence for their claims; none suggests what method they employed to discover the various qualities or functions of mind and ideas they make claim to; and none suggests any method by which these claims could be tested. Their claims do not appear to be self-evident, *a priori* or necessary, as we might expect on rationalist principles.

Descartes frequently appeals to what he calls "the natural light" or "the light of reason", and this may be the basis of his claims about mind. This is a very special way of discovering truths. He claims that "God has given each of us a light to distinguish truth from falsehood" [CSM,I,p.124], but this light can be dimmed or confused by other factors, including what appear to be educational training: "As for other mental operations which dialectic claims to direct with the help of those already mentioned, they are of no use here,

or rather should be reckoned a positive hindrance, for nothing can be added to the clear light of reason which does not in some way dim it" [Ibid,I,16].

Descartes appeals to the natural light to distinguish what he asserts are fundamental divisions of the mind: "it is clear by the natural light that the perception of the intellect should always precede the determination of the will" [Ibid, II, p.41]. He does not explain how he knows, or learned, that "the human mind has within it a sort of spark of the divine" [Ibid,I,p.17]; nor how he learned that "God himself has taught us that he has arranged all things in number, weight and measure" or how "The knowledge of these truths is so natural to our souls that we cannot but judge them infallible when we conceive them distinctly, nor doubt that if God had created many worlds, they would be as true in each of them as in this one" [Ibid,I,p.97]. Nor does he explain how he discovered that "if many of these tiny fibres [which make up the marrow of the nerves connected to the brain] are pulled equally and all together, they will make the soul perceive that the surface of the body touching the limb where they terminate is *smooth*; and if the fibres are pulled unequally they will make the soul feel the surface to be uneven and *rough*" [Ibid,I,p.103]. He does not explain how he learned that --

(i) "in no case are the ideas of things presented to us by the senses just as we form them in our thinking";

(ii) "there is nothing in our ideas which is not innate to the mind or the faculty of thinking";

(iii) "we make such a judgment [about outside things] not because these things transmit the ideas to our mind through the sense organs, but because they transmit something which, at exactly that moment, gives the mind occasion to form these ideas by means of the faculty innate to it";

(iv) "Nothing reaches our mind from external objects through the sense organs except certain corporeal motions, ...";

(v) "But neither [these] motions themselves nor the figures arising from them are conceived by us exactly as they occur in the sense organs, ..." [all the foregoing from CSM,I,304]

We have no method by which we can test these sorts of claims, and we must either accept them on Descartes' word, reject them or leave them open to question. Spinoza's method is slightly different. He simply puts forward definitions, for the most part without argument, which we can accept, reject, or doubt, but which cannot be tested. Leibniz's approach is similar to Descartes'. He makes dogmatic claims, without providing any evidence for them; without appearing to acknowledge that they may be doubted or rejected; without suggesting how they might be tested. He, too, appeals to the natural light, but gives no justification for the later claims in the following passage: "But what is called the *natural light* presupposes a distinct knowledge, and often enough the consideration of the nature of things is nothing else than the knowledge of the nature of our mind and of these innate ideas, for which there is no need to search outside. [*New Essays on the Human Understanding*, 1934, p.168].

He makes no genuine effort to explain how he discovered, or how we could test, three separate claims in the following passage:

> (i) "For it is incontestable that the senses are not sufficient to make us see their necessity, and so ..."
>
> (ii) "the mind has the dispositions (as much active as passive) to draw them itself out of its own depths; ..."
>
> (iii) "though the senses are necessary to give to it the occasion and the attention required for this, and to lead it rather to the one sort than to the other." [Ibid, p.170; my subdivisions.]

Precisely the same can be said of the other claims immediately following these. These claims do not appear to be necessary or self-evident, or to be known *a priori*, as rationalism would appear to require. They appear to be contingent facts (to use that rationalist expression), or the sort of propositions which require some kind of justification. Yet no justification is offered in support of them, and it is impossible to discover by what method they are discovered or could be tested.

Neither Descartes nor Leibniz contemplates the possibility that the natural light in A's mind might persuade A that proposition *p* is true, and the natural light in B's might persuade B that it is false. More importantly, they do not inform us (a) how we know that it is by the natural light that we know any specific proposition is true or (b) how any two people could resolve a

disagreement involving a claim to truth by the natural light. If these claims were confined to tautologies and analytic truths, there would be no problem, but then the natural light would be as good as useless. However the claims are not so confined, as has been shown.

This brief survey has shown that when the classical rationalists deal with basic claims about those quite fundamental classical rationalist notions mind and ideas, they quite **typically** resort to an exceptional **method**: they make claims, or lay down definitions, for which there is no sound justification, and which cannot be tested by any recognised method. In short, in relation to the fundamental notions of classical rationalism, mind and ideas, we find that an exceptional method is resorted to: an untestable method that is quite properly described as dogmatism. Because the **typical** method employed in relation to these fundamental notions is exceptional, it is reasonable to conclude that the classical rationalist notions of mind and ideas are not only theological as argued previously, but are treated by the rationalists as **transcendental** in the sense that they are treated in a different way from -- "outside" -- the ordinary "empirical" method.

§8 Conclusions: The Empiricist Description of Rationalism

Along with many other philosophers, Anderson held that there is some fundamental opposition between rationalism and empiricism. That view has not only been upheld here, but it has been insisted that that opposition must be substantive and able to be described; and so, with a view to elucidating Anderson's empiricism, an attempt was made to uncover the central characteristics of Greek and classical rationalism, and to describe them in empiricist terms. It is now possible to provide a reasonably comprehensive, empiricist description of rationalism as a "whole outlook" or important philosophical movement which has persisted through the history of western philosophy, taking many specific forms while retaining certain generic characteristics.

1. Both Greek and classical rationalism --

   (a) arose out of attempts to reconcile established religious beliefs with the growing importance and discoveries of science which challenged those beliefs;

   (b) are founded in theological assumptions; the former in Greek religious beliefs, the latter in Judaism or Christianity.

2. Central to both forms of rationalism are the notions of soul or mind. The classical rationalist notion of mind is historically continuous with, and an adaptation of, the Greek notion of soul, and both have important moral and theological functions in their respective systems.

3. Associated with these central notions, rationalism also postulates another kind of "transcendental" entity which is central to "knowledge": forms in Greek rationalism, and ideas in classical. The notion of ideas derived from the Platonic notion of forms, took on Judaeo-Christian, theological significance during the middle ages, which significance was retained and possibly strengthened in classical rationalism as innate ideas.

4. The notions of mind and ideas are absolutely central to classical rationalism, but are interdefined (or defined in a circular way) by each of the classical rationalists.

5. The notions of soul or mind are fundamental to all the dualisms or dichotomies widely recognised as features of rationalism, and which were central to Anderson's characterisation of it.

6. Both Greek and classical rationalists made claims about soul, mind, forms or ideas without describing any characteristics of either or explaining how anything is known about them, thus souls or minds have functions and powers; but have no characteristics.

7. Both forms of rationalism reify mathematical reasoning, and claim to find in it a special kind of knowledge which is taken as the model for all knowledge, especially scientific knowledge. In mathematics, rationalism claims to have identified a special **method** of inquiry as distinct from observational methods which it associates with "sense", the body, and all that is lustful, animal-like and transitory. But these supposed methods cannot be observed or repeated, are not and cannot be justified. Socrates made unjustifiable claims about "the eye of the soul", implying there is a unique method of discovering truths, which the classical rationalists adopted and sometimes referred to as by the "natural light".

8. Therefore, since the notions of soul, mind, forms and ideas are clearly theological, and because extraordinary methods are adopted in relation to them, they may be classed as "transcendental" in a purely empiricist sense; that is, they are not scientific or testable, but are outside the realm of observational testing.

9. Together with the theological assumptions of an omnipotent, omniscient God, the notions of mind, ideas, and science as knowledge, classical rationalism necessarily represents science in a theological form, and from this theological conception of science flow those distinctively classical rationalist notions of reason, system, necessity, laws of nature; the emphasis upon deduction; the notion that a cause is superior to its effect; that explanation relates to causality; and that explanation also involves propositions of "higher" and "lower" status, or higher and lower degrees of truth.

10. Greek and classical rationalism therefore share a range of very distinctive, common characteristics which are summarised in Table 3, Appendix A.

11. Because of its theological foundations and presuppositions, rationalist method is distinguished by its attempt to limit inquiry and criticism. This is apparent in two ways: firstly, in the untestable or dogmatic statement of basic tenets, especially around the notions of soul, mind, forms, ideas, innate ideas and the dichotomies associated with knowledge and special, indubitable ways of knowing; secondly, in formalising this method by postulating fundamental elements of knowledge or fundamental principles: forms, clear and distinct ideas, innate ideas, indefinable concepts, axioms, *a priori* knowledge, necessary truths, truths of reason, analytic propositions, etc.

In conclusion, a number of points should be emphasised in defence of this description of rationalism. It presents rationalism as a "whole outlook", and an important philosophical movement that has persisted through (and indeed dominated) the history of western philosophy, which Anderson's formal account of rationalism does not. It identifies certain positive, common, or generic characteristics of rationalism and thus presents rationalism as a position which has taken many specific forms, a feature which enables us to distinguish

between its generic (or common) characteristics and those specific to a particular manifestation of rationalism. Thus the notion of forms is a manifestation of rationalism, but specific to the Socratic-Platonic form of it; the notions of necessity and *a priori* knowledge are manifestations of rationalism, but specific to its classical form. This description elucidates the many notions and doctrines attributed to rationalism [Table 1, Appendix A] by showing how they relate to, and are integrated within, broad schemas that are different forms of rationalism. These claims suggest that the present account of rationalism is an **adequate** and **necessary** one: necessary in the sense that no other view gives a satisfactory, unified account of the various notions and principles of rationalism. That is to say, it is not possible to make sense of, for example, the rationalist notions of the universe, necessity or laws of nature unless we accept, or provisionally accept, the theological presuppositions of classical rationalism; that we cannot make sense of the rationalist notions of knowledge *a priori* and *a posteriori*, sense and reason, unless we accept or provisionally accept, the fundamental (theological and transcendental) rationalist notions of soul, mind, forms, or ideas. In other words, some theological presuppositions, and these notions are **necessary** components of rationalism.

While this description of rationalism is not the traditional one, it coincides with the traditional one in many important respects, and as noted, accommodates all the distinctive characteristics loosely associated with it. Importantly, it enables us to describe rationalism without being committed to any of its postulates or doctrines, and can therefore serve as an accurate and adequate empiricist account of rationalism.

The vital point being made here is that the notion of soul or mind is a rationalist notion, absolutely fundamental to the whole rationalist position. It is widely recognised that what is assumed in a specific position influences what can be deduced from it. Accordingly, the rationalist notion of soul or mind underpins, and gives rise to, those other rationalist conceptions and doctrines of forms, ideas, knowledge and the dichotomies described previously.

PART III : MIND

Chapter 5: SUMMARY OF ANDERSON'S VIEWS ON MIND

§1 Introduction

In Part II it was argued that the notions of soul or mind are rationalist notions and fundamental to those dichotomies identified by Anderson as the distinguishing marks of rationalism. This conflicts with Anderson's theory of mind as feeling. It must therefore be asked what Anderson's approach to mind was, and why he adopted it. This chapter attempts to provide a broad summary of Anderson's views on mind without criticism. The chapter following examines these views much more critically.

It is significant that of the thirty-one articles published in SIEP spanning a period of thirty-six years (1926-1962), seven written within a ten-year period (1926-1936) are either devoted solely to the question of mind or contain significant passages dealing with it. Anderson developed a number of his most fundamental views in the early paper entitled *The Knower and the Known*, and it is in this paper that he developed a number of his most basic views on mind. Anderson's argument against constitutive relations is fundamental to his core philosophical position: to his empiricism and realism, as well as to his views (both destructive and constructive) on mind. So it will serve both the specific, and a wider purpose to begin the examination of his views on mind with an examination of this argument.

§2 The Rejection of Constitutive Relations

Anderson's rejection of constitutive relations is **stated** in several places in *The Knower and the Known*, but argued intermittently, and even then, not completely. It is stated, rather than argued, in a passage from Marvin which is elaborated by Anderson:

> "In the proposition [aRb] 'the term *a* is in the relation R to the term *b*', *a*R in no degree constitutes *b*, nor does R*b* constitute *a*, nor does R constitute either *a* or *b*." Knowledge being taken as a relation, it is thus asserted that, when I know this paper, "I know" in no way constitutes this paper, nor does "know this paper" in any way constitute me, nor does "know" in any way constitute either me or this paper. [SIEP, p.27]

It is re-stated by Anderson: "Arguing then, as realists, that no thing or quality of a thing is constituted by the thing's relations, we have to assert that nothing is constituted by knowing and nothing by being known" [S/p.29].

Part of the argument for this view is: statements like "X is a man" are complete in a way that statements such as "X is a husband" are not. We can discover that X is a man "by observing X alone, while we could not in that way find out what was meant by his being a husband" [S/p.29]. We do use "incomplete" statements like this, but they imply that there is a "more complete" statement such as "X is the husband of Y", more complete in that it specifies the terms in this specific relation of being married. Another part of the argument is stated this way: "in general, in saying of any two things that they are distinct, we must suppose each to have some character, or certain qualities of its own" [S/p.28]. Another part of the argument is stated, incompletely, by Anderson thus:

> If the term "conscious being" merely meant that sort of thing which can know, and "idea" that which can be known, they might be used in incomplete statements similar to "X is a husband". But we must have some notion of what sorts of things these are, since we could never have supposed that nothing knew something or something knew nothing. Thus we must know what sort of thing a mind is, independently of terms like "consciousness" or "state of consciousness"; and we must be able to describe things independently of their being known or of their being known in some particular way, so that "sensa", for example, cannot be a proper name for any species of things. [S/p.29]

Another part of the argument is worked out in showing that Berkeley's *definition* "of 'ideas' as entities 'whose nature it is to be known'" [S/p.29] (that is, as defined by a relation, being known), and Descartes' *definition* of mind or consciousness as something "whose whole essence consists in thinking" [S/p.31] (that is, defined by the relation of thinking or knowing) are incoherent. And the argument is incompletely stated as: "Unless, then, mind can be contemplated by mind and found to have certain qualities, we cannot know minds at all or speak of their knowing" [S/p.38].

It is vital to an understanding of Anderson's position to see the force of this argument, and the reconstruction of it offered here depends upon re-organising these elements and importing another part of the argument from a later article. It is suggested that the complete argument goes something like this:

- Descartes' "definition" of mind suggests mind is constituted by only one thing: thinking; and thinking is a relation which holds between two or more things.

- Berkeley's "definition" of ideas suggests ideas are constituted by only one thing: being known but being known is a relation which holds between two things.

- Whenever we speak of a specific (or general kind of) thing, we imply and assume it has, and can be identified by, certain characteristics. This applies whether we are concerned with it on its own or being related to something else [see S/p.28, quoted above].

- If we attempt to understand this sort of "definition" it does not make sense, because if something, A, was supposed to consist **solely** of some relation it was supposed to have to something else, B (i.e., if "it" had no characteristics), there would be no thing A to be related to B in that way in the first place. For example, if mind A consisted **solely** of **thinking** (of B), there would be no such thing as A to have the relation of thinking to B, or to anything else; so Anderson said: "In fact, unless things had qualities of their own, there would be nothing to have relations to other things" [S/p.43].

Granted that there are difficulties with a theory of "things" [see p.16 above], and a theory of "relations", if these considerations are overlooked, Anderson's argument appears to be irrefutable. The theory of constitutive relations is incoherent, and must be rejected. But Anderson's argument does not have merely destructive force; it supports the realist doctrine of independence. If we are to talk about anything at all in a justifiable way, we must be able to recognise, and be able to draw others' attention to, some of its characteristics. Or, to express the matter in a more metaphysical way, we can say that if anything is to qualify as a thing -- to be a thing at all -- it must have its own characteristics independent of who "experiences it, perceives it, conceives it, or is in any way aware of it" [Montague, quoted in S/p.27]. But we can also state this doctrine in a more formal-logical way:

> Anderson was saying, in effect, that any **term** appearing in (his) propositional logic must meet certain criteria. For any term, symbolised as X, we must be able to say something positive: "X is Y" or "All X's are Y's", or "Some X's are Y's and some X's are not Y's"; and in addition, by the same principle, we must (eventually) be able to say something positive about Y's: "All Y's are Z's" or "Some Y's are Z's".

That is to say, we have to be able to say something propositionally about any term we use, or the term is meaningless: is not a term at all.

§3 Consequences for Anderson's Realist View of Mind

Subsequent to *The Knower and the Known*, Anderson presumed this argument was conclusive, and took it for granted that any proper or serious discussion of any issue required the participants to identify some of the characteristics of any term they employed; and he took this requirement as absolutely fundamental.

He argued in some detail for the realist contentions that any terms in any relation must be distinct, otherwise there is really no relation; and that in order to justifiably assert that any two things (or terms) are related, we must be able to recognise some of the characteristics of each thing [see S/p.28, quoted above]. It is on the basis of this contention -- that anything we talk about with justification must have characteristics of its own which we can observe, and "that no thing or quality of a thing is constituted by the thing's relations" [S/p.29] -- that he **rejects** the Cartesian notion of mind as consciousness and the Berkelian notion of ideas as "that whose nature it is to be known" [Ibid], and **affirms** the contention which underpinned all his later views on mind, namely: "Thus we must know what sort of thing a mind is, independently of terms like 'consciousness' or 'state of consciousness'" [Ibid; and "Unless, then, ...", S/p.38, cited p.104, above].

Taking these most general realist doctrines about "things" and "relations" as fundamental, Anderson then applied them to the relation of knowing, to things which know, and things which may be known, and argued that:

(i) in any knowing relation, the thing which knows (the knower) must be a different thing from the thing which is known [S/p.28];

(ii) the thing which knows (the knower or mind) must have characteristics of its own;

(iii) anything known must have characteristics of its own;

(iv) the knowing relation is not symmetrical and not asymmetrical, but non-symmetrical [S/p.32];

(v) (following that model of knowing as a non-transitive relation), a mental process (or mind) could know (something) without being known, and that similarly a mind could be known without it knowing [S/p.39];

(vi) there is a problem in our knowing ourselves or our own minds, about which he said:

> As regards my knowledge of myself, this will have to be accounted for by saying that a certain process in my mind knows another, or knows myself, but without knowing *itself*. We can only know ourselves, in fact, as certain very familiar *objects*. And if it is urged that the process which knows does nevertheless belong to myself, the answer must be that what we know consists not of things simply but of states of affairs (or propositions). [S/p.32]

These are the principal positive contentions about mind in *The Knower and the Known*.

In Part III of *Empiricism*, Anderson had a good deal to say about the notion of mind. Referring to his earlier discussion in that article [see p.26 above] concerning the opposition between rationalism and empiricism (and his doctrine of one way of being), he said: "We have found, in other words, that the theory of different ways of being is untenable. But with it falls the theory of different ways of knowing, the distinction between sense and reason" [S/p.12]. On the rationalist view which was shared by "the English empiricists", sense "was supposed to provide isolated data, materials which reason had to shape into, or subordinate to, the coherent system of knowledge which we call science" [Ibid]. But Hume maintained --

> ... that neither mind nor any other agency could possibly perform such work on 'distinct existences'. And this is the point of departure of the "radical empiricism" of James. Mind is not required to relate things, because things are given as related just as much as they are given as distinguished. Connections and distinctions, in fact, are given together; and those who argue that the work of the mind is required to connect distinct things, might equally well maintain that work had previously been required to distinguish them. [Ibid]

According to Anderson, we have to assume that the things we observe, study and talk about have both connections and distinctions; no other view makes sense, and so -- "Any theory which refers to the work of the mind, or to rational factors, as contributing, along with sensible or given factors, to making things intelligible, is self-refuting or 'unspeakable'" [Ibid]. So our minds do not perform the functions Kant argued they did. Not only that, we could never know that the mind did perform those functions even if it did:

> We cannot, then, make any such distinction as that between "things as we know them" and "things themselves". Unless the former *are* things themselves, we are not entitled to speak of things (and hence to speak) at all. On the other hand, we are entitled to reject, by reference to things themselves, viz., the things we know, any suggestion of an agency whose operation cannot be detected; which we cannot observe acting on some observed situation and bringing about observable changes therein. As "rational factors", *ex hypothesi*, cannot be seen at work (since they must have worked before anything can be seen; since they are "conditions of the possibility of experience"), not only can we not assert that there are such ideal entities, but we cannot show what they would do, if there were. ... We must be able to say: "This is the sort of thing which under certain circumstances will act in such and such a way, and under other circumstances will act in a different way". [S/p.13]

Although Anderson does not seem to have realised it, this is an extremely strong argument against the notion of mind. He goes on to reiterate this view: "We cannot then, by inference from what we observe, conclude that there is a mind whose function it is to observe these things, i.e., which is purely instrumental, a pure agency. Unless we have observed minds, we cannot speak of them" [Ibid]. Combining this passage with those just discussed above, Anderson can be taken to have asserted: Whenever we claim something A (a mind or anything else) is related to something B --

(i) A must have qualities of its own;
(ii) B must have qualities of its own;
(iii) we must have observed:
  (a) A, or something of the kind A,
  (b) B, or something of the kind B,
  (c) an A in this relation to a B [c.f. S/p.92-93].

This means that our only justification for speaking of minds is if we have observed them. Anderson went on immediately to imply that we do observe them: that they are "real" or exist --

> Having observed them, and having observed that they are related by "knowledge" to other things, we can also consider how they fall into error. But this criticism of the mind's operation in regard to things cannot take the form of "criticism of the instrument". We cannot, without self-refutation, undertake to criticise the mind's entire knowledge; for it is by our knowledge that we criticise. Criticism, then, can only proceed by our asserting what we find to be the case; we can criticise propositions only by means of propositions, similarly asserted. The distinction of ways of knowing, at least in the form of a distinction among *faculties*, is therefore untenable. [Ibid]

Here, Anderson made it clear that he believed we do observe minds, and therefore that minds are real things by his own realist criteria. But he also raised two other issues: he referred to what he calls "criticism of the instrument", and he referred back to the rationalist contention that there are two ways of knowing. In speaking of "criticism of the instrument", Anderson was referring to the rationalists' contention that sense is "an inferior way of knowing" [c.f., S/p.12]. This view is expressed by Descartes in the *Discourse*: "Thus, because our senses sometimes deceive us, I decided to suppose that nothing was such as they led us to imagine" [CSM, 1985, Vol.1, p.127]. It might be presumed to justify what he said a little earlier: "Reflecting especially upon the points in every subject which might make it suspect and give occasion for us to make mistakes, I kept uprooting from my mind any errors that might previously have slipped into it. ... my whole aim was to reach certainty -- to cast aside the loose earth and sand so as to come upon rock or clay" [Ibid, p.125].

But according to Anderson this kind of criticism is self-defeating: is a form of scepticism, and "amounts to scientific defeatism" [S/p.82]. The basis of Anderson's claim may be expressed another way: Whenever we engage in any kind of inquiry, we bring certain assumptions into that inquiry, and it is on the basis of these assumptions that we criticise (or assess) propositions put forward in that inquiry. If we make no assumptions (which we could not do), we could not criticise any other view (proposition). In other words, inquiry proceeds on the basis of propositions which we believe [S/p.6] put forward in opposition to propositions others believe; and it is only on the basis of these opposing propositions being of the same order -- being able to contradict or disprove one another -- that inquiry or discourse can proceed with any genuine purpose: any hope of resolution. Thus, according to Anderson, we cannot downgrade the propositions derived from "sense". They are our major,

indeed only, "tools" in inquiry. Hence the "distinction of ways of knowing" in the form of different *faculties* is untenable.

Anderson then outlined a number of views on the methods of observing minds. According to him, it will be by the same methods as used in any other science: empirical or observational and experimental [S/p.14], granting firstly, that for obvious reasons, the laboratory is not an appropriate place to study such mental processes as love, and secondly, that we can use a method not available to other sciences generally: introspection [Ibid]. He therefore drew the general conclusion: "... that all the objects of science, including minds and goods, are things occurring in space and time ... and that we can study them by virtue of the fact that we come into spatial and temporal relations with them" [Ibid]. So Anderson maintained that the study of minds will proceed by the same general methods as any other study, thus preserving the unity, or uniformity of method, of all sciences. And this requires that minds are the same, in the broadest possible sense, as any other kinds of things:

> What has chiefly to be emphasised, however, is that the observation of minds, the knowledge of them in propositions, requires the rejection of the "unitary" view of mind, the conception of it as having only one character and being self-contained in that character. That is a rationalistic, "unspeakable" view. If we are to have any dealings with minds, we must be able to consider how they act in different situations, i.e., to consider them as having complex characters and activities, as being divisible and determinate. [Ibid]

In opposition to the Cartesian unitary view of mind -- as a simple kind of substance -- Anderson insisted that if minds are anything at all, they, like anything else, must have characteristics of their own and therefore must be complex.

Anderson then dealt with the notion of mind in *Determinism and Ethics* [1928], where he attempted to defend the view "that human behaviour is naturally conditioned, (and) that there is no difference between the kind of causality which conduct exhibits and that exhibited in any other case" [S/p.214]. The main theses he advanced about mind here (against the rationalist notions of a faculty of reason, moral ideals, norms or "the good") were:

(i) motives are what it is in us which act when we take action (and he suggested these are feelings) [S/p.218];

(ii) motives are tendencies [S/p.222,223];

(iii) motives tend to bring about some state of affairs [Ibid];

(iv) there is no "peculiarly critical motive (in us) which judges all other motives by comparing their objectives with its" or there is no "total motive which dominates all partial motives by subordinating their objectives to its" [Ibid];

(v) all motives and objectives are particular;

(vi) criticism "is not a special function, but can be undertaken by any motives that can conflict" [S/p.219];

(vii) it is motives, not objectives, that are properly called good or bad [S/p.222ff];

(viii) it is implied, but not stated that our minds are a plurality of motives and feelings [see S/p.222, and p.74].

In *The Non-Existence of Consciousness* [1929], Anderson criticised Alexander's view of mind as essentially Cartesian, elaborating and extending his criticisms from *The Knower and the Known*, but not adding anything major to a realist theory of mind.

§4 Mind as Feeling

In 1934 Anderson put forward a much more elaborate theory of mind in *Mind as Feeling*. In this article he began by considering traditional views of mind "regarded as having characteristics of three fundamental kinds -- cognitive, conative and affective -- knowing, striving and feeling" [S/p.68]. He pointed out that nearly all the eighteenth century English thinkers ran into difficulty attempting to draw a distinction and show the relation between reason and the passions, and that Butler, like Socrates and Aristotle, believed there had to be an overriding mental faculty or systematising affection [Ibid]. He concluded that both forms of the threefold division of mind, the aspect theory, and the separate process theory have to be rejected in the light of realist criticisms [S/p.69]. In this way Anderson rejected attempts by later philosophers to elaborate upon the Cartesian notion of mind.

But in summary, Anderson's combined criticisms constitute **the rejection of a range of views of mind as illogical.**

He considered the notions of "cognition", "conation" and "feeling" in turn, and began with an illuminating summary of the main contentions of modern realism (directed against idealism), and what they have led to. This passage is so helpful in understanding Anderson's core position and approach to mind that it is worth quoting at length. However, for certain purposes it will be helpful to set out these contentions as separate points; thus, numbers and comments in brackets have been added, and a few phrases deleted:

1. Modern realism is founded on the contention that --
   (i) knowledge is a relation, i.e., that it holds between two things and so cannot be a part of the "nature" of either.

2. The main realist attack has been directed against the conception of what is *characterised by being known*, or the "idea".

3. Realism --

   (ii) has denied that what we know need be in any way mental or in any way dependent on the mind which knows it

   (iii) [asserts that] the very term "idea" requires to be dispensed with.

   (iv) has thus also attacked the doctrine of the absolute idealists
      (a) that *we are what we know*,
      (b) that the whole field of which we are aware ("our world") is equivalent to our consciousness and to our very selves.

   (v) has maintained, on the contrary,
      (a) that what we know is part of an independently existing order of things,
      (b) that the existence of a mind is one thing, and the existence of a field of things known by that mind quite another.

4. But the further implications of realism have not been so clearly grasped by realists in general, ...
Realism --

(vi) [rejects the notion of] what is *characterised by knowing*, or "consciousness",

(vii) [asserts]
(a) that what knows, [must have a character of its own and cannot be defined by its relation to something else],
(b) what is known, must have a character of its own and cannot be defined by its relation to something else.

(viii) [rejects] ... the whole "self-consciousness" theory of the idealists, who, in upholding the rationalist conception of the knowledge relation as belonging to the "nature" of the things related, brought the whole relation (and both terms of it) within the mind and tried to make a special character out of this internal distinction and relation -- tried to make it *generate* the system which it characterised.

(ix) [rejects]
(a) [the notion of a] self-sustaining mind
(b) the view that we are what we know [and]
(c) ... the view that *we know what we are*.
[S/p.69]

He then made a statement which assumed all of the difficulties he had previously raised about the notion of mind could be overcome: "This does not mean that we cannot have knowledge of our minds (apart from the knowledge we can have of other minds); it means that we are not bound to know all that goes on in our minds" [S/p.69-70]. Here, Anderson presumed, without any argument or evidence, without providing any definition or theory of mind, that we have minds, and we know something (although not all) that goes on in our own minds. He did not question the notion of mind, or raise the issue of the existence of minds, but simply presumed either that it was, or could be shown to be, a coherent notion, or that minds exist. Following the arguments that he advanced

against the rationalist notion(s) of mind, that is a curious, we might say inexplicable, assumption [see Chapter 6 below].

Anderson rejected both forms of cognitionalism (the definition of a process by the relation of knowing) and went on to consider conation or striving as the character of mental processes. but he suggested that striving is as much a relation as knowing, and that it is no better suited to characterising mind than the latter [S/p.70], although the conational theory "marks an advance on the cognitional theory" [Ibid], especially in giving an account of error. The great weakness of cognitionalism is that it "upholds the doctrine of 'Ideas'" [S/p.70] and this involves us in either the coherence or correspondence theories of truth [S/p.70-71], both of which lead into difficulties, neither of which can "avoid admitting ... the realist contention that we are dealing all the time with independent things ... " [S/p.71]. On the other hand, the conationalist theory enables us to distinguish between correct judgments and errors [Ibid]. On this view, which is consistent with Freud's theory of the wish and Alexander's identification of the theoretical and practical, "*We believe what eases our minds*, whether it is true or false" [S/p.72]. Anderson concluded: "But when all has been said that can be said on the conational side, we find that we have still not learned what are the qualities of mental processes themselves, what it is that may be in tension or relaxed. Striving, like knowing, is a relation, and the mental quality (mentality) is still to seek" [Ibid].

So Anderson arrived at a consideration of feeling as the "basis for a general descriptive account of mind" [S/p.73]. Having considered various aspects of McDougall's theory, he suggested that "if it is mind that we regard as having the relations of knowing and striving, we may go on to express the position by saying that emotions (or feelings) know, emotions strive and, in general, interact with other things" [Ibid]. He criticised McDougall who, "... after making the instincts the native mental forces, introduces a complicating factor of reason, instead of recognising that what reasons is simply a complex of the emotional activities he has already dealt with, and not a new faculty springing from nowhere" [Ibid]. He then went on to put forward a most dubious argument for his own view of feeling as the characteristic of mind: "Once we have rejected "constitutive relations", once we have seen that what knows and reasons **must** have qualities of its own, we can say that emotion is as likely to know as anything else; we cannot reject it as a possible knower merely

because it is a quality, since we should thus be thrust back on the supposition of something which *consists* in its relations" [Ibid].

Anderson attempted to deal with the possible objection that feeling is a relation. He admitted that feelings have relations [S/p.74], but he insisted that "What should be admitted is that feelings (e.g., anger and fear) are qualitatively different from one another, though they still have the general feeling-quality in common" [Ibid; see p.128 below]. On the basis of these and further arguments which are no more conclusive, he asserted:

> We thus have a conception of mind as a society or economy of impulses or activities of an emotional character. This conception of our "motives", conscious or unconscious, as emotions will, I am convinced, give coherence to psycho-analytic doctrine, and, though this is a point of less immediate importance, will be found to work in with the physiological examination of those brain processes (in relation to bodily processes in general) which are "the seat of" the emotions, i.e., which are the mind. [S/p.74]

This claim falls into two main parts, with a parenthetical, yet major claim "tacked on", so to speak. The first is a theory: mind is a society or economy of impulses or activities of an emotional character, a view which has not been arrived at by argument, but might have ben put forward as an hypothesis to be tested at the outset. The second part expresses Anderson's confidence in a program that might be, but has not been, carried out. And there is a final double-barrelled assertion implicit in the last sentence, which is --

> brain processes are the seat of the emotions, and
> brain processes (which are the seat of the emotions) are the mind.

In fact Anderson provided no argument for these claims, and they appear to conflict with his principal thesis that emotion or feeling is mind.

After considering features of another cognitionalist view, Anderson said: "Progress in psychology may therefore be made by the actual *discovery* of the emotional character of sentiments or motives, i.e., of what is in our minds, as contrasted with what is *before* our minds, when we engage in certain pursuits' [S/p.75]. He then summarised the main points of his view. Once again, these are set out as separate points, although the numbers and subdivisions are Anderson's. The main points of Anderson's summary are:

(1) that knowing and striving, as relations, cannot be the *character* ("mentality") of the mental;

(2) that feelings, as qualitative (a point which is illustrated by the qualitative distinctions among feelings), are capable of characterising the mental -- as well as of having relations to other things;

(3) that we must assume that they do, that feeling is mentality, unless we are going to suppose that some entirely unsuspected character of mind has yet to come to light; but

(*a*) as we have seen, there are multifarious suggestions that feeling is already, if only confusedly, recognised as the mental quality; and

(*b*) we do recognise and speak of *minds* and therefore we must already have recognised some mental quality.

To say that we know mind only as "that whereby" certain effects are produced or arrangements made is to say that we do not know mind at all -- for how, except by observation, do we know *what* sort of thing would have these effects or that there *is* a thing, of some peculiar kind, to have them? [S/p.75]

The specific positive theses Anderson put forward in *Mind as Feeling* are more complex than his summary indicates; they also include:

(4) Emotions or feelings know, strive and interact with other things [S/p.73]. But they are also called *tendencies* [S/p.222,223,68].

(5) What reasons is simply a complex of the emotional activities in one person, not a special faculty [S/p.73].

(6) Mind is "a society or economy of impulses or activities of an emotional character" [S/p.74].

(7) We can distinguish "what is in our minds, as contrasted with what is *before* our minds" [S/p.75].

Anderson's arguments for the theory of mind as feeling may be divided into two parts: (1) an "inductive argument" for the specific theses; and (2) arguments which support the theses, based on consequences of adopting them, but space does not permit an examination of them.

§5 Conclusions

It has been shown that Anderson criticised, and positively rejected, the Cartesian view of mind, and along with it all notions of mental entities: ideas, concepts, percepts, sensa, appearances, and the rationalist conception of knowledge. It has also been shown that he attempted to develop a theory of mind consistent with his empiricist-realist-pluralist-determinist principles or criteria -- principles which he typically expressed in terms of "things". The realist-pluralist view of mind which he attempted to develop was designed specifically (a) to stand in complete opposition to the rationalist, unitary view of mind, of mind as a simple substance capable of numerous functions, and (b) to have advantages over other theories of mind, especially in giving an account of error [see Baker, 1986, p.54].

However, Anderson's approach to mind raises many questions. Firstly, his attempt to develop a theory of mind appears to be based on a range of assumptions which included:

(i) We know something about others' minds
(ii) We know something about our own minds
(iii) We can observe other minds
(iv) We can observe our own minds
(v) In addition, we can observe our own minds by introspection
(vi) Minds exist, or are real entities
(vii) Minds conform to the general criteria of other things
(viii) Minds do (or *must* [S/p.73]) have characteristics of their own
(ix) Minds must be complex, not simple.

In fact, Anderson provided no evidence for assumptions (i) to (v). But assumptions (vii) to (ix) are of a quite different kind. They do not appear to be observationally based "empirical facts", but conceptual, metaphysical or *a priori*. It is extremely difficult to understand how they could be justified, or what their status is.