

THE BASIS OF
HOBBES' MORAL PHILOSOPHY

THE METAPHYSICAL AND PSYCHOLOGICAL BASIS
OF
THOMAS HOBBS' MORAL PHILOSOPHY

by

ROBERT L. GRAY, JR., B.A., M.A.

A Thesis

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AUTHOR: Robert L. Gray, Jr., B.A. (Marietta College)

M.A. (McMaster University)

SUPERVISOR: Professor James R. Noxon

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ABSTRACT

This thesis is intended to show, first, that, contrary to contemporary interpretations, Hobbes' philosophy is, as he claimed, a deductive system, beginning with factual or non-evaluative first principles and culminating in a set of moral rules, the laws of nature. The argument is, thus, that Hobbes was a consistent and a successful ethical naturalist. It is not claimed that his moral philosophy is deduced directly from his mechanistic first principles, but, that his system is deductive in much the same sense as are scientific theories, bringing both general principles and observed facts into the deduction. This claim is more fully explained in chapters one and two. Second, the thesis (is intended to provide a thorough exposition and alternative interpretation of Hobbes' views on method, metaphysics, and psychology. Accordingly, in expounding the details of Hobbes' philosophy, the thesis goes well beyond what would be necessary to provide a basis for arguing that his philosophy is, in fact, a system.

It has been attempted throughout to follow the order of discussion as it is exhibited in Hobbes' own systematic work, The Elements of Philosophy. Thus, in chapter one, it is shown that Hobbes' philosophical development supports the view that his philosophy is a system. Chapter two offers a detailed account of Hobbes' views on reason and scientific method and, on the basis of this account, argues that Hobbes did conceive of his philosophy as constituting a system. Chapters three and four

present a thorough discussion of Hobbes' metaphysical principles. Here it is argued that Hobbes did not simply beg the question of the external world but that he saw it primarily as a problem for natural philosophy. In chapter three it is argued that all accidents, insofar as they are subjects of thought and knowledge, are, for Hobbes, imaginary and that all substance, since it is only as corporeal that it is a subject of reason and knowledge, is corporeal. Hobbes' views on essence and causality are examined in chapter four. Here it is argued that Hobbes held a process view of causality according to which all distinctions between cause and effect are somewhat arbitrary. It is shown also that Hobbes' arguments in support of his mechanism, while not sound, are not, as usually thought, circular. Finally, an attempt is made to understand Hobbes' determinism in light of his views on causality and the nature of motion.

Hobbes' psychology is discussed in chapters five and six. In chapter five an argument for the external world is extrapolated from his mechanistic account of the nature of sensation. It is argued as well that Hobbes' theory of sensation is neither an epiphenomenalist nor representationalist theory, and an attempt is made to show the connections between his metaphysics and various aspects of his cognitive psychology. In chapter six it is shown that Hobbes' mechanistic account of desire is a deduction from his metaphysics, that his psychology is a 'selfish' psychology, and that 'good' is, for him, a psychological and, hence, mechanistic concept. It is shown too, in the discussion of the moral argument from *De Homine*, that Hobbes did

clearly distinguish moral from prudential virtue.

The derivation of Hobbes' moral philosophy is taken up in chapter seven. Here it is shown that the state of nature is an unrealizable state which would obtain only if men without any social experience whatever were to act simply and solely according to their natural desires. It is then shown that the war of all against all and the unlimited right of each is a consequence of that state and that the state of nature is a deduction from Hobbes' mechanistic psychology. The derivation of the laws of nature from the state of nature is then given. In chapter eight some alternative interpretations are examined and rejected.

In general, it is concluded that Hobbes' philosophy is a unified, deductive system, culminating in moral laws which have their basis, ultimately, in his mechanism.

ACKNOWLEDGEMENTS

In writing a thesis as long as this one, it is only natural that one would incur several profound debts, and it is appropriate that I should note first those who have helped most in the actual writing. So, to the members of my supervisory committee, Professors James R. Noxon, Albert Shalom, and William Hughes, for their many helpful, often worrisome, and always enlightening criticisms and suggestions, but more than that, I think, for their unflagging patience with a work that seemed, at times, reluctant to stop growing, let this serve as a brief but sincere expression of my appreciation. Thanks for help of a different order are due to the Department of Philosophy at McMaster University for giving me the opportunity, while still a graduate student, to teach part of a course on Hobbes, a course which may have taught the teacher far more than it taught the students. Pride of place, however, must go to those two persons who are most directly responsible, not for the content, but for the very existence of this thesis, my wife and son. To my wife, because she has endured the many long years of study of which this thesis is the completion, because she has served always as an encouragement to me, and, perhaps most importantly, simply because she has been beside me. Last, but hardly least, to my son, because he has given me something, I thought, to strive for, and because, throughout the time that this thesis was being written, he was so willing to find other sources of drawing paper.

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REFERENCE CONVENTIONS AND ABBREVIATIONS

ABBREVIATIONS

- EW English Works of Thomas Hobbes, ed., Sir William Molesworth, 1839.
- IW (Latin Works) Thomae Hobbes Opera Philosophica Omnia Latine Scripta, ed., Sir William Molesworth, 1839.
- E.L.L. The Elements of Law, ed., Ferdinand Tönnies, 2nd ed., 1969 (1st ed., 1839).
- DCL A Dialogue Between a Philosopher and a Student of the Common Laws of England, ed., Joseph Cropsey, 1971.
- DH De Homine in Man and Citizen, ed., Bernard Gert, 1972.
- Critique Thomas Hobbes Critique du 'De Mundo' de Thomas White, ed., Jean Jacquot and Harold Santore Jules, 1972.
- NPL Notes pour la "Logica" et la "Philosophia Prima" du De Corpore. Appendice III, Critique.

With the exception of those works noted above, all references to works by Hobbes are to the Molesworth edition of the collected works. In references to Hobbes' works, I have used the following conventions: Where the work is subdivided into parts, chapters, and sections, I have so referred to it. Thus, EW I, IV, 26, 2 would refer to the English Works, vol. I, part IV, chapter 26, section 2, and DH 2, 5, De Homine, chapter 10, section 5. In all other cases, with the exception of Leviathan (EW and E.L.L.) where, for the reader's convenience, I have included chapter references, references are to page numbers. References to works on Hobbes are given in this form: author's name, publication date, page number. Complete bibliographical information for these works may be found in the references. Rather than encumber myself and my typist with the chore of providing titles for each reference to the Molesworth edition, I have provided a table of contents for the Molesworth edition on the following page.

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PART I

The System

CHAPTER ONE

INTRODUCTION

As a political philosopher, Thomas Hobbes has been much studied, and understandably so, for Hobbes was, indeed, a more than competent observer of political affairs and an exceptionally able political theorist, but Hobbes was not merely a political theorist. In his own view, political philosophy was not to be conducted, indeed, could not be conducted, in a philosophical vacuum. For Hobbes, political philosophy, the attempt to understand by reason the nature, origin, and justification of the body politic, presupposed and required a prior acquaintance with the nature of right and wrong, of good and evil, and with the specifically human nature from which these notions are derived. As he has his interlocutor present the challenge in a later dialogue, "Few sciences can be demonstrated, not physics, because natural actions generally escape the senses; not ethics, because of the inconstancy of the human will, not politics, because of the ignorance of ethics".¹ For Hobbes, then, the political philosopher must have been a systematic philosopher, beginning, not with the examination of what must be

his ultimate end, the structure of the commonwealth, but with the systematic examination of individual human nature, to determine whether and in what respects the human will is inconstant and to show, if he will reach his end, that the will of man, even in its inconstancies, is subject to law, that it both exhibits and is the product of demonstrable physical law, with the aim of advancing from this foundation in what we would today call psychology, although Hobbes himself termed it a branch of moral philosophy, to that penultimate artificial body, constructed and constituted by men, the Leviathan. And Hobbes never claimed to be doing anything else. His was an attempt not merely to understand the nature or essential structure of the commonwealth, but to justify it, and, for Hobbes, to understand and to justify a thing is, at the very least, to find out the how and the why of it, to find out its origins, in the case of the commonwealth, in human nature.

So Hobbes' moral and political philosophy begins, properly speaking, with his psychology. This is, in part, the thesis of this work: that Hobbes' moral and political philosophy, as he himself claimed, not only begins with, but is derived from and is shaped and molded by his understanding of human nature, and that it is upon this psychological foundation that his moral and, hence, his political philosophy depend for their final justification. But for Hobbes the philosophy of human nature is an attempt to understand, not just what happens, not just, for instance, what a person does or feels when he is placed in a certain kind of situation, but how and why it happens. To understand an event of a certain kind, if our understanding is to

be philosophical understanding, we must know, not just the event, but its causes as well, so that ultimately, if what we seek is general philosophic knowledge, our knowledge must be grounded upon first principles, upon an understanding of what is ultimately and irreducibly constitutive of the event in question. And, according to Hobbes, this knowledge is that which we have or can have of the nature of body and motion. The nature, the psychology of man is to be understood and explained in terms of motion, and what serves to explain the nature of man will serve also, in the end, to explain what is derived from or produced by that nature, morality and politics. But on Hobbes' theory of philosophic or scientific knowledge, if any hypothesis serves to explain, it does so only in virtue of the fact that what it explains may be deduced from it. There is, thus, for Hobbes, a deductive relationship between the first principles of philosophy and moral philosophy, between metaphysics and morality, so that the science of good and evil, of right and wrong, depends ultimately upon the science or, rather, the philosophy of motion.

Now, this claim should not be taken, as some have wrongly thought, to be that the moral law can be derived by a straightforward deduction from the laws of motion, any more than the claim that there is a deductive relationship between the laws of gravity and the orbits of the planets should be taken to assert that the precise orbits of the planets can be derived from a knowledge of nothing more than the laws of gravity. Such laws or principles need always something upon which to work, and to apply them requires always that there be something to which they may be applied. It is not necessary, however,

for the astronomer to know or to employ such principles as the laws of gravity to determine the orbit of a planet. It is entirely conceivable that he could plot its orbit on the basis of nothing more than observation. It is possible that from the knowledge so acquired he could deduce many interesting and even important consequences. It would, nevertheless, remain true that there is a deductive relationship between the laws of gravity and the orbits of the planets, in the sense that, given only a few observations, it would be possible to deduce, by means of the known laws of gravity, what the position of a planet will be at some stated time in the future. In very much the same sense, Hobbes claims that there is a deductive relationship between his metaphysics and his ethics. He does not claim that moral and political philosophy is a direct consequence of his mechanistic first principles; what he does claim, rather, is that ethics is a consequence drawn "from the accidents of bodies natural, which is called NATURAL PHILOSOPHY",² and, for Hobbes, natural philosophy, what we today call 'science', is very much the product of combining the facts gathered from observation (i.e., the accidents of natural bodies) with mechanistic first principles.

It is in this sense that Hobbes' work constitutes a deductive system, beginning with first principles and progressing, after the basic a priori principles of metaphysics have been fully elucidated, on the basis of observation, to the deduction of natural phenomena, among which are to be included certain facts about human nature and, most importantly, the natural moral law. But such systematic progress presupposes and requires the existence of information acquired

by observation. Hobbes never claimed anything more.³

Yet this claim, explicitly made by Hobbes in all of his major works, has met with a very odd objection. The objection is not that to construct such a system is impossible, although this may be a part of it, not that, for this reason, Hobbes did not succeed in constructing such a system; the objection is, rather, that, despite his repeated claims to the contrary, Hobbes did not really attempt to construct such a system. That this objection should be made is, in a way, not too surprising. Hobbes offered only one complete systematic statement of his philosophy, The Elements of Philosophy, consisting of the three separately published works, De Corpore, De Homine, and De Cive. It is not this work, however, that is most commonly studied by Hobbes scholars; that honor belongs to his other major work, Leviathan. But Leviathan is not a systematic treatment. The discussion of psychology in Leviathan is sketchy and not intended to be anything more than a very brief introduction.⁴ Furthermore, as has been pointed out by A. E. Taylor, one of the major de-systematizers of Hobbes, "Leviathan is a rhetorical and, in many ways, a popular Streitschrift";⁵ it is a popular work intended not so much for scholars as for the average, well-educated Englishman. Yet even Taylor, fully aware of the much greater importance of De Cive for an understanding of Hobbes' moral and political philosophy, limits his study of Hobbes to what is, in effect, the third part of a three part work, a part which contains nothing of metaphysics and little of psychology.⁶ It need come to us as no surprise that he should argue, "It is not a logical necessity of the system that we should also accept his egoistic moral psychology".⁷

And Howard Warrender, who has become the foremost contemporary advocate of the Taylor view, limits his investigation almost exclusively to Leviathan.⁸ Even a writer of the caliber of Leo Strauss, who has his own peculiar argument for de-systematizing Hobbes, without believing the psychological theory to be (in its entirety) a logically unnecessary part of the moral philosophy, casually waves aside Hobbes' mechanistic treatment of sensation and appetite in the 'little treatise' as "of no great interest" to his purpose, which is, in part, to understand the philosophical basis of Hobbes' moral philosophy, a basis which Hobbes repeatedly claimed was to be found, at least in part, in his mechanism and especially in his mechanistic psychology.⁹ Yet Frithiof Brandt, in a work which Strauss had obviously read, had argued at some length that in this small work, the earliest philosophical work known to have been written by Hobbes, the central problem is the mechanistic account of "the act of sense" and what is for Hobbes the related problem of appetite.¹⁰ There is as well in this early, entirely systematic work, which Brandt has called "a little masterpiece" of deductive form,¹¹ a clearly mechanistic account of good and evil. Yet the work is judged to be not relevant to an investigation of the basis and genesis of Hobbes' political philosophy.

Yet it should not be thought that this decision not to read Hobbes as a systematic philosopher has been made on no other basis than a simple refusal to read the proper works; certainly such writers as George Croom Robertson¹² and Leo Strauss were familiar with the corpus of Hobbes' works, as was Taylor, nor does it appear that Warrender has limited his own study of Hobbes to just the political works.

All of these men have offered arguments to show that, despite his claims, Hobbes' work does not constitute a system. One of these arguments is taken from Hobbes himself.

In the preface to De Cive Hobbes very briefly narrates the course of events that led up to the publication of De Cive, the third part of his system, before the other two had, apparently, been written, so that "what was last in order, is yet come forth first in time, and the rather, because I saw that grounded on its own principles sufficiently known by experience it would not stand in need of the former sections".¹³ This is taken by many of Hobbes' interpreters to be an admission on the part of Hobbes that his moral philosophy is grounded, not in anything so abstruse as metaphysics or so objectionable as his mechanistic psychology, but rather in experience, in those observations which over a lifetime he had made, and which others may make, of men and manners. He says here, after all, that the principles of his political theory are grounded sufficiently in experience and he goes even further to say that they do not stand in need of his metaphysics or of his mechanistic account of the behavior and passions of men. But this argument is faulty and rests partly upon a misunderstanding of the nature of Hobbes' system. For the nature of Hobbes' system is such that he could without any inconsistency claim both that the third part of his work was systematically related to the preceding parts and that the third part is so sufficiently grounded on experience that it could stand on its own. In precisely the same sense that a knowledge of the orbits of the planets may be derived from experience, from observation, without any reference to the laws of gravity. Yet it

seems to me that the very passage in question serves also to support the contrary view that Hobbes' work was, at least, conceived as a system. He says, "what was last in order, is yet come forth first in time;" In fact, the whole point of this passage would appear to be just to excuse or to justify the fact that this is so, and one wonders what this order opposed to temporal order is intended to be if not a logical order. At the very least, it must be admitted that the preface to De Cive does not unequivocally support either view.

But that emphasis itself which Hobbes places upon logical order has given rise to another, philosophically much stronger objection. This objection, begun or supposed to have begun with Hume, would have us believe that a system such as that which Hobbes is supposed to have devised is logically impossible. Hobbes' systematic work, The Elements of Philosophy, ends with his moral and political philosophy, with statements about what ought and what ought not to be done, but it begins with metaphysics, with statements about what is and what is not the case. And, according to this objection, the now (in-) famous is-ought dichotomy, the one kind of statement cannot, logically, be deduced in any way from the other. Many of those persons who accept this argument, and they are legion, have thus been led to view Hobbes in a non-systematic light, to assert, in effect, that, since he could not have constructed such a system, he did not and, furthermore, that he did not try. Persons who hold this view, notably Taylor and Warrender, have thus been led to find in Hobbes some distinctively moral or evaluative basis for his moral philosophy, and, for these two men at least, such a basis is to be found in the natural right

of the Deity to command all things.¹⁴ Even those who have undertaken to defend Hobbes as a systematic philosopher have felt compelled to yield to the force of this argument. Thus, J.W.N. Watkins maintains that Hobbes' philosophy does constitute a system in the sense that it is the result of applying the same mechanistic approach to distinct sets of problems (a weaker sense than that in which I claim Hobbes to have been a systematic philosopher), but he has, nevertheless, felt compelled in the face of this alleged logical dichotomy to argue that, despite Hobbes' repeated claim that the natural law is the moral law, the laws of nature are not, in fact, moral laws at all, but rather prescriptions, logically on a par with "doctor's orders".¹⁵

Now, it is primarily with this latter sort of objection that this thesis is intended to deal. I shall attempt to show by a systematic exposition of Hobbes' major arguments that his work is, in fact, a system of the kind I have claimed and that he did, in fact, attempt to deduce moral imperatives from statements which are ultimately of a non-moral and non-imperative character. And, in defense of this interpretation, which I take to be, at least in its essential character, fairly sound, I shall then offer some objections to those interpretations which are grounded upon an acceptance of the alleged is-ought dichotomy.

This argument based upon the is-ought dichotomy serves today as, perhaps, the major argument against Hobbes' philosophy as constituting a deductive system. But even if it were sufficiently answered there would yet remain the arguments of Robertson and Strauss, whose arguments against construing Hobbes' work as a system

may be seen as, in part, an elaboration of Robertson's. Robertson argued in 1886, on the basis of the order in which Hobbes published and, presumably, composed his philosophical works, that "In truth...the whole of his political doctrine...has little appearance of having been thought out from the fundamental principles of his philosophy. Though connected in the one case [*De Corpore Politico*]¹⁶ with an express doctrine of human nature,¹⁷ and in the other [*Le Cive*] referred to such a basis to be afterwards supplied,¹⁸ it doubtless had its main lines fixed when he was still a mere observer of men and manners, and not yet a mechanical philosopher. In other words, his political theory is explicable mainly from his personal disposition...out of all sympathy with the aspirations of his time."¹⁹ Robertson's concern here is primarily with Hobbes' philosophical development, and the claim that he makes in the passage quoted is basically that Hobbes' thought did not develop in the order in which it is later presented. That this is Robertson's sole point here is fairly clear from a later passage in which he says, "There can be little doubt, however Hobbes might wish by after-thought to connect his theory of Political Society with the principles of his general mechanical philosophy, that it sprang originally from a different line of consideration,"²⁰ although he later offers a different kind of argument to show that Hobbes' moral philosophy is not, in fact, systematically related, at least as a deductive consequence, to his mechanism. In reference to Hobbes' moral philosophy, he says that Hobbes "is working with current notions of Scholastic [as opposed to mechanistic] origin, and is only careful to interpret them in accordance with his personal view of the motive forces of human nature."²¹

Robertson's arguments here may be seen as providing the basis for an argument much more elaborately developed in the work of Leo Strauss to show that Hobbes' philosophy is not systematically related to his mechanism, and as forming, at least in part, the basis for Strauss's view of Hobbes as a humanist whose natural tendencies in moral philosophy were not only not based upon, but were distorted by his later adoption of mechanistic first principles.²²

Strauss bases his own argument, for the most part, upon an examination of Hobbes' earlier, non-philosophical works, chiefly his digests of Aristotle's Phetoric and the introduction to his translation of Thucydides, and, as I have noted, passes off the 'little treatise' as of little interest to his purpose.²³ Now, it is certainly true that with the recognition of the importance of this short work for an understanding of Hobbes' philosophical development, Strauss's argument is weakened, but it would be false to assert, as has at least one recent writer, that by itself it is fatal.²⁴ It is in fact a fairly strong argument, which, despite this major flaw, contains some truth.

Strauss's argument, in brief, is this. He declares, in the first place, that for Hobbes "Political philosophy is independent of natural science," and this is so "because its principles are not borrowed from natural science, are not, indeed, borrowed from any science."²⁵ Indeed, on Strauss's interpretation it is hard to see how they could be, for he goes on to argue that this is true partly because a political body is not a natural, but an artificial body and partly because political bodies are the products of men, who, in

becoming citizens, effectively change their own natures, so that they are not, in a sense, natural beings.²⁶ But Strauss argues further that Hobbes held two conceptions of human appetite which are not entirely consistent; the one, according to Strauss is mechanistic; the other, vitalistic. The former is based on Hobbes' general mechanism, while the latter, Strauss claims, "is based not on any general scientific theory, but on insight into human nature, deepened and substantiated by self-knowledge and self-examination."²⁷ The former evinces Hobbes' naturalism; the latter, his humanism. The former is what Hobbes' claimed, the latter is what actually was the basis of his moral and political philosophy.²⁸

Now, to establish this view as being at least a plausible view, Strauss is compelled to show "that either all or the most important points of that moral motivation were already established before he had turned his attention to natural science."²⁹ Strauss begins his argument to show this by arguing that, on the assumption that Hobbes' method and major impetus to philosophy proper was Euclidean,³⁰ he could not very well have been influenced by Euclid until he had read the Elements, and this he did not do until the age of forty, an age by which he had very likely already formed his political opinions.³¹ Now, Strauss's arguments to show what opinions Hobbes had held before his reading of Euclid and his subsequent turn from humanism to naturalism are not especially important here and need only be briefly mentioned. What is important, I think, is his assertion that Hobbes' psychological theories were

"borrowed from natural science" sometime after his reading of Euclid, when he was well into his forties, and the view that this borrowed psychology was an imposition upon, and a distortion of a pre-existing theory of human nature. I shall return to this problem shortly.

In his prose autobiography Hobbes writes at one point, "Natura sua, et primis annis, ferebatur ad lectionem historiarum et poetarum."³² From the fact that Hobbes uses the expression "et primis annis" and the context in which the sentence occurs, Strauss takes Hobbes to be saying that, for "the whole time up to the awakening of his mathematical and scientific interests," he had been occupied with the reading of classical authors, and infers hence that "one is completely justified in calling the first period of his life (up to 1629) the 'humanist' period."³³ Notwithstanding Strauss's far greater competence in Latin, I should have taken "et primis annis" in what seems to be the more natural sense of "even in his first or earliest years," in which case that statement could be taken only to indicate that his interest in the classics was not come to late in life, and certainly would not justify, without some further evidence, the claim that the period up until 1629 was Hobbes' humanist period.³⁴ Presumably, what in the context causes Strauss to interpret the passage as he does is the fact that the following sentence, which describes Hobbes' 'scientific' awakening, begins with 'postea' (afterwards). But this usage, it seems to me, will serve to indicate only that Hobbes was not awakened to science, or at least to the problem of sensation which is that aspect of his awakening with which the sentence is actually concerned,³⁵ until sometime after his "earliest years". Certainly this passage

by itself will not allow one to infer that this awakening did not take place until after 1629, when Hobbes was forty-two and well past an age which he might have referred to, even at the age of ninety-one, as his "earliest years". But I shall return shortly to the problem of dating Hobbes' awakening.

Strauss goes on to argue, partly in defence, partly in elaboration of this point, that it was Aristotle whom Hobbes accepted as the authority in philosophical matters, and that Hobbes did not break with Aristotle until he took up the study of Euclid, but with the reservation that even then the break was not clean.³⁶ And it is, according to Strauss, Aristotle's metaphysics that is abandoned; it is the influence of his practical philosophy and especially that of his Rhetoric that is retained.³⁷ That Hobbes was influenced, and that greatly, by the Rhetoric is a fact, I think, incontrovertible.³⁸ But it cannot be inferred from this that Hobbes' close study of the Rhetoric was undertaken, or his original views on politics and human nature, developed prior to his scientific awakening. Nor can it be shown, I think, that Hobbes' thoughts in these areas did not receive their primary stimulus, as he himself claimed they did, from his awareness of the problem of sensation. It cannot be inferred, in other words, that "This predominantly Aristotelian moral attitude is...not only objectively 'prior' to the argument and presentation of his political philosophy...but also in Hobbes's development it precedes his preoccupation with the exact sciences."³⁹ As Strauss notes himself, "Hobbes's closer study of Aristotle's Rhetoric may be proved with certainty only for the 1630's."⁴⁰ This certainly

does not antedate his concern with the exact sciences. But the real question is how early did Hobbes come to his mechanistic view?

In his prose autobiography, Hobbes says that it was during his third trip to the continent, "While he remained in Paris" that "he began to investigate the principles of natural science."⁴¹ Since this trip took place apparently between the years 1634 and 1637, this passage would seem to accord well with Strauss's view of Hobbes as rather a late comer to the mechanistic view, and the question could, perhaps, be left at this point but for a most intriguing passage which immediately follows in the autobiography. Hobbes goes on to say, "Which, since he knew them to be contained in the nature and variety of motions, he sought first of all what sort of motion it could be which produces sensation, understanding (intellectum), phantasms, and the other properties of living creatures."⁴²

What makes this passage so intriguing is the fact that Hobbes says "since he knew them (the principles of natural science) to be contained in the nature and variety of motions." What Hobbes would appear to be saying, then, is that it was not until this third trip to the continent that he began in earnest to investigate the principles of natural science, but that he had already acquired, some time previously, the philosophical premiss with which he would work the rest of his life and in terms of which he would endeavor to understand the principles of natural science, that those principles were contained in the nature and variety of motion. There is, however, a possible mis-reading of the text which must be avoided here. This autobiography was written very late, when Hobbes' life was nearly at its end, and

throughout his life, or at least throughout that portion of his life devoted to writing philosophical and physical treatises, Hobbes was careful to distinguish natural from first philosophy, to distinguish, in other words, science and metaphysics. The claim that all mutation is motion or that the principles of natural science are contained in the nature and variety of motion is not a claim belonging to what we would call science, to what Hobbes called natural philosophy or natural science. It is, rather, a claim belonging to first philosophy or metaphysics. Thus, when Hobbes says that he began to study the principles of natural science, especially since, in the same passage, he distinguishes, by implication, the knowledge of those principles from the knowledge that they are contained in the nature and variety of motion, it should not be inferred that he began at the same time to become a mechanistic philosopher. We cannot, in other words, infer that the date of his philosophical awakening was the same as the beginning of his study of the principles of physics. What we can infer from the text, however, is that the date of his philosophical awakening, which I shall identify with his realization that all mutation is motion, or that the principles of science are contained in the nature and variety of motion, preceded, by how much time we cannot here determine, the period of scientific study described here. But we may make, I think, another, perhaps more important, inference as well. The clause which begins the passage we are examining is causal. Hobbes says that it was since or because he knew the principles of science to be contained in the nature and variety of motion that he sought, in the first place, to understand the motions which could produce phenomena such as

sensation. We may thus infer far more than just that Hobbes had already adopted his mechanistic view; we may infer that already his studies were being shaped and directed by his mechanism, and we may see, too, from the instances he lists, that his first scientific investigations were directed, not to the principles of physics, but to the principles of psychology.

As Strauss has noted, Hobbes' close study of Aristotle's Rhetoric can be proved only for the 1630's. In fact, it cannot be proved for any time prior to 1635. And it may well be that his study of the Rhetoric was undertaken in conjunction with, or as a part of the psychological investigations begun sometime during the years 1634 to 1636. But it is certainly the case, as I shall shortly argue, that, if this close study of Aristotle was undertaken at any time in the 1630's, it postdated Hobbes' philosophical awakening as a mechanistic philosopher. In other words, Hobbes may well have studied Aristotle during the 1630's; he may well have adopted many of Aristotle's views--Strauss's arguments for this, it seems to me, are both cogent and convincing--but if he did so study Aristotle, he did so from a background that was already mechanistic, and those of Aristotle's views that he adopted were adopted into an already existing mechanistic framework.

The date of composition of the 'little treatise', Hobbes' first known philosophical work, is not known, nor can it be determined with any precision. On the basis, however, of its philosophical content, Brandt argues that it could not have been written any later than 1636, and, on the basis of several other considerations, suggests that it was probably composed sometime during the period 1630-1634.⁴³ Could

it have been written as early as 1630? This is the date which, apparently, Tonnie's accepted⁴⁴ and which Brandt provisionally accepted as a working hypothesis.⁴⁵ I am not concerned here so much with the question of when the 'little treatise' actually was written as with the question when it might have been written. The answer to this question will, I believe, shed much needed light on Hobbes' philosophical development and the relation between his mechanism and his (Aristotelian) psychology.

In the 'little treatise' Hobbes argues, among other things, that "Light, Colour, Heat, and other proper objects of sense...are nothing but the severall Actions of Externall things upon the Animal Spirits."⁴⁶ Thus, whether we accept the earliest suggested date of 1630 or the latest of 1636, we will be forced to conclude that, in this regard at least, Hobbes preceded Descartes, whose similar views were not made known until 1637. It is this very fact that provides us with some basis for assigning the earlier date to the 'little treatise'. In 1641 Marin Mersenne forwarded to Descartes a letter by an anonymous Englishman criticizing his Dioptrique. The writer of the letter, although Descartes did not know it, was Thomas Hobbes. Altogether Hobbes wrote and sent, through the agency of Mersenne, three letters to Descartes. The first of these has been lost; part of the second, so Brandt argues, has been preserved, in its original or in an at least similar form, in Tractatus Opticus.⁴⁷ We do not know precisely what Hobbes had to say in the lost portion of this correspondence; certainly, it could not have been such as to justify Descartes' outraged response. Presumably, Hobbes had argued that he, too, had come

independently to the view that sensible qualities exist only in the mind of a perceiver. But, furthermore, as is clear from a letter from Descartes to Mersenne, Hobbes had employed a technical, mechanistic concept, 'corpus subtile,' which Descartes took to be identical with his own 'materia subtile,' and Descartes would seem to be most anxious to defend his own claim to priority, and, in effect, accuses Hobbes of having plagiarized the concept from him.⁴⁸ Hobbes, no doubt informed of Descartes' reaction by Mersenne, took the opportunity in his final letter to Descartes, through Mersenne, to defend his own claim to priority, the claim which so outraged Descartes that he begged Mersenne to discontinue the correspondence lest he and the Englishman become enemies.⁴⁹ It is this defense which gives point to this discussion of the controversy, for Hobbes writes to Mersenne,

As for what you say, however, that I could have borrowed that hypothesis from him who wrote it first, I hope you will serve as a witness for me in the future, that seven years ago, when I first discussed with you in your house and in the presence of the Lord de Beaugrand, the return of the arc, I adduced by reason that internal motion which I supposed at that time to be of the spirits. But now, having been reminded, I have this further to say to you, that I had explained that doctrine concerning the nature and production of light, and sound, and of all Phantasms or ideas, which Master de Cartes now rejects (respuit); in the presence of those most excellent brothers, the Lord William Duke of Newcastle and Sir Charles Cavendish, our common friend, in the year 1630. Which I mention on this account, that he acknowledging that doctrine for some time, may not claim it is founded on his principles.⁵⁰

Thus, we find Hobbes here producing witnesses not only to prove that he had arrived at these doctrines independently of Descartes as early as

1634 (seven years ago), but that he had advanced a mechanistic view of sensation as early as 1630. If now we turn to the Epistle Dedicatory of A Minute or First Draught of the Optiques, written in 1646 and dedicated to the Marquis of Newcastle, we find Hobbes saying again, "That which I have written of it [vision] is grounded especially upon that w^{ch} about 16 yeares since I affirmed to your Lo^{pp} at Welbeck, that light is a fancy in the minde, caused by motion in the braine, which motion againe is caused by the motion of y^e parts of such bodies as we call lucid...By putting you in mind hereof, I doe indeed call you to witnesse of it: because, the same doctrine having since been published by another, I might bee challenged for building on another man's ground."⁵¹ It would, thus, appear indisputable that Hobbes had, as early as 1630, proposed a mechanistic account of psychological phenomena.

Hobbes tells us that his interest in sensation and his subsequent belief that all mutation is motion was the result of a conversation held "with certain learned men" on the question "What is sense?" Unfortunately, Hobbes does not tell us when or where this conversation is supposed to have taken place. It would now seem reasonable, however, in light of the foregoing argument, to date this conversation some time prior to 1630. It is doubtful, however, that this conversation and Hobbes' subsequent awakening can be dated very much earlier than this year.) We may suppose, therefore, that this conversation took place sometime during the late 1620's, either before or, as has been suggested by Robertson,⁵² shortly after the beginning of his second trip to the continent in 1629.

I believe, however, that there is some, although slight reason to suggest that this conversation and, consequently, Hobbes' philosophical awakening took place before his second trip to the continent. Toward the end of his prose autobiography, immediately after the description of his conversation with the "learned men", Hobbes tells us that it was a result of this conversation that he was led to the view that "The cause of all things is to be sought in the diversity of motions. And this principle he used first." And he goes on to say in the immediately following sentence, "Thereupon, in order that he might understand the varieties and proportions of motions, he was drawn to geometry."⁵³ The suggestion here would seem to be that Hobbes' earliest concern with geometry and, hence, with Euclid, was a consequence of his mechanism and not vice versa as has been usually thought. If, now, we return to the earlier portion of this autobiography, we find Hobbes saying that it was during his second trip to the continent that "he began to look into Euclid's Elements."⁵⁴ The suggestion would thus be that he had already come to his mechanistic view and, as a result, took the opportunity provided by his second journey to the continent to "look into Euclid." The direct evidence for this view, however, is no more than I have given, and the argument is not conclusive.

Some further evidence may, however, be adduced in support of the argument if we make the following observation. In his letter to Mersenne, written in 1641, Hobbes says that he had explained his doctrine of sensation to the brothers Cavendish in 1630; in his Dedication to the Marquis of Newcastle, written in 1646, Hobbes reminds him that he had imparted this theory to him "about 16 yeares since", about 1630,

"at Welbeck". The difficulty here is that, in 1630, Hobbes was in Europe, and he did not return to England until sometime in the year 1631. We must, then, suppose that Hobbes has got the date wrong and that this communication, which clearly appears from both passages to have been verbal, took place probably either in 1629, prior to his second trip to the continent, or shortly after his return in 1631. I do not incline to the latter view for two, closely related reasons. Hobbes had undertaken his second trip to the continent as travelling companion to the son of a Sir Gervase Clifton only because, with the death of his patron, the second Earl of Devonshire in 1628, his services were no longer required; he returned from his journey, apparently earlier than scheduled, solely because the second Earl's widow had requested that he assume the responsibilities of tutor to her eldest son, then thirteen.⁵⁵ Hobbes speaks very well of his young pupil and describes at some length the course of his instruction (it is probably in conjunction with these instructions that he composed his digests of the Rhetoric),⁵⁶ and it seems doubtful that he would have forgotten when he was recalled to the services of his beloved Cavendishes or the order of the surrounding events. That is my first reason; the second is that it would seem plausible to suggest that, for at least some time after his return, Hobbes would have been busy with purely practical matters. On the other hand, the period preceding his second trip to the continent, from June, 1628 to mid-1629, was, as far as can be told, an empty one.⁵⁷ With the death of his employer, his services were no longer required, and, although he was permitted to remain at Chatsworth, his employment was discontinued.

His translation of Thucydides had been completed; he had little to do but read, engage in conversation, and, perhaps, in philosophical speculation. It would thus seem to me that, since the date of Hobbes' initial communication of his doctrine of sensation must be displaced, it were better to place it before, rather than after his second trip to the continent.

In any event, whether his conversation with the "Learned men" took place in the years 1629-1630 or earlier, it is at least certain that Hobbes had become a full fledged mechanist by the year 1630. It seems certain, too, that the stimulus to his adoption of these views was his concern with the problem of sensation. From a developmental point of view, then, Hobbes' mechanism and his psychology, to this extent at least, were inextricably linked. His first question was, "What is sense?" His first and final answer was, "It is motion." If, now, we look for indications of any further interest in psychological questions, we will find none prior to this. We will find, however, indications of a subsequent interest. I have already noted Hobbes' remark that he began, in 1634, to look into the principles of natural science, especially those of sensation and related psychological subjects (for Hobbes, like most of his contemporaries, this probably meant, primarily, an interest in optics). But we possess also several letters from Hobbes indicative of a deepening interest in psychology. We may take note first of a letter written in 1634 to an unknown person, in which Hobbes replies to a question about memory. He writes, "For your question, why a man remembers less his own face, which he sees often in a glass, than the face of a friend that he has not seen of a great

time, my opinion in general is, that a man remembers best those faces whereof he has had the greatest impressions, and that the impressions are the greater for the oftener seeing them, and the longer staying upon the sight of them...In general, I think that lasteth longer in the memory which hath been stronglier received by the sense."⁵⁸ As Brandt has noted, Hobbes already speaks here with the voice of authority.⁵⁹ Hobbes goes on immediately to say, "This is my opinion of the question you propounded in your letter. Other new truths I have none, at least they appear not new to me. Therefore if this resolution of your question seems probable, you may propound another, wherein I will endeavour to satisfy you."⁶⁰ In a most intriguing letter written to Newcastle in 1635, referring to a work by Warner, he says, "For the soule I know he has nothinge to give your Lordship any satisfaction. I would he could give good reasons for the facultyes and passions of the soule, such as may be expressed in playne English, if he can; he is the first--that I have ever heard of--could speake sense in that subject. If he cannot I hope to be the first."⁶¹ We thus discover from this letter that it was Hobbes' declared purpose, as early as 1635, to be the first to "speake sense" in psychological matters, as well as his explicit assertion that, to his knowledge, noone, which, presumably, would include Aristotle, had so spoken previously. If, in addition, we recall that it is to this period that is owed both the study of the Aristotelian view of the passions and the 'little treatise', the purpose of which is essentially to present, in deductive form,⁶² a mechanistic account of sensation and appetite and of good (bonum) and evil (malum), and that to the end of this period is

owed Hobbes' first fully developed exposition of his views on psychology and human nature,⁶³ it would not seem an unwarranted or unsupportable inference that, at least developmentally, Hobbes' mechanism and his psychological studies were, from the beginning, inextricably linked, and that his psychology was, thus, always a mechanistic psychology.

The evidence, such as it is, for Hobbes' early philosophical views is scanty, and I have appealed here to only a small portion of it. But it would seem, nevertheless, that a detailed investigation of Hobbes' development, far from supporting Strauss's and Robertson's view that Hobbes' mechanism is an imposition upon and a distortion of psychological views formed at an early age when he was still an observer of "men and manners", supports the contrary view. Although there is, as I have said, some truth to Strauss's claims, that, for instance, Hobbes' political views, including his preference for monarchic government, were formed in large part while he was still a classicist, and not yet become a mechanical philosopher, it nevertheless ought not to be thought, as Strauss claimed, that the mechanism served only to distort these views and ought to be studied (if at all) separately. In fact, were Hobbes' views on government not beyond the scope of this thesis, which, properly speaking, is concerned only with the connection between his mechanistic psychology and his moral theory, I should argue the opposite view, that Hobbes' early political views, at least his almost blind preference for monarchy, the only aspect of his system which Hobbes himself admits not to have been demonstrated,⁶⁴ represents a distortion of his later, systematically mechanistic, psychological and political views.

But while I take it to have been shown that, developmentally, Hobbes' mechanism and psychology were inextricably linked, there remains yet to be examined the larger and more important question of whether or not they, and, of course, his moral theory, were so linked at a philosophical level. It is to this question that this thesis is addressed. I believe that, as Hobbes claimed, they are connected, and I shall attempt to show both that, and in what sense this is so in the thesis proper.

I do not believe, and it is appropriate that I should say this here, that it is possible to criticize a man's philosophy fairly until one has taken the necessary time and effort to understand it thoroughly. There is much in Hobbes' philosophy that is wrong, much of it, to the twentieth century reader, obviously so, and there is much that is simplistic, sometimes to the point of being crude, but these faults, where they occur, are often far more obvious now than they were in Hobbes' own day. It is a point too often overlooked that not only scientists, but even philosophers have made progress (albeit little) over the past three-hundred years. We may agree here with the judgement of Michael Oakeshott that "on the whole it remains true that no great writer has suffered more at the hands of little men than Hobbes."⁶⁵ Certainly it is no mark of a great man to criticize another for what he could not have known, nor more do we criticize an explorer for not having had a map, nor do we criticize an inventor for the fact that his inventions lack the sophistication that time and technology have permitted us to take for granted. Though the Victrola is crude compared to the modern stereo, Edison is no less great. If new paths are rough and

hard to follow, they are no less difficult to strike. The way is set with blocks and hazards that often do not show until many feet and many years have passed, and it is the mark of a great explorer, not that his way lasts forever, not that it is perfectly laid without lets or hindrances, but that the way is straight and does not waver.

Those who have read Hobbes' works with care have seldom failed to be impressed by the fact that his way does not waver. One does not find in Hobbes an impetuous genius with its many shifts and turns. What one does find is the clear progress of an unhasty, carefully directed thought that, with a patience denied most, seeks its way straight to its goal. For this reason alone, if no other, to read one of Hobbes' works on political philosophy is both a fascinating and a fruitful task, but to read them all is a long and sometimes an arduous chore. The later works take in more; they expand in scope, but the themes are unchanged. Even the details change but little. Whatever the course of his philosophical development, this much, at least, is certain: by the age of fifty, when the brilliance of most men has long since dimmed, Hobbes had written nothing of any philosophical account. By the age of fifty-three he had written his first, and what was, for all practical purposes, his final word in moral and political philosophy. He had at last chosen his way, and though he would write much in the years remaining to him, his way would not waver. It was the straight way; it was the shortest, and, to his mind, it was the best.

It is this systematic thought, what I have called the 'way', with which Hobbes felt no apparent dissatisfaction, which he never felt the need to change, that I intend to investigate in this work.

I have no intention to criticize it, although, as I have said, there is much in it that is criticizable. But it is my intention here to expound and interpret it as it is presented in Hobbes' various works, with the hope--I hope not vain--that both I and my reader may come to understand it, as a system, more fully than it has been before.

Hobbes thought his philosophy a system, and he presented it as such in one work, his true magnum opus, The Elements of Philosophy. It is, accordingly, with this work that I shall be primarily concerned. But others of Hobbes' works provide a rich and fertile source for interpreting and understanding his argument, and, although I regard them as being, for the most part, of secondary importance, I shall employ them as fully as possible.

NOTES: CHAPTER ONE

1. LW IV, p. 5. (Nam theoremata physicae, quia actiones naturales pleraeque sensum fugiunt; ethica, propter voluntatis humanae inconstantiam; politica, propter ethicae ignoracionem; pauca possunt demonstrari.) All translations from Hobbes' untranslated Latin works shall be given in my own English translation.
2. EW III, p. 72.
3. Watkins, apparently in an attempt to discredit this view of the systematic nature of Hobbes' philosophy, by means of the import-export law, has made a joke of this sort of deduction. He provides a 'recipe' for giving important deductive consequences to a simple truism. Now, it is true that, given a statement of the form (a & b) c, where a is a theory and b a simple truism or a set of undisputed empirical facts, one can derive the statement b (a c), but the joke is not well taken, for one cannot deduce either c or a from b. To deduce c requires that both a and b be known. It is for just this reason that, for Hobbes, the science of natural causes is uncertain; b, the set of facts which, when plugged into the theoretical framework, a, allows the deduction of c, the natural event to be explained, is generally not knowable, as it must be, by empirical means. The deduction of c, then, is always hypothetical. But where both a and b can be known, as Hobbes claims in certain cases they can be, then not only can c be deduced, but its truth can be demonstrated (Watkins, 1973, p. 9).
4. EW III, p. 1.
5. Taylor, 1938, p. 406.
6. This observation does not apply, however, to Taylor's earlier (1908) book on Hobbes.
7. 1938, p. 4.
8. Warrender, 1957.
9. Strauss, 1952, p. xii. The 'little treatise' is the term coined by Brandt for the work published as appendix one to Tonnie's edition of The Elements of Law.

10. Brandt, 1928, pp. 11ff. Strauss refers to this work at least twice (1952, p. 166).
11. Ibid. p. 10.
12. Robertson appears to have been the first major writer on Hobbes to have taken the view that his philosophy is not a system in the sense in which he claimed (1886, p. 57).
13. EW II, p. xx.
14. Taylor, 1938; Warrender, 1957.
15. Watkins, 1965, p. 51. The same view of the systematic nature of Hobbes' work has been taken by David Gauthier, although he expresses it rather more metaphorically as, "What unifies Hobbes's philosophy...is in fact not the thread of deductive materialism, but the stitch of mechanical explanation. And the name of this stitch is motion." (Gauthier, 1969, p. 2.)
16. The second part of Elements of Law, published in 1649.
17. Of Human Nature, the first part, also published in 1649.
18. De Homine, the second part of The Elements of Philosophy, not published and apparently not written, except for that portion dealing with optics, until 1657.
19. Robertson, 1886, p. 57.
20. Ibid., p. 138.
21. Ibid., p. 142. Robertson would here seem to be taking a view of the systematic nature of Hobbes' work very similar to that offered by Watkins.
22. Strauss, 1952, pp. ix-x.
23. Ibid., p. xii. The translation of Thucydides dates from 1628; the digests of the Rhetoric, as Strauss notes, from about 1635.
24. Watkins, 1969, p. 85.
25. Strauss, 1952, p. 7.
26. Ibid., pp. 7-8. If this is the correct interpretation of Hobbes' views, one is forced, it seems to me, to ask why he should have spent so much time developing his theory of human nature and how he could have claimed, as he did, that the laws of nature "are immutable and eternal" (EW II, I, 3, 29; EW III, p. 145) when those laws are taken, explicitly, to be derived from human nature (EW II, pp. vii).

27. Ibid., p. 9.
28. Ibid., p. 27.
29. Ibid., p. 29.
30. In fact, Hobbes' interest in Euclid is probably not a cause, but a consequence of his interest in natural science.
31. Ibid.
32. LW I, p. xx.
33. Strauss, 1953, p. 31.
34. However, other and, I think, stronger evidence than that cited by Strauss can be given in support of this view. For instance, speaking of his twenty years service, first as tutor and then as secretary to William Cavendish, second Earl of Devonshire, Hobbes writes in his verse autobiography, "Twice ten years I served him utterly;/ Not just a Master, truly even a friend was he./That part of my life by far the sweetest was,/ And often to me now in grateful dreams it comes./Throughout this time with leisure he provided me,/And for my studies offered books of every kind./ To ours, to Greek and Latin histories I turned;/And often also I read songs./Flaccus, Virgil, even the familiar Homer belonged to me,/Euripedes, Sophocles, Plautus, Aristophanes,/And more; and many a Writer of Histories./Yet, before the rest I liked Thucydides./He showed to me democracy; how inept it be,/And by how much one man is wiser than a crowd." (LW I, pp. lxxxvii-lxxxviii. *Huic ego servivi bis denos gnaviter annos;/Non Dominus tantum, verum et amicus erat./Pars erat illa meae multo dulcissima vitae,/Et nunc saepe mihi somnia grata facit./Ille per hoc tempus mihi praebuit otia, libros/Omnimodos studiis praebuit ille meis./Vertor ego ad nostras, ad Graecas, atque Latinas/Historias; etiam carmina saepe lego./Flaccus, Virgilius, fuit et mihi notus Homerus,/Euripides, Sophocles, Plautus, Aristophanes,/Pluresque; et multi Scriptores Historiarum:/Sed mihi prae reliquis Thucydides placuit./Is Democratia ostendit mihi quam sit inepta,/Et quantum coetu plus sapit unus homo.*) Here it is clear from the context (twice ten years) that Hobbes is speaking of the whole time up to about 1629. A similar, although less detailed description of his reading during this period is given in the prose autobiography. But, in this passage he gives a reason for his devotion to classical authors. He says that during his first trip to the continent, "feeling that the Greek and Latin languages were little by little slipping away from him and seeing, moreover, that philosophy and logic (in which he thought he had progressed excellently) were thought a mockery by prudent men, that empty logic and philosophy

having been thrown down, he decided to devote as much empty time as he had to the Greek and Latin languages. And so when he had returned to England...he studied historians and poets diligently; not so that he could write eloquently, but so that he could write in proper Latin." (LW I, pp. xiii-xiv. Graecam et Latinam linguam paulatim perire sibi sentiens, philosophiam autem logicamque (in quibus praeclare profecisse se arbitratur) viris prudentibus devisui esse videns, abjecta logica at philosophia illa vana, quantum temporis habebat vacui, impendere decrevit linguis Graecae et Latinae. Itaque cum in Angliam reversus esset, historicos et poetas...versavit diligenter; non ut floride, sed ut Latine posset scribere.) If a devotion to the classics is sufficient by itself to prove one a humanist, then certainly these two passages are sufficient to prove Hobbes one. But we learn from the second passage quoted that it was not devotion to the classics as such that prompted his study of the ancients, but rather, in large part, his discovery that that philosophy in which he thought he had progressed excellently was empty. The suggestion here is clearly that Hobbes had been at least interested in philosophy and logic at least as early as the beginning of his first trip abroad (1610), and the philosophy which he abandoned during that trip was quite obviously the scholastic philosophy he had been taught at Oxford. The suggestion is, too, that he dropped his study of scholastic and, one may presume, of all ancient philosophy upon his return to England. These observations do not, I think, affect my argument with Strauss, which is concerned with his view of the relation between Hobbes' mechanistic and psychological theories.

35. LW I, p. xx. The passage is an important one and deserves to be quoted at length. "Afterwards, however, while in the company of certain learned men, some mention having been made of the causes of sensation, he wondered that, when one asked, as if in contempt, What is sense, he heard no one replying, and he wondered how it could be that they, who with such pride in the title of wisdom looked down on other men, were ignorant what their own senses are. Thinking often from that time on about the causes of sense, by good fortune it came to mind that, if all bodily things and their parts should rest, the distinction of all things happening would be removed, and (by consequence) all sensation; and, for that reason, that The cause of all things is to be sought in the diversity of motions. And this principle he used first." (Postea autem cum in congressu quodam virorum doctorum, mentione facta de causa sensationis, quaerentem unum, quasi per contemptum, Quid esset sensus, nec quemquam audisset respondentem, mirabatur, qui fieri potuerit, ut qui sapientia titulo homines caeteros tanto fastu despicerent, suos ipsorum sensus, quid essent, ignorarent. Ex eo tempore de causa sentiendi saepe cogitanti, forte fortune mentem subiit, quod si res corporeae et aearum partes omnes conquirerent, aut motu simili semper moverentur, sublatum iri rerum omnium discrimen, et (per consequens) omnem sensationem; et propterea Causam omnium rerum quaerendam esse in diversitate motuum. Atque hoc principio usus est primo.)

36. Strauss, 1952, pp. 32-3. The evidence Strauss cites for this view is slim indeed, quoting only the following passage from the preface to Hobbes' translation of Thucydides: "It hath been noted by divers, that Homer in poesy, Aristotle in philosophy, Demosthenes in eloquence, and others of the ancients in their knowledge, do still maintain their primacy: none of them exceeded, some not approached, by any in these later ages. And in the number of these is justly also ranked our Thucydides." (EW VIII, p. vii). To the weight Strauss attaches to this praise of Aristotle (not, incidentally, offered as Hobbes' own, but as that of 'divers'), we might oppose another passage from Hobbes, written in a very different context in response to a charge of conceit by Wallis. "When a man presenting a gift great or small to his betters, adorneth it the best he can to make it the more acceptable, he that thinks this to be self-conceit or ostentation, is little versed in the common actions of human life." What is said here of Epistles Dedicatory might be said as well of Epistles to the Readers, and what is said here of the adornment of one's own original work, may apply equally well to the adornment of another's work in translation. It is not Hobbes' point, in this passage, to praise Aristotle, but Thucydides. (EW VII, p. 333)
37. Ibid., pp. 34-5.
38. See ibid., pp. 34-42.
39. Ibid., p. 129.
40. Ibid., p. 42.
41. LW I, p. xiv. Dum moraretur Parisiis, principia scientiae naturalis investigare coepit.
42. Ibid. Quae cum in natura et varietate motuum contineri sciret, quaesivit imprimis, qualis motus is esse posset, qui efficit sensationem, intellectum, phantasmata, aliasque proprietates animalium.
43. Brandt, 1928, pp. 50-4.
44. Cited by Brandt, pp. 48-9.
45. Ibid., p. 55.
46. El.L., P. 206.
47. Brandt, 1928, pp. 92-7.
48. LW V, p. 300.
49. Ibid., pp. 298-9.

50. Adam and Tannery, Oeuvres de Descartes, vol. III, p. 342. Quoted by Brandt, p. 140. (Quod autem ais, me potuisse hypothesim eam ab ipso qui prior scripserat mutuassee, spero te testem mihi futurum esse, me septem abhinc annis, cum tecum in domo vestra dissererem primum, de reditu arcus, praesente Domino de Beaugrand, pro ratione adduxisse motum illum internum quem ibi supposui spirituum. Jam vero monitus, hoc dicere apud te amplius habeo, me doctrinam illam de natura et productione luminis, et soni, et omnium Phantasmatum sive idearum, quam Dominus de Cartes nunc respuit, explicasse coram Dominis fratribus excellentissimis, Gulielmo Comite de Newcastle et Carolo Cavendish Equite aurato, communi nostro amico, anno 1630. Quod ideo dico, ne is eam doctrinam aliquando agnoscens, fundatam esse dicat principiis suis.)
51. EW VII, p. 468.
52. Robertson, 1886, pp. 34-5.
53. LW I, p. xxi. Deinde ut cognosceret varietates et rationes motuum, ad geometriam cogebatur.
54. Ibid., p. xiv. Inspicere coepit in Elementa Euclidis.
55. Ibid.
56. Ibid., pp. lxxxviii-lxxxix.
57. The second Earl died in June, 1628 (Robertson, 1886, p. 26) and, from the fact that he returned to Chatsworth in 1631 (LW I, p. xiv), after a journey lasting eighteen months (LW I, p. lxxxviii) a journey undertaken, in his own words, because he was "too much neglected in that pleasant house [Chatsworth]" (Ibid.), it is clear that mid-1629 is the earliest assignable date for the beginning of his second trip.
58. EW VII, pp. 452-3.
59. Brandt, 1928, p. 164.
60. EW VII, p. 453. It should be noted that the language of this letter, while not requiring, is at least consistent with, a mechanistic account of sensation.
61. Manuscripts of the Duke of Portland, p. 126. Quoted here from Brandt, 1928, p. 151.
62. The deductive form of the 'little treatise' should not be taken, as some might think, to argue that it was necessarily composed after Hobbes' introduction to Euclid in 1630. There is nothing in the work, beyond the fact that it is, in form, deductive, to

suggest an acquaintance with Euclid; nor is it unreasonable to suppose that Hobbes had mastered the deductive form of argument, as it was taught at Oxford, long before he read Euclid (It would, in fact, be unreasonable to suppose the contrary), and Brandt has argued that "the decisive turning point to Hobbes...was precisely that his scholastico-deductive method from the little treatise became a deductive-geometrical method." (Brandt, 1928, p. 393,

63. In Elements of Law, written, according to Hobbes, in 1640, but, since the Epistle Dedicatory bears the date May 9, 1640, (El.L., P. vi), probably begun and substantially completed in 1639.
64. EW II, p. xxii.
65. Oakeshott, 1960, p. L.

CHAPTER TWO

HOBBS' CONCEPTION OF REASON, SCIENCE, AND METHOD

We may grant J.W.N. Watkins' contention that Hobbes' method was Paduan, the method of resolution and composition.¹ In making this concession, however, it must not be thought that, as a consequence, his method was not Euclidean.² Taking a watch apart may not tell us how to put it together again, nor, if we succeed in putting it together again, will that necessarily tell us how or why it works. For our knowledge of the working of the watch to be philosophic knowledge, we must begin with resolution; we must resolve it into its constitutive parts, not the parts, however, that this or that particular watch actually has with all their individual peculiarities and idiosyncracies. The process of resolution, as Hobbes conceived it at least, is not a process of dissection. We must, rather, resolve, not the watch, but its nature into its constitutive parts,³ and from our knowledge thus acquired we must deduce its workings. It is this deduction which corresponds, for Hobbes, to the process of composition, at least in philosophy, for "philosophy is such knowledge of Effects or Appearances [Phaenomenon] as we acquire by right ratiocination from the knowledge [conceptis] we have first of their Causes or Generations: and again, of such generations as can be from known [cognitis] effects."⁴ The bulk of the first chapter of De Corpore consists of an explication of this definition.

For our purposes, however, it is sufficient here to quote only Hobbes' very brief summary of the inferences to be drawn from it in chapter six. There, after repeating the definition in a somewhat fuller and more explicit form and distinguishing the two kinds of knowledge or science, he says,

The first beginnings, therefore, of knowledge are the phantasms of sense and imagination; and that there be such phantasms we know well enough by nature; but to know why they be, or from what causes they proceed, is the work of ratiocination: which consists...in composition, and division or resolution. There is therefore no method, by which we find out the causes of things, but is either compositive or resolutive, or partly compositive and partly resolutive. And the resolutive is commonly called analytical method, as the compositive is called synthetical.⁵

The method of the philosopher, whose desire it is to seek "science simply [simpliciter], which consists in the knowledge of the causes of all things,"⁶ is to begin with analysis. Now, by 'analysis' Hobbes means the resolution of a thing into its parts or principles.⁷ If our end is such universal knowledge, and it need not be, for the philosopher may seek to know only the causes of some specific thing,⁸ such principles must be universal; i.e., they must be "such accidents as are common to all bodies."⁹ Of universals, however, there are two kinds, those which have and those which have not, or cannot be conceived to have, causes.¹⁰ Of those which do not, or cannot be conceived to have causes, our knowledge is that knowledge we have of their definitions, which in this case "are nothing but the explication of our most simple [simplicissimorum] conceptions."¹¹ Of those which do have (conceivable) causes, our knowledge consists in their descriptions or generations,¹² and

this, the generation, for Hobbes, is also a definition.¹³ Thus, it follows that the first principles of philosophy "are nothing but definitions."¹⁴ These definitions or first principles, as Hobbes is careful to make clear, are of two kinds, according to whether or not the name to be defined signifies a universal which has a conceivable cause. In the case of those that do not, the definition is no more than a device for raising "in the mind of the hearer perfect and clear ideas or conceptions of the things named."¹⁵ Definitions of this kind are of such accidents as are "common to all matter." Definitions of the other kind are of those accidents "by which we can distinguish one body from another."¹⁶ Of these sorts of accidents we can always conceive a generation and the definition must, accordingly, "express the cause or manner of their generation."¹⁷ Now, Hobbes' reason for claiming this is to be found in his conception of philosophy. Philosophy is that knowledge we acquire by ratiocination of the causes and effects of things, and, if the causes are not contained in the definitions, at least ultimately, they cannot be determined by reason. They may, it is true, sometimes be determined by some other means, by revelation, for instance, or by sense. But these kinds of knowledge, although not, on Hobbes' view, necessarily less certain, are not, by definition, philosophic knowledge.

Even so, the importance which Hobbes attaches to the claim that the definitions of those universals which have conceivable causes must express their causes, may not be fully understood without some understanding of his conception of reason. Reason, for Hobbes, is not something that requires language absolutely and unconditionally,

although some commentators may have read him this way because of the emphasis he places on language for the understanding of man as a distinctively rational creature. Reason may, on his account, take place "without the use of words,"¹⁸ for, fundamentally, it is nothing more than resolution and composition, or the "addition and subtraction" of our thoughts.¹⁹ Such reason, however, that capacity to add and subtract thoughts, with which every man is born (for "philosophy, that is, natural reason, in every man is innate"),²⁰ is limited. "Where there is need of a long series of reasons," he says, "there most men wander out of the way, and fall into error for want of method."²¹

For this reason, as well as for the reason that men are forgetful and some means of recalling not only our thoughts but our trains of thought is necessary, reason (or philosophy--for Hobbes identifies the two) requires language.²² But there is another reason as well. The kind of philosophic knowledge with which Hobbes is primarily concerned (with which every philosopher, properly speaking, is primarily concerned) is universal knowledge, and "Experience concludeth nothing universally."²³ Our ideas or conceptions are each of them particular, and it is only a particular conclusion which may be derived from them. "Nothing," according to Hobbes, "is general or universal besides names."²⁴ If, then, the end of ratiocination is to be universal knowledge, those principles from which it proceeds must be universal; they must be names, and since, on Hobbes' theory of language, single utterances are not significant, they must be propositions equivalent to such universal names or definitions.

It is, I think, primarily for this reason that Hobbes so frequently claims such a close connection between the possession of speech

and reason.²⁵ It is not that animals not possessing speech cannot reason, but that they cannot reason universally.²⁶ But there is perhaps another reason for the close connection which Hobbes puts between language and reason. When one speaks of reason, or at least of philosophic reason, one wants to be able to speak of it as right reason, where 'right' is meant in the sense of 'true'. An animal's reason, however, cannot be spoken of, in this sense, as right reason, "For although animals devoid of speech, looking upon the image of a man in a mirror may be affected just as if they had seen a man himself, and for this reason fear it or fawn upon it in vain, yet they do not apprehend the thing as true or false, but only as like; neither in this are they deceived. Therefore, just as men owe whatever they rightly [i.e., truly] conclude [recte ratiocinantur] to speech well understood; so also to the same badly understood, they owe their errors."²⁷ Although an animal or a man, when he reasons without the use of words, may reason erroneously, he cannot reason falsely.²⁸

The distinction which Hobbes makes between falsehood and error is often underemphasized by Hobbes scholars. It is precisely this distinction, however, which Hobbes himself stresses, that provides an answer to most criticisms of his theory of truth. For instance, Leibnitz, whose criticisms of this theory very much set the tone for subsequent criticisms, argues,

I believe Ockham himself was not more a Nominalist than Thomas Hobbes is now, who, I may truly confess, seems to me to be a super nominalist. For not content with the Nominalists to reduce universals to names, he says that the truth of things itself

consists in names, and, what is more, that it depends on the human will, because truth depends on the definitions of terms, but the definitions of terms on the human will.²⁹

The flaw in Leibnitz's argument is that, properly speaking, for Hobbes, there is no "truth of things." 'Truth' applies only to propositions, never to the things those propositions are about. As Hobbes puts it, "truth consists in speech, and not in the things spoken of...for the image of a man in a glass, or a ghost, is therefore denied to be a very man, because this proposition, a ghost is a man, is not true; for it cannot be denied but that a ghost is a very ghost."³⁰ One might think in such a case, without the use of words, that this image is a man; that is, as Hobbes explains in his discussion of the distinction between error and falsehood, one might behave toward it as one would behave toward an actual man. In such a case, one might be said to have been in error, but one could not be properly said to have thought anything false. 'False' would be applicable only if one had said or thought 'This is a man'. Calling a thing a man, however, is not by itself sufficient to make it a man. For the thing called a man to be a man, i.e., for the proposition 'This is a man' to be true, it must be the case that the thing called a man have those properties in virtue of which the word 'man' is imposed on a thing.³¹ Of course, in calling a thing a man, one might be stipulating a definition (or, more accurately perhaps, a use) of the word 'man'. If so, then the act of calling the thing a man would be enough to make the thing (truly) a man, but, in such a case, the word 'man' would then be defined in terms of the thing(s) in virtue of which it was originally

imposed. If, for instance, the name were originally imposed on a creature by virtue of its being an animated, rational body, then 'animated, rational body' would constitute the definition of the name 'man' and anything not possessing the properties specified in the definition would be falsely called a man. It is for this reason that Hobbes claims that falsity arises "from pronouncing rashly; for names have their constitution, not from the species of things, but from the will and consent of men."³² He does not say that things have their constitution from the will and consent of men, but, rather, the names of things. It is true that, for Hobbes, 'Man is a living creature' is true only because "it pleased men to impose both these names on the same thing,"³³ but it would be utterly wrong to infer from this that, for Hobbes, one could make a thing truly a man simply and solely by calling it a man. To take this interpretation would be to ascribe to Hobbes what Watkins has called a "Humpty-Dumpty" theory of truth,³⁴ which he does not hold, because he does not hold a Humpty-Dumpty theory of meaning (although Watkins maintains that he does).³⁵ Hobbes takes it to follow from the passage quoted above "That men pronounce falsely, by their own negligence, in departing from such appellations of things 'as are agreed upon."³⁶ The meanings of words are governed by convention. One may say, if one likes, that the meaning of a word is those conventions governing its use. The point is that, if a proposition is to be properly called true or false, there must be some convention governing the use of the terms involved (This, in large part, is the reason for Hobbes' claiming elsewhere that, in science, "men begin at settling the

significations of their words; which settling of significations they call definitions").³⁷ If the convention is that a thing is to be called a man only if it has the properties of being rational and animated, then anything not having those properties is falsely called a man. Calling a thing a man, unless it be to define the word 'man', will not give it the properties requisite to its being a man.

A passage from Galileo, which may have had some influence on Hobbes, might be aptly quoted here. He writes,

Neither the satellites of Jupiter nor any other stars are spots or shadows, nor are the sunspots stars. It is indeed true that I am quibbling over names, while I know that anyone may impose them to suit himself. So long as a man does not think that by names he can infer inherent and essential properties on things, it would make little difference whether he calls these 'stars'... For reasons of this kind the sunspots may be called stars; but essentially they have properties that differ not a little from true stars.³⁸

It is convention that we use 'star' as we do, but if the convention is that a star is a celestial body having a circular shape, then you speak falsely if you call anything with a different kind of shape a star, and, assuming that you "are not deceived neither by the things, nor by the sense," your speaking falsely proceeds from your speaking rashly, in your departing from proper usage. The qualification that one be not deceived by the things or by the sense Hobbes adds himself,³⁹ and it is important. Without it, it would be, perhaps, not entirely incorrect to accuse Hobbes of making the truth of things to consist solely in the will of men. But error, on Hobbes' view, may proceed not only from departing from proper usage, from the will and consent of men; it may proceed also from misapprehension of the thing. Such

misapprehension, however, is not falsehood until it is, in some way, either to oneself or to others, stated. Then and then only may it be called false, and it is not the thing nor the misapprehension that is false, but the proposition.

There is a difference to be noted, however, between propositions such as 'This is a man' and 'Man is a living creature.' If the latter is taken to be a general or universal proposition, it is true or false solely in virtue of the definitions of the terms involved. The former, however, is true in virtue of this and in virtue of the fact that the thing being called a man has, in fact, certain properties as well. This is a distinction which Hobbes attempts to make clear by claiming that universal propositions are propositions about the consequences of words.⁴⁰ The proposition 'Every man is an animal' is true because 'man' is defined as 'a rational animal'. It will not follow from this universally true proposition, however, that 'this is an animal'. What will follow is that 'if this is a man, then it is an animal'. That this is a man is true in virtue of the definition of 'man', to be sure, but not solely in virtue of the definition. To take a different kind of example, 'Every man has two hands'. This may be true of all actual men. But it is not a universal truth in the strictest sense, for it is not part of the definition of 'man' that he is a creature possessing two hands. Accordingly, it will not follow that 'if anything is a man, it has two hands'. As a matter of fact, this conditional is false, although the unconditional statement 'Every man has two hands' may be true, because, even if every man living or dead has or had two hands, one could, at least, conceive a

thing which would be properly called a man, which had only one hand. The distinction drawn here between 'Every man is an animal' and 'Every man has two hands' is just the distinction Hobbes draws between necessary and contingent propositions.⁴¹ The difference between the two is that one is true solely in virtue of the definitions of the terms involved, while the other is true in virtue of that and something else as well. In other words, a thing is called a man truly only if it has those properties definitive of 'man' and, for it to be the case that 'Every man has two hands' is true (where having two hands is not definitive of 'man' and, hence, the truth of the proposition not necessary, but contingent) it must be the case that there are things which have those properties in virtue of which things are called men and, further, that every one of those things (men) have those properties in virtue of which a thing is said to have two hands. That Hobbes himself held this view of truth is clear enough, I think, from his distinction between error and falsity; there would, otherwise, have been no need for such a distinction.

Now, from the foregoing discussion, to understand Hobbes' definition of 'truth' should not be difficult. It is only propositions that are true, and a proposition is true if its "predicate contains, or comprehends its subject, or whose predicate is the name of everything of which the subject is the name."⁴² In the case of necessary truths, that this relation of comprehension holds is a matter of definition. The word 'man', for instance, is so defined that anything which has those properties in virtue of which it is called a man also has those properties in virtue of which a thing is called an animal;

in other words, having the latter properties is a necessary condition of a thing's being a man. Being an animal is a part of the nature of a man. In the case of contingent truths, however, the case is different. 'Some man is sick' is true, not because 'sick' is a part of the definition of 'man', but because there is some (at least one) thing which has all those properties in virtue of which a thing is called a man, and which has as well those properties in virtue of which a thing is called 'sick'. That 'A man is an animal' is true, in other words, is due entirely to the definition of 'man'; it is a part of the definition that whatever is properly called a man is also properly called an animal (that the predicate 'animal' comprehends the subject 'man'). That 'A man is sick' is true, however, is due to the definitions of 'man' and 'sick' and to the fact that there is a man who is sick, that there is an object to which both those words, properly defined, apply.

Hobbes does not, I think it is fair to say, make the truth of things consist solely in the will of men. Those truths that consist solely in the will of men, that is, those truths which rest entirely upon the definitions of the terms involved, are, on Hobbes' account, universal truths, and they are truths not of, about, or in things, but about words, and, if they are true of things as well, although this is not presupposed by their universal truth, it is because and only because, independently of the will of men, there are things which have the requisite characteristics. That this is so, however, is not a thing determined by definition or by reason. For two different kinds of knowledge are involved; the one is

sensory knowledge or knowledge of fact, e.g., 'This is a man' or 'There is a man' or 'Every man has two hands'; this is absolute knowledge (because the statement of it takes an unconditional form). The other is scientific or philosophic knowledge, and it is that knowledge of the consequences of one affirmation to another. It is conditional (This is actually too strong, although Hobbes puts it so. Such knowledge is actually that knowledge which is convertibly conditional; 'Every man has two hands' and 'Every man is an animal' are both absolute, but the latter is equivalent to a conditional, 'If anything is a man, it is an animal', whereas the former is not), and it can be acquired only by reason.⁴³ The distinction which Hobbes makes between the two kinds of knowledge, although, so far as I know, it has not been so interpreted previously, thus ties up neatly with the distinction between error and falsity and the corresponding distinction (which Hobbes does not explicitly make) between truth and (what I shall call) correctness.

Seeing these two distinctions as correlative helps, I think, to overcome the difficulties which some have felt with Hobbes' theory of truth. As there are two kinds of knowledge, one of which is absolute and gained from our acquaintance with the things themselves via sensation, and another which is conditional and gained from our understanding of language and of definitions, so, too, we may say that, for Hobbes, there are in a sense two kinds of truth, that with which Leibnitz is concerned when he speaks of the truth of things itself and for which Hobbes does not choose to use the

word 'truth' but rather (something like) 'correctness', and that kind of truth which depends only on the will of men and which is, considered by itself, independent of and irrelevant to the truth of things. These two kinds of truth are not, however, entirely independent of one another, at least if truth is confined to propositions, for then an absolute truth such as 'This is a man' depends, in part, upon the conditional truth that 'if anything is a man, it is an animated, rational body'. The same may be said of the two kinds of knowledge. The knowledge that this is a man requires the knowledge that this thing is an animated, rational body and that, if anything is an animated, rational body, it is a man.

The reader will have lost sight of our immediate goal, Hobbes' conception of reason, during the preceding pages. The discussion of Hobbes' conception of truth and of knowledge, brief and summary as it is, was necessary, however, to understand his views on reason. It is now time to return to this topic. It is not, however, Hobbes' conception of reason as such that is of concern here so much as his conception of right reason, where 'right' is understood very much in the sense of 'true'; for one wants to be able to say that both the conclusions and premises of philosophic or ratiocinative inquiry are true or false, and, for this, one needs a conception, not just of reason, but of right or true reason.

Although he does so in other of his works, Hobbes nowhere offers an explicit definition of 'right reason' in De Corpore. He says enough in this work, however, to show that, had he defined the term, the definition would not have differed essentially from the definition he

had proposed in his earlier works. In The Elements of Law Hobbes defines 'right reason' in this way:

When a man reasoneth from principles that are found indubitable by experience, all deception of sense and equivocation of words avoided, the conclusion he maketh is said to be according to right reason; but when from his conclusion a man may, by good ratiocination, derive that which is contradictory to any evident truth whatsoever, then he is said to have concluded against reason.⁴⁴

This definition receives some clarification in his discussion, in the following chapter, of the principles of scientific knowledge.

The first principle of knowledge...is, that we have such and such conceptions; the second, that we have thus and thus named the things whereof they are conceptions; the third is, that we have joined those names in such manner, as to make true propositions; the fourth and last is, that we have joined those propositions in such manner as that they be concluding.⁴⁵

Here principles two through four give the principles of right reasoning, i.e., understanding our terms, joining them properly to form true propositions, and joining these propositions in turn so that they conclude in some other proposition. Principles one and two provide the basis for the distinction between the truth of things and that truth which is dependent upon the will of men.

It is noteworthy that in this early work these two kinds of truth and, hence, the two kinds of knowledge are not so sharply distinguished as in the later works. Although the distinction between the two kinds of knowledge is drawn in very much the same terms, Hobbes is not yet prepared to divorce science, the knowledge of consequences, entirely from the first kind of knowledge. Here science is defined as that knowledge which is "evidence of truth, from some beginning or

principle of sense."⁴⁶ In this work, in other words, science, which is later identified with the second kind of knowledge, includes both kinds and is so construed that, by a kind of modus ponens argument, the conclusions of scientific reasoning are all of them true of things as they in fact are. The same thing, I shall want to maintain, is true of what Hobbes calls natural science in the later De Corpore, but only of those parts of natural science in which we begin with known causes and proceed to infer effects; where it is the causes that must be inferred, on the other hand, the principle of sense, the first kind of knowledge, from which we begin is an effect and the cause is not deduced, but supposed. The model here is hypothetico-deductive and this kind of science does not yield knowledge of the truth of things in the sense of what is actually the case, but rather of what may be the case.

The definition receives some further clarification from a still later passage in which Hobbes endeavors to account for the fact that geometricians have been so much more successful than other scientists: The reason, he says, is that "they proceed from most low and humble principles, evident even to the meanest capacity; going on slowly, and with most scrupulous ratiocination," and he goes on to explain what he means by 'most scrupulous ratiocination,' "(viz.) from the imposition of names they infer the truth of their first propositions, and from two of the first, a third; and from any two of the three a fourth; and so on, according to the steps of science mentioned chapt. 6, sect. 4 [quoted above]."⁴⁷ The conception of reason employed here is, of course, syllogistic; in fact, Hobbes says earlier that the "making of

sylogisms is that we call RATIOCINATION or reasoning."⁴⁸ But what is of importance is the emphasis placed both in this and in the former passage on the imposition and the understanding of names; it is from these, or, one would suppose, from their definitions, that the truth of the first or primary propositions is inferred. In the later Leviathan Hobbes goes even further in this direction. There he says, again taking geometry as his paradigm,

Seeing then that truth consists in the right ordering of names in our affirmations, a man that seeketh precise truth has need to remember what every name he uses stands for, and to place it accordingly...therefore in geometry, which is the only science that it hath pleased God hitherto to bestow on mankind, men begin at settling the significations of their words; which settling of significations they call definitions, and place them at the beginning of their reckoning.⁴⁹

That the point of this passage is that definitions are to be taken as the principles of reasoning or, at least, of scientific or philosophic reasoning, is clear from this passage from the following paragraph:

So that in the right definition of names lies the first use of speech; which is the acquisition of science: and in wrong, or no definitions, lies the first abuse; from which proceed all false and senseless tenets.⁵⁰

But this view is emphatically expressed in the following chapter.

There Hobbes defines 'reason' as "nothing but reckoning, that is adding and subtracting of the consequences of general names, agreed upon for the marking and signifying of our thoughts."⁵¹

One might accuse Hobbes here of inconsistency. He has only just said, in the preceding paragraph, that "in what matter soever there is place for addition and subtraction, there also is place for reason,"⁵² where it is clear that he does not mean to limit this

to the addition and subtraction of words. It would be better and more accurate, however, to accuse him of carelessness; he has simply failed to note, or failed to note clearly (for he introduces the definition as a definition of "reason, when we reckon it amongst the faculties of the mind" and offers his definition as a definition of reason "in this sense") that he is distinguishing two different kinds or senses of 'reason'. I assume that the distinction is that between reasoning or reckoning per se, and that kind of reasoning which is requisite to philosophy, reasoning about general rather than particular consequences. This I take to be the proper interpretation from the fact that only two pages later Hobbes goes on to say explicitly that a man may reckon "without the use of words, which may be done in particular things," and he goes on to say, "But when we reason in words of general signification, and fall upon a general inference which is false, though it be commonly called error, it is indeed an absurdity, or senseless speech. For error is but a deception...But when we make a general assertion, unless it be a true one, the possibility of it is inconceivable".⁵³ It is, I think fairly clear that by 'general' Hobbes means here 'universal'.⁵⁴ Otherwise, it would not follow that "unless it be a true one, the possibility of it is inconceivable". The possibility of 'Every swan is white' is conceivable, although the proposition is both general (but not universal or necessary) and false.

That Hobbes is speaking of reason in the sense of philosophic or scientific reason, i.e., in the sense that it yields general truths, is again made clear from his comparison of the abilities of man and

animals in the following paragraph. Man, he notes, excels all other creatures in curiosity in that, "when he conceived anything whatsoever, he was apt to inquire the consequences of it, and what effects he could do with it," but to this he adds, "this other degree of the same excellence, that he can by words reduce the consequences he finds to general rules".⁵⁵ 'The same excellence' evidently refers here to the ability to reason from cause to effect; the degree to which a man is able to surpass other animals in this ability is the degree to which he can make such inferences general, and that he alone can make general rather than particular inferences is due to the fact that he alone is capable of reasoning in words of general signification. Essentially the same point is made earlier in chapter four, where Hobbes argues that "by this imposition of names, some of larger, some of stricter signification, we turn the reckoning of the consequences of things imagined in the mind, into a reckoning of the consequences of appellations...And thus the consequence found in one particular, comes to be registered and remembered, as a universal rule, and discharges our mental reckoning, of time and place, and delivers us from all labour of the mind, saving the first, and makes that which was found true here, and now, to be true in all times and places".⁵⁶ Clearly, in these passages, Hobbes is distinguishing, at least implicitly, the ability to reason from the ability to reason from "the consequences of general names". It is this ability that makes philosophy, the understanding of general truths, possible; it is this also that explains, at least for the most part, the errors and absurdities of classical philosophers, "For," according to Hobbes, "there is not one of them that begins his

ratiocination from the definition or explication of the names they are to use; which is a method that hath been used only in geometry; whose conclusions have thereby been made indisputable".⁵⁷ This, "that they begin not their ratiocination from definitions," is offered in this work as "The first cause of absurd conclusions".⁵⁸

Reason, or right reason, then, would appear to consist in the proper understanding and ordering of names. This Hobbes says more or less explicitly only a little later. "Reason," he says, "is not, as sense and memory, born with us; nor gotten by experience only, as prudence is; but attained by industry; first in apt imposing of names; and secondly by getting a good and orderly method in proceeding from the elements, which are names, to assertions made by connection of one of them to another, and so to syllogisms".⁵⁹ Here again, however, the same apparent inconsistency would seem to arise. Hobbes seems to suggest, even explicitly to say, that reason has place only where there is language. I would suggest again that this is due to simple lack of caution. Hobbes has once more failed to point out explicitly that he is not speaking of reason in general, but of general reason, that kind that leads to general and scientific knowledge. That it is this sort of reason he has in mind, however, is, I think, clear from the context. The passage occurs immediately subsequent to a discussion of the causes of absurdity (which, for Hobbes, is a consequence of speech) and is introduced as a consequence apparent from this discussion. But, furthermore, the passage is glossed with the single word "Science". Here 'science' is defined simply as "the knowledge of consequences and dependence of one fact upon another".⁶⁰

It is clear, however, from the definition given in chapter nine, that such knowledge is taken to be general. Thus, when Hobbes goes on to say that "children...are not endued with reason at all, till they have attained the use of speech,"⁶¹ it is clear that the sort of reason he has in mind is that which distinguishes men from non-rational creatures, the possibility of reasoning in general terms.

Elsewhere in Leviathan Hobbes defines 'acquired wit' as that "acquired by method and instruction", and, of this, he says, "there is none but reason; which is grounded on the right use of speech, and produceth the sciences".⁶² The connection between science and the conception of reason employed here is apparent. But that to which I want to draw attention is the assertion that it is "grounded on the right use of speech". From this alone we might infer that right reason is that which is properly grounded on the right use of speech. Still later he says that "the foundation of all true reasoning is the constant signification of words"⁶³ and, later still, that philosophy is to be distinguished from the knowledge of effects acquired by experience, i.e., prudence, "because it is not attained by reasoning, but found as well in brute beasts, as in man; and is but a memory of successions of events in times past, wherein the omission of every little circumstance altering the effect, frustrateth the expectation of the most prudent: whereas nothing is produced by reasoning aright, but general, eternal, and immutable truth".⁶⁴ This last assertion receives some clarification from the immediately following passage, in which Hobbes claims that false conclusions are not to be called philosophy, "for he that reasoneth aright in words he understandeth, can never conclude an

error".⁶⁵ Philosophy is that knowledge acquired by right ratiocination. But it is also science, i.e., general knowledge of the dependence of one fact upon another. Such general knowledge cannot be obtained from experience. It is obtainable only from speech and, we may presume, only from words of general signification. And right reason, in this context, is reasoning in words one understands. It consists in drawing inferences, not from things, for those are particular, but from words, from the definitions of general names. Right reasoning, then, in this work, as in the earlier Elements of Law, consists in drawing inferences, which, because they are universally true, must be conditional (or, as explained above, convertibly conditional), from definitions. The difference between the two works is that, whereas in The Elements of Law the first step in science or philosophy was seen to consist in some knowledge of fact, in Leviathan science is identified with right reason simply and is seen as consisting solely, or at least fundamentally, in the knowledge we have of the consequences of names. Science, simpliciter, is thus seen by Hobbes in Leviathan as essentially analytic and a priori, and, in this work at least, it is only natural science that is seen as requiring as its first premiss some factual knowledge about the world.

Just when Hobbes took this view of science as distinct from natural science is difficult to say. Certainly it would seem to have been as early as 1644, for in an early Latin treatise on optics, he writes,

The treatment of natural things differs very much from the treatment of the other sciences. For, in the others, no other demonstrations of the foundations or first

principles are either required or admitted than the definitions of words, by which ambiguity is excluded. These are the first truths, for every definition is a true proposition; and they are first, for the very reason that by defining, that is, by agreeing about the use of words, we make it to be true among ourselves. For if indeed it will please us among ourselves to call this figure \triangle a Triangle, it will be true, that figure \triangle is a Triangle. But in the explanation of natural causes, another kind of principle needs necessarily to be employed, which is called a hypothesis or supposition.⁶⁶

What I want to draw attention to in this passage is the fact that, in his discussion of "the other sciences," those not dealing directly with natural events, Hobbes does not mention any need to begin with some principle of sense, with some factual data. The beginning is in words and their definitions. The consequences are drawn from these. It is only when these consequences are taken to be applicable to the world, to be true of the world of things themselves, that the principles from which they are deduced must be known, in this sense, to be true. This distinction is one which, to my knowledge, Hobbes never makes more explicitly than this, although I think it is clear that he has it, or something like it in mind. In Leviathan, for instance, he writes,

No discourse whatsoever, can end in absolute knowledge of fact, past or to come. For, as for the knowledge of fact, it is originally, sense; and ever after, memory. And for the knowledge of consequences, which I have said before is called science, it is not absolute, but conditional. No man can know by discourse, that this, or that, is, has been or will be; which is to know absolutely: but only, that if this be, that is; if this has been, that has been; if this shall be, that shall be: which is to know conditionally; and that not the consequence of one thing to another; but of one name of a thing, to another name of the same thing.⁶⁷

And only a little later he says that it is "that conditional knowledge,

or knowledge of the consequences of words, which is commonly called SCIENCE."⁶⁸ Here, without making a distinction between the two kinds of science, Hobbes says simply that science, simpliciter, has nothing necessarily to do with the world. Science, so taken, argues simply that, say, 'if this (or a) figure is a circle, then it has all its points equidistant from some other point'. It does not argue and, indeed, it cannot argue, that this figure is a circle, although it can argue that 'if this figure was generated by the circumduction of a fixed length about a fixed point, this figure is a circle'. That the figure was so generated and that the figure is, therefore, a circle and has all its points equidistant from a central point is not, however, a conclusion of science strictly speaking. That it was in fact so generated may be an instance of knowledge, but of absolute knowledge, gained, if at all, by sense. Natural science, on the other hand, can tell us with certainty only how such a figure might have been generated.

In the passage from the Latin optical treatise quoted earlier, Hobbes goes on to say,

For when an inquiry has been undertaken about the efficient cause of some event manifest to the senses (which is commonly called a Phenomenon), which consists generally in the designation or description of some motion which such a Phenomenon necessarily follows, since it is not impossible that similar Phenomena may be produced by dissimilar motions, it can happen that the effect may be rightly demonstrated from the motion supposed while, nevertheless, the supposition itself is not true. Therefore, no more is required from Physics than that the motions which it supposes or invents should be imaginable and that, by their having been conceded, the necessity of the Phenomenon may be demonstrated, and that, finally, nothing false can be derived from them.⁶⁹

Likewise, in Leviathan he writes,

By PHILOSOPHY is understood the knowledge acquired by reasoning, from the manner of the generation of anything, to the properties: or from the properties, to some possible generation of the same.⁷⁰

From the examples which he gives, geometry and astronomy, it is clear that here, too, he has in mind the distinction between science as a formal system, those which we would today call the exact sciences, and the natural sciences, those which are concerned to explain actual events in the world.

We may thus say that sometime shortly after the composition of The Elements of Law, Hobbes' conception of science (philosophy) underwent a change. Whereas in the early work he seems to have regarded all the sciences as beginning with self-evident truths about the world and as proceeding from these by a process of deduction to true conclusions about the world, he came shortly to make a very important distinction between the sciences, and, on his new view, it was natural science which lost its footing in the field of certainty.⁷¹ Possibly, at the writing of the earlier work, fired up with the discoveries of Harvey, Kepler, Galileo, and others, Hobbes was simply too enthusiastic about the prospects of the new natural science. At any rate, he changed to a less optimistic but, nevertheless, more sophisticated and probably more accurate view very soon. The natural sciences do not yield certain consequences about the way the world works, only certain conclusions about how it would work if the necessary conditions were fulfilled.

That Hobbes should have taken this view of natural philosophy is understandable from the passage quoted earlier from Leviathan.

Although reason is, if scrupulously conducted, certain, it is also general. The natural sciences, however, must be grounded in experience. It is, therefore, particular. It yields only particular inferences. But it faces a further difficulty. It is almost impossible to observe "every little circumstance" which might alter the effect. It may be for this reason that Hobbes declines to admit explicitly a distinction within the field of natural science corresponding to that between natural science and "the other sciences". Natural science, as Hobbes understands it, begins with some known phenomena and attempts to hypothesize a cause from which the phenomena may be deduced. His conception of natural science seems, thus, to be primarily that of an explanatory rather than a predictive science. The latter sort of natural science would require that we begin with some known phenomenon and attempt to deduce its effects. This we could do, and, as we shall see, Hobbes allows it in some special cases, but he does not recognize this procedure as a procedure of natural science. That he does not, I am suggesting, may be due to the fact that the phenomena from which we begin (which phenomena, as Hobbes uses the term, are not events but their appearances to sense) may not accurately reflect those events of which they are appearances. Thus we could not reason so:

If this figure is a rectilinear triangle, the sum of its interior angles is 180° .

This figure is a rectilinear triangle.

Therefore, the sum of its interior angles, etc.

The minor premiss is suspect. Sense cannot assure us, with an infallible certainty, that the figure we see is exactly as it appears (The formal science of geometry escapes this problem because, as we shall

see, the figures with which it deals are not observed, but constructed). The problem is even more obvious in causal inferences where the circumstances to be observed are even greater in number and the senses more liable to err and to miss important, sometimes imperceptible, details. Such causal inferences, thus, constitute science only where we can know with an infallible certainty that the causes (the phenomena) are such as we take them to be. If it were otherwise, our (scientific) inferences could be wrong, but philosophy (or science) on Hobbes' view is right ratiocination, and "he that reasoneth aright in words he understandeth can never conclude an error".

Most of what has been said so far about Hobbes' conceptions of reason, knowledge, and science has required some careful digging. None of the works so far discussed are especially concerned with the question of method. The question of method, of the relation between reason and knowledge or science, is, however, crucial, and Hobbes does not overlook it in his systematic work, The Elements of Philosophy. There Hobbes devotes the first part of De Corpore to the discussion of this and related questions. Much of what he has to say in this work lies outside the scope of this thesis and will not be dealt with here at any length. I have already discussed the crucial distinction made there and elsewhere between error and falsity. It is time now to turn to the discussion of method of De Corpore, with which Hobbes deals primarily in chapter six.

As has been pointed out, the conception of right reason which Hobbes held in his works written prior to De Corpore was deductive. Right reasoning is reasoning from words of constant signification, by

way of propositions, to conclusions which, because they follow analytically from those terms with which the process of reasoning is begun, are infallibly certain. He held essentially the same view in De Corpore. The proposition, he says, "in the progress of philosophy is the first step". It is by the addition of syllogisms that one is able to "make a complete pace".⁷² I shall not deal here with Hobbes' remarks on propositions and syllogisms. What I should like to return to at this point, because it sheds some further light on his conception of right reason, is his discussion of error and falsehood. As has been pointed out, error for Hobbes need not proceed from speech. That error which does is properly called falsehood, and he says that, deceptions of sense aside, such errors arise "from pronouncing rashly". In the same paragraph, however, he says that errors of the former kind "proceed from want of ratiocination; whereas, errors which consist in affirmation and negation (that is, the falsity of propositions) proceed only from reasoning amiss".⁷³ Thus, it will be via his remarks on faulty reasoning, or "reasoning amiss" that we shall come to understand Hobbes' views on right reasoning in De Corpore.

"Errors which happen in reasoning," he says, "that is, in syllogizing, consist either in the falsity of [some premiss] or in the inference."⁷⁴ Thus, we may suppose, right reason requires both that we begin with true premisses and that we make from them a valid inference. Hobbes considers first those errors in reasoning that arise from false premisses. A true proposition, it will

be recalled, is, on Hobbes' account, a proposition in which the predicate contains or comprehends the subject, or, as he puts it here, "every proposition is true in which two names of the same thing are copulated;" accordingly, "every proposition is false in which the names of different things are copulated".⁷⁵ Now, the names of things, according to Hobbes, may be divided into four kinds, according to the distinctions between the kinds of things of which they are names. The kinds of possible falsehoods, then, depend on the kinds of possible combinations of names of different kinds, the now famous (or infamous) 'table of absurdity'.⁷⁶ Hobbes writes,

Copulated names may be incoherent seven manner of ways.

- | | | |
|---|-------|------------------------------------|
| 1. If the name of a Body | { | the name of an Accident |
| 2. If the name of a Body | be | the name of a Phantasm |
| 3. If the name of a Body | | the name of a Name |
| 4. If the name of an Accident | copu- | the name of a Phantasm |
| 5. If the name of an Accident | lated | the name of a Name |
| 6. If the name of a Phantasm | | the name of a Name |
| 7. If the name of a Body,
Accident or Phantasm | with | the name of a Speech ⁷⁷ |

I do not intend here to discuss this aspect of Hobbes' philosophy at any length. There are, it seems to me, some difficulties with the interpretation of it. For instance, 'A man has an idea' would presumably have to be analyzed so that 'having an idea' is the name of a body. It appears, however, to be a case of copulating a name of a body, 'man', with the name of an accident, 'having an idea'. Yet this is clearly something Hobbes does not wish to rule out as incoherent. Otherwise, he should have to rule out as well such propositions as 'A body is moving'. Perhaps, the difficulty may be allayed by considering Hobbes'

remarks on the function served by the copula. When he provides examples of the first kind of incoherence, he does not speak in terms of body and accident, but in terms of concrete names and abstract names.⁷⁸ The names of bodies are concrete names; those of accidents, abstract names. Thus, 'moving' is not, properly speaking, the name of an accident, but, rather, 'motion'.⁷⁹ Such abstract names, according to Hobbes, proceed from the copula.⁸⁰ Thus, 'motion' is equivalent to 'to be moved'. Now, the copula, on Hobbes' account, is that which, in a proposition, "makes us think of the cause for which those names [subject and predicate] were imposed on that thing,"⁸¹ and "abstract names," derived from the copula, "denote only the causes of concrete names".⁸² He gives an example: "When we see something, or conceive something visible in the mind, that thing appears, or is conceived not in one point, but as having parts distant from parts, that is, as extended throughout some space; since therefore it pleased us to call a thing so conceived body, the cause of its name is that that thing is extended, or extension or corporeity."⁸³ Here 'extension' and 'corporeity' are being identified with 'is (to be) extended', and, apparently, it would seem that what Hobbes is trying to say is that being extended is a defining characteristic of body and, hence, a name of body. The remark, then, that it is the copula which makes us think of the cause for which the two names are imposed on the same thing is, in this case at least, particularly apt. The cause here is that the two names are, in a sense and in part, synonymous. So that, when we say 'A body is extended', we speak truly; but when we say 'A body is extension', i.e., when we predicate an abstract name, or the name of an accident, of a concrete name,

or the name of a body, we speak falsely, for a body is not a 'to be extended'.⁸⁴ Perhaps, the distinction can be understood fully only by going fairly deeply into Hobbes' theory of denotation, a topic too involved to discuss at length here. It is enough to refer the reader again to De Corpore 1, 1, 3, where, in his discussion of ratiocination without the use of words, Hobbes makes it clear that words such as 'animated', 'extended', etc., are imposed on things in virtue of or because of the ideas we have of them. The idea we have of body is, among other things, an idea of parts distant from one another, and it is in virtue of this idea that we call the thing so conceived both 'body' and 'extended'. Extension, however, is an abstract idea, the cause of the concrete name, which, as is clear from chapter one, is an idea, namely, the idea of distant parts. So that to say 'A body is extension' is to say that a body is, not a concrete, but an abstract entity. Further remarks about the details of Hobbes' table of absurdity I shall forego.

What is of primary interest to us here is the manner in which Hobbes concludes his discussion of the various kinds of incoherency. "The falsities of propositions in all these several manners," he says, "is to be discovered by the definitions of the copulated names."⁸⁵ So that, if right reasoning consists, in part, in reasoning from true premisses, we are again brought back to this: right reason begins in definitions. Hobbes goes on to explain his last remark. It is not enough to know, from their definitions, that names of the same kind have been copulated; we may still, knowing this, be in doubt about

the truth of the proposition. Such doubt is to be resolved, he says, first, by finding out "the definitions of both those names, and again the definitions of such names as are in the former definition, and so proceed by a continual resolution till we come to a simple name, that is, to the most general or most universal name of that kind".⁸⁶ The process is that of resolution or analysis, and, as it is explicated here, it is a process of resolving or analyzing terms into their definitions, going backwards to indefinables, those terms that are the most general or universal of their kind. Thus, it would appear that the first step in finding out the truth of a proposition is the process of analysis or resolution, but if, by this process, the truth or falsity of the proposition is still in doubt, then, says Hobbes, "we must search it out by philosophy, and ratiocination, beginning from definitions. For every proposition, universally true, is either a definition, or part of a definition, or the evidence of it depends upon definitions."⁸⁷ This, it would appear, is the process of synthesis or of composition. Hobbes would seem here to be identifying this process with ratiocination itself. It begins with universal truths, that is, with definitions.

Thus much Hobbes has to say here about right reasoning as it pertains to the truth or falsity of the premisses. But right reason requires also that the reasoning be valid. Here the possible errors are twofold. The first lies "in the implication [implicatione] of the copula with one of the terms."⁸⁸ Of this fault, he gives the following example:

The hand toucheth the pen,
 The pen toucheth the paper,
 Therefore, The hand toucheth the paper.

The fallacy in this argument, he says, is made clear by separating the copula:

The hand, is, touching the pen,
 The pen, is, touching the paper, 89
 Therefore, The hand, is, touching the paper.

Given Hobbes' theory of propositions, the first premiss asserts that 'touching the pen' denotes all that 'The hand' denotes; the second, that 'touching the paper' denotes all that 'The pen' denotes. There is nothing in these two premisses, however, which asserts that, by implication, 'touching the paper' denotes all that 'The hand' denotes. The inference that the hand is touching the paper is, therefore, fallacious. The syllogism contains four terms.⁹⁰ But the danger of being deceived in this way, Hobbes thinks, is not so great as in the other.⁹¹

In the other and more dangerous case, fallacious reasoning depends, according to Hobbes, on equivocation. And in such cases as these, too, the syllogism, despite appearances, contains four terms, because one of the terms, that which appears to be common, is being used in two different senses. The fault here again lies in the form of the argument. Such arguments, Hobbes wishes to say, are of the form:

$$\begin{array}{l} p \text{ is } q_1 \\ q_2 \text{ is } r \\ \hline \therefore p \text{ is } r \end{array}$$

where q_1 and q_2 are equivocal. While representing the same sounds, they signify, or are the names of different things; there is, thus, in this as in the former case, nothing in the premisses which asserts that r denotes all that p denotes.

That that sort of science which has universal or necessary knowledge as its goal, science simpliciter, is essentially analytic is clear from Hobbes' description of it in chapter six. Such science is that "which consists in the knowledge of the causes of all things, as far forth as it may be attained," and, for this, it is necessary to "know the causes of universal things, or of such accidents as are common to all bodies."⁹² Hobbes, however, will not admit the real existence of universals; that which is universal, in his opinion, is just a name, and it is the name of some accident which is common to all things or to all things of its kind.⁹³ Accordingly, since universals are contained in the nature of singulars, they must be brought to light by reason, that is, by resolution.⁹⁴ He concludes "that the method of investigating the universal notions of things, is purely analytical."⁹⁵ We have now come more or less full circle. The knowledge of universals and their causes consists either in their definitions or some description of their generations, which for Hobbes is also a kind of definition.⁹⁶ The primary, if not the whole, point of this discussion of Hobbes' conception of reason, knowledge, and science has been just to show that the latter kind of knowledge of universals is necessarily a definition, or, put in different terms, that the definitions of those universals of which a cause is conceivable must contain or constitute a statement of their

generations.

Why this is so should now be clear. Our knowledge of universals is attained by reason, more specifically, by analysis or resolution, which consists in dividing, not the thing, but its nature, into its constitutive parts.⁹⁷ And this process is that of definition, and then again of defining the terms involved in the former definitions until we reach universal terms. But still the truth of the analysis may be questioned. To show that it has been properly carried out we must be able to reconstruct the singulars with which we begin from the universals with which we terminate our inquiry. Now, this process of reconstruction will show nothing if it is no more than a process of retracing our steps; as taking apart a watch and putting it back together again simply by reversing the order in which we took it apart will not tell us how or why it works. We must be able, not just to reconstruct, but to generate the singulars. The cause of all universals of which a cause is conceivable is motion (and Hobbes accepts the consequence that only motion causes motion), and one must, accordingly, "enquire what motion begets such and such effects."⁹⁸ This kind of method Hobbes says is compositive.⁹⁹ It is not just the reverse of the resolute. It is, rather, its complement. It is deductive.¹⁰⁰ It is the conditional knowledge of the dependence of one fact upon another and, for Hobbes, it is, at least in part, generative.

It need not always be generative, of course. Hobbes gives an interesting example of the synthetic method in l. 6, 8. Here he says, "it happens sometimes, that they know not whether the thing,

whose cause is sought after, be matter or body, or some accident of a body...in the examination of which doubt we may use this method. The properties of matter and accidents already found out by us...from their definitions, are to be compared with the idea we have before us; and if it agree with the properties of matter or body, then it [the thing of which we have an idea] is a body; otherwise, it is an accident...And this method is synthetical."¹⁰¹ Similarly, it may be doubted what the subject of a given accident is (Hobbes' example of such an accident, interestingly enough, is "the splendour and apparent magnitude of the sun").¹⁰² The method of resolving such a question as this, according to Hobbes, is both analytical and synthetical. We begin, in such cases, by analysis. "First, the material universe [materia universa] should be divided into parts, as into object, medium, and the sentient itself, or in some other division which seems most suitable to the thing proposed." This is the first stage; in the second, "the single parts are to be examined according to the definition of the subject; and those which are not capable of that accident are to be rejected."¹⁰³ The process here, as Hobbes makes clear, is a deductive process of elimination. He goes on to say, "For example, if by any true ratiocination the sun be found to be greater than its apparent magnitude, then that magnitude is not in the sun,"¹⁰⁴ and so on until, by elimination, "nothing remain which can be the subject of that splendour and magnitude but the sentient itself."¹⁰⁵ The method at this stage is, on Hobbes' account, synthetical.¹⁰⁶ What is interesting here is the fact that the synthetical inquiry rests, in this as in the former

case, upon an appeal to facts, to experience. That the sun is greater than its apparent magnitude may be found out by true ratiocination, to be sure, but only on the basis of some observations. Similarly in the former case, the determination of whether or not a given effect is a body or an accident of body requires some appeal to experience; knowing the properties of body or matter and of accidents by analysis of their definitions, we must determine, by an appeal to experience, whether or not the properties of the effect in question are those of body or accident; i.e., given both the requisite definitions and the known facts, we deduce that the effect in question is or that it is not body, i.e., that it is or is not properly called 'body'.

We have thus far discussed the synthetical method as it applies to two of the sorts of "limited" questions a philosopher may propound to himself. However, Hobbes lists four such questions: a philosopher who does not seek universal knowledge (science simpliciter) but, rather, some limited knowledge, may seek to know (1) "the cause of some determined appearance," (2) "or in what subject any propounded accident is inherent," (3) "or what may conduce most to the generation of some propounded effect from many accidents," (4) or "in what manner particular [propounded] causes ought to be compounded for the production of some certain effect."¹⁰⁷ The first question obviously presupposes the determination of whether the determined appearance is body or accident. This question is not, however, presupposed by questions of types (3) and (4), since, in these cases, the effects are not 'determined' (to use Hobbes' phrase) but, rather, 'propounded'. Thus, we have discussed the synthetical method; it applies to questions of type (2) and to

questions of a type presupposed by type (1). Between questions of types (1), (3), and (4), however, there is an obvious relation; all deal with questions of causation, of generation. These questions may all be subsumed under the more general question, 'What is the cause of X?' Their differences, however, must not be overlooked.

In the first case, the effect is simply given; we ask: What is the cause of this given effect or appearance? In the third case, we ask, not what is the cause, but what may be the cause; i.e., what may conduce most to the generation of some propounded effect. In this case we decide, in putting the question, what the nature of the effect is, e.g., whether it is body or accident. What remains to be sought is the nature of its possible causes. In the fourth case, we decide, in putting the question, both the nature of the causes and of the effect; in other words, we know in advance both the nature of the causes and of the effect. The question is, given those causes, how best to produce the effect. To take an example, if we were to ask 'What would conduce most to the generation of a peaceful and secure commonwealth?' we would determine first what is meant by 'peaceful and secure commonwealth'. We should then propound to ourselves certain causes, whose nature, again, we know, and determine which of them, or which combination of them, is most conducive to the end in question.

Hobbes does not specifically discuss the method to be used in answering questions of types (1) and (4). It is clear, however, from what he says later that in the case of questions of type (4) the method is that of the method of teaching, and it is clear that the

method here is also synthetical. It differs, however, from the synthetical method as it is employed in the case of the other 'limited' questions. It need involve no appeal to experience. The method of teaching, Hobbes says, differs from that of invention (or discovery) only to the extent that, in teaching, we leave out that part of the method of invention which is analytical, the procedure by which we discover (possible) causes.¹⁰⁸ We begin, rather with the causes which we have found out by analysis and proceed to demonstrate which combination of those causes, or that such a combination of those causes, will lead to the propounded effect. But the premisses with which we begin in this case are indemonstrable, universal principles. They are indemonstrable because they are definitions, and only definitions are primary and universal propositions,¹⁰⁹ but, furthermore, such primary universal principles require no demonstration. They are, as Hobbes puts it, "known to nature".¹¹⁰ We all know (or can know), for instance, what motion is; we can conceive it, and, although 'motion' as a universal principle cannot be defined, it can be 'explicated'. Thus, the definition "motion...[is] the leaving of one place, and the acquiring of another continually," although not, for Hobbes, properly speaking, a definition, is nevertheless, known to be true and serves as a definition because "at the hearing of the speech, there will come into the mind of the hearer an idea of motion clear enough."¹¹¹ We are now in a position to understand Hobbes' conclusion: "The whole method, therefore, of demonstration, is synthetical, consisting of that order of speech which begins from

primary or most universal propositions, which are manifest of themselves [or 'understood through themselves' (per se intellectis)], and proceeds by a perpetual composition of propositions into syllogisms, till at last the learner understand the truth of the conclusion sought after."¹¹² In this case, clearly, there is need for experience or observation, if at all, only in the verification of the first principles.

We have still to discuss questions of types (1) and (3).

Type (1) questions need not detain us long. They are not, strictly speaking, subjects of philosophic inquiry. Any given effect must be, on Hobbes' view, particular and will yield, if anything, only a particular conclusion, but, furthermore, as was pointed out earlier, there is no certainty in such inferences. There is too much in the given effect that may be overlooked. We can never say precisely that such and such an event is the cause of this effect, because we can never be sure precisely what the effect is. Of course, all is not lost for the experimental sciences. The point is simply that type (1) questions must be subsumed under type (3) questions. That is, given some effect, we must determine as well as we can what the effect is. For instance, if the effect in question is a light, we must determine that it is properly called 'light' and seek, then, to determine, not what is, but what may be, the cause of light and, in particular, of this light. What is required in this case is that we get first "an exact notion or idea of that which we call a cause;" we must then examine each of those accidents which accompany or precede and seem in any way to pertain to the effect to determine a

"whether the propounded effect may be conceived to exist, without the existence of any of those accidents."¹¹³ In other words, we must determine by observation, by an appeal to facts, what are the accompanying accidents and then, by an appeal, not to the facts, but to our conception of the effect, i.e., to the definition of its nature, whether or not any of those accidents are necessary to it. We must then put together the remaining accidents to see whether the effect, given those concurrent accidents, can be conceived not to follow, "and if it be evident that the effect will follow, then that aggregate of accidents is the entire cause, otherwise not; but we must still search out and put together other accidents."¹¹⁴ The synthetical method involved here, "the adding together and compound-
ing" of the several accidents, is plainly construed as a deductive enterprise; it is a question of whether or not, given these several accidents, the effect can be conceived not to follow.

Now, having thus delivered in brief Hobbes' remarks on the specific kinds of questions which may be asked in natural philosophy, it is easy to see why he should have claimed that the definitions of universal or first principles, where they can be conceived to have causes, must contain some statement of their causes and generation. With the exception of the type of question presupposed by type (1) questions (which exception Hobbes fails to note), "The end of science is the demonstration of the causes and generations of things; which if they be not in the definitions, they cannot be found in the conclusion of the first syllogism, that is made from those definitions; and if they be not in the first conclusion, they will not be found

in any further conclusion deduced from that; and, therefore, by proceeding in this manner, we shall never come to science."¹¹⁵

Hobbes' conception of science and of philosophy, in other words, is causal, as is clear from his definition of philosophy (quoted earlier from Leviathan and repeated thrice without essential change in De Corpore).¹¹⁶ In this he lies very much in the tradition. It was, in Hobbes' day, a philosophical commonplace that a thing was best known through its causes. And, clearly, Hobbes saw himself as carrying on in this same tradition; as he writes in a later work: "Indeed that to know is to know by way of the cause of Aristotle is true".¹¹⁷ In this respect, Hobbes went further than his predecessors, if at all, only in defining philosophy as the knowledge of causal relations and eliminating, thereby, from the scope of philosophy any subject of which no generation was conceivable.¹¹⁸ But furthermore, philosophy or science, for Hobbes, is that knowledge obtained by right (or true) ratiocination. Thus, in his claim that the first principles of philosophy must state causes or modes of generation, Hobbes has done no more than apply the logical canon (which his opponents are so fond of charging him with violating in his attempt to deduce moral from non-moral premisses) that that cannot be contained in the conclusion which is not contained in the premisses of a deductive argument. Since, on Hobbes' conception of the nature and purpose of philosophy, causal relations must occur in the conclusions, they must occur as well in the premisses.¹¹⁹

But it may well be asked why they must occur in the first

principles. Why, for instance, could they not all be introduced somewhere along the way? To answer this question and to complete the discussion of Hobbes' conception of method, it will be advisable to review his remarks on method in general, especially as they pertain to that sort of philosophy which seeks universal knowledge and not just the answers to certain limited questions. Thus far we have discussed Hobbes' conception of the synthetic or composite method, for the most part, only as it applies to these sorts of questions, but Hobbes clearly saw himself as seeking universal knowledge and, I think equally clearly, saw this sort of inquiry to be the proper inquiry of the philosopher, as opposed, say, to the physicist (the natural philosopher), the arithmetician, etc.

Hobbes' discussion of this sort of science occupies the bulk of his chapter on method in De Corpore. The method of this sort of universal science, Hobbes refers to at one point as "methodical demonstration". In methodical demonstration the first two requirements are that the reasoning be formally valid, "that", as Hobbes puts it, "each chain of reason be legitimate," and "that the first premisses of the several syllogisms be demonstrated throughout from the primary definitions."¹²⁰ Now, if this demonstrative science is to be universal and if the demonstrations of all phenomena are to rest ultimately in only a few first principles or definitions, or, in other words, if all the phenomena of nature are to be generated from first principles in conjunction with observed, particular phenomena, it is clear that these principles must contain that in

virtue of which the observed particulars are related in order to generate causally both the known and the unknown phenomena of nature. Those causal relations cannot be introduced at the level of our particular observations for very much the same reasons as those pointed out by Hume. In respect of the invalidity of such experiential causal inferences, Hobbes and Hume held very much the same view. They differ in that Hobbes sought to provide a deductive, non-experiential basis for such inferences.¹²¹

The third requirement of methodical demonstration which Hobbes notes is that of order. The order is from the (most) universal to the particular. Accordingly, the first step after the most universal principles or definitions have been settled, is the demonstration of that which follows immediately from the definitions. In this first step, Hobbes claims, "is contained that part of philosophy which is called philosophia prima" or metaphysics.¹²² After this comes geometry, or "those things which may be demonstrated by simple motions;" next, "such things as may be taught...by manifest action;"¹²³ and then, in order, "the motion or mutation of the invisible parts of things, and the doctrine of sense and imagination, and of the internal passions [of animals], especially those of men, in which are comprehended the grounds of civil duties, or civil philosophy; which takes up the last place."¹²⁴ Hobbes gives, as his final remark on methodical demonstration, a reason for this particular order. Those which come last in order, he claims, "cannot be demonstrated, till such as are propounded to be first treated of, be fully understood."¹²⁵ If this is so, then it would seem clearly to follow that, if our knowledge at each stage

is to be causal, the causal relations involved at any later stage cannot be fully understood or demonstrated unless we first understand and have demonstrated the causal relationships involved in the preceding stages, and so on backwards, to the first principles or definitions which must, accordingly, be causal, e.g., a 'circle' is 'a figure made by the circumduction of a straight line'.

There is, however, a crucial exception to Hobbes' claim that what comes last in order cannot be demonstrated until we have fully understood what comes before. This exception, of course, which Hobbes himself notes,¹²⁶ is with what "takes up the last place," civil or moral philosophy. If the thesis of this present work is to be maintained, it is crucial that we understand in precisely what sense this domain of philosophical inquiry constitutes, for Hobbes, an exception to the rule. To understand this, as well as to gain a fuller understanding of Hobbes' conception of method, it will be well to discuss his more ample remarks on the method of that philosophy which seeks universal knowledge, given earlier in the same chapter.

The first stage in this sort of inquiry, as has already been pointed out, is that "of attaining to the universal knowledge of things," in the sense of determining, as far as one can, "the causes of universal things, or of such accidents as are common to all bodies." This stage Hobbes claims is "purely analytical" or resolute. "But," according to Hobbes, "the causes of universal things...are manifest of themselves...so that they need no method at all; for they have all but one universal cause, which is motion."¹²⁷ Of course, Hobbes has

not here demonstrated the truth of his claim that motion is the one universal cause. Nor is it necessary at this point that he should. He is not here giving the analysis which leads to universal principles and to the recognition of the fact that motion is the universal cause; he is, rather, attempting, after having made the analysis himself, to point out its implications for philosophical method.¹²⁸ Analysis is the first step in universal science; this much we can know a priori, but what the subsequent steps are we cannot know until that analysis has been performed. Hobbes here needs only to give enough of that analysis to provide a basis for determining the proper methodological order. To prove the claim that this is the proper methodological order requires an actual attempt to carry it out. As Hobbes says, at the end of his discussion of methodical demonstration, "Of which method no other example can be given, but the treatment of the elements of philosophy, which I shall begin in the next chapter, and continue to the end of the work,"¹²⁹ "to the end that they who search after other philosophy, may be admonished to seek it from another direction [aliunde]."¹³⁰

Now, as has been pointed out, our knowledge of universals consists in their definitions, where they have no conceivable cause (which definitions, Hobbes says, "are nothing but the explication of our simple conceptions,"¹³¹ and are "to be made by such circumlocution as best explicates the force of that name"¹³² in order to "raise in the mind of the hearer perfect and clear ideas or conceptions of the things named")¹³³ and, where they have a conceivable cause, in a definition which gives their generation. But since the

one universal cause is motion, it is clear that the next step, the first step in the synthetical method, is to "enquire what motion begets such and such effects".¹³⁴ But the procedure is from the more to the less universal, and, accordingly, the inquiry at this stage is confined to what Hobbes calls simple motions. Here "we are to observe what effect a body moved produceth, when we consider nothing in it besides its motion."¹³⁵ The method here is compositive or synthetical and this stage of the inquiry is identical with geometry.¹³⁶ In the next place, we consider the effect of bodies upon one another, or the effects of interacting motions. This stage of philosophy may be identified with simple mechanics.¹³⁷ In the next place, we consider the effects of still more complex motions, those of the parts of bodies, "and here the things we search after are sensible qualities," but since "they cannot be known till we know the causes of sense itself...the consideration of the causes of seeing, hearing, smelling, tasting, and touching, belongs to the third place,"¹³⁸ and the doctrine of sensible qualities is, for epistemological rather than methodological reasons, relegated to the fourth stage. These two stages taken together, according to Hobbes, comprise all of "that part of philosophy which is called physics,"¹³⁹ what we, I think, would call 'natural science'.

There follows at this point a statement which I take to be crucial, both to an understanding of Hobbes' method in philosophy and to an understanding of the sense in which his philosophy comprises a system. He says, "in these four parts [geometry, mechanics, and the two of is con in

philosophy may be explicated by demonstration." He goes on to explain, "For if a cause were to be rendered of natural appearances in special... the reason hereof, must either be drawn from the parts of the sciences above mentioned, or no reason at all will be given, but all left to uncertain conjecture."¹⁴⁰ Now, the point of this should not be misunderstood. Hobbes is not saying that these four sciences comprise all of natural philosophy; in fact, they do not. He is saying, rather, that they serve as the basis (and of the four the most basic is geometry) for all natural philosophy. Of the four, however, only the two parts of physics are parts of natural philosophy. The remaining branch of natural philosophy, or, at least, that major branch which does not fall under physics, in the sense in which it can be unequivocally stated to be a branch of natural philosophy, is what Hobbes calls 'moral philosophy,' what we would call psychology. At this stage "we are to consider the motions of the mind," and they are to be considered after physics because "they have their causes in sense and imagination, which are the subject of physical contemplation."¹⁴¹ Here Hobbes interrupts his exposition of the order of investigation to stress the deductive sequence of the various stages. The reason for following this order, he says, "is, that physics cannot be understood, except we know first what motions are in the smallest parts of bodies; nor such motion of parts, till we know what it is that makes another body move; nor this, till we know what simple motion will effect...therefore, in the first place we are to search out the ways of motion simply (in which geometry consists)" and he concludes, stressing again the fundamental nature of geometry, the study of simple motion, to universal science or philosophy, "They

that study natural philosophy, study in vain, except they begin at geometry."¹⁴²

Now, in light of the foregoing discussion, those who would endeavor to separate Hobbes' psychology from his general mechanism will be hard put to the task of defending their claim. As Hobbes conceived them at least, the two are most emphatically not independent. A certain amount of cognitive psychology is presupposed by physics, and the rest of psychology has its causes in events which are the subject of physical contemplation. Still there is room for the objection that, on Hobbes' view, moral and political philosophy are independent of his mechanistic first principles. This is the crucial exception, noted earlier, to Hobbes' assertion that what comes last in the order of methodical demonstration presupposes and requires that what comes first, e.g., geometry, physics, and psychology, be fully understood. On a superficial reading what Hobbes has to say here and his similar statement in De Cive would seem to support this view. I have argued in the Introduction that De Cive does not provide clear support for the view that Hobbes saw his moral and political philosophy as being logically independent of his general mechanism. I shall argue now that a close inspection of what he has to say about the matter in De Corpore supports the contrary view.

What so strengthens the temptation to say that Hobbes saw these two parts of his philosophy as being entirely independent is the fact that he says, "Civil and moral philosophy [motivational or volitional psychology] do not so adhere to one another but that

they may be severed."¹⁴³ Taken out of context this passage would seem to lend clear support to the view that the two were, for Hobbes, independent. In context, however, it is clear that Hobbes is making room for no such radical cleavage. He is claiming, to be sure, that civil philosophy and, no doubt, moral philosophy as well¹⁴⁴ can be attained and demonstrated independently of physics. But he is not denying that civil and moral philosophy, like psychology, can be deduced from his natural philosophy. In fact, in the very next sentence he asserts the contrary. Psychology or physics and ethics may be studied independently, he says, because "the causes of the motions of the mind are known, not only by ratiocination, but also by the experience of every man that takes the pains to observe those motions within himself."¹⁴⁵ What cannot be overlooked here without totally misunderstanding Hobbes' point is the "not only...but also." The principles of civil philosophy, he is saying, may be discovered in two ways, one of which is by ratiocination,¹⁴⁶ and it is clear that "by ratiocination" here means by philosophical or methodical deduction, or by the method of synthesis or composition outlined above, beginning at first principles and proceeding, by way of geometry and physics, to psychology and, hence, to the principles of moral and civil philosophy. That he is saying this is absolutely clear from the following sentence, in which he claims,

they that have once attained to the science of the desires and the perturbations of the mind by the synthetical method, from the first principles of philosophy, may, by proceeding in the same way, come to the causes and the necessity of the constituting of commonwealths and acquire the science of natural right, of civil duties, and, in every

kind of commonwealth, what is of right owed to the commonwealth itself and the remaining things which are proper to civil philosophy, because the principles of civil philosophy derive [constant] from the knowledge of the motions of the mind, but the knowledge of the motions of the mind derives from the science of the senses, and the cogitations of the mind [cogitationum]¹⁴⁷

Now, the synthetical method, as I have attempted to show, is, for Hobbes, a deductive method, and as the term is used here, it refers clearly to the method outlined in the preceding article, the method which begins with first principles and which proceeds by deductive inference from the nature of motion through geometry and mechanics and, with the addition of factual or sensory observations, to physics, psychology, and, according to this passage, political and moral philosophy. The knowledge of moral and civil philosophy, Hobbes is clearly asserting, may be obtained in this way. Nor need we rely for this interpretation on this passage alone. In his discussion of methodical demonstration, where it is clear that each of the steps in the advancement of learning is supposed to be deductive, Hobbes gives precisely the same order, and here, without reservation, Hobbes says that what comes last, in this case civil philosophy, "cannot be demonstrated, till such as are propounded to be first treated of, be fully understood."¹⁴⁸ I have here underlined 'demonstrated'. The reader will recall that, for Hobbes, "the whole method of demonstration, is synthetical, consisting of that order of speech which begins from primary or most universal propositions."¹⁴⁹ Further support for this interpretation is to be derived from Hobbes' table of sciences in Leviathan. In this table each of the subdivisions is considered as a

consequence of the foregoing division. That which concerns us here is Ethics, which is identified as "Consequences from the passions of men," which is, in turn, "Consequences from the qualities of men in special," which is, "Consequences from the qualities of animals," which is, "Consequences from the qualities of bodies terrestrial," which is, ultimately, "Consequences from the accidents of bodies natural; which is called NATURAL PHILOSOPHY" and, on the other hand, "The Science of JUST and UNJUST" which is "Consequences from speech. In contracting," and this is, in turn, "Consequences from the qualities of men in special" and so on to the first subdivision, Natural Philosophy.¹⁵⁰ The other major subdivision is Civil Philosophy. The fact that civil philosophy is thus set apart from natural philosophy as a distinct science might seem to provide some support for the interpretation against which I am contending. However, I think it does not. Civil philosophy is presented, in this table, as having two subdivisions, both of which are seen as "consequences from the institution of COMMONWEALTHS,"¹⁵¹ that is, presumably, from the original contract or agreement. But the science of contracting is placed, not under civil philosophy, but natural philosophy. This interpretation is further supported by the Latin edition of Leviathan.¹⁵² In the Latin edition the table does not appear. Instead, Hobbes provides a summary of it. Except for two points, the division here follows much the same pattern as in the earlier English edition, but with these crucial differences. The first major division of philosophy into natural and political philosophy is dropped. Then, after having given the subdivisions of philosophy

in much the same order as he gave the subdivisions of natural philosophy in the earlier edition, again with the suggestion that the order is deductive and, in this case, with the explicit assertion that the order is from the more to the less universal,¹⁵³ Hobbes concludes with "And at last, from the contemplation of man and his faculties arise the sciences of ethics...and finally of politics, or civil philosophy."¹⁵⁴ In this edition, at least, both moral and political philosophy are presented, without any ambiguity, as consequences drawn ultimately from "the most general of the subjects of science...body" and its two universal accidents, magnitude and motion.¹⁵⁵

The division which Hobbes makes in the earlier edition between natural and civil philosophy might, perhaps, be better understood if we compare what he has to say on the matter in De Homine with what he says in De Corpore. In De Homine Hobbes outlines very briefly his theories of science and knowledge. It will be well here to summarize his remarks both for the light they shed on his conception of the relation between his mechanism and his moral and political philosophy and for the confirmation it gives to my interpretation of his theory of science. In this work Hobbes distinguishes between demonstrations a priori and demonstrations a posteriori. He has, in this distinction, found a new means of distinguishing science simpliciter, or formal science, from natural science. The former, he says here, is "concerned with theories, that is, with the truth of general propositions, that is, with the truth of consequences...[Therefore, that particular science by which we know some proposed theorem to be true, is the knowledge derived by right ratiocination from the causes, or

from the generation of the subject]."¹⁵⁶ Hobbes makes it clear that he has a priori demonstrations in mind here and, further, that a priori demonstrations are possible "only of those things whose generation depends on the will of men themselves."¹⁵⁷ These, of course, will include all the formal sciences, such as geometry, since, in Hobbes' opinion, these all proceed from definitions which men make and since, in the case of geometry, "we ourselves draw the lines."¹⁵⁸ Where we make the causes, we know precisely what they are, and here demonstrations a priori are possible. In the case of natural science, on the other hand, we have only "knowledge derived by legitimate reasoning from the experience of effects,"¹⁵⁹ and, in such cases, we know only "(insofar as possible) that such and such a theorem may be true."¹⁶⁰ "Since the causes of natural things are not in our power...and since the greatest part of them...is invisible; we, that do not see them, cannot deduce their qualities from their causes;" however, "we can, by deducing as far as possible the consequences of those qualities that we do see, demonstrate that such and such could have been their causes."¹⁶¹ We cannot, however, demonstrate with certainty what their causes were. Hobbes has said nothing here, I think, which is inconsistent with the interpretation I have given to his theory of science. Science, all science, is deductive. In the natural sciences, however, we can deduce with certainty only what might have been or may be, not what was or will be, and this, because our premisses are not all of them certain. It is not in our power, it is as Hobbes says, "in the divine will,"¹⁶² to make them true of things as they actually are. This kind of demonstration

which relies not only upon the will of man, but upon his experience, Hobbes calls a posteriori. Hobbes here for the first time makes clear a distinction, which is implicitly, but never quite explicitly made in his earlier works, between the formal or pure sciences and the applied sciences. He has departed entirely from the conception of science in the early Elements of Law, in which the first principles of science were taken to be some knowledge of fact. Now he says that those sciences "are pure which (like geometry and arithmetic) revolve around quantities in the abstract, so that work in the subject requires no knowledge of fact."¹⁶³ Physics, on the other hand, depends in part upon a knowledge of fact, but since a knowledge of natural events requires a knowledge of geometry for the understanding and the deduction of how one motion effects another, "nothing can be demonstrated by physics without something also being demonstrated a priori."¹⁶⁴ Physics, therefore, "that depends on geometry, is... numbered among the mixed mathematics."¹⁶⁵ What it is needful to note is that, mixed or not, physics is an instance of mathematics, specifically of geometry; and it is deductive. It differs from the pure sciences only in that it takes facts into the deduction. Accordingly, since we cannot be certain of the facts, we cannot deduce what is the case with certainty, but, since we can at least be certain about what we take the facts to be, we can deduce that 'if this, and nothing else, is the case, then this is (was or will be) the case'. What has, no doubt, prompted Hobbes to make the distinction between the two kinds of science in these terms is his realization that some of the sciences, namely, the pure sciences, can and do end up with absolute,

as opposed to conditional, conclusions. For instance, the theorem that, in a right triangle, the sum of the squares on the sides is equal to the square of the hypotenuse is an instance of a scientific conclusion which is at once certain and absolute. Such theorems differ from those of physics, however, in that they have or need have no reference to facts (or at least to facts which are not dependent upon our wills and which it is not in our power to know). They are the sorts of premisses we bring to bear on the fact when we wish to consider their possible generations and effects; they constitute, in other words, the formal framework (the pure sciences) which we apply to the facts (the applied sciences). The difference is that, whereas the premisses and conclusions of the former are always convertibly conditional, because they are analytically true, the conclusions of the latter are (nearly) always conditional, because they are not just truths by definition; they depend as well upon facts which it is not in our power to make true.

Having thus explicated the differences between the two kinds of demonstration and, hence, of science, and having pointed out that geometry and arithmetic are a priori or pure sciences and physics, a mixed or a posteriori science, Hobbes goes on to say, "Finally, politics and ethics (that is, the science of just and unjust, of equity and inequity) can be demonstrated a priori; because we ourselves make the principles--that is, the causes of justice (namely laws and covenants)."¹⁶⁶ Now, all that is new in this statement, I maintain, is the language.

If we recall the discussion from De Corpore, to incorporate it

into the terms of De Homine would require only a few verbal changes. Thus, we should have to say that moral and political philosophy are, like physics, mixed sciences. As I have pointed out, there Hobbes maintains that moral and political philosophy may be deduced from first principles together with the facts in the same way as physics. But Hobbes there goes on to say, in explanation of his claim that "Civil and moral philosophy do not so adhere to one another, but that they may be severed," that "even they also that have not learned the first part of philosophy, namely, geometry and physics, may, notwithstanding, attain the principles of civil philosophy, by the analytical method."¹⁶⁷ Now, it is clear from his explanation of this that, by his claim in De Homine that civil philosophy can be demonstrated a priori, Hobbes is saying nothing more than he says here--that the principles of civil and moral philosophy may be attained also by analysis. In De Homine he says civil philosophy may be demonstrated a priori because we make the laws and covenants which are the causes of justice and injustice. In De Corpore he says essentially the same thing, but more amply.

For if a question be propounded, as, whether such an action be just or unjust, if that unjust be resolved into fact against the law, and that notion law into the command of him or them that have coercive power; and that power be determined from the wills of men that constitute such power, to the end they may live in peace, they may at last come to this, that the appetites of men and passions of their minds are such, that, unless they be restrained by some power, they will always be making war upon one another; which may be known to be so by any man's experience that will but examine his own mind. And, therefore, from hence he may proceed, by compounding, to the determination of the justice or injustice of any propounded action.¹⁶⁸

Hobbes has here outlined, more or less, the program of De Cive and parts one and two of Leviathan. The course of this argument will be discussed at some length in a later part of this thesis and need not detain us here. What is important to note is that the analysis here is an analysis, for the most part, of words, e.g., 'unjust', 'law', 'coercive power', and of human ends, all of which depend upon the human will. The science of politics may, therefore, be demonstrated a priori, or as he puts it in this work, by analysis. But it remains true, nonetheless, that the science of politics may also, on Hobbes' account, be demonstrated a posteriori, by the synthetical method. In this case, however, the demonstration a posteriori does not suffer from the same defects as in other areas of natural philosophy. The facts which are of crucial importance to the demonstration of moral and political philosophy (and which enter into both kinds of demonstration) are facts about the motions of our minds, and these, unlike other facts, we can know with certainty, "For the cause of the motions of the mind are known, not only by ratiocination, but also by the experience of every man that take the pains to observe those motions within himself."¹⁶⁹ The motions of our minds and their causes, though not within our power in the same sense as the principles of geometry, are, apparently, within our power in the sense that we can know what they are, that they are, and what their causes are with an introspective certainty, and, knowing that, we may deduce what their effects will be, assuming the same passions to be common to all, if they are left unchecked. Thus, the science of moral and political philosophy differs in an essential respect from other physical sciences.

It depends, like them, not only upon general a priori principles, but upon facts; the difference is that the relevant facts can, in this case, be known with full certainty. Hence it is that we can demonstrate the tenets of civil philosophy from philosophical first principles by the synthetic, a posteriori method. Hence it is also that we can deduce the tenets of civil philosophy by the analytic, a priori method.

Now, it would be clearly false to suggest that, since moral and political philosophy can, on Hobbes' view, be deduced without reference to the first principles of philosophy or to geometry and physics, that moral and political philosophy are, on his view, logically independent of these first principles. On his view a certain view of moral and political philosophy follows necessarily once the first principles and the relevant (psychological) facts are known, or, in other words, given the truth of his first principles and the relevant psychological facts, which are known with full certainty, one and only one moral and political theory must be true, namely, the theory which is deducible from those principles conjoined with those facts. Now, it would be strange indeed to say that a theory A is logically independent of another theory B, when A is logically entailed by B. Yet this, I think, is the claim which those interpreters who say that Hobbes thought his moral and political philosophy to be logically independent of his mechanism are, consciously or not, attributing to Hobbes. Suffice it to say, I think that it is not the sort of inconsistent claim he would (consciously) have made and, furthermore, that his own (conscious)

conception of the relation between these two parts of his system was that they are not logically independent, although they may be epistemologically independent in the sense that the one may be known without knowing the other.

In this chapter I have attempted to show that Hobbes' conception of right reason and, hence, of philosophy is essentially deductive and analytic. I have attempted to show also that there are in a sense, for Hobbes, two kinds of truth, corresponding roughly to the distinction between the two kinds of knowledge, and that the one is conditional and analytic, yielding universal necessary truth, while the other involves an appeal to facts, to experience. Corresponding to this distinction, there are two kinds of science, formal or pure (analytic) science and applied science. Both kinds of science are on Hobbes' view deductive. The difference lies in the fact that the one, the applied or natural sciences, brings facts into the deduction. I have tried to show also that, on Hobbes' conception of proper philosophic method, there is a certain order which must be followed to obtain universal knowledge. This order begins with analysis, the settling of definitions, and the drawing of their immediate consequences. This first step is first philosophy or metaphysics. There follow, in the method of universal philosophy, four steps in which the method is synthetical, in order: geometry, the study of simple motion; mechanics, the study of interacting motions; and physics, the study of the motions of the parts of bodies, which has two parts-- in order of investigation, the causes of sense and thought and sensible qualities. After these four steps comes moral and political

philosophy which, according to Hobbes, may be investigated in two ways; first, since its principles are the passions of men, which have physical causes, it may be investigated by the synthetical method in the same way as physics; second, since all the principles necessary to demonstrating moral and political philosophy depend upon the will of men or can be known by introspection, it can be demonstrated by the analytic or a priori method as well. I have tried to show, too, that, on Hobbes' conception, all the steps in this ordered investigation are deductively related, the latter following from the former. I have further emphasized the fact that according to Hobbes' conception of natural science, the observation of facts plays an important and indispensable role but that the course or the method of that science is nevertheless deductive.

It would, perhaps, be advisable now to state what, on the basis of this examination of Hobbes' method, we should expect to find in the examination of his philosophy. We should expect to find him attempting, first, to determine the proper definitions of basic metaphysical terms and, at the same time, to determine the immediate consequences of those basic definitions. The method here in his first philosophy should be the analytic or resolute method. We should expect him, then, to proceed to geometry and mechanics and to deal with these formal sciences in terms of his basic definitions. Then we should expect to find him turning to natural philosophy, to physics, and at this stage in his inquiry, to bring into his deduction, known facts about the world. In physics we should expect the order of investigation to be, first, sensation and

cognitive psychology in general, then sensible qualities, or the phenomena of nature. At this point we should expect Hobbes to take up the question of motivational or volitional psychology, the study of the passions of men.. This too we should expect to see handled as a subject of natural philosophy. From this Hobbes should proceed to the questions of moral and political philosophy. It is at this stage of our inquiry that difficulties are most likely to arise, for here there are two possible methods of investigation open to him. It will be necessary to determine, at this point, which of these two methods Hobbes himself used, if he did not, in fact, use both.

We have thus far discussed in any detail only those of Hobbes' premisses that "appertain to the nature of philosophy in general."¹⁷⁰ It is time now to turn to the discussion of his metaphysics, those of his premisses that appertain to the philosophy of nature in general.

NOTES: CHAPTER TWO

1. Watkins, 1973, chapt's. 3-4. See also Peters, 1956, pp. 62-4.
2. In claiming that Hobbes' method was Euclidean, nothing more is meant really than that it was deductive. Among the avant-garde thinkers of Hobbes' day, Euclid was taken to be the paradigm of deductive, i.e., demonstrative science. Exactly how Hobbes conceived Euclidean method would be an interesting and, for an understanding of his own method, extremely worthwhile question to pursue. However, such a detailed study lies outside the scope of this work.
3. EW I, I, 6, 2.
4. EW & LW I, I, 1, 2. Except for a few minor changes I have here followed the English translation fairly closely. "Right ratiocination" (rectam ratiocinationem) is translated as "true ratiocination" in the English translation. In his English writings, however, Hobbes often uses the phrase "right reason" and it would seem preferable, for the sake of consistency, to use a similar locution here. The definition of philosophy is repeated at I, 6, 1 and IV, 25, 1 and in EW III, chapt. 46, p. 664.
5. EW I, I, 6, 1.
6. EW I, I, 6, 1. The English translator translates 'simpliciter' as "indefinitely". Hobbes uses 'simply' and 'indefinitely' interchangeably in this context. See, for instance, EW, I, I, 6, 3.
7. Ibid.
8. EW I, I, 6, 3.
9. EW I, I, 6, 4.
10. EW I, I, 6, 13.
11. EW I, I, 6, 6. The English reads "of our simple conceptions."

12. Ibid.
13. EW I, I, 6, 13.
14. Ibid.
15. Ibid.
16. Ibid. It is not entirely clear what Hobbes has in mind here. From chapter one of De Corpore, it would seem that universals of this kind must be properties. There he writes "Effects and appearances are the faculties or powers of bodies by which we distinguish one from another, that is, by which we conceive that the one is equal or unequal, like or unlike to the other." (LW I, I, 1, 4. *Effectus autem et phaenomena sunt, corporum facultates sive potentiae quibus alia ab aliis distinguimus, id est, unum alteri aequale aut inaequale, simile vel dissimile esse concipimus*). It is clear from the marginal gloss, "Properties, what" and from the fact that Hobbes goes on to say that walking is a property of an animal because it is that "by which it is distinguished from other bodies" (Ibid. *Unde incessus ille, properties ejus est, quippe animalium proprius, quo a caeteris corporibus distinguitur*), that Hobbes is here defining 'property' as that in virtue of which we distinguish one thing from another. This interpretation is substantiated by the corresponding passage in NPL where Hobbes writes, "A property of a body I call a faculty of power of it by which we distinguish it from other particular bodies, that is, by which we conceive it to be unequal or dissimilar" (p. 464. *Corporis proprietatem appello facultatem seu potentiam ejus qua ipsum ab aliis certis corporibus distinguimus, id est inaequale vel dissimile esse concipimus*). Possibly what Hobbes has in mind in distinguishing universals common to all bodies from those by which we distinguish one body from another, is best understood by his assertion that "universal things," those common to all matter, "are contained in the nature of singular things" (EW I, I, 6, 4). If so, the distinction may possibly be seen as a distinction between the abstract and the concrete, between the nominal or conceptual essence of things and the real or actually perceived properties of things.
17. Ibid.
18. EW I, I, 1, 3.
19. Ibid.
20. LW I, I, 1, 1. "philosophia, id est, ratio naturalis, in omni homine innata est."
21. EW I, I, 1, 1.

22. EW I, I, 2, 1.
23. El.L I, 4, 10.
24. EW I, II, 8, 5; I, 2, 9; El.L I, 5, 6; EW III, chapt. 4, p. 21.
25. See EW I, I, 3, 8; I, 4, 8.
26. EW I, I, 4, 8; I, 6, 2; D.H. x, 3.
27. LW I, I, 3, 8. (Etsi enim animalia orationis expertia, hominis simulachrum in speculo aspicientia similiter affecta esse possint, ac si ipsum hominem vidissent, et ob eam causam frustra eum metuerent, vel abblandirentur, rem tamen non apprehendunt tanquam veram aut falsam, sed tantum similem, neque in eo falluntur. Quemadmodum igitur orationi bene intellectae debent homines, quicquid recte ratiocinantur; ita eidem quoque male intellectae debent errores suos.) In this passage, "their errors", should apparently be construed as 'what they falsely conclude'.
28. EW I, I, 5, 1.
29. Leibnitz, Die Philosophischen Schriften von Gotfried Wilhelm Leibniz, ed., C.I. Gerhardt, vol. IV, 1880, p. 158. (Ut credam Occamum non fuisse Nominaliorem, quam nunc est Thomas Hobbes, qui, ut verum fatear, mihi plusquam nominalis videtur. Non contentus enim cum Nominalibus universalia ad nomina reducere, ipsam rerum veritatem ait in nominibus consistere, ac, quod majus est, pendere ab arbitrio humano, quia veritas pendeat a definitionibus terminorum, definitiones autem terminorum ab arbitrio humano.) Watkins (1973, pp. 104-9) quotes this passage and attempts to defend Hobbes from it (the conclusion, he thinks, is that Hobbes held what he calls a 'Humpty-Dumpty theory of truth'. See below n. 35), but only by charging him with admitting "accidents into his ontology". Of course, Hobbes' theory does not allow for the existence of accidents in the usual realist sense at all--although Watkins is quite right in asserting that he did, or at least appears to have, in the 'little treatise'. (El.L., App. I, pp. 193-5).
30. EW I, I, 13, 7.
31. See Hobbes' discussion of ratiocination without the use of words (EW I, I, 1, 3), where he makes it very clear that words are imposed on things because those things have or have not certain properties.
32. EW I, I, 5, 1.
33. EW I, I, 3, 8.

34. Watkins, 1973, p. 104.
35. Ibid. Watkins bases his conception of this theory of meaning upon the following passage from Lewis Carroll's Through the Looking Glass, ch. 6:
- "...There's glory for you!"
- "I don't know what you mean by 'glory'," Alice said.
- Humpty Dumpty smiled contemptuously. "Of course you don't-- till I tell you. I meant, 'there's a nice knock-down argument for you!'"
- "But 'glory' doesn't mean 'a nice knock-down argument'," Alice objected.
- "When I use a word," Humpty Dumpty said, in rather a scornful tone, "it means just what I choose it to mean--neither more nor less."
- "The question is," said Alice, "whether you can make words mean so many different things."
- "The question is," said Humpty Dumpty, "which is to be master-- that's all."
36. EW I, I, 5, 1.
37. EW III, ch. 4, pp. 23-4. Against the charge that this conventionalist view leads to a Humpty Dumpty theory of meaning and, hence, to a Humpty Dumpty theory of truth, Hobbes has his own, rather elegant, reply. "And though through the changeableness of the things about which we would write or speak, the signification of nearly all our words may change, yet we may use them in the house, in the field, and in the court without loss: because, for civil society, anyone, if another rightly understands, has enough". (LW V, p. 205. Et quanquam verba nostra fere omnia pro varietate rerum de quibus scribimus aut loquimur, significationem mutant, illis tamen domi, in agro, in foro utimur sine damno: quia ad societatem civilem unusquisque, si alterum recte intellgat, satis habet.)
38. "Letter on Sunspots," trans., Stillman Drake, Discoveries and Opinions of Galileo, p. 139.
39. EW I, I, 5, 1.
40. See, for instance, EW I, I, 3, 7; I, 3, 10; I, 5, 10; EW III, ch. 4, p. 21; ch. 5, p. 30; ch. 7, p. 52.
41. EW I, I, 3, 10-11.
42. EW I, I, 3, & EW III, ch. 4, p. 23; El.L. I, 5, 10. To meet a possible objection, it should be noted that for Hobbes, quantifiers range over terms rather than sentences (EW I, I, 2, 11; 3, 7) to form a single name (EW I, I, 2, 11; 2, 14). Thus, in "some

apples are green," "some apples" is the subject, and "green" contains or comprehends, not "apples," but "some apples".

43. EW III, ch. 9, p. 71; ch. 7, pp. 52-3; EW I, I, 3, 9-11.
44. El.L. I, 5, 12. It is noteworthy in light of the discussion of Hobbes' conception of truth that he adds here, in the same breath, both qualifications, "all deceptions of sense and equivocation of words avoided."
45. El.L. I, 6, 4.
46. Ibid.
47. El. L. I, 13, 3.
48. El.L. I, 5, 11.
49. EW III, ch. 4, p. 24.
50. Ibid.
51. Ibid., ch. 5, p. 30.
52. Ibid.
53. Ibid., p. 32. My underlining of 'particular' and 'general'.
54. Note his earlier, similar assertion that "of absurd and false affirmations, in case they be universal, there can be no understanding." (ch. 4, p. 28. My underlining) Hobbes is seldom careful to add this qualification. Note his later assertion that "Properly speaking, there can be no error in the understanding. For to err in the understanding is the same as not to understand." (LW V, p. 205. Nullus intellectu, proprie loquendo, error esse postest. Nam intellectu errore idem est quod non intelligere.) From the context, the distinction between the two kinds of knowledge, tied up as it is with the distinction between error and falsity, it is clear that the kind of understanding Hobbes has in mind here is the understanding of propositions, (In fact, for Hobbes, all understanding is understanding of propositions. See El.L. I, 5, 8; EW III, ch. 4, p. 28; DH x, 1.) but then, unless the sort of proposition Hobbes has in mind here is universal, i.e., one that is analytically true or false, his assertion is clearly false.
55. Ibid., p. 33.
56. Ibid., ch. 4, pp. 21-2.

57. Ibid., ch. 5, p. 33.
58. Ibid.
59. Ibid., p. 35.
60. Ibid.
61. Ibid., pp. 35-6.
62. Ibid., ch. 8, p. 61.
63. Ibid., ch. 34, p. 380.
64. Ibid. ch. 46, p. 664. My underlining. It is to be noted that the distinction drawn here is, in part, between general and particular inferences, and here it is clear that, by 'general', Hobbes means something more akin to 'universal' or 'necessary'.
65. Ibid., p. 665.
66. El.L. App. II, p. 211. (Rerum naturalium tractatio a caeterarum scientiarum tractatione plurimum differt. In caeteris enim fundamenta sive principia prima demonstrandi alia neque requiruntur, neque admittuntur, quam definitiones vocabulorum, quibus excludatur Amphibologia. Eae primae veritates sunt, est enim definitio omnis, vera propositio; & prima; propterea quod definiendo, id est consentiendo circa vocabulorum usum, ipsi inter nos veram esse facimus. Siquidem enim nobis inter nos libuerit figuram hanc — Triangulum appellare, verum erit, figura illa — est Triangulum. Sed in explicatione Causarum naturalium, aliud genus principiorum necessario adhibendum est.) Tonnies, without saying why, suggests that this work was composed in 1637 (El.L. Pref., xiii). Brandt, on the basis of the theory of sensation presented in this work, dates in between 1641 and 1644 (Brandt, 1928, p. 98).
67. EW III, ch. 7, p. 52.
68. Ibid., p. 53.
69. El.L. App. II, p. 211. Cum enim quaestio instituta sit, de alicuius eventus sensibus manifesti (quod Phaenomenon appellari solet) causa efficiente, quae consistit plerumque in designatione seu descriptione alicuius motus, quem tale Phaenomenon necessario consequatur; cumque dissimilibus motibus produci Phaenomena similia non sit impossibile; potest fieri ut ex motu supposito, effectus recto demonstretur, ut tamen ipsa suppositio non sit vera. Amplius igitur a Physico non exigitur, quam ut quos supponit vel fingit motus, sint imaginabiles, et per eos concessos necessitas demonstretur Phaenomeni; et denique ut nihil inde falsi derivari possit.

70. EW III, ch. 46, p. 664. In the Latin edition of Leviathan (1668) this definition reads, "the knowledge acquired by right reasoning." (LW III, p. 490) From what I have written thus far, I think it is clear that it is only a slip that the adjective 'right' was not included in the English edition.
71. Possibly this interpretation is erroneous. In a letter to Newcastle, dated 29 July 1636, Hobbes writes, "In things that are not demonstrable, of which kind is the greatest part of natural philosophy as depending upon the motions of bodies so subtile as they are invisible, such as ayre and spirits, the most that can be attayned unto is to have such opinions as no certayne experience can confute, and from which can be deduced by lawful argumentation no absurdity, and such are you Lordships opinions in your letter of the 3rd of July." (Historical Manuscripts Commission, Portland Manuscripts. London, 1891, II, p. 128) The remarks made here in 1636 sound remarkably similar to those made in the later Latin optical treatise and might seem, therefore, to conflict directly with my suggestion that Hobbes did not take this view of natural science until sometime after El.L. (1640). However, there is a crucial difference between the passage quoted here and that quoted from the Latin manuscript. In the latter Hobbes speaks of natural science in general; in this early letter, however, he speaks only of the greatest part of natural philosophy. It might be, of course, that I am reading too much into this single phrase. But if my interpretation of his views on science as they are expressed in El.L. is correct (and I remain convinced that it is) then we are forced to say either that Hobbes had changed his opinion about the certainty of natural science when he wrote El.L. and then later, before writing the Latin optical treatise, changed it back again or that the conception of natural science expressed in the Latin optical treatise represents an extension of an earlier view, that is, that sometime after El.L. he extended the view, held at least as early as 1636, that a part of natural philosophy is uncertain, namely, that part which depends upon imperceptible motions and in which a beginning from principles evident from experience is, therefore, impossible, to include all of natural philosophy. While both these interpretations are possible, the latter, it seems to me, is the more plausible. At any rate, we are still justified, on either view, in saying that Hobbes' conception of science underwent a change sometime after the composition of El.L. On the other hand, we could say that while the distinction is not made in El.L. (which would justify my interpretation of that work) Hobbes nevertheless held that view. This interpretation is not refutable and has some substantial support from the letter quoted above. Thus, while still favoring my own interpretation, I am forced to admit that it is on the whole impossible to say which view of Hobbes' development is correct.
72. EW I, I, 3, 20.

73. EW I, I, 5, 1.
74. EW I, I, 5, 2.
75. LW I, I, 5, 2. omnis propositio vera est...in qua copulantur duo nomina ejusdem rei, falsa autem in qua nomina copulata diversarum rerum sunt.
76. The phrase is taken from S. Morris Engel (Engel, 1965, pp. 263-74). Although Engel has, I think, well understood the basis of the table, I do not agree with his assessment either of its purpose or its importance.
77. EW I, I, 5, 2. See also EW III, ch. 5, pp. 33-5.
78. Ibid.
79. Leibnitz, whose criticism of Hobbes' theory of truth we have already noted, seems to have interpreted this passage in very much the same way. Thus, he writes that, in De Corpore, part I, ch. 5, Hobbes "divides Named Things...into Bodies...Accidents, Phantasms, and Names, and names are thus either of Bodies, v.g., man, or of Accidents, v.g., all abstract [names], rationality, motion, or of Phantasms...or of Names..." (Die Philosophischen Schriften, ed., Gerhardt, IV, p. 46. My underlining.)
80. EW I, I, 3, 4.
81. EW I, I, 3, 3.
82. Ibid. The English translator has dropped a slightly repetitive earlier passage, although the sense of the passage is not significantly altered. Hobbes writes, "Concretum autem est quod rei alicujus quae existere ~~sc~~ponitur nomen est...Abstractum est, quod in re supposita existentem nominis concreti causam denotat." (LW I, I, 3, 3) In English: A concrete name is the name of some thing which is supposed to exist...An abstract name is that which denotes the cause of the concrete name in the thing supposed existent. The quoted passage, which is simply reiterative and serves, apparently, only to stress the point, follows a few lines later.
83. LW I, I, 3, 3. cum aliquid videamus, vel visibile aliquid animo concipiamus, apparet illa res, vel concipitur non in uno puncto, sed ut habent partes a partibus distantes, id est, ut extensa per spacium aliquod; quoniam igitur rem ita conceptam voluimus appellari corpus, causa ejus nominis est, esse eam rem extensam sive extensio vel corporeitas.
84. This fits in neatly with Hobbes' assertion that the copula is not a part of the predicate, and with his general anti-realism.

A realist, on the other hand, would, I should think, be inclined to take the view that the copula is a part of the predicate, thus giving to the predicate some being of its own.

85. EW I, I, 5, 9. Note, Hobbes is not saying that every kind of falsity is always to be discovered solely by the definitions of the copulated names. He is speaking here only of propositions which are analytically false or 'incoherent'.
86. EW I, I, 5, 10.
87. Ibid.
88. EW I, I, 5, 11. The term 'implicatione' is here simply transliterated and this may be confusing to the modern reader. Hobbes' point might be made clearer by translating it literally, 'in the interweaving'. See the following example and EW I, I, 3, 12.
89. Ibid.
90. For confirmation of this interpretation, see EW I, I, 4, 2, where Hobbes endeavors to prove, along the same lines, that a valid syllogism must contain two propositions with a 'common term' or that "in the premisses of a sylogism there can be but three terms."
91. Ibid.
92. EW I, I, 6, 4.
93. Neither does Hobbes admit the existence of accidents in a realist sense as Watkins suggests (1973, pp. 104-8). What sense Hobbes attaches to 'accident' and the sense in which an accident may be said, in his view, to be common to several or to all things, will be discussed in chapter 4.
95. Ibid. (Concludemus itaque methodum investigandi notiones rerum universales, esse pure analyticam.) My underlining. I think it important to stress the fact that Hobbes says notions of things. In his example, the resolution of a square, he speaks similarly, not of resolving or analyzing a square, but of resolving the conception or idea of a square (EW I, I, 6, 4) and the analysis is clearly into the definition of 'square'; yet Hobbes denies that the essence (or nature) of a thing is its definition; in fact, he says the claim that it is absurd (EW I, I, 5, 7; EW III, ch. 5, p. 34). It would seem to be improper, on his view, however, to say that the essence of our notion or conception of a thing, e.g., 'square', is its definition.
96. EW I, I, 6, 6.

97. EW I, I, 6, 2.
98. EW I, I, 6, 6.
99. Ibid.
100. See above, pp. 65-6.
101. EW I, I, 6, 8.
102. EW I, I, 6, 9.
103. LW I, I, 6, 9. Primo, dividetur materia universa in partes, utpote in objectum, medium, et ipsum sentiens, vel aliqua divisione quae ad rem propositam maxime videbitur accommodata; deinde sinulae partes excutiendae sunt secundum subjecti definitionem; ea autem, quae accidentis illius capacia non sunt, rejicienda sunt.
104. EW I, I, 6, 9. My underlining.
105. Ibid.
106. Ibid.
107. EW I, I, 6, 3. The bracketed word, 'propositae', is dropped in the English translation.
108. EW I, I, 6, 11.
109. EW I, 3, 9-10.
110. See EW I, I, 6, 2; I, 6, 5. The distinction between things more known to us and things more known to nature Hobbes interprets as a distinction between things known, respectively, by the senses and by reason.
111. EW I, I, 6, 13.
112. EW I, I, 6, 12.
113. EW I, I, 6, 10. My underlining.
114. Ibid. Here Hobbes would seem to be expounding not only a hypothetico-deductive model of science but also, at least an outline, a model for the method or the logic of discovery. As Hobbes sees it, the method, except for the initial selection of relevant accidents, would seem to be entirely deductive.
115. EW I, I, 6, 13. 7

116. See n. 4.
117. LW V, p. 156. Verum enim est illud Aristotelis, scire est per causam scire.
118. EW I, I, 1, 8; EW III, ch. 46, p. 665. This doctrine is explicitly introduced by Hobbes to exclude from philosophy such subjects as theology, but, given his conception of method, its ramifications are far more sweeping, so that it excludes as well all those effects whose properties we do not know or whose properties we cannot infer from their causes. Thus, not only is the doctrine of angels excluded from philosophy, but so too is the question of the size and duration of the universe. (EW I, IV, 26, 1)
119. In his argument to show that a syllogism can contain only three terms, Hobbes also offers an argument in support of this logical canon. The argument for the latter is essentially the same as that for the former point. See above pp. 66-8 and n. 90.
120. LW I, I, 6, 17. Ut omnis rationis series sit legitima...Ut singulorum syllogismorum praemissae prius demonstratae sint usque a definitionibus primis.
121. It is in this respect noteworthy that A.E. Taylor should have remarked of Hobbes that "It is a notable peculiarity of Hobbes' doctrine that, while he agrees with the ordinary empiricist that 'the first beginnings of knowledge are the phantasms of sense and imagination,' he almost entirely neglects the problem of inductive logic, how 'general eternal and immutable truths' can be deduced from those particular isolated phantasms." (Taylor, 1908, pp. 30-1) As is clear from the foregoing discussion of Hobbes' conception of right reason, Hobbes does not ignore, he rejects the problem. He rejects the problem because it is based upon a false premiss, that bare experience, our 'particular isolated phantasms,' can somehow be so connected that it may yield 'general eternal and immutable truths'. Experience concludeth nothing universally. All such knowledge, for Hobbes, is deductive and is made possible, as is clear from the context in which the phrase 'general eternal and immutable truth' occurs (EW III, ch. 46, pp. 664-5), not by induction from our "experience, in which consisteth prudence," but by our possession of language.
122. EW I, I, 6, 17. This statement would appear to exclude too much. Elsewhere Hobbes claims that metaphysics includes the making of first principles or definitions as well: "For the making of definitions, in whatsoever science they are to be used, is that which we call philosophia prima." (EW VII,

p. 222. See also Ibid., p. 226; EW III, ch. 46, p. 671).

123. Ibid. Here the translator inserts "or shewed" in the hiatus.
124. Ibid. "The motion or mutation of the invisible parts of things" (motum partium invisibilium, sive mutationem) might better be translated "The motion of invisible parts, or mutation." The bracketed phrase (animalium) is dropped in the translation.
125. Ibid.
126. EW II, p. xx. (See above, pp. 7-8); EW I, I, 6, 7; DH x, 5.
127. EW I, I, 6, 5. In light of this remark it is difficult to understand how Hobbes could have admitted the existence of universals that have no conceivable cause other than, perhaps, body. In EW I, I, 6, 13, if I interpret him correctly (the question is confused because Hobbes seems to have given his examples out of order), he lists "Body, or matter, quantity, or extension, motion, and whatsoever is common to all matter" as examples of names of universals which have no conceivable cause. Now, it would seem that, of the universals mentioned here, only body and extension, as a definitive characteristic of body, belong, for he says explicitly almost immediately after the passage cited above that motion can be conceived to be caused by motion. But, perhaps, by "things of which we can conceive no cause at all," he means to exclude such conceivable causes as motion as the cause of motion. In other words, it may be that he means that motion qua motion cannot be conceived to have a cause, although this or that particular motion may always be conceived to have been caused by some other particular motion. Motion qua motion, however, is not only a universal, it is also an abstract entity; and Hobbes takes a nominalistic position with respect to both. It may be, therefore, that "universals of which a cause cannot be conceived" should be taken as "universals which cannot be defined causally." Given Hobbes' remarks on our knowledge of universals in EW I, I, 6, 6 and I, 6, 13 (See above, pp. 37-8, 80-1), this interpretation seems both plausible and probable.
128. I am aware that here I am very much standing the traditional view, that it was Hobbes' view on method that shaped his philosophical views (See, for instance, Peters, 1956, pp. 44-6 and Watkins, 1973, ch. 4), on its head. I would suggest that Hobbes' fascination with geometry was subsequent to the development at least of his most basic philosophical views. Geometry provided him with a method which enabled him to deal with motion deductively. (See above, pp. 21, and p. 24, n. 62).

129. EW I, I, 6, 17.
130. EW I, I, 1, 10. 'aliunde'--in the English: "From other principles".
131. EW I, I, 6, 6.
132. EW I, I, 6, 14.
133. EW I, I, 6, 13.
134. EW I, I, 6, 6.
135. Ibid.
136. Ibid. The view that geometry is the study of simple motion is one which Hobbes' contemporaries found difficult either to accept or to understand. It follows directly, however, from two of Hobbes' most fundamental convictions--his acceptance of the traditional view that the highest and best form of knowledge (which for Hobbes is science) is causal (See above, p. 76) and his own conviction that the one universal cause is motion (See above, p. 69). Now, if geometry is a science, it must be causal, and, if the one universal cause is motion, then geometry must be concerned with motion. As Hobbes writes in a later work: "But why", you will ask, "is there a need to seek the demonstrations of purely geometrical theorems from motion?" I reply, first: all demonstrations, unless they be scientific, are defective; and unless they proceed from causes, they are not scientific. Secondly, unless the conclusions be demonstrated from the construction, that is, from the description of the figure, that is from the drawing of lines, they are defective. Now, all drawing of lines is motion: therefore, every demonstration is defective whose first principles are not contained in the definitions of the motions by which the figures are described. (LW IV, p. 421. "Sed quid", inquires, "opus est theorematum pure geometricorum demonstrationes a motu petere?" Respondeo primo: demonstrationes omnes, nisi scientificae sint, vitiosae sunt; et nisi a causis procedant, scientificae non sunt. Secundo, nisi conclusiones a constructione, id est, a descriptione figurarum, id est, a linearum ductione demonstrantur, vitiosae sunt. Jam omnis linearum ductione motus est: itaque vitiosa est omnis demonstratio, cujus principia prima non continentur in definitionibus motuum quibus figurae describuntur.
137. Ibid.
138. Ibid.
139. Ibid.
140. Ibid.

141. Ibid.
142. Ibid.
143. EW I, I, 6, 7.
144. Unless otherwise noted, the phrase 'moral philosophy' is to be understood in the modern sense.
145. Ibid. My underlining.
146. As I shall argue, what has made the interpretation of the systematic nature of Hobbes' philosophy so difficult is the fact that Hobbes argues in both ways. Thus, De Cive, taken by itself, presents the argument primarily in its analytical form, as does the moral argument from De Homine. It is only by reading the two works together that one gets the complete synthetic version. The latter version is also presented in Leviathan, minus the bulk of the metaphysics.
147. LW I, I, 6, 7. My underlining. *ii qui methodo synthetica a primis philosophiae principiis ad scientiam cupiditatum, perturbationumque animorum semel pervenerit, progrediendo eadem via incident in causas et necessitatem constituendarum civitatum, scientiamque acquirunt juris naturalis, officiorumque civilium, et in omni genere civitatis, quod juris ipsi debetur civitati, et caetera quae philosophiae civilis propria sunt, propterea quod principia politicae constant ex cognitione motuum animorum, cognitio autem motuum animorum, ex scientia sensuum et cogitationum.*
148. EW I, I, 6, 17.
149. EW I, I, 6, 12.
150. EW III, ch. 9, pp. 72-3.
151. Ibid.
152. Leviathan, originally published in 1651 in English, was translated with some revision, into Latin and published by Hobbes in 1668.
153. LW III, ch. 9, p. 66. *ut universaliora minus universalibus antecedant.*
154. Ibid., p. 67. *Ex contemplatione denique hominis et facultatum ejus oriuntur scientiae ethica...et tandem politica sive philosophia civilis.*

155. Ibid., p. 66. (Generalissimum autem subjectorum scientiae est corpus, cujus accidentia duo sunt, magnitudo et motus. Illud ergo, quod quaeritur primo a philosopho circa hoc subjectum, est, quid sit motus et quid magnitudo. Et philosophiae pars haec appellari solet philosophia prima.) A complete English translation of this would be, "But the most general of the subjects of science is body, of which there are two accidents, magnitude and motion. That, therefore, which is sought first by the philosopher about this subject, is, what be motion and what magnitude. And this part of philosophy is usually called first philosophy."
156. DH x, 4. The bracketed passage is my own translation of "Itaque scientia ea quidem, qua scimus propositum aliquod theorema esse verum, est cognitio a causis, sive a generatione subjecti per rectam ratiocinationem derivata." (LW II, x, 4) Except for this passage, I shall follow the translation given in DH.
157. Ibid.
158. DH x, 5.
159. Ibid.
160. DH x, 4.
161. DH x, 5.
162. Ibid.
163. Ibid.
164. Ibid.
165. Ibid.
166. Ibid.
167. EW I, I, 6, 7.
168. Ibid.
169. Ibid.
170. EW I, I, 1, 9.

PART TWO

METAPHYSICS

CHAPTER THREE

BODY, EXTENSION, AND THE EXTERNAL WORLD

In the preceding chapters, our goal, the systematic nature of Hobbes' philosophy, has been kept more or less constantly in mind. In the course of the two following chapters, however, we shall lose sight of that goal for awhile. We have thus far shown that Hobbes understood his own method to be deductive with a very definite order, beginning with first philosophy and culminating with moral and political philosophy. What we shall undertake here is the exposition of the first step in that methodical order, his metaphysics, and since, in the actual construction of his philosophy, it is his metaphysics which comes first and which, if I am correct in my belief that his philosophy was in fact constructed according to his conception of methodical order, is presupposed by his psychological and moral theories, the question of how and in what sense his metaphysics is related to the later parts of his philosophy is one which must be postponed until the metaphysics has itself been expounded. We shall return to the question, however, when, in the following part, we take

up the discussion of his psychological theory.

It is understandable that, after having devoted the entire first part of De Corpore to the discussion of method and related questions, Hobbes should spend little time in discussing his method when he comes in part two to begin the actual construction of his philosophy. In fact, in the whole of part two, "Philosophia Prima" or, as it is given in the English translation, "The First Grounds of Philosophy", Hobbes devotes only two paragraphs, little more than a page, to the question of method; yet these two paragraphs, short, succinct, and seeming, at first glance, to be only introductory, are of paramount importance for understanding Hobbes' approach to the whole of metaphysics. Indeed, if I am correct, it would be no exaggeration to say that, without an adequate and accurate understanding of these two introductory paragraphs, one cannot, or, at the very least, probably will not, understand either the purpose or the import of the whole of this part of Hobbes' system. But these two paragraphs, which serve to introduce and set the tone for the whole of Hobbes' first philosophy, have received remarkably little attention and their point has very seldom been taken. That, for instance, R.S. Peters, who quotes from these passages, has not taken their point is clear from this passage alone: Hobbes "seems to have assumed in a hardheaded way that things exist independently of our perception of them".¹ The same misunderstanding may be attributed to any commentator who thus asserts, either directly or indirectly, that Hobbes begs the question of the external world. This being so, it should be pardonable if I spend what would otherwise seem an inordinate amount

of time and effort in the analysis of this short and apparently unimportant passage.

In his prose autobiography Hobbes writes of his first insight into philosophical matters that, "Thinking often...about the causes of sense, by good fortune it came to mind that, if all bodily things and their parts should rest, the distinction of all things happening would be removed, and (by consequence) all sensation; and, for that reason, that The cause of all things is to be sought in the diversity of motions, and this principle he used first".² If this is the principle he used first, it is also in a sense the principle he used last. It was this principle, or something like it, which was from beginning to end the basis of Hobbes' philosophy. Yet there is in this inference something oddly close to a non-sequitur. Hobbes writes that, if there were no motion, the distinction of all things happening would be removed. This seems to be almost analytic, at least if 'motion' is construed in a broad sense, for, if there were no motion, that is, if there were no change, then it would seem to be true that there would be nothing happening at all. From this the conclusion would indeed seem to follow. It would follow, however, only in a very unenlightening, tautological way. But is this really the point of the passage? Is Hobbes' premiss here, his great discovery, no more than just the recognition of the (analytic) connection between the concepts of 'motion' or 'change' and 'happening'? Is his great discovery really no more fundamental than this? I think it is more fundamental--in fact, far more fundamental. The point of this argument is something far more sweeping than just its stated conclusion that the cause of

all things is to be sought in motion. This is a metaphysical conclusion. But the argument, if examined carefully, reveals a premiss, a premiss which Hobbes had perhaps not consciously employed at the time of his discovery, but which he was to employ consciously in all of his later works, concerning not just the nature of the world and its workings but the nature of our relation to it and our knowledge of it as well. For Hobbes does not say just that all happenings would be removed, as one would expect if his discovery were limited to just the recognition of the analytic relationship between 'motion' and 'happening'; he says, rather, that the distinction of all things happening would be removed. Hobbes' first philosophical question and his first philosophical discovery dealt directly, not with the nature of events, but with the nature of sense or of sensation. It was with regard to sensation, to "the phenomenon of apparition itself", that he first posed the question, 'What is it?' and his answer was, in brief, that it is motion. It was not that things happening, but that the distinction between things happening would be removed.³ But Hobbes did not pause there. He went on in one spectacular leap, the kind of leap made only by the best and the worst of philosophers, to infer that therefore the cause of all things is to be sought in the diversity of motions.

Now, how does one go from a premiss concerning the nature of sense to a conclusion concerning the nature of the entire universe? One does not, one cannot, except in virtue of some further premiss relating sensation to the world. Such a premiss, which in this argument is suppressed, may be of several forms. It could take the form,

for instance, of "Sensation mirrors the (external) world", the form of the premiss as it would be stated by the naive realist and an assumption which had been refuted decisively enough by Hobbes' immediate predecessors, the Copernicus's and the Galileo's, but which was to suffer still more at the hands of his successors, the Locke's and the Hume's. But such a premiss could take the form as well of the empiricist dictum that all our knowledge about the world is derived from sensation. Such a premiss is most certainly true, but, as Hume was later to show, it is most certainly not adequate. But we can put the premiss a different way, we can say, for instance, that our sensation, or our deductions from sensation, constitutes the world, or our knowledge of it.⁴ To put this differently: what we can understand to be true of sensation we can understand to be true of the world, but what we cannot understand to be true from our sensation, from our experience, we cannot understand to be true at all, and, hence, we cannot understand it to be true of the world. Now, it will not follow from this that what we deduce from our sensation about the world is true of the world, only that it is intelligible of the world, but it will follow that whatever we deduce from sensation which is unintelligible will be equally unintelligible of the world. If, however, something is unintelligible it cannot be known; we cannot be said to know what we cannot understand. Given such a premiss as this one can assert that, if it is unintelligible to deny that the cause of all sensation, that is, of all we can know, is motion, it is equally unintelligible to deny that the cause of all things is motion. Accordingly, the only permissible conclusion, the only intelligible assertion one can make is that the cause

of all things is motion. One cannot, of course, deduce that there is anything beyond sensation; what one can deduce is that, on the assumption that there is, the only intelligible claim one can make is that all such 'external' events are caused by motion. Nor can one deduce that all sensation is caused by some external motion; one could deduce this only if the assertion were intelligible and its denial unintelligible.⁵ Now there are no doubt many who would accuse Hobbes of having fallaciously attempted both these deductions and of having claimed both that there is an external world and that all our sensations are ultimately caused by events in the external world. This view, I say, is incorrect.

It is true, of course, that Hobbes assumed the existence of an external world, as we all do, and it is equally true that Hobbes attempted to explain all our sensations in terms ultimately of events in the external world. But it would be false to assert that Hobbes took either of these two assumptions to be certain. That there is an external world is, after all, an instance of absolute knowledge of fact, and "no discourse whatever can end in absolute knowledge of fact past or to come.....No man can know by discourse [i.e., by deduction], that this or that, is, has been, or will be".⁶ Scientific knowledge, on the other hand, is conditional and applied or natural science is not certain; it can tell us only what may be the cause of any given effect. If the effect in question is sensation, it can tell us only that such an effect could be caused by events in an external world. The hypothesis which such a scientific conclusion requires is that there is an external world, but it need not be the case that

this hypothesis be true; as far as natural philosophy is concerned, it may be false. What is required of the hypotheses of natural philosophy, that philosophy which is applied to the actual (external) world, is only that "they should be imaginable and that, by their having been conceded, the necessity of the Phenomenon [i.e., the appearance or sensation] may be demonstrated".⁷ For the purposes of natural philosophy, what is required is not that its premisses be true, but that they and the fundamental premiss that there is an external world should be imaginable or, as I have put it, intelligible. For his assumption that there is an external world and for his explanation of the various natural phenomena, "the appearances of things to sense", Hobbes claims no greater status than this, that it is an intelligible or imaginable assumption and that it is, given the fact that it fulfills the function of explaining the phenomena, a plausible assumption. That there is such an external world, however, is not an assumption which needs be made or which can be made, on Hobbes' view of metaphysics, at the metaphysical level. The primary role of first philosophy or metaphysics is that of setting fundamental definitions and of drawing their immediate consequences. Hence, it falls within the province of metaphysics only to define what is meant by 'external world'. It is not, however, the function of metaphysics, or, for that matter, of philosophy, to determine whether or not there is anything which fits the definition. It is, rather, the function of natural philosophy to employ the definition, on the assumption that there is, to see what can be got from it.

This may seem like rather a lot to be gathered from one short passage in Hobbes' autobiography, but my interpretation is not, of course,

based solely upon this one passage. It is supported as well by the whole discussion of his conception of method in the preceding chapter and by numerous other passages such as his introduction to part four of De Corpore on natural philosophy (which we shall discuss at the appropriate time) and chiefly, by the passage in question here, his introduction to part two. This interpretation will serve at least to make clear the otherwise not very perspicuous inference with which Hobbes begins part two. He writes, "We may best take the beginning of natural philosophy (as has been shown above) from privation, that is, from a feigned annihilation of the universe".⁸ From this universal annihilation he makes one exception, any man, and the question he poses is, "What would remain for any man... about which he could philosophize, or about which he could reason at all, or upon what thing could he impose some name for the sake of ratiocination?"⁹ His answer, in brief, is his phantasms, his sensations, his ideas, or his conceptions. It is these about which a man would reason and philosophize and to which he would give names in order to reason.

Now, Hobbes' point here is something much more fundamental than just that, supposing the world to be annihilated, a man could still think about those of his phantasms which he had before the supposed annihilation. The point is made clearer if we turn to his notes for De Corpore; there, in what would be the corresponding passage, we read "Phantasms are accidents of the imagination of things appearing without (even though they be not there)".¹⁰ Hobbes' point is made somewhat clearer if we consider that in the passage

first quoted above, he makes a reference to some earlier part of De Corpore. It is not altogether clear, however, just what passage or passages he is referring to. The passage quoted from his notes, however, ends with a reference to chapter six, the discussion of method. Now, the reader will recall from the last chapter that Hobbes discusses the method to be followed when it is not known what the subject of a given accident is; the universe must be divided into parts one of which is the sentient itself, to determine whether the accident in question is of the sentient or of something else. Thus, by beginning his discussion of metaphysics with a division of the universe into a single sentient being and everything else and by supposing the everything else to be annihilated, what Hobbes shows, in effect, is that all of the things about which a man reasons are accidents of himself. They are not, or need not be, accidents of anything really existing in the (external) world. The passage quoted from the notes makes this clear; our phantasms are of things appearing without, even though they be not there. The point is made yet clearer from the passage immediately following in the notes: "Things having been destroyed; a man...would impose names on these phantasms, etc. Indeed truly not even with the things remaining do we compute anything other than our phantasms".¹¹ The point, at least from these early notes, would seem to be clear; as far as the ability to philosophize or to reason is concerned, the actual existence of anything corresponding to, causing, or in any other way related to the ideas or phantasms in terms of which we reason is irrelevant. It is our phantasms and not the things of which they are phantasms with which

we reason and compute, and they are phantasms of things which appear to be without, even though they be not there. This, I think, is Hobbes' point in the introductory article to part two of De Corpore. That this is the correct interpretation should be clear from a comparison of this text with the earlier notes.

Hobbes goes on in De Corpore to say that all the things which would remain for a man to reason about after the supposed destruction of the universe, "though they be nothing but ideas and phantasms, happening internally to him that imagineth; yet they will appear as if they were external, and not at all depending upon any power of the mind",¹² and he goes on in what is certainly one of the most well written passages in De Corpore (and whose philosophical significance may, for that reason alone, be most easily overlooked) to say,

Nay, if we do but observe diligently what it is we do when we consider and reason, we shall find, that though all things be still remaining in the world, yet we compute nothing but our own phantasms. For when we calculate the magnitude and motion of heaven or earth, we do not ascend into heaven that we may divide it into parts, or measure the motion thereof, but we do it sitting still in our closets or in the dark.¹³

Hobbes is not concerned in this passage merely to give a recipe or a justification for arm-chair philosophy. He is concerned to make a point, and a very important point, about metaphysics and the nature of philosophy in general. So long as we have ideas on which we can impose general names, we can reason and philosophize, and whether there is nothing of which our ideas are ideas (the universe having been annihilated) or whether there is (if all things be still remaining) will make no difference to the course and to the truth of our ratiocination.

This is hardly the sort of thing one would expect to hear from someone who just hardheadedly assumed "that things exist independently of our perceptions of them". At the very least, we must admit that if Hobbes anywhere makes such a hardheaded assumption, he has not made it here. But neither has he assumed the contrary. That there is not an external world is just as sticky a proposition as that there is. There is but one reasonable course, which begs no questions, for any empiricist to take on this issue, the course which Hobbes in fact takes, that of committing oneself in neither way. One must admit that things appear to us to be without and independent of our minds, yet one must admit as well that this appearance of externality may be just that, an appearance. One cannot know either way, that there is or that there is not, in fact, anything corresponding to this appearance. Accordingly, in philosophy, which, if it is to be well grounded, must be based upon certain truth, one cannot begin by considering the appearances as if they were in fact appearances of anything, by making the possibly false assumption, in other words, that there is an external world. Rather, one must begin by considering the appearances just as they appear, as they are known to be, not as appearances of things which actually exist externally, but as appearances which would seem to be of something external. Accordingly, Hobbes concludes his introductory remarks with the observation that,

things may be considered, that is, be brought into account either as internal accidents of our mind... or as species of external things, not as really existing, but appearing only to exist, or to have a being without us. And in this manner we are now to consider them.¹⁴

The assertion here is both clear and emphatic enough that it is a wonder how anybody could ever have taken Hobbes to have had any other view. (A wonder which may be dispelled if we consider that for most people it is Leviathan, not a systematic work, that serves as the basis for the interpretation of Hobbes' philosophical system.) Hobbes is here asserting clearly that things are not to be considered as actually existing, but only as appearing to exist externally. Whether we suppose them to exist actually or not, our thoughts remain the same, and our ratiocination will, accordingly, be unaffected. Those truths that we know and those truths that we can know will remain unaffected, for they are all of them dependent not upon things, but upon our thoughts of things. To put it in terms of the earlier discussion, what is true is, at the very least, what is intelligible, what can be understood. There is, then, no truth of things that is not a truth of our thoughts of things and, accordingly, truth, or at least that truth which can be known and ascertained, the sort of truth which is of concern to philosophy and to reason, has nothing to do with the external world or with things as such. It is dependent solely upon our thoughts of things.¹⁵

Those who accuse Hobbes of having begged the question of the external world usually accuse him of a kind of philosophical naivete as well. He is assumed either not to have been aware of the problem at all or to have so underestimated its importance that he thought he could safely ignore it.¹⁶ Now, it is, or at least should be clear from the foregoing discussion that Hobbes was aware of the problem and that he was aware of how to deal with it. Still this interpretation

of Hobbes views on the external world, however well grounded it might be in the text, is unlikely to be accepted unless some plausible explanation can be given for the fact that so many of Hobbes' commentators have taken the contrary position. To this question there is, I think, a simple and very plausible answer. The reason, or at least the major reason, is the fact that most commentators, as has already been suggested, have taken Leviathan as their starting point and, since Leviathan has been regarded both by his contemporaries and by most modern scholars as well as his philosophical magnum opus, as the basis for their interpretation of Hobbes' thought in general. Thus, F.S. McNeilly writes,

How is it possible to infer from the occurrence of images to the existence of external physical objects? How can we know that there are ever any objects corresponding to but distinct from images? Descartes and subsequent philosophers were much concerned with such questions...Hobbes, however, simply ignores them.

Of course, the answers to McNeilly's two questions are, respectively, we do not know and we cannot know. They are questions about matters of fact requiring absolute knowledge and, hence, not a subject of philosophic, i.e., discursive knowledge. All the philosopher can do with such questions is propose hypotheses or make assumptions from which the effects, the images, may be deduced. He cannot demonstrate, however, that his hypotheses are true. But McNeilly goes on to explain his last assertion,

Chapters I and II of Leviathan represent not so much the weakest part of Hobbes' philosophy as an area within which he had no philosophy at all. He has no philosophy of perception, but is content to make a number of dogmatic assumptions.¹⁷

This interpretation of Hobbes' views on the external world is here explicitly based on a reading solely of Leviathan. Leviathan, however, is avowedly not a completely systematic work. As Hobbes notes almost at the very outset,

To know the natural causes of sense is not very necessary to the business now in hand; and I have elsewhere written of the same at large. Nevertheless, to fill each part of my present method, I will briefly deliver the same in this place.¹⁸

It is not Hobbes' purpose in this work to develop or to defend his theory of perception in detail. His purpose, rather, was to provide only a resume of a theory already developed and expounded elsewhere in greater detail.¹⁹ It is, therefore, understandable that this part of this work should appear to consist of nothing more than just a series of dogmatic assertions. Leviathan begins almost where De Corpore ends, with the discussion of sensation and its causes. What is lacking in the method of Leviathan is the bulk of part one and all of parts two and three of De Corpore. It is these parts of De Corpore, however, which provide whatever justification may be given for the assumption made in part four of the existence of an external world. No such justification is given in Leviathan, however, nor is it needed, for Leviathan is not at all a work in metaphysics, nor is it much concerned with natural philosophy. Its primary concern is with the commonwealth, its nature and function, and with religion. To draw the conclusions he wishes to draw concerning the commonwealth, it is necessary, according to Hobbes' method, only that he lay the necessary psychological groundwork, it is not necessary that he provide as well the metaphysical foundation for that particular psychological theory.

In short, the existence of the external world and its relation to sense is simply assumed here because, given the scope and purpose of the work, it need not be justified. In the one published work in which Hobbes treats systematically the relations between epistemology, metaphysics, and natural philosophy, where such an unfounded dogmatic assumption would not be permissible, as I have argued above, it is not made.

Having thus laid the groundwork by his observations that our phantasms are the objects of our thought and that they are the appearances of things as existing externally, Hobbes takes up his metaphysics proper. It should be recalled, however, that the business of metaphysics is primarily that of defining our most universal terms. And in metaphysics the first definitions to be settled are those of place and time. That place is to be considered first is understandable since it enters into the definitions of 'body' and 'motion'. Time, however, would seem to be methodologically out of order since it is defined in terms of motion. In all probability Hobbes took this order of exposition not for methodological, but for practical reasons. Many of the characteristics of place or space and related notions apply equally to time. To consider the two together would thus allow for a more compact and clearer exposition. In the discussion here of Hobbes' conceptions of space and time as well as in the discussion of his views in other areas of metaphysics I shall attempt, so far as ease and clarity of exposition permit, to follow Hobbes' own order and shall, accordingly, consider the notions of space and time together.

At the conclusion of article one, Hobbes divides all our ideas

or phantasms (in effect, all phenomena) into two classes, according to whether they are considered as internal or external. No doubt there are many variations within each of these classes, but this distinction between our phantasms is the most universal and is accordingly to be considered first, before we consider the variations or kinds of variations between our ideas. It is this most universal distinction between our ideas which provides the basis for Hobbes' definition of space. "Space," he writes, "is the phantasm of a thing existing without the mind simply."²⁰ In other words, when we consider things without regard to their individual variations but only as appearing to exist externally, the conception we have is that of space. Space is thus the appearance of externality and it is "an imaginary space indeed, because a mere phantasm".²¹ The importance to be attached to this conception of space as imaginary cannot, or at least should not, be underestimated. Space is the most universal of universals. It enters into the definitions alike of body and motion and, hence, of time and causality, and it follows, I think logically, on any analytic conception of philosophy or ratiocination, that if the status of the most fundamental concept is by definition only imaginary, all concepts given directly in terms of, or deduced from that fundamental definition must, to the extent to which they depend upon that fundamental definition, carry the same status. They too must, to some extent at least, be taken to be imaginary. From this consequence, it seems to me, given Hobbes' conception of philosophy and science as analytic, that is as consisting essentially of deductions from definitions, there is no escape. This is why it is

so important to establish at the outset of our metaphysical inquiries the epistemological status of the external world. The definition of space as imaginary is entirely consistent with the assumption that there is no actual external world, as it is too with the neutral empiricist position that we do not know directly and with certainty anything other than our phantasms or thoughts and, hence, that we do not know directly and with certainty that there is or that there is not an external world, or, a fortiori, that there is such a thing as (real) externality, full or empty. I would suggest that the fact that Hobbes begins his discussion of first philosophy by taking a neutral position on our knowledge of the external world and by reaffirming the empiricist thesis that, whatever the status of the external world, we know directly and with certainty only our own thoughts and derive all our knowledge from these is not at all fortuitous. A consistent empiricist cannot make both the claim that this is so and the claim that space, as it is intelligible, as it may be known clearly and distinctly, is something real, independent of, and outside the realm of thought. Here again, because it shows the consistent unity of Hobbes' thought, it is well to recall his views on names. Names are imposed directly, not on things, but on our conceptions of things, and we impose different names on different things, not because the things have different properties—that would be to assume that we have direct access to the things and their properties and, hence, to beg the question of the external world—but because we have different conceptions of them.²² In the case of space, that conception in virtue of which we impose the name is the conception

of a thing's appearing externally simpliciter, in other words, without reference to or without consideration of any other of its properties "but only that it appears without us".

I have argued here that, at least methodologically, Hobbes does not beg the question of the external world; he takes, as properly he should at the outset of his inquiry, a neutral position, and I have shown that, consistently with this (empiricist) position, Hobbes defines space as imaginary. I have argued as well, in the preceding chapter, that for Hobbes philosophy is essentially analytic and deductive and that, accordingly, the business of first philosophy is to determine the definitions of universal terms. Yet it will not do for Hobbes or any other philosopher, as metaphysicist, simply to stipulate his basic definitions. Such a procedure would be fine if philosophy were just a formal science, but it is not. While we can use the terms 'science' and 'philosophy' interchangeably in the discussion of Hobbes' conception of method, as I have done, we cannot so use them when they are applied. 'Science' is, in a sense, a much broader term for Hobbes than is 'philosophy'. Science, as has been pointed out, may be purely formal; it may be purely a priori or analytic, in which case, no knowledge of the subject matter is required. But Hobbes, if he were content so to proceed in philosophy, could hardly be called a philosopher, certainly not as that term has been traditionally used, any more than could a logician (or, perhaps more clearly, a mathematician) who was content merely to invent and work out in their details various logical systems (as the mathematician who tinkers with Euclid's axioms just to see the consequences is not

thereby a physicist). Philosophy, as it is distinct from formal science, is not just a knowledge of the consequences of words. It is, as Hobbes puts it most succinctly in one of his later works, "the knowledge of natural causes".²³ Now, these causes are known, if at all, by the hypothetico-deductive method, and the starting point is with effects, that is, with the phenomena or with the appearances of things to sense. Thus, we have in philosophy something given from which we begin, and it is to these ultimate givens, the phenomena, that our definitions or principles must conform. It is not enough to stipulate a definition of 'space'; one must show as well that the definition conforms to the phenomena, that is, to our phantasms. One must, in other words, offer some argument to show that the definitions are correct. The business of metaphysics is not just that of settling the definitions of universal terms, but that of determining correct definitions.²⁴

Now, Hobbes' argument in De Corpore to show that the definition of space as imaginary is correct is much too concise to be perspicuous. His argument here is only this,

For no man calls it space for being already filled, but because it may be filled; nor does any man think bodies carry their places away with them, but that the same space contains sometimes one, sometimes another body; which could not be if space should always accompany the body which is once in it.²⁵

What this argument would seem to show, if anything, is only that space is not identical with the body which fills it but not that space is, therefore, imaginary. The argument is given at somewhat greater length in the earlier Critique, however, and is worth quoting at length here.

It is manifest that any visible object, by its action on the visual organs effects a certain image or phantasm of itself, as it is thought, for example, that the sun acting on the eye makes us see a splendid circle, which we think is in the sun, and which, if we look directly into the sun, appears in the sky; but if by reflection from the water, it appears beneath the water, because the image always appears in that right line of which one end is in the eye, so that it almost never appears in the place where the object itself is. For example, in reflected and refracted vision the object and the image are in diverse right lines, also in direct vision, the sun and stars and all far away objects, although they are in the same right line as the eye, yet they are much more remote from the eye than their image, that is, they are more remote than they appear. Now, images of this kind consist of color and figure; figure, however, is finite space. Since, therefore, the image itself is not there where the object is, neither also is the figure of which it consists there where the object is; the apparent space therefore of the sun, or of any other object, is not inherent in the object itself, but is merely imaginary. For in what manner could the circle of the sun, appearing so small and so near, be a quantity inherent in and exactly equal to an object so remote and so great as is the solar body? Besides, the objects seen pass and carry their dimensions away with them, yet their images, that is, the figures or spaces with which they appear, remain in the mind; for otherwise, were the images of absent things not retained, neither would there exist at all any memory or dreams of things. As however, it is given to have remembered the figure of a man not long deceased, so also, if the whole world, one man having been excepted, were annihilated, nothing impedes that that man would have the image of the world once seen... Imaginary space, therefore, is nothing other than the image, or phantasm of body. I say of body simply, for the image of a white body is not space as such, but space whitening (spatium albescens), or we may say space is the image of body insofar as it is of body: white space, the image of a white body, insofar as it is white... It is manifest from this that the existence of space does not depend upon the existence of body but upon the existence of the imaginative faculty, for if in a given space there be air, that space does not pass with the passing air, but remains the same and can be replaced either with water or with another body or with nothing; in the same way, in a deserted world, not deserted only by one, an unmoved space would yet exist.²⁶

Hobbes' argument here is clear enough, I think, that it may speak for itself. It is worth pointing out, however, that, in anticipation of Berkeleyan objections, Hobbes gives to visible figure or extension the same imaginary status that he gives to color.

As he defined space as a phantasm and, hence, as imaginary, so too Hobbes defined 'time' as "the phantasm of before and after in motion".²⁷ The argument given here for defining time as a phantasm and, hence, as imaginary has affinities with the argument given for the definition of space as imaginary. Yet it is intuitively stronger. He argues, "seeing all men confess a year to be time, and yet do not think a year to be the accident or affection of any body, they must needs confess it to be, not in the things without us, but only in the thought of the mind".²⁸ But, a fortiori, both the past and future are recognized as (parts of) time, but neither exists, except to the extent that past times exist as "the memory of those that remember them,"²⁹ and the future as conjecture from the "knitting together" of past and present.³⁰ "Time therefore is a phantasm,"³¹ but more precisely, it is, "a phantasm of motion, for if we would know by what moments time passes away, we make use of some motion or other... or we mark some line upon which we imagine something to be moved, there being no other means by which we can take notice of any time at all."³² The passage underlined, construed as a premiss, might seem to be question begging. Hobbes would seem here to be squarely facing the problem so well put by Augustine: What then is time? If no one asks me, I know; if I should wish to explain it to someone asking, I know not.³³ But Hobbes has what is, in effect, a way

around the problem. Time is one of those universals of which no generation can be conceived. It is one of those most simple universals which cannot be defined. Accordingly, the definition must and can only be such as "best explicates the force of the name," and the force of the name is that conception of which the word 'time' is a mark or a sign. Now, both the reason for, and the way around Augustine's problem is clear. Although the conception is unanalyzable and the name, strictly speaking, undefinable, given that we use the word 'time' in very much the same way for the conception of the same thing, we can, from an analysis of how and when the term is used, determine what are the conditions governing its use. One of those conditions is the perception of change or, in Hobbes' terms, of motion. Where there is no perceived motion, we say there is no time. In fact, if we look closely, we find that it is inconsistent to say, where there is no change at all, that there is time. Hence, we can say that it is only by the perception of change (or motion) that "we can take notice of any time at all" and that time is, therefore, the phantasm of motion. The whole argument (although I have here elaborated upon the version given by Hobbes) is extremely reminiscent of that given by Aristotle, as is the definition of time itself, and, as we shall see, Hobbes is not at all reluctant to acknowledge his debt. The definition of time as the phantasm of motion is not, however, complete, for 'time' "comprehends the notions of former and latter".³⁴ That this is so is not really a matter for argument, any more than is the fact that we can take notice of time only by the perception of change (this fact is not so much argued

for as it is simply pointed out); it is a matter of how the word is used. It is a part of what we mean by 'time'. Now, there is here the possibility of defining 'time' circularly. The notions of former and latter, before and after, are themselves defined or understood by reference to time, but the question is whether they need to be so defined, and Hobbes' answer is a resounding 'No'. To complete the last quotation, "time comprehends the notions of former and latter, as of succession in the motion of a body, inasmuch as it is first here then there". The notions of former and latter, before and after, are understood, not with respect to time, but with respect to here and there in motion. Of course, there is an objection here which Hobbes does not note but which he has provided the basis for answering. It could be argued that, while the notions of here and there in motion may give us (or constitute) the notion of succession or order, without some established temporal framework they cannot give us the notion of direction, i.e., of first here then there, or of before and after. Let an object move through the points ABC, then we have the succession ABC. But should it be read ABC or should it, rather, be read CBA? Now, the answer to this objection is straightforward. Let B be the present. Then, if A is remembered, A is first. The next question of course is how we are able to distinguish memories from (present) sensations and (future) conjectures or expectations, but since this question can, at least in principle, be answered by an appeal to the different characters of these three categories of experience without reference to time, neither is this objection serious. Hence, time, it would seem is correctly defined

as the phantasm of before and after in motion. Having thus given the definition, Hobbes notes its affinity with Aristotle's definition, "Time is the number of motion according to former and latter",³⁵ offering at the same time an interpretation (which I think is correct) of a controversial point in Aristotle, namely, whether or not, for Aristotle, time presupposes the existence of a (remembering) soul, or, put another way, whether time is anything more than just a phantasm.³⁶ Hobbes quite obviously thinks that it does presuppose a soul, "for that numbering is an act of the mind; and therefore it is all one to say, time is the number of motion according to former and latter; and time is a phantasm of motion numbered".³⁷

Thus, for Hobbes, both space and time are defined as phantasms and are, hence, in that sense, imaginary. There are, however, several notions related closely to those of space and time, such as those of 'part', 'division', 'finite', and 'infinite', which Hobbes proceeds to discuss. I shall discuss them only briefly here. However, it would be well first to recall the earlier observation that if the fundamental universals are defined as imaginary, then those universals which they serve to define should, to that extent, carry the same status.

What Hobbes takes up first is the notion of a part. The definition is short and straightforward, "One space is called part of another space and one time part of another time, when this contains that and something besides".³⁸ A space or a time is not, in other words, a part of itself; it is always a part of something greater than it. While this may seem to be straightforward enough, the conclusion may not, for Hobbes takes it to be a consequence "that nothing can

rightly be called a PART, but that which is compared with something that contains it".³⁹ Comparison, however, is not a relation holding between the parts of things; it is a mental act and it would seem, thus, that a part of space has the same status as that space of which it is a part. It is imaginary.

From this definition of a part of space or time as a comparison of or between diverse spaces or times, Hobbes draws the inference that to "DIVIDE space or time, is nothing else but to consider one and another within the same".⁴⁰ Now, by 'division' Hobbes does not here mean the separating of one time or space from another. Space and time are imaginary so that their division is (can be) "nothing but diversity of consideration, so that division is not the work of the hands, but of the mind".⁴¹ It must be noted that Hobbes is, at this point, referring only to the division of space and time, not of bodies; such division, the work of the mind or of the imagination upon a mental or imaginary entity, results in only imaginary parts.

Each of those parts, that is, a space or a time considered among other spaces or times, is one.⁴² Unity it would thus seem has the same status as space and a part of space. It too is the result of a mental act, that of comparing one thing with another, and one is thus always "one of them".⁴³ Hobbes' argument for this view is entirely consistent with his view that space and time are imaginary and that all we compute are our phantasms; it would be "superfluous to say one space or one time, if it could not be conceived that there were another," and "it would be sufficient to say space or time simply".⁴⁴ We do not, to take an example, say 'one universe', but

simply 'the universe'. Since the universe, by definition, is every-
 thing that is, there cannot be two, and to say 'one universe' is,
 hence, superfluous. But while it would be superfluous to say 'one
 universe', it would not be just superfluous but incorrect to say
 'the whole universe', unless by 'universe' we understand something
 consisting of parts. That this is so on Hobbes' view is a conclusion
 to be drawn from the way the word 'whole' is used. "That which is...
 put for all the severals of which it consists, is called the WHOLE;
 and those severals, when by the division of the whole they come again
 to be considered singly, are parts thereof; and therefore the whole
 and all the parts taken together are the same thing."⁴⁵ Now, it is
 interesting to note the relation that thus develops between a thing
 taken simply, a thing taken as a whole, and a thing taken as one. To
 take a thing simply, as neither one nor as a whole, is to consider
 it by itself, undivided and without relation to other things. To
 take it as a whole, however, is to consider it as consisting of
 parts which, taken together, constitute the thing or the whole,
 while to take it as one is to consider it as undivided and with
 respect to other things. Thus, to take an example, on a Spinozistic
 view, it would be incorrect to refer to the universe as one; one
 could say God or Nature or simply the universe, but, understanding
 that the existence of God or Nature precludes the existence of another,
 one could not, understanding one's terms, say one God or one Nature.
 The 'one' in such a case adds nothing to what is signified by the
 words 'God' or 'Nature' or, if it does, the whole locution becomes
 inconsistent, like 'a round square', since to understand it we should

have to understand God as being 'one of them' when the conception of God precludes the possibility of conceiving another. Neither could one say 'the whole substance' so long as substance is considered simply, that is, as simple and undivided. If, however, substance were considered under its various attributes, then, taking attributes as parts, one could properly say 'the whole substance'. Such a locution, however, would necessarily mean (something like) the sum or total of all attributes. This example, drawn from Spinoza, is, I think, enlightening, but at the risk of being misleading; for substance is something real. Hobbes, however, is not concerned here to discuss substance, but space and time, both of which are, for him, imaginary. Now, if these are both imaginary and the division of space and time into parts is an act of the mind resulting in entities with the same status, phantasms which are parts of phantasms or, put differently, imaginary spaces or times, it seems clearly to follow that the compounding or addition of these, imaginary spaces or parts to produce a whole is likewise an act of the mind; the composition of space or time is, in other words, a matter only of collecting those several imaginary parts "into one sum in the mind".⁴⁶

From this definition Hobbes takes it to be "manifest, that nothing can rightly be called a whole that is not conceived to be compounded of parts, and that it may be divided into parts".⁴⁷ I have here placed the emphasis on 'conceived' (intelligatur); a better translation, however, might be 'understood' or, given the context, 'considered'. The notions of 'part', and 'whole' are imaginary and the act by which parts and wholes come about is a mental act. In

other words, that things (if things there be) are wholes and have parts is an 'accident' not of the things, but of the mind; it is a consequence of our way of conceiving or considering them, and unless we conceive or consider them to consist of parts, they are not wholes. They are, to put it simply, what they are. This is clear from Hobbes' second inference, "That nothing has parts till it be divided; and when a thing is divided, the parts are only so many as the division makes them".⁴⁸ Division is an act of the mind; parts are the consequence of such an act. There are, in other words, no parts not produced by such an act, and, consequently, where we stop dividing there the number of parts comes to an end. This is perhaps clearer from Hobbes' definition of 'number', which follows his definition of 'one'. "NUMBER is one and one, or one one and one."⁴⁹ But 'one' is a consequence of how things are considered; i.e., a thing is one if it is considered as "one of them". Now, we may consider this as against that and call this 'one', but we could also consider that as against this and call that 'one'. In each case we have 'one'. Considering these two ways of considering the things together, however, we have one and one. Now, we have different names for these diverse ways of considering things; thus, one is 'one', one and one is 'two', one and one and one is 'three', and so on. Thus even number turns out, on Hobbes' view, to be imaginary. This is something at which most are likely to balk, since most of us are, at least in this respect, realists. But take an example. The number of dots here ... is three. It is one and one and one. Or is it? Is it not a matter of how we consider them? For instance, the same dots could be bracketed (i.e.,

considered) so: (..) ., in which case we have one and one or two. Now, if we consider the dots as a whole, we could say that in the former case the number of the parts is three, and in the latter, two, because we have so divided the parts. The number of the parts depends upon our division and are "only so many as the division makes them".

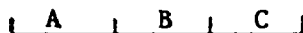
Thus equipped with the definitions of 'part', 'whole', 'division', etc., it is possible to return to the discussion of space and time to consider spatial and temporal relations. What is of most interest in this discussion is the definition of 'beginning' and of 'end'. Any part of space or of time which is not between two other parts is called an 'extreme', "and of extremes, that which is first reckoned is the BEGINNING, and that which last, the END".⁵⁰ But if 'beginning' and 'end' are so defined, it follows "that beginning and end depend upon the order in which we number them".⁵¹ Thus, that this is the beginning of this space or time is, again, a consequence of an act of the mind. But, furthermore, since an extreme is defined as a part, which is imaginary, it follows that the extremes of a space or of a time, its limits or termini, are also imaginary; hence, "to terminate or limit space or time, is the same thing with imagining their beginning and end".⁵² Imaginary space has, in other words, imaginary bounds. But it is not necessary that, when we imagine or conceive a space, we consider also its bounds; it is not necessary that we consider it as having a beginning or an end. That space which is unlimited, however, is infinite (or better, that space which is not considered as bounded, is considered as infinite); hence, "everything

is FINITE or INFINITE, according as we imagine or not imagine it limited or terminated every way".⁵³ The ramifications of this definition are important, but to understand them it is necessary to note first Hobbes' remarks on infinite number. The extremes of anything are parts and are considered as single, as unities, but number is unities (e.g., one and one, one and one and one, etc.), and the extremes of number are, therefore, unities. Thus, to conceive a number which is unlimited, that is, which is without extremes, is not to conceive a number at all; in other words, all those numbers which are conceived as finite or limited are conceived as consisting of a definite, countable number of parts, e.g., one, three, a thousand. But to conceive a number of parts as unlimited is to conceive it without limiting extremes or unities; hence, "When we say a number is infinite, we mean only that no number is expressed".⁵⁴ But the same argument would apply, in even stronger form, to the conception of an infinite number, for to conceive an infinite number would be, in a sense, to express and not to express a number at the same time. But the same would be true also of our conceptions of space and time. To conceive a space or a time is to conceive it as finite, as determinate. Otherwise, we could be said, in a sense, not to have conceived a space at all, and, space and time being the most universal of universals, this will apply to any thing we imagine or conceive. In other words, "whatsoever we imagine is eo ipso finite".⁵⁵ Thus, Hobbes is able to conclude, "when we make question whether the world be finite or infinite, we have nothing in our mind answering to the name world".⁵⁶ The question, as it is put is, therefore, not only unanswerable, but

unintelligible. But suppose there were an infinite space or time. Then, from the definitions given earlier, it follows that such a space or time could be called neither one nor whole. A whole is, by definition, the sum of its parts, but the parts are as many as we make them by division of the whole and we cannot make them infinite. Thus, "seeing parts, how many soever they be, are severally finite, they will also, when they are put together, make a whole finite".⁵⁷ The infinite is, thus, "not compounded of parts" and cannot, therefore, be a whole. Nor can it be one, since, if it is infinite, it is unbounded, but if it is unbounded or unlimited in every way, "it cannot be conceived that there are two spaces, or two times, infinite...but nothing can be said to be one, except there be another to compare it with".⁵⁸

This might be taken to preclude the possibility of the infinite divisibility of space and time. But it does not. In fact, it serves as the basis of an argument for it. To say that a space is infinitely divisible is not to say that it is infinite and, thus, not a whole and not consisting of parts. It is to say, rather, that that which has been divided may always be, again, divided. The number of parts is as many as we make them, but there cannot be an eternal division and, hence, there cannot be an infinite number of parts. Any completed division results in a finite number of parts. Hobbes offers an argument to show, however, that any one of those parts may again be divided. Conceive a space divided into two equal parts A and B. The question now is are either of these parts so small that they cannot be themselves bisected. Let there be contiguous

to B another space C equal to B. Now, the whole line



ABC can be divided into two equal parts. (That it can follows from the fact that it is greater than AB and half of it, therefore, greater than half AB, and, by hypothesis, it is possible to divide a line into parts as small as half AB.) But then, the line B will have been bisected and is, therefore, divisible.⁵⁹

Now, here it would seem that Hobbes has switched gears and that he could legitimately be refuted by an appeal to an argument such as Berkeley's or Hume's. He is after all talking about imaginary space. But there is, as is manifest from experience, a space smaller than which I cannot imagine or conceive. Division, however, is an act of the mind which consists in comparing one part with another. Now, if B is that space smaller than which I cannot conceive, since any part of B must be smaller than B, it follows that it is inconceivable and, hence, incomparable. Thus, B cannot be divided. To this there is no better reply than Hobbes' own.

There are those who do not understand division except as a separation and loosening of the continuous, so that a knife, a sword, or some instrument of this kind is necessary to the nature of division...as if half a marble column (unless it were shattered) were not a part of it, or could not be a part of it without division. Or as if a quantum, than which a lesser can always be given, were not always divisible into divisibles, because, on account of the thinness of the cleavage, a part cannot be continually separated from a part. There are also those who, although they do not think it necessary to division that that which is to be divided be broken, think nevertheless that it is necessary for its parts to be conceived by the mind, that is, that we should imagine the least⁶⁰ part of it, but if it were

true, it would be impossible for a quantum always to be divided into divisibles, since by perpetual division there will be reached at last a quantum so small that there can be no image of it, for we cannot imagine a quantity smaller than which can be seen, for there cannot be an image except of a visible thing. Besides, time, whose parts cannot be separated alternately from themselves nor be conceived under the imagination, can nevertheless be divided. It is not necessary to division, therefore, that the thing to be divided should be broken, nor also that it should be observed or conceived by the mind; it is enough for it to be known then by right ratiocination that in every quantum there is contained a lesser quantum, as a half, a 3rd, a 4th, etc., that we may consider them by their names and appellations, that is, that we may bring them into account.⁶¹

That this would have been Hobbes' answer should have been clear even without this passage from the Critique. Although an empiricist (perhaps even the major source for empiricism as it developed in Britain during the following century), Hobbes was ever a rationalist. What the philosopher seeks to know, although it may be founded on experience, he seeks to know by reason, and reason, at least philosophic reason, is a matter of language, a matter, that is, of the consequences of names. The requirement of his empiricism, in this case at least, is only that those consequences should be intelligible in terms of our experience. This they are, not because we can imagine lines with less than a certain length, but because the definitions of the terms contained in the conclusion are intelligible, or, if you like, conceivable in terms of our experience. In fact, were it not so, the arguments of Berkeley and Hume to prove the contrary would have, and could have had no point. They would, in effect, have been attempting to refute an unintelligible assertion.

Having thus discussed space and time, Hobbes turns in the

following chapter to the discussion of body and accident. What he says here has caused some difficulty for many of his interpreters, since it would seem that, in this chapter, he asserts both the existence of body and of 'real' space, and, if Hobbes were making such a bifurcation between real and imaginary space, the question, 'How do the two get correlated?' would be a real and pressing one. But it is a difficulty which Hobbes seems not to have recognized at all. It is this fact, together with the fact that, as I have shown, Hobbes was aware of the problem of the external world (a question he would have begged if, without any argument, he had simply introduced a distinction between imaginary and real space) that makes me think he was not making such a distinction here at all, at least not as an existential distinction. A close examination of the text, I believe, will show that this or something like it is the correct view.

Hobbes begins his discussion of body by suggesting that, having supposed all things to be annihilated, we should "now suppose some one of those things to be placed again in the world, or created anew".⁶² At first reading, this would seem to presuppose a belief in the actual existence of such external things, and, of course, it is true that Hobbes believed this. But the real question is not whether he believed in the existence of an external world, but whether he has here inconsistently or groundlessly asserted it. I think he has not. He has not asserted it at all; he has, rather, explicitly supposed it. Let us suppose, he says. So long as it involves no inconsistencies, a man may, without charge of begging any questions, suppose

whatever he likes, provided only that he does not take the supposition for fact, and nowhere in this chapter does Hobbes indicate that he takes the supposition made here for certain fact. His concern is only to understand and to develop the implications of the supposition. Thus, he continues, "It is necessary, therefore, that this new created or replaced thing do not only fill some part of the space above mentioned, or be coincident and coextended with it, but also that it [be something which does not depend upon our imagination]".⁶³ Such a thing "is that which, for the extension of it, we commonly call body".⁶⁴ And the definition, accordingly, is "a body is that which having no dependence upon our thought, is coincident or coextended with some part of space".⁶⁵ Now, this definition has two parts and it is necessary that each be properly understood. To take first the condition that it not be dependent upon our thought. This follows from the supposition only if the point made in the first article of the preceding chapter is borne in mind, namely that, whether there be anything existing externally or not, our phantasms are all that we consider. Here, however, something is being supposed to exist beside our phantasms, and it is thus evident that we do not work with such a thing in our thought. It is independent of our thought. Thinking a thing to exist will not make it exist externally; thinking a thing to exist is having the phantasm only of a thing as external. The same sort of thing is true of thinking or imagining a thing not to exist (except as a phantasm). The actual external existence of things is thus, in this sense, independent of our thought, and, although the supposition that such things exist may

or may not be true, it follows that, if it is true, the things which exist do not derive their existence from our imagining or not imagining them. This is Hobbes' sole point here. He is not saying that anything does exist independently of our thought, only that external objects, if there are any, must be so independent.⁶⁶ He is not drawing an existential inference but a logical one. Grant the existence of external things; it follows that they are not dependent upon our thought. One need not grant it, but one may, without begging any questions, suppose it for the sake of argument. This is what Hobbes does, and his conclusion is that body is (must be) something whose existence is independent of (i.e., not dependent upon) our perception of it. This assertion is made as a definition; it does not assert the existence of that which is defined, anymore than 'A bachelor is an unmarried man' asserts the existence of any unmarried man. If, however, we suppose that there are bachelors, we must grant that there are unmarried men, but since the premiss is a supposition, so, too, is the conclusion. That there are, in fact, any unmarried men and that there are, in fact, any things whose existence does not depend upon our thought will be true only if the initial supposition is true. And Hobbes nowhere asserts here that the initial supposition is true. He says only, Let us suppose it to be true, and he need say no more. It is not the business of metaphysics, as Hobbes conceived it, to prove that things exist, but to settle definitions. That there is anything which fits those definitions is the business of experience and natural philosophy. So what metaphysics determines in the first place is that a body is something existing

independently of our thought. That there is body, however, requires some other non-metaphysical argument.

Hobbes does not here discuss substance, although it is clear from this part of the definition of body that body is a substance. In other works, however, he makes it clear that a substance is also a body. In The Elements of Law, for instance, he says that the "two words...substance without dimension...do flatly contradict one another". His argument for this view here is straightforward. He says, "Our conception...of spirit consisteth of figure without colour; and in figure is understood dimension: and consequently, to conceive a spirit [or "a body natural" since that is what we understand "By the name of spirit"], is to conceive something that hath dimension".⁶⁷ This argument, however, is question begging, since it just assumes that substance and body are identical. Without this assumption the conclusion would not follow. Elsewhere, in a much later work, he offers a different argument. "The first principle of religion in all nations, is, that God is, that is to say, that God really is something and not a mere fancy; but that which is really something, is considerable alone by itself, as being somewhere....And because whatsoever is real here, or there, or in any place, has dimensions, that is to say, magnitude; that which hath magnitude, whether it be visible or invisible, finite or infinite, is called by all the learned a body. It followeth, that all real things, in that they are somewhere, are corporeal."⁶⁸ Now, it should be noted that by 'real' Hobbes here means 'not a mere fancy' or (mode of) conception. This is clear from his examples. "If

there be any real thing that is white or black, hot or cold, the same may be considered by itself; but whiteness, blackness, heat, coldness [abstract names or names of accidents] cannot be considered, unless it be first supposed that there is some real thing to which they are attributed", ⁶⁹ and he continues, "These real things are called by the Latin philosophers, entia, subjecta, substantiae; and by the Greek Philosophers, τὰ ὄντα ὑποκειμενα , ὑποστამενα. The other, which are incorporeal, are called by the Greek philosophers, οὐσια σὺμμερηνότα , φαντάσματα; but most of the Latin philosophers used to convert οὐσια into substantia, and so confound real and corporeal things with incorporeal; which is not well; for essence and substance signify divers things". ⁷⁰ Now, the argument here, in essence, is simply this. 'Real' things are things and not fancies and are considerable as existing alone somewhere. Substances are real things and, hence, exist somewhere, i.e., in some place and, therefore, have dimension, magnitude, or extension, which is that in virtue of which a thing is called 'body'. Thus, substances are corporeal; they are bodies. Now this argument is not question begging, given Hobbes' empiricism. That this is so is clear from the second part of the definition of body. Before proceeding to this, however, it will be well to look at another formulation of the argument, that from Leviathan.

There Hobbes argues against separated essences, "seeing they will have those forms to be real, they are obliged to assign them some place. But because they hold them incorporeal, without all dimension of quantity, and all men know that place is dimension, and not to be filled, but by that which is corporeal [i.e., that which is extended or has dimension]; they are driven to uphold their credit with

a distinction, that they are not indeed anywhere circumscriptive, but definitive; which terms being mere words, and in this occasion insignificant, pass only in Latin, that the vanity of them may be concealed. For the circumscription of a thing, is nothing else but the determination, or defining of its place; and so both the terms of the distinction are the same."⁷¹ Here Hobbes is trying to turn the argument against those who use it. All recognize that real things exist somewhere. The difficulty lies in distinguishing an incorporeal from a corporeal somewhere. Of course, it may be that Hobbes is unfair here to the medievalists. The distinction between circumscriptive and definitive may be lost when the two are simply transliterated into English. For instance, Deferrari, in his lexicon of Aquinas, writes that "Spiritual substances are in place definitive by their activity there".⁷² This would seem to make the distinction one between activity and non-activity. Of course, Hobbes has an argument here too, which it is worthwhile to quote, although it anticipates somewhat a topic to be discussed later. For Hobbes, all mutation, that is, all change or activity, is local motion and he writes, "Again, whereas motion is change of place, and incorporeal substances are not capable of place, they are troubled to make it seem possible, how a soul can go hence....To which I know not what they can answer, unless they will say, the walk definitive, not circumscriptive."⁷³ But if they say this, the distinction turns out, on Deferrari's definition at least, to be no distinction at all, a distinction between acting (the soul's going) actively and acting (the body's going) non-actively. But acting actively is, at best,

redundant, and acting non-actively at least unintelligible. But Hobbes offers here a further argument which is more to the present purpose. He writes, "of the essence of a man, which, they say, is his soul, they affirm it, to be all of it in his little finger, and all of it in every other part, how small soever, of his body, and yet no more soul in the whole body, than in any one of those parts".⁷⁴

This doctrine, on Hobbes' view, is simply absurd. It is unintelligible for the same reason that, "though men may put together words of contradictory signification, as spirit, and incorporeal; yet they can never have the imagination of anything answering to them".⁷⁵

The reason is clear enough from the second part of the definition of body, that it is something coincident or coextended with some part of space. Hobbes takes it to follow from the supposition of the external existence of things alone that such things must be coincident and coextended with imaginary space. Now, this would hardly follow if Hobbes were making or even granting a distinction between real and imaginary space. In the absence of contrary evidence, this fact alone should be sufficient to show that Hobbes is not, in fact, making such a distinction here. But why, it may well be asked, would it follow in either case? What Hobbes' precise answer to such a question would be is not easy to say. We may, however, construct an answer which in light of his explanation seems at least plausible.

It should be recalled, in the first place, that body is being supposed to exist, but furthermore it is being supposed to exist somewhere, namely, 'outside' the mind. Now, if such a supposition is to be intelligible, it must be the case that what is being supposed be,

in some sense, conceivable. We need not, perhaps, be able to conceive it exactly as it is (if it is) but we must be able to conceive it in some way. The supposition, however, is that the thing supposed exists externally. Hence, we must conceive or be able to conceive the thing as external. This, however, fits precisely the definition of imaginary space, "the phantasm [we may substitute 'conception'] of a thing existing without the mind simply". Thus, on the supposition, it is necessary that the thing supposed fill some part of imaginary space. Otherwise, the supposition itself is unintelligible. Since body must, thus, be supposed or conceived to be coincident with some part of space, it must be (conceived to be) extended. There is, admittedly, a logical jump at this point. The premiss that whatever is coincident with some part of space is extended has been left out. But while this premiss is not expressly supplied, the argument for it has been given in the preceding article. There Hobbes has argued that any part of space and anything coincident with a part of space can be conceived "as having parts distant from one another", but this is precisely what we mean by (is the definition of) 'extended'.⁷⁶ So the premiss that whatever is coincident with some part of space is extended, while not expressly stated, can legitimately be assumed. This would seem, at least, to be the direction of Hobbes' argument to show that anything conceived to exist externally or without the mind must be coextended with some part of space, and, so construed, the argument would appear to be valid.

That this is the direction of his thought is again made clear from his explanation of why such a thing is called a 'subject'. He

says, "it is called the subject, because it is so placed in and sub-
jected to imaginary space, that it may be understood by reason, as
well as perceived by sense".⁷⁷ The implication of this remark shows
again, I think, the accurateness of my interpretation of Hobbes'
approach to metaphysics.⁷⁸ That there are things existing without
the mind which are not coextended with some part of imaginary space
is not a proposition which can be either asserted or denied. It is
not a proposition which can be understood. It is true that we can
put the words together and, like formal scientists, draw from them
various implications, but the words are otherwise meaningless. The
things so supposed to exist would be neither perceptible by sense
nor accessible to reason. About such things we could say nothing,
at least nothing which we could know or have even probable cause to
believe to be true. We could not say, about them even that they were
or were not extended. For 'extension' falls under the notion of
'space' and space has already been defined to be imaginary. We could
perhaps say that they were coextended with 'real space', but we could
not understand precisely what this means, for we could not say that
real space bore any correspondence or resemblance to that space which
we can understand and conceive, imaginary space. Such things would
be entirely inaccessible to reason. If, for instance, we cannot un-
derstand what it means to say that they are in space or extended,
neither could we understand what it would mean to say that they were
or were not in place; consequently, we could not understand what would
be meant by saying that they did or did not move, that they were or
were not in time, and that they did or did not act. If this interpretation

of Hobbes' thought is correct, and I believe that it is, then it is clear that if ever he begged a question it was not the question of the external world. It was not for nothing that both Mersenne and Leibnitz referred to him as 'that subtle man'. That this interpretation is correct can be substantiated, I think, by a consideration of Hobbes' conception of accidents and his distinction between magnitude or 'real space' and extension.

Hobbes' definition of 'accident' has occasioned much difficulty for his various interpreters. Thus, one claims that his conception of accidents was inconsistent,⁷⁹ and another has gone so far as to suggest that, with respect to accidents, Hobbes was a realist⁸⁰ and, thus, to conclude that "his statement that some names are names of accidents is inconsistent with his statement that there is nothing universal in the world but names".⁸¹ That these writers should have had some difficulty understanding Hobbes' conception of the nature of an accident is not surprising; Hobbes himself admitted to some difficulty in explaining it.⁸² It would be well to note at the beginning that, for Hobbes, 'accident' and 'property' mean very much the same thing. This is clear enough from the similarity of their definitions. A property he defines as the faculty or power of a body by which we distinguish one from another.⁸³ And he defines an 'accident' as "that faculty of any body, by which it works in us a conception of itself".⁸⁴ Similarly, in Leviathan he writes that the "diversity of seeming, produced by the diversity of the operations of bodies on the organs of our sense, we attribute to alterations of the bodies that operate, and call them accidents of those bodies",⁸⁵ and elsewhere,

"All the learned agree that quality is an accident".⁸⁶ This virtual synonymy between 'property' and 'accident' is interesting because it helps to understand a move which Hobbes makes in his definition of 'accident'. The definition of 'property' paraphrased above is explicitly offered in De Corpore as a definition of the effects or appearances of things.⁸⁷ It is not surprising, then, that in giving his definition of accident (quoted above) in De Corpore, Hobbes says that it is to say no more than that "an accident" is "the manner by which any body is conceived".⁸⁸ In fact, he offers "the manner of our conception of body" as his preferred definition.⁸⁹ From this it would appear that accidents have the same imaginary status as do space and time, for, if these two definitions amount to the same thing, then an accident will be just a phantasm or a mode of conception and would, thus, be un-'real' (in the sense of 'real' given earlier). Though he does not do so here, Hobbes would seem explicitly to affirm this elsewhere. Thus, in The Elements of Law he writes, "whatsoever accidents or qualities our senses make us think there be in the world, they are not there, but are seemings and apparitions only".⁹⁰ Likewise, in his Answer to Bishop Bramhall he writes, "He...interrogates me, what real thing is left in the world, if God be incorporeal, but body and accidents? I say there is nothing left but corporeal substance. For I have denied, as he knew, that there is any reality in accidents".⁹¹ This last remark would seem to refer to the passage quoted above from Leviathan. That he is in this passage intending to say that accidents are not really accidents of bodies is, perhaps, clearer from the corresponding passage in the Latin edition. There, instead of "and call

them accidents of those bodies", he writes, "and think them to be accidents of the bodies themselves".⁹² There would thus seem to be good reason, on the basis of what he writes elsewhere and the similarity between his definitions of 'accident' and 'property', to say that, in his equation of the two definitions of 'accident' given in De Corpore and in his final acceptance of "an accident...[is]...the manner of our conception of body", Hobbes is giving to accidents in general the same imaginary status that he gave to space and time.

There are, however, many passages which would suggest that this is not entirely true. There are, for instance, many places in which he asserts that "the accidents of bodies, are indeed nothing else but diversity of fancy, and are inherent in the sentient, and not in the object, except motion and quantity".⁹³ Now, this kind of assertion, often repeated, would seem to make Hobbes liable to a charge of inconsistency. I believe, however, that it does not, and, further, that Hobbes gives the sense in which such assertions are to be taken so that there is no inconsistency. In his account of what is meant by saying that an accident is in a body when it is not contained in it and is no part of it (if it were contained in it as a part, it would by the definitions of 'body' and 'part', be a body and not an accident),⁹⁴ Hobbes quotes approvingly Aristotle's definition, "an accident is in its subject, not as any part thereof, but so that it may be away, the subject still remaining", but he goes on to add the important qualification, "which is right, saying that there are certain accidents which can never perish except the body perish also; for no body can be conceived to be without extension, or without figure. All other accidents,

which are not common to all bodies, but peculiar to some only...do perish continually, and are succeeded by others; yet so, as that the body never perisheth".⁹⁵ The truth of the last sentence is obvious; if an accident is not common to all bodies, but peculiar only to some, obviously such an accident is not a necessary condition for the existence of body. It is the first claim, however, that some accidents are necessary accidents of body, which may not be understood and which, in fact, has not been understood by some. Thus, for instance, R.S. Peters here advances a form of the Berkelian argument against Hobbes. As he writes, "if the criterion [for necessary accidents of body] is one of conceivability what is the status of colour? For, as Berkeley remarked later, it is no more possible to conceive of something with shape and no colour than it is possible to conceive of something with colour and no shape".⁹⁶ But Hobbes, as we have seen, is not denying this.⁹⁷ For Hobbes all those qualities, both those that are necessary to body and those that are not, have the same status. As space is imaginary so, too, must be extension and figure and all those accidents which must be understood (conceived) in terms of space. The point which Hobbes is making here is best understood as a definitional one. Body is defined as extended. Take away extension, therefore, and you take away the conception of body. The claim is analytic. It cannot be denied but by denying the definition (not the existence) of body.

Thus we see that, if this passage is in fact intended to support and interpret the often repeated claim that certain accidents are necessary to the existence of body, Hobbes has not claimed that there are

any accidents of body which have some privileged status in the sense that they are not, like space and time, imaginary. The point is not so much that body cannot exist without those accidents as that body cannot be conceived to exist without them. To speak of an unextended body, given what is understood by 'body', is to speak unintelligible nonsense. Thus, if we would say that there is, in fact, body in the world--and all of those works by Hobbes which deal primarily or solely with natural phenomena begin with this assumption--we must say that there is, in fact, extension in all body and likewise that motion exists in body without the mind (because in natural philosophy motion is taken to be the cause of all phenomena, i.e., of all mental objects or events) and similarly, since to be extended is to have parts, that quantity exists externally in body. In that one work, however, in which Hobbes treats his philosophy systematically, beginning not with assumptions (hypotheses) about the causes of phenomena, but with metaphysics, the work which we are presently examining, he makes clear the sense in which the claim is to be taken. It is not to be taken as an ontological assumption but, rather, as the consequence of an ontological assumption. It is not, in other words, the ontological claim that there are two kinds of accidents with different ontological statuses (that their status is different is a matter to be determined by natural philosophy), it is, rather, the analytic claim that, if you make the ontological assumption (hypothesis) that there is an external world, i.e., that there are bodies, then you must admit, on pain of contradiction, that those bodies have and must have certain accidents (e.g., extension, figure, and quantity, and, if they are causally efficacious,

motion). Otherwise, you are not making a claim about body, and whatever you conceive so to exist, it is not, by definition, body. We may conclude, then, that, properly interpreted, Hobbes' claim that motion and quantity and extension must be excepted from the claim that all accidents are but diversity of fancy is not inconsistent with the view which I have taken him to be propounding that there are not any accidents in reality. Space and time, and therefore, motion, quantity, and extension are all accidents and imaginary, i.e., the manner of our conception of body, but they are accidents which must be attributed to body whatever ontological status we presume it to have, at least if by 'body' is meant something intelligible and accessible to reason.

If the passage just discussed does serve, as I have claimed, to give the sense in which the distinction between the accidents of body as necessary and not necessary is to be taken, then we are in a position to understand Hobbes' distinction between real and imaginary space. That the passage is intended to serve this function, while it is not something that can be proven, is I think clear simply from a general view of Hobbes' method to this point. In his controversy with Wallis, Hobbes stressed the point that he introduced definitions as they were needed.⁹⁸ Given his conception of philosophy or ratiocination as analytic and deductive, a definition is needed when anything is to be drawn from it. Thus, whenever the definition or proper understanding of X depends upon the prior definition or proper understanding of Y, we should expect to find Hobbes first defining or explicating the force of Y and then, when the basis

has been properly laid, to proceed to the explication or definition of X. This is, in fact, the method he has followed in those portions of part two of De Corpore which we have discussed. The definition of body depending upon the proper understanding of space, Hobbes begins by attempting to determine the proper definition of space, but since this definition depends, in turn, upon a distinction in the consideration of our conceptions or phantasms, Hobbes begins his metaphysical inquiry with an attempt to elucidate this distinction. The methodical order is, thus, the distinction between appearances (as internal and external), the definition of space, the determination of the properties of space. The groundwork having thus been laid, he proceeds immediately to the definition of body. The next step, of course, is the discussion of the various accidents or characteristics of body. But here a new term has been introduced, i.e., 'accident', and, if the nature of the various kinds of accidents is to be understood, it is methodologically necessary to determine first what an accident is, how it differs from body, and the difference between kinds of accidents, e.g., necessary and not necessary. Since this is, in fact, precisely the order Hobbes follows, there is every reason to believe that the general discussion of accidents and the distinction between accidents as those which are and those which are not necessary to the conception of body in De Corpore I, II, 8, 3 is meant to set the stage for the following discussion of particular accidents and to give the sense in which the distinction between accidents as necessary and not necessary is to be understood.

I cannot say, of course, that my interpretation of this passage is correct. I can say, however, that, if it is not correct, it will be very difficult, if not impossible, to understand the distinction between real and imaginary space to which Hobbes immediately proceeds.⁹⁹ Since the passage is troublesome both for my own and for other interpretations, it would be best to quote it in full. The passage, although short and concise, constitutes the whole of article four.

The extension of a body, is the same thing with the magnitude of it, or that which some call real space. But this magnitude does not depend upon our cogitation, as imaginary space doth; for this is an effect of our imagination, but magnitude is the cause of it; this is an accident of the mind, that of a body existing out of the mind.¹⁰⁰

It is very difficult, and I shall be the first to admit it, to say with any real certainty precisely what Hobbes intends to be claiming here. However, I shall follow what would seem to be the most appropriate course and attempt to understand the passage in terms of Hobbes' immediately preceding remarks on body and accidents. As it consists of two sentences, each of which would seem to contain related but very different thoughts, so the article may be considered in two parts.

To take the first part first. The first sentence would appear, at first reading, to assert directly a distinction between real and imaginary space. There is, on the one hand, magnitude, which is real space, and there is, on the other hand, extension, which we may suppose is imaginary space. So understood, the distinction would seem to conflict directly with my interpretation of the preceding articles of this chapter. There are thus several options open to us here. We may say, on the assumption that my interpretation is correct, that Hobbes has

here committed a blatant inconsistency. On the other hand, we may say that my interpretation of his definitions of body and accident and how they are to be taken is incorrect, in which case it would seem that we are left with no choice but to affirm that Hobbes did indeed beg the question of the external world. Or we may say that the superficial reading of this passage is incorrect. Now, of these three options, the first, although the most popular,¹⁰¹ is likewise the least desirable. It violates, in the first place, the fundamental principle of serious scholarly interpretation, what we might call the 'presumption of rationality'.¹⁰² The principle is given by Hobbes himself and is worth quoting at length here.

Though words be the signs we have of one another's opinions and intentions; yet, because the equivocation of them is so frequent according to the diversity of contexture, and of the company wherewith they go...it must be extreme hard to find out the opinions and meanings of those men that are gone from us long ago, and have left us no other signification thereof but their books; which cannot possibly be understood without history enough to discover those aforementioned circumstances, and also without great prudence to observe them.

And he continues with,

When it happeneth that a man signifieth unto us two contradictory opinions whereof the one is clearly and directly signified, and the other either drawn from that by consequence, or not known to be contradictory to it; then (when he is not present to explicate himself better) we are to take the former of his opinions; for that is clearly signified to be his, and directly, whereas the other might proceed from error in the deduction, or ignorance of the repugnancy. The like also is to be held in two contradictory expressions of a man's intention and will, for the same reason.¹⁰³

It is likely that in this passage Hobbes is doing more than just

indicating how we are to approach the works of ancient philosophers. He is, rather, giving the principle which is to be applied to all serious works, including his own. In short, we are to begin with the assumption that he did not intend to hold contradictory or inconsistent opinions and, if it is possible and plausible, so to interpret his various remarks that they are not inconsistent. The first option, then, is to be ruled out, at least initially, in favour of the other two. For the second alternative, I shall here simply reiterate my belief that my interpretation is so far correct and attempt to show this by taking up the third alternative and showing that this passage can be plausibly interpreted so that it is consistent with my interpretation of Hobbes' preceding remarks. To do this it is necessary to show that the superficial reading of this passage is not correct. This done, it will then be necessary to show that there is a plausible reading of the passage which is consistent with what Hobbes has said, or with what I have taken him to be saying, previously.

At first glance, Hobbes would appear to be saying that magnitude is identical with real space, and from this we quite naturally infer that Hobbes is here distinguishing between that space which really exists externally and that which exists only in the imagination, and, since magnitude and real space are identified, we infer, again quite naturally that Hobbes is distinguishing between imaginary accidents of bodies and those accidents of bodies which really exist externally. A more careful look at the passage, however, shows at least that this reading is not clearly correct. In the first place,

it is to be noted that Hobbes does not say that magnitude and real space are the same and distinct from imaginary space. He does not say 'magnitude or real space', but rather, "magnitude...or that which some call real space". He does not say that he calls it real space, nor does he, if the passage is read with literal care, suggest either that real space and magnitude are identical or that there is a real space distinct from imaginary space. The identification which he does make, however (and this identification would appear to be the point of the passage), is that between extension and magnitude, and he says only that the latter is called by some 'real space'. Thus, the first glance reading, if not wrong, is not given clear support from the passage taken in isolation.

Now, as I have argued above, extension for Hobbes is imaginary. Since Hobbes is here explicitly equating extension (imaginary space) with magnitude (so called real space), there would seem to be no reason whatever to take the passage as being inconsistent with my claim that Hobbes has left the question of the ~~the~~ external world unresolved. We can thus, I think plausibly, understand the passage in terms of my interpretation of his definitions of body and accident in this way. Body is, by definition, extended. Furthermore, body is by definition independent of our thought. Extension, however, is imaginary, i.e., not independent of our thought. But an unextended body is unintelligible. Extension is a necessary condition of our conception of body, or of our conceiving anything to be a body. But if extension is both imaginary and a necessary condition of a thing's being a body, it would be inconsistent to say that body is independent

of our thought, since a necessary condition of a thing's being a body is not. If, therefore, there exists a body, it has an extension which is independent of our thought; this extension which is independent of our thought is called magnitude. Now, it is crucial to note that, on this interpretation, the existence of body and, hence, of magnitude (or real space) is not asserted, but, furthermore, it is to be noted that, except for the difference that the one is, by definition, mind dependent and the other not, extension and magnitude are identical. That this is the correct interpretation cannot, of course, be proven. It fits well, however, with the tenor of Hobbes' remarks on body and accident to this point and especially with my interpretation of his distinction between those accidents which are and those which are not necessary to the existence of body as serving to provide the sense in which this passage is to be understood. Those accidents ⁶ are necessary to body without which body cannot be conceived. Body can be conceived neither without extension nor without independent existence. Hence, body cannot be conceived without an independent extension, which, since it is independent, is called magnitude. The magnitude and the extension of a body, however, are otherwise identical; otherwise body and extension would not and could not "be understood by reason, as well as perceived by sense", and all discourse about body or the external world would be, in a very real sense, unintelligible. This interpretation of the passage also fits well with Hobbes' conception of metaphysics as being concerned with conceptual or definitional rather than existential distinctions. It is the business of metaphysics to settle the definitions of universal terms and to draw their immediate

consequences; it is not within the domain of metaphysics, properly speaking, to determine whether or not there is anything that fits those definitions. Now, an immediate consequence of the definition of body is that it have a mind independent extension. We may thus see the passage as claiming, not that there is body or magnitude, but that, if there is body, then there is magnitude, which is, except for the fact that it is mind independent, in every other respect identical with extension.

The second claim made in this article might, at first sight, appear to occasion more difficulties. I think, however, that it does not. We may divide this last sentence into three parts: (1) Unlike imaginary space (extension) magnitude does not depend upon our thought; (2) extension is an accident of the mind, magnitude that of an external body; and (3) magnitude is the cause, extension the effect of our imagination. Now, I think it is fairly clear that the first claim, taken by itself, simply reiterates in a more concise and clearer way the distinction which I have taken Hobbes to be making between extension and magnitude in the first part. The distinction is that the one is mind dependent, whereas the other is not. Read in context of the first, the second claim (which in actual order is third) serves simply as a restatement of the first. That which is independent of our thought is body; hence, magnitude is an accident of body or, in other words, an accident independent of our thought, whereas extension is not. This, however, would seem to conflict with Hobbes' definition of 'accident' as "the manner of our conception of body" and with the consequence, which I have taken him to hold, that there are, therefore,

no accidents in reality. The third claim may be taken, I think, as intended to clear up this difficulty. Magnitude is here claimed to be the cause of our conception of (imaginary) space. But we may recall Hobbes' claim made earlier in De Corpore that the definition of an accident as "that faculty of any body, by which it works in us a conception of itself" amounts to no more than the definition of an accident as "the manner of our conception of body" and his argument in Leviathan that "the diversity of seeming [conceptions of body], produced by the diversity of the operations of bodies on the organs of our sense, we attribute to alterations of the bodies that operate, and call them [or think them] accidents of those bodies". Now, I would claim that, in light of these two passages, we may take Hobbes to be saying here, by way of explanation only, that attributing our conceptions to body, that is, on the assumption that the causes of sense are located in the alterations of body, magnitude is called or thought to be an accident of body and the cause of our conception of extension. But it must be remembered that as far as reason is concerned, the cause of our conception, that faculty or power of the body by which it works in us a conception of itself, is not different from the manner of our conception of it. If, in other words, it is asked how a body appears extended, no other answer is possible, on the assumption that there is a body which we can perceive and understand, than that "it happens from the extension of that body".¹⁰⁴ 'Extension', however, is the name of an accident; it is an abstract name and what it names has no existence without the mind. The answer to the question, then, is circular and necessarily so. We cannot get outside

the circle of the mind. Nor need we do so in metaphysics or in any other part of philosophy, as Hobbes understood philosophy, except natural philosophy. It is the business of natural philosophy to discover the causes of the phenomena and their properties, and this part of philosophy, as one might expect, is always uncertain.

That this is the correct interpretation of Hobbes' distinction between magnitude and imaginary space receives some support, I think, from his discussion of the relations between body, magnitude, and place. Before turning to this, however, it will be necessary, following his own order, first to present briefly his remarks on place. That "imaginary space", Hobbes writes, "which is coincident with the magnitude of any body, is called the place of that body; and the body itself is that which we call the thing placed."¹⁰⁵ Magnitude and place differ, however, in these respects:¹⁰⁶

(1) While the place of a body varies with its motion, its magnitude does not; (2) since this is so, place is the phantasm of any body with a given figure, but magnitude is an accident peculiar to the body; (3) "that place is nothing out of the mind, nor magnitude any thing within it; in short, place is feigned extension, but magnitude true extension; and a placed body is not extension, but a thing extended";¹⁰⁷ (4) "place is imovable"; and (5) "the nature of place does not consist in the superficies of the ambient". Otherwise, one gets the absurd conclusion that "the parts of a body moved, that is, bodies moved, are not moved", since they are not moved with respect to the superficies of the body of which they are parts. Hence, the notion of place consists "in solid space" (the placed body must be

considered, in other words, as extended--solid--and having parts).

Now, when we are asked a question such as 'Where is it?' we respond either by giving the name of a specific place (which would presumably involve placing the thing extended with respect to some established coordinate system, although Hobbes does not elaborate on this question) or by giving some expression such as "here, there, in the country, in the city", etc., "And all such names, by which answer is made to the question where? have, for their highest genus, the name somewhere. From whence it may be understood, that whatsoever is somewhere, is in some place properly so called".¹⁰⁸ From which it may be inferred that, since all our conceptions may be considered under the general term 'somewhere', to the extent at least that they may be considered as internal or external, all our conceptions are conceptions of body and its accidents (and, hence, that all conceivable substance is body and that all our phantasms are accidents of body or that the mind itself is a body of some kind).

Now, Hobbes does not explicitly draw this conclusion here. But it may be drawn, nevertheless, and it is certain that Hobbes believed it to follow.¹⁰⁹ This being so, it may serve to explain the distinction between the apparent and the real. All our conceptions are of body or of its accidents, but they may be considered either as internal or external. Considered in the former way, they are feigned, apparent, or unreal; in the latter way, real or true.¹¹⁰ If Hobbes had this sort of thing in mind, then he could maintain, on the metaphysical level, a distinction between apparent or feigned extension (imaginary space or place) and real or true extension

(magnitude) without committing himself to an existential distinction and, at the same time, maintain the identity of extension and magnitude as the conception of body without respect to its appearing internally or externally. This seems especially plausible in light of the fact that Hobbes goes on, in his remarks on the relation between place, magnitude, and body, to reaffirm this identity. He writes, "A body, and the magnitude, and the place thereof, are divided by one and the same act of the mind; for, to divide an extended body, and extension thereof, and the idea of that extension, which is place, is the same with dividing any one of them".¹¹¹ How this could follow if the things referred to here are not taken to be in some respect the same, is difficult, if not impossible, to see, and Hobbes seems to affirm exactly this in his explanation. It follows, he says, "because they are coincident, and it [the dividing any one of them] cannot be done but by the mind, that is, by the division of space".¹¹² Thus, the division even of magnitude, which is nothing within the mind, is the work, not of the hands, but of the mind. How could this be so if the claim that place is nothing without the mind, nor magnitude anything within it were taken as an existential claim? It would seem, at least to me, that it could not and that the distinction must, accordingly, be taken, not as asserting an existential difference (the one existing externally, the other internally), but a difference in how our conceptions are considered or appear. To reason, the distinction between the real and the apparent, the internal and external, is a distinction of appearances, nothing more. Perhaps, to understand or to explain this distinction of appearances we must assume the

corresponding existential distinction (or Berkeley's God), but the assumption is just that, an assumption, from which the phenomena, the diversity of appearances; may, without inconsistencies, be deduced. But the assumption or hypothesis is not made here, at the metaphysical level.

This discussion of Hobbes' conception of body has, perhaps, been overlong. But the length is proportionate to the problem, the precise status of body in Hobbes' philosophy. I have tried to show as conclusively as possible that Hobbes does not just assume, from a philosophical point of view, the existence of the external world or of body. To show this conclusively, however, is difficult, perhaps impossible, and some may well think that I have read into the text the point of view which I wanted to find. This, of course, is a possibility which I cannot, in good conscience, deny. I can say only that I do not think it is the case; I have tried to read Hobbes as fairly and as accurately as possible. Still it may well be asked, and reasonably so, why, if this was Hobbes' view, is it so unclear? Why did he not take the trouble to state it explicitly? In answer one can say only that he did not see the need for such a statement. This is not to say that he was unaware of the problem of the external world. As I have shown, he makes it clear, at the very outset of his metaphysics, that he is. It is not to say anything about his acuteness as a metaphysicist. It is, rather, to say something about his purpose and his concerns as a philosopher. "The end of knowledge is power...and...the scope of all speculation is the performance of some action, or thing to be done."¹¹³ Hobbes' concern in philosophical

matters was always, ultimately, practical, and the question of the external world, while it may be a mystery, while it may be difficult to answer, hardly presents us with a practical problem, nor will its correct solution, if there is one, present us with any practical benefit. It is a problem, therefore, with which Hobbes was eminently unconcerned, "For the inward glory and triumph of mind that a man may have for the mastering of some difficult and doubtful matter, or for the discover of some hidden truth, is not worth so much pains as the study of Philosophy requires; nor need any man care much to teach another what he knows himself, if he think that will be the only benefit of his labour".¹¹⁴

For the discussion of body and its most universal accident, magnitude or extension, let this suffice. We may turn now to the other universal accident of body, which is motion.

NOTES: CHAPTER THREE

1. Peters, 1956, p. 77.
2. LW I, p. xx. See above, Introduction, n. 34.
3. That this is the point is clearer from the similar argument given in Decameron Physiologicum. There his argument takes this form: "For if all things in the world were absolutely at rest, there could be no variety of fancy; but living creatures would be without sense of, all objects." (EW VII, p. 83.)
4. The premiss is actually put in more concrete form by Hobbes in the argument as it is given in Decameron Physiologicum. The argument there, quoted in the preceding note, is preceded by this statement: "For the variations of fancies, or (which is the same thing) of the phenomena of nature, have all of them one universal efficient cause, namely the variety of motion." (my underlining) It is this identification of sensation with the phenomena of nature which serves to make Hobbes' discovery something more than a mere tautology, and it is this identification that serves as his premiss for the leap from the causes of sensation to the cause of all events.
5. It is always a delight to anyone who writes on the work of another to find explicit confirmation for an interpretation which he has spent some time developing on the basis of rather tenuous evidence. I had thought that the word 'intelligible' as it is used in this context was my own, and, although I had what I thought were good reasons for so using it, I was somewhat worried that, out of an understandable desire to make Hobbes say what I wanted him to say, I may have overstepped my bounds. My delight may thus be understood when, after having written this section, I discovered the following passage from what would appear to be a translation by Lord Herbert or a member of his circle of a set of early notes for De Corpore: Body, "for that it is supposed under an imaginary space (as only intelligible to be there by reason and not sense) we name suppositum and subjectum." (Critique, App. II, p. 452. Underlining in parenthesis added.) For a full discussion of this manuscript, see R.I. Aaron, "A Possible Early Draft of Hobbes' De Corpore." (Mind, 1945, pp. 342-56.)
6. EW III, Ch. 7, p. 52.
7. See above, Ch. 2, p. 58, n. 69.

8. LW I, II, 7, 1. Doctrinae naturalis exordium, optime (ut supra ostensum est) a privatione, id est, a ficta universi sublacione, capiemus.
9. Ibid., quid reliquum esset, de quo homo aliquis...philosophari, vel omnino ratiocinari, vel cui rei nomen aliquod ratiocinando causa imponere posset.
10. NPL, p. 474. Phantasmata, accidentia sunt imaginatis, rerum extra (etsi ibi non sint tamen). I have translated 'tamen' as 'even'. A literal translation would make the claim even stronger, "although they be not there nevertheless". As we shall see in the discussion of accidents, there may be some reason to prefer the stronger claim.
11. Ibid., Rebus destructis: his phantasmaticibus...nomina imponeret, etc. Immo vero ne stantibus quidem rebus aliud computamus quam phantasmata nostra.
12. EW I, II, 7, 1.
13. Ibid.
14. Ibid.
15. It might be instructive here to note a passage from Leibnitz, who, after all, was no mean reader of Hobbes. He writes, "Although the whole of this life were said to be nothing but a dream, and the visible world nothing but a phantasm, I should call this dream or phantasm real enough, if, using reason well, we were never deceived by it." (Gerhardt, VII, p. 320). The sentiment expressed here compares well with that expressed in this passage from Hobbes' Seven Philosophical Problems: "B. All this that I have hitherto said, though upon better ground than can be had for a discourse of ghosts, you ought to take but for a dream. A. I do so. But there be some dreams more like sense than others. And that which is like sense pleases me as well in natural philosophy, as if it were the very truth." (EW VII, p. 59)
16. Thus, for instance, A.E. Taylor writes, "That bodies really and objectively exist, and that the laws of their motion can be discovered, he simply assumes as an unquestionable fact; he has no inkling of the deeper problem of Descartes' Meditations, how it is possible for the individual mind to be assured of anything outside the circle of its own states." (Taylor, 1908, pp. 32-3)
17. McNeill, 1969, p. 31.
18. EW III, Ch. 1, p. 1.

19. It is not clear what earlier work Hobbes is referring to here. It may well be that the reference is to Of Human Nature, published a year earlier than Leviathan, although the publication of this work would appear not to have been authorized (See E.L., ed's pref., pp. vii-viii) and, so far as I know, Hobbes never openly acknowledged it in his later writings. In fact, in his one clear reference to it--made in a work apparently intended to be published posthumously and still made without mentioning the title of the work referred to--he speaks of it as if it had never been published. (EW IV, p. 414) On the other hand, it is quite possible that the reference is to De Corpore, and that this passage was written in the expectation that De Corpore would be published before Leviathan. It is known, for instance, that Hobbes was at work on De Corpore throughout the latter half of the 1640's. In a letter to Pell dated from December, 1644, Sir Charles Cavendish writes that, "Mr. Hobbes puts me in hope of his philosophie which he writes he is nowe putting in order, but I feare that will take a longe time," (Halliwell, 1841, p. 87) and Brandt has argued cogently that a draft of De Corpore may have existed as early as 1644 (Brandt, 1928, pp. 167-72). M.M. Rossi has apparently gone even farther to argue that such a draft may have existed as early as 1638 (in an unpublished paper cited by Aaron. See above n. 5.). But furthermore, we have Hobbes' own statement that he had decided to write De Corpore when Prince Charles arrived in France in 1646, but that, due to a long and serious illness, to the time taken by his acting as tutor in mathematics to the prince (We have separate confirmation of this in a letter from Cavendish to Pell. He writes, in October, 1646, "Mr. Hobbes reads mathematics sometimes to our prince, but I believe he hath spare time enough besides to go on with his philosophy."--Vaughn, 1839, Vol. II, p. 371), and to his decision to absolve the divine laws by the writing of Leviathan (a work which is here avowedly written for the benefit of his countrymen who had attributed so many great crimes to the commands of God), he was forced to delay (Verse autobiography, LW I, p. xcii). Taking these facts into consideration, it is quite plausible that, when he began Leviathan, it was with the expectation that De Corpore would be published first.

20. EW I, II, 7, 2.

21. Ibid.

22. EW I, I, 1, 3.

23. EW VII, p. 71.

24. See, for instance, EW III, Ch. 4, p. 24; Ch. 46, p. 671.

25. EW I, II, 7, 2.

26. Manifestum autem est, unumquodque obiectum visibile actione sua in organa visoria efficere imaginem quandam, sive phantasma sui ipsius, ut putatur, exempli causa, sol agendo in oculum facit videre circulum splendidum, quem solis esse putamus, quique, si directe in solem intueamur, in coelo apparet; sin per reflexionem ab aqua subter aquam, scilicet imago semper videtur in ea recta linea, cuius unus terminus est in oculo, ita ut nunquam pene eo loco appareat ubi ipsum est obiectum. Nam in reflexa visione et refracta obiectum et imago sunt in diversis rectis, etiam in visione directa, sol et astra et omnia obiecta longinqua, quantum sunt in eadem recta linea in qua oculus, multo tamen sunt ab oculo remotiora, quam ipsorum imagines, id est remotiora sunt quam apparent. Jam huiusmodi imagines constant colore et figura; figura autem spatium finitum est. Cum igitur imago ipsa non est ibi ubi obiectum, neque etiam figura, ex qua constat, ibi est ubi obiectum; spatium ergo apparens solis, sive cuiuscumque alterius obiecti, non inhaeret in ipso obiecto, sed est more imaginarium. Quomodo enim circulus solis apparens tantillus, et tam prope, poterit esse quantitas inhaerens et adaequata obiecti tam remoti et tanti, quantum est corpus solare. Praeterea obiecta visa transeunt, absportantque secum dimensiones suas, manent tamen in animo ipsorum imagines, hoc est figurae, sive spatia quibus apparuerunt, aliter enim absentium imagines non retinerentur, neque existeret omnino ulla rerum aut memoria aut somnium. Sicut autem meminisse datur figurae hominis dudum mortui, ita etiam si totus mundus, excepto uno homine, annihilaretur, nihil impedit quin ille homo haberet mundi semel visi imaginem...Spatium igitur imaginarium nihil aliud est quam imago, sive phantasma corporis. Corporis dico simpliciter, nam imago corporis albi non est spatium tantum, sed spatium albescens, vel dicemus spatium esse imaginem corporis, quatenus corporis: spatium album, imaginem corporis albi, quatenus albi...Manifestum hinc est existentiam spatii dependere non ab existentia corporis sed ab existentia imaginativae facultatis, si enim dato spatio sit aer, transeunte aere non transit spatium, sed idem manet, et potest repleri vel aqua, vel alio corpore, vel nullo; eodem modo deficiente mundo, modo non una deficiat, existet tamen inmotum spatium. (Critique, pp. 115-6)
27. EW I, II, 7, 3.
28. Ibid.
29. Ibid.
30. EW I, I, 2, 6.
31. EW I, II, 7, 3.
32. Ibid., by underlining.
33. Confessions, Bk. XI, Ch. 14.

34. EW I, II, 7, 3.
35. Ibid., (Aristotle, Physics, IV, 11, II, 220a 24-25).
36. To discuss the controversy concerning the interpretation of Aristotle's conception of the status of time is out of place here. Briefly, the problem arises from the question how to interpret one obscure passage in which Aristotle discusses the relation between the soul and time (Physics, IV, 14, 223a 21-29). Philological arguments have been offered on both sides, but a philosophical interpretation, based on the context in which the passage occurs and Aristotle's remarks on number and motion and their relation to the soul would, it seems to me, preclude any other interpretation.
37. EW I, II, 7, 3.
38. EW I, II, 7, 4.
39. Ibid. my underlining.
40. EW I, II, 7, 5.
41. LW I, II, 7, 5. sed diversam considerationem, ut sit divisio non manuum, sed mentis opus.
42. EW I, II, 7, 6.
43. Ibid.
44. Ibid.
45. EW I, II, 7, 8.
46. Ibid.
47. EW I, II, 7, 9. my underlining.
48. Ibid.
49. EW I, II, 7, 7.
50. EW I, II, 7, 11.
51. Ibid.
52. Ibid.
53. Ibid.
54. Ibid.

55. EW I, II, 7, 12.
56. Ibid.
57. Ibid.
58. Ibid.
59. One might, of course, object that this argument is question begging since the bisection of ABC presupposes that of B. This objection, however, misses the point. Hobbes may be taken to be objecting to the view that there are minima which cannot be bisected although lines more than twice the length of such a minimum may be bisected. Hobbes' argument is, thus, that such a longer line may be bisected only by bisecting the minima. One can reject this argument only if one is prepared to maintain the consequence that a line consisting of an odd number of points or minima cannot be bisected. To this, of course, Hobbes would simply reply, consistently with his definitions of 'part' and 'space', "then consider the line as consisting of an even number of parts". In fact, Hobbes' argument here is unnecessary. That a line is infinitely divisible follows directly from his definitions of 'space', of 'part', and of 'infinite divisibility'.
60. false. Since, so construed, the passage would seem to make better sense, I have translated the passage as if the word were 'saltem' (at least). A literal translation would be "that is, that we should shrewdly imagine a part of it".
61. Critique, p. 109. Sunt qui divisionem non intelligunt nisi per separationem et continui solutionem, ut naturae divisionis necessarius sit culter, gladius vel aliquod eiusmodi instrumentum...quasi columnae marmoreae (nisi diffringatur) semisatis non esset eius pars, aut posset eius esse pars sine divisione. Vel quasi quantum quo semper minus dari posset non esset divisibile in semper divisibilia, ideo qui non potest continue propter existitatem discindi, et pars a parte divelli. Sunt quoque, qui etsi ad divisionem necessarium non putent ut id quod dividendum est rumpatur, putant tamen esse necessarium ut partes eius animo concipiatur, id est [ut] partem eius salse imaginemur, quod si verum esset, impossibile esset ut quantum divideretur in semper divisibilia, cum perpetua divisione perveniretur tandem ad quantum ita exiguum, et nulla eius imago esse possit, imaginari enim quantitatem minorem non possumus quam quae possit videri, nisi enim rei visibilis imago esse non potest. Praeterea tempus, cuius partes divelli non possunt a se invicem neque concipi sub imagine, dividi tamen potest. Non ergo divisione opus est ut dividendum rumpatur, neque etiam ut signetur aut animo concipiatur, sufficit ut tum recta ratiocinatione cognitum sit quod in omni quanto sit contentum quantum minus, ut dimidium, 3^a , 4^a , etc. eas consideremus per nomina et id est ut eas ad

62. EW I, II, 8, 1.
63. Ibid. The bracketed portion is my translation of "esse aliquid, quod ab imaginatione nostra non dependet". (LW I, II, 8, 1)
64. Ibid.
65. Ibid.
66. It is worthwhile to compare the interpretation I have given here with a passage from the Critique. There Hobbes argues that, since addition "is the work of our intellect, that number exists which we thus make. But the existence of no body depends upon the intellect, or our consideration, and thus, although we may by means of our intellect suppose bodies perpetually added to bodies, it will not follow from that that those bodies exist in the nature of things". (Critique, p. 111. addere...cum sit opus nostri intellectus, existet ille numerus quem sic facimus. Sed corporis nullius existentia dependet ab intellectu, aut consideratione nostra; ideoque etsi nos corpora per intellectum nostrum corporibus adiecta perpetuo supputemus, non inde sequitur ea corpora existere in rerum natura.)
67. El.L. I, 11, 4.
68. EW IV, p. 393.
69. EW IV, p. 394.
70. Ibid.
71. EW III, Ch. 46, pp. 675-6.
72. A Latin-English Dictionary of St. Thomas Aquinas. Entry, 'definitivus'.
73. EW III, Ch. 46, p. 676.
74. Ibid.
75. EW III, Ch. 12, p. 96.
76. EW I, I, 3, 3.
77. EW I, II, 8, 1.
78. See above, pp. 115-119.
79. Peters, 1956, pp. 89-91.
80. Watkins, 1973, pp. 104-5, 107-8.

81. Ibid., p. 107.
82. EW I, II, 8, 2.
83. See above, Ch. 2, n. 16.
84. EW I, II, 8, 2.
85. EW III, Ch. 34, p. 381.
86. EW IV, p. 336. As the context makes clear, this is a question about the proper signification of 'quality' and, hence, the appeal to authority is not illegitimate.
87. See above, Ch. 2, n. 16.
88. EW I, II, 8, 2.
89. Ibid.
90. El.L. I, 2, 10.
91. EW IV, p. 306.
92. LW III, p. 280. et accidentia esse putemus ipsorum corporum.
93. EW VII, p. 28. my underlining.
94. EW I, II, 8, 3.
95. Ibid. my underlining.
96. Peters, 1956, p. 90.
97. Although he would have denied it in the form in which it is put. People often overlook the metaphysical assumptions involved in Berkeley's argument. To draw attention to them one need only ask of Berkeley, "What is the color of glass, and is glass not a body?" Berkeley can and does avoid such an objection only by making a distinction, at the ontological level, between visible and tangible objects. For Hobbes, however, (and I would think for almost anyone else who does not share Berkeley's metaphysics) extension is defined as having parts distant from one another; there is no reference, nor need there be, to the status of the parts as visible or tangible. This being so, it is manifest from experience, or from Berkeley's much vaunted common-sense, that one can conceive of body, that is, of something that fits the definition of body, without color simply by conceiving it tangibly rather than visually.
98. See, for instance, EW VII, p. 266.

99. How difficult can be seen from Brandt's attempt to understand this aspect of Hobbes' thought (Brandt, 1928, pp. 250-7). Brandt, unfortunately, does not recognize the importance of--in fact, does not even discuss--the first article of part two of De Corpore. What Brandt, like most other philosophers, has failed to recognize or to give due emphasis to is the fact that Hobbes conceived his method as deductive and tried, as rigorously as possible, to abide by this method. The work must, therefore, be read as one would read a geometrical demonstration. The steps have a certain order and, for the most part, must be read in that order; each successive step must be read and understood in terms of the preceding steps.
100. EW I, II, 8, 4. In the Critique 'real space' is defined as "corporeity itself or the very essence of body simply, insofar as it is of body". (Critique, p. 117. Definitio igitur spatium reale esse ipsum corporeitatem, sive ipsam coporis simpliciter, quatenus corporis, essentiam.) As is clear from Hobbes' definition of 'essence' (See below, pp. 196-202) this fits very well with my interpretation of De Corpore I, II, 8, 3.
101. Finding inconsistencies in Hobbes' work, although Hobbes is hardly the sole recipient of this honour, has become almost a game among some modern scholars and the apparent raison d'etre for much of the current writing on Hobbes. Such works usually begin or conclude with some statement to the effect that, despite the inconsistencies in his thought, Hobbes (or whoever) remains a truly great philosopher. One can only wonder what might be the psychological motivation that lies behind this drive to find faults and flaws in the thinking of so-called 'great philosophers'.
102. The phrase is taken here from Hungerland and Vick, 1973, pp. 471-2.
103. El.L. I, 13, 8-9.
104. EW I, II, 8, 2. Of course, I cannot categorically assert that the interpretation suggested here is correct. If it is not, then, following Peters, we should have to say that Hobbes is open to a serious charge of inconsistency here. There is, however, a passage from the Critique which tends, I think, to support this interpretation. There, after defining 'real space' (see above, n. 100), Hobbes continues, "so that body is to imaginary space as the thing to the conception of the thing, for our every conception of existing things is that imagination which is produced by the action of things on our sense organs, and so imaginary space, which is the imagination of body, is the same thing as our conception of existing body." (ita ut corpus sit ad spatium imaginarium, ut res ad rei cognitionem, omnis enim nostra cognitio rerum existentium, est imaginatio ea, quae a rerum actione efficitur in sensoria nostra, ideoque spatium imaginarium quod est imaginatio corporis, idem est quod nostra corporis existentis cognitio.)

105. EW I, II, 8, 5.
106. Ibid.
107. "in short" (denique) is translated as "And, lastly" in the English translation, confusingly making it appear that Hobbes is making a new point differing from the preceding one.
108. EW I, II, 8, 7.
109. See above, p. 159.
110. Of course, it does not follow that we can consider them arbitrarily in any way we like. The character of our conceptions themselves may determine how we consider them, and, however we choose to consider them, the consequences must be consistent both among themselves and with the rest of our experience.
111. EW I, II, 8, 8.
112. Ibid.
113. EW I, I, 1, 6.
114. Ibid.

CHAPTER IV

MOTION, CAUSALITY AND THE ESSENCES OF THINGS

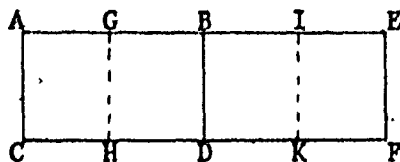
Hobbes has been referred to, and that not inaccurately, as the philosopher of motion. As we have seen, his career as an original philosopher began, by his own repeated admission, with his recognition that "all mutation is motion." This declaration is more than just the motto of Hobbes' philosophy. That all mutation is motion might, without impropriety, be called the alpha and the omega, at once both the beginning and the end of his philosophy. It was this doctrine that served throughout as both the foundation and the pinnacle of his system. Thus, we find him proclaiming much the same thought, if in different words, in his earliest known philosophical work, the 'little treatise', and in his last, the Decameron Physiologicum, "it is by motion only that any mutation is made."¹ This being so, we cannot hope to understand Hobbes' philosophy without an adequate understanding of his conception of motion.

'Motion' is defined by Hobbes in De Corpore as "a continual relinquishing of one place, and acquiring of another."² The emphasis in this definition is upon the word 'continual'. Motion is a continual relinquishing of place, "because no body...can totally and at once go out of its former place into another."³ Hobbes' argument for this latter claim is straight-forward enough. To conceive a body moved from one

place to another discontinuous place at once, would be to conceive it to be moved without time, but "time is, by the definition of it, a phantasm, that is, a conception of motion; and therefore, to conceive that any thing may be moved without time, were to conceive motion without motion."⁴ This argument, since time is defined in terms of motion, might seem circular, but, were it so, it would not matter. The question is one of definitions, and all definitions and all arguments drawn immediately from definitions are, in a sense, circular. You cannot understand that a man is a bachelor without understanding that he is unmarried, but it is no objection to claim that the arguments "a man is a bachelor, therefore a man is unmarried" or "a man is unmarried, therefore a man is a bachelor" are circular. The best that the metaphysicist can hope to do, at least as Hobbes understood metaphysics, is, by his definitions, to arouse in his readers the proper conceptions and point out their immediate (analytic) consequences.

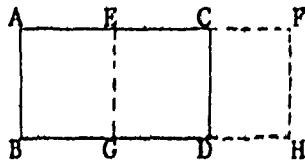
But the argument which Hobbes gives here can be expounded on the basis of what has been said earlier so as to remove the appearance of circularity. From the definitions of 'place' and 'body' it follows that no body can be in two places at the same time.⁵ Now, if we conceive a body to be removed from one place to another at once, that is, without time, it would follow that the body is, or can be conceived to be, in two places at once, at the same time. Thus, it follows by a reductio that a body cannot be moved from one place to another without time. But time is, by definition, a conception of motion, and it thus follows analytically that a body cannot go, or be moved, from one place to another without motion, that is without having gone through some intervening place. In

other words, to assert that a body moves from one place A to another place B at once, without time, is to assert, since time is a conception or phantasm of motion, that it moves from A to B without motion. There must then be some time taken for the object to move from A to B, and there must, accordingly, be some motion between A and B. Otherwise the time, which is a phantasm of motion, would not be divisible. Parts of space or places are defined to be continual, however, if they overlap, that is, if they share some common part.⁶ Thus, to take Hobbes' diagram, if the place A is represented by the rectangle ABCD and the place B by the rectangle BEDF, the object occupying A, since it cannot



move from A to B at once, without time, i.e., without motion, must occupy or pass through some intervening space, GIHK.⁷ Now, the places ABCD and GIHK overlap or share a common part GBHD and are, therefore, continuous. But the place or space ABCD is infinitely divisible; that is, it consists of as many parts as we wish to make. The motion of the object, therefore, from A to B occupies as many overlapping or continuous places as we wish to take. This is just to say that the object can no more move from ABCD to GIHK without time than it can move to BEDF without time and, since GIHK may be placed as close to AC as one likes (i.e., infinitely close), that it cannot move at all without time and without moving through overlapping or continuous places. The motion of the object from A to B is, therefore, continual.

Since motion is a continual relinquishing of place, it would seem to follow that rest, its opposite, is a continual occupation of place. Accordingly, Hobbes writes, "That is said to be at rest, which during any time, is in one place; and that to be moved, or to have been moved, which, whether it be now at rest or moved, was formerly in another place than that which it is now in."⁸ These definitions have implications which are both interesting and, I think, crucial to understanding both the full import of Hobbes' conception of motion as well as his conception of causality. It follows, "first, that whatsoever is [being] moved, has been moved."⁹ If it had not been moved, it would follow that it is now in the same place that it was and would, therefore, be definition, be at rest. It follows, "Secondly, that what is [being] moved, will yet be moved."¹⁰ This follows on two counts: the first, which Hobbes gives, follows directly from the definition of motion as continual relinquishing of place, or, as Hobbes puts it here, "that which is moved, leaveth the place where it is, and therefore will be in another place, and consequently will be moved still."¹¹ To clarify this argument, let the rectangle ABCD represent the place which the body being moved is now leaving. Since it is leaving or relinquishing the place, it

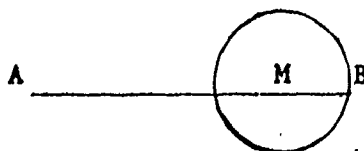


will be in another, EFGH, but the distance AE, however short, is infinitely divisible. Thus, whatever is being moved at ABCD will acquire and relinquish an infinite number of places before reaching EFGH, and this will be

true no matter where we consider the moving object between ABCD and EFGH; hence, whatever is moved, i.e., whatever is now moving, will yet be moved. The body may, of course, come to rest at EFGH, but this will not falsify the proposition. Even if EF were taken to be infinitely close to AB, so long as it is not identical with AB, there will be some distance between them which may be further divided and through which the object must move before coming to rest at EFGH. At any point prior to EFGH it will, therefore, be true that the moving object will yet be moved. At EFGH, however, on the supposition that the object comes to rest there, what will be true is only that the object has been moved.¹² The second argument which may be given for this proposition is similar to that given for the first. If it were not true that the moving object will yet be moved, then it would follow that for some time it would remain in the same place it was formerly in, and, by the definition of rest, would have been at rest in the place at which it is supposed (inconsistently) to have been moving. Now, from the conjunction of these two propositions, that "whatsoever is moved, has been moved" and "what is moved, will yet be moved," as well as from the definitions of 'rest' and of 'motion' taken by themselves, there follows the third proposition, "that whatsoever is [being] moved, is not in any one place during any time, how little soever that time be."¹³

Of the three propositions about motion that are demonstrated here, the last is, I think, the most interesting and the most important. Given this proposition, it is, I think, possible to define 'motion' without reference either to rest or to time. We may say, for instance, that a thing is at rest if it occupies a place, but since rest and motion are, where they are applicable, mutually exclusive, we may say that a thing is

in motion if it is not at rest or, by the definition of 'rest,' if it is not in a place, with the proviso of course (which on Hobbes' view of substance would be unnecessary) that the thing in question be such that it can appropriately be said to be in a place, i.e., that 'place' be applicable to it. Thus, we could define 'motion' so: a thing is in motion if it is such that it could be in a place and is not in a place. Conversely, anything which is in a place is not in motion or is, in other words, at rest. 'Rest' and 'motion' may thus be defined solely with respect to place. And since 'place' is independent of the conception of 'motion', we could still define time as the phantasm of motion with respect to before and after, i.e., place from which and place to which. But this is an aside. What is especially interesting about this property of motion is its immediate consequence that a body which is in motion has no determinate place.¹⁴ We can say only that it has a range of places. For instance, letting the points A and B represent the extremes of the space traversed by a moving body M during any specified period of time, then



the place of the body M during the time interval specified will be AB. Of course, it is obvious that as the body grows larger, its motion slower, and the time interval shorter, AB will approach the dimensions of M, so that by decreasing the time interval we can approach with ever greater accuracy to the exact 'place' of M, but never with complete accuracy, since, if we could specify a determinate place for M during any time period, we should, by definition, be forced to say that, contrary to the supposition,

M is not moving during that period but is at rest. Still, if the body is moving slowly and/or the time interval very short, it might seem that the body is not moving; it might appear to be in a determinate place. It is this fact which allows us to determine time intervals with precision by the use of clocks. The hands of a clock move (sometimes imperceptibly) slowly and the interval during which their positions are observed is that of a glance. When we read a clock (without a second hand), we glance at it quickly enough that neither the minute hand nor the hour hand appears to be moving. They appear to be at rest, so that, on the basis of this appearance, we give their 'exact' positions and the 'exact' time. But of course we do not give the exact time, because, in fact, there is not an exact time to be given; the clock hands are not in any determinate position at any time. The error, however, that is, the range of places, is in most cases entirely negligible. But error there is and must be nevertheless. The clear consequence of this is that our specification (or determination) of the position of the hands and, hence, of the time is, in a very real sense, somewhat arbitrary. We, in effect, give the hands a position by our inability to perceive their motion. Now, by 'arbitrary' I do not mean 'without any basis'. We, in fact, use all sorts of devices for determining the position of the clock's hands and the time. Where very great precision is required, for instance, we dispense with the hands altogether and use digital clocks, and where even greater accuracy is required we use electronic devices to stop the clock at a speed approaching that of light when the event to be timed occurs. Still there is and must be error. We can specify the degree of error; we can reduce it to a thousandth, perhaps even to less than a millionth of a second, but we

cannot be rid of it. And the important thing to note is that it is we who set the limits and determine the way in which they are to be set. It is in this sense that our specification of the place and of the time is arbitrary.¹⁵ That this is so will become important later in the discussion of causality. This consequence, that whatever is moved is not in one place during any time, is intimately bound up with another, which Hobbes draws. There can be no conception of motion without a concomitant conception of both past and future.¹⁶ A thing which is conceived to be moved, in other words, is conceived to be moving from a place where it was to a place where it will be, or as Hobbes puts it in a later chapter, "in every part of that space, in which motion is made, we may consider three times, namely, the past, the present, and the future time."¹⁷

There is much that is of interest in the remainder of Hobbes' remarks in this chapter on motion. What is of primary interest to us, however, is his statement of the first law of motion and his argument for it. It would seem better, however, to postpone the treatment of this aspect of Hobbes' thought until the discussion of his conception of causality, where it first becomes important. It will then be possible to consider the laws of motion, as they are formulated by Hobbes, together. What cannot be simply passed over at this point is Hobbes' resumption of the discussion of the nature of accidents and his definition of 'essence'. I shall here treat only briefly of this aspect of Hobbes' metaphysics. The way will then be clear to take up the question of causality. We may then resume, in some more detail, his conception of motion.

The specific question to which Hobbes turns after his discussion

of motion and with which he ends this chapter on body and accidents is not the nature of accidents per se. That has already been given at the outset in article two where he defines 'accident.' Rather, what he chooses to discuss here is the question of generation and destruction.

The question specifically is what it is that comes or ceases to be when a thing is said to be generated or destroyed, and the answer is that it is not body or, more generally, substance, but the accidents of body.¹⁸

To take Hobbes' own example, "When we say that a living creature, a tree, or other named body is generated or destroyed, although these are bodies, nevertheless it is not to be understood that a body is made from not a body or not a body from a body, but from an animal not an animal, from a tree not a tree, etc. that is, that those accidents on account of which we name one thing a living creature another tree, and another something else are generated and destroyed."¹⁹ This passage makes two points. In the first place it reiterates the point that it is the accidents of body, that by which we distinguish one from another (or our manner of conceiving it), in virtue of which we call it a certain thing, e.g., a 'living creature'. When that accident is destroyed we call the body something else; e.g., when those accidents in virtue of which we call a thing a living creature are destroyed, we call it, say, a corpse. It has become, though not a different body, a different thing. In the second place, by reiterating this point in context of a discussion of generation and destruction, Hobbes lays the basis for the distinction between 'essence', 'form', and 'matter'. Essence and form for Hobbes are not substantially different. The form of a thing is identical with its essence considered as generated, and 'essence' is defined as "that accident for which we give a certain

name to any body, or that accident which denominates its subject."²⁰

This distinction between accident and essence, given Hobbes' nominalism, is necessary. He has argued repeatedly that one body is distinguished from another, and given its name(s) in virtue of its accidents, but, as J.W.N. Watkins has observed, "any object will have indefinitely many properties in common with any other particular object, however dissimilar," and, "there will be indefinitely many properties possessed by only one of any two objects, however similar...Thus, any object both trivially resembles any other object in indefinitely many ways and is trivially different from it in indefinitely many ways.

This means that interesting resemblances and interesting differences are always resemblances and differences with respect to selected general features."²¹ Thus far Watkins has said nothing with which Hobbes would disagree, although he might well caution that the word 'general' not be understood in the metaphysical 'realist' sense. The phrase 'selected features' is enough to point out the difference between the essence of a thing (i.e., its 'interesting' resemblances and differences), but the phrase 'selected general features' is loaded. This is clear from the fact that Watkins goes on to argue, "Thus a radical nominalist who disallows any appeal to general features, etc., thereby disallows any appeal to likenesses. For him, the decision as to whether c should be called G or not-G cannot be regulated by comparisons between c and a and b. Nor, of course, can it be regulated by considering whether c possesses a property of G-ness. The decision cannot be regulated by objective considerations."²² Here we may ask, I think reasonably, if it is in fact just a matter "of course" that the

decision cannot be regulated by objective considerations. If we select a given property or accident, call it m, in virtue of which a thing, any thing, is to be called G, then, if c possesses the property m, it is properly called G; if not, not. It possesses, in other words, the property "G-ness" (which for Hobbes is just the abstract name for the concrete property m, equivalent to 'to be (or being) m') objectively, and the mere fact that it differs from and resembles, in an indefinite number of ways, other objects with the property m will not preclude the possibility of all of them being properly and on the basis of objective considerations called G. Watkins might object, of course, that this is to appeal to general features which he has disallowed. But the real question is whether to appeal to selected features of things is necessarily to appeal to general features at all and, if so, in what sense? Watkins would seem simply to have assumed, question-beggingly, that it is and that it must be in the realist sense. And he concludes, accordingly, that on a nominalistic theory of language, "Whether c is to be G or not will depend on the free decision of the name-giver. Each object must be independently christened."²³ And, quoting Popper, he writes that the consequence is that "in a purely nominalistic language no sentence can be formulated whose truth or falsity could not be decided by merely comparing the defining lists, or enumerations, of the things which are mentioned in the sentence.' The sentence 'a is G' is true if and only if the thing to which the proper name 'a' has been ascribed is one of the things to which the common name 'G' has been ascribed."²⁴ In other words, to determine the truth of the sentence 'a is G', we should need something like a telephone directory in which we could lock up each of those things

which we have called 'a' to see whether or not it has also been called 'G'. This 'nominalist' theory is fairly clearly absurd, but, since, on Watkins' view, any alternative must rest upon an appeal to selected general features, any alternative must be, at least to some extent, a realist theory. Since Hobbes clearly does not hold this 'nominalist' theory and since he does appeal to selected or general features, the conclusion, which Watkins accepts, must be that he was, to some degree, a realist. But this conclusion, as I think a careful examination of Hobbes' remarks on accidents and essence will show, is false.

If the assertion that nothing is general or universal but names is sufficient, by itself, to call a philosopher a nominalist, then, it seems to me, we can unequivocally call Hobbes a nominalist, but this assertion, it also seems to me, is one which would be consistent with more views than just that one attacked by Watkins. To put the matter more bluntly, we cannot say, on the basis of just this assertion, that Hobbes was a nominalist, and, armed with a preconceived definition of 'nominalism', proceed to attribute views to him which he did not, in fact, hold. Our criticisms must be based, not on our conception of what views a 'nominalist' does or must hold, but on our understanding of the views which Hobbes held. I am not myself concerned to classify Hobbes' theory; such niceties may well be left to others. There are times when it would appear that Hobbes advocated a nominalist theory (although never in the sense criticized by Watkins), others when he seems to be offering a resemblance theory, and still others when he seems to be affirming a conceptualist theory. In Leviathan, for instance, he writes that, "One universal name is imposed on many things, for their

similitude in some quality, or other accident."²⁵ Here he would seem to be propounding a resemblance theory. It should be noted that, in the same passage, he gives the sense in which names are universal. Every common name, he says, "though but one name, is nevertheless the name of divers particular things; in respect of all which together, it is called an universal."²⁶ Thus, as is clear, even names are particular, as they must be given that some names are names of names and that "the things named are every one of them individual and singular."²⁷ A name is a universal, for Hobbes, simply because it names more than one thing, but by itself it is, like everything else, particular and singular. Elsewhere, he would seem to propound something more like a conceptualist theory. For instance, in De Corpore, speaking of the properties of definition, he writes that, "it gives an universal notion of the thing defined, representing a certain universal picture thereof, not to the eye, but to the mind. For as when one paints a man, he paints the image of some man, so he, that defines the name man, makes a representation of some man to the mind."²⁸ At other times, but rarely, he seems to write like an extreme nominalist, as, for instance, when he says that, "for the understanding of the extent of an universal name, we need no other faculty but that of imagination, by which we remember that such names bring sometimes one thing, sometimes another, into our mind,"²⁹ without any explanation why this thing rather than another. Now the one question which must be answered, if Hobbes' view is to be understood, is how to reconcile these seemingly different, seemingly inconsistent statements without violating the one cardinal point that there is nothing universal in the world but names (and that only in the sense given above, that one

particular name may name several particular things). Such a reconciliation can be effected, I think, by a consideration of his views on accidents and essence.

As is clear from my discussion of Hobbes' remarks on accidents, an accident is not, properly speaking, a feature of the thing, although we attribute it to the thing, but is, rather, our manner of conceiving it, and to say that a thing is named in virtue of its accidents is, thus, to say that it is named in virtue of our conception of it (as Hobbes makes explicit in De Corpore I, I, 1, 3). Thus, there is a very real sense in which it would be true to say that, for Hobbes, it is not the thing but the conception of it that is named. Accordingly, there is no need to appeal to the common features of things. It is not necessary to ask whether two bodies possess or share, e.g., the single common property of extension, but whether, when we conceive the two different bodies (and they are different because they, or our conceptions, differ in an indefinite number of ways), we have the conception or idea of parts distant from one another. If, in other words, our manner of conceiving them is, in some respect, the same, the things conceived are to that extent the same. Since having parts distant from one another is that accident (or conception) in virtue of which we apply the name 'body,' the two things so conceived are, therefore, bodies. Having parts distant from one another is, in other words, the essence of body, and, to paint a universal picture of body to the mind, it would be necessary only to arouse in the mind of someone, by definition or by some circumlocution, the conception of parts distant from one another. Anything which has this property is, by definition, body, or, alternatively,

whenever we have this conception, we have the conception of body. Bodies, however, are each particular and the accidents, such as extension, which we attribute to them, are likewise particular. They are general only to the extent that we consider or conceive them as the same or have the same conception of them. From this, the sense in which Hobbes' claim that we may know the extent of a universal name simply by recalling that the name brings sometimes one thing, sometimes another to mind is clear. The name is an artificial sign which, strictly speaking, attaches not to the things of which it is the name, but to their essence. By the faculty of imagination we are thus able to recall or imagine many different things which possess that specific accident or set of accidents and, thus, to recall that the name attaches to all the things so conceived. There is, then, an 'objective' criterion for regulating the application of a common name.³⁰

This exposition is, admittedly, not especially clear. In excuse, I can say only that Hobbes' is even less clear. He seems not to have seen any real need for elaboration here. In what sense are our different conceptions the same or similar? This, in fact, is a question for which Hobbes attempts an answer, although it is too brief to be very illuminating. Sameness or resemblance is a relation. As such, it might be objected that, even if the things related are particular, this relation of resemblance must be universal and that Hobbes has not, accordingly, done away with universals by appealing to the sameness or resemblance of our conceptions. To this Hobbes answers that, "we must not so think of relation, as if it were an accident differing from all the other accidents of the relative; but one of them, namely, that by which the comparison is made."³¹

He goes on to explain, "For example, the likeness of one white to another white, or its unlikeness to black, is the same accident with its whiteness...And from this it follows that the causes of the accidents, which are in relatives, are the causes also of likeness, unlikeness, equality and inequality; namely, that he, that makes two unequal bodies, makes also their inequality; and he, that makes a rule and an action, makes also, if the action be congruous to the rule, their congruity."³² This seems, on the face of it, not to be especially informative, and the section ends abruptly with, "And thus much concerning comparison of one body with another."³³

This abrupt ending provides us with a clue, however. Hobbes begins the article talking about relation; he ends it with "thus much concerning comparison." It would seem, then, that relation and comparison are the same thing. And comparison is a mental act. But furthermore, Hobbes says that "the likeness of one white to another white...is the same accident as its whiteness." Now, whiteness is an abstract name, and these, it will be recalled, are the names of accidents, e.g., 'whiteness' is the name of white, equivalent to 'to be white.' There is, however, no such thing as 'to be white,' at least not according to Hobbes. Accordingly, there is no such thing as likeness. There is rather our act of ^{com}paring things or our conceptions.³⁴ And it would seem rather close to a category mistake to speak of comparison as a universal. Now, Hobbes' theory of names is causal. A thing is white, to be sure, if it is called white, but it is properly called white, not because it has been so independently christened, but because of a psychological (causal) association set up once, when the name was

first defined to us, between a certain thing and the word or sound 'white', so that, when we see a thing, it causes in us a certain conception (in this case, an image) which in turn causes (in the appropriate circumstances) the utterance of the word or sound 'white'. That we use the word 'white' for certain specific things rather than others may be explained causally.³⁵ There is no need to christen each object independently. It is in effect christened for us, in virtue of psychological laws. When we talk about those laws, however, we must use abstract names and so speak in terms of 'universals'. We must, for instance, speak of the 'sameness' of our conceptions and the 'sameness' of our utterances, forgetting that these abstract names are each of them particular and evoked by particular causes. Universal thus enter only at the level of explanation, not at the level of things or events.

Whether or not this is the correct interpretation of Hobbes in this regard I cannot say. If it is, the difficulty in making it clear should be obvious. One cannot explain it without using those (universal) terms which are to be explained. The important thing to note, however, is the fact that, while emphatically denying the real existence of universals, Hobbes does wish to retain some objective criterion for the application of common names. Since the name of this criterion or accident is an abstract name, it would appear that he has inconsistently admitted the existence of universals. This apparent inconsistency is removed, however, if we consider that the use of these names as well as the names of these names is supposed to be causally effected by particular events.

That objective criterion is some conception or accident or set

of accidents in virtue of which, according to the standard signification of the name in question, the thing so conceived is to be called a specific thing, and the accident or conception so connected with the use of a certain name constitutes the essence of the thing named, that in virtue of which it is (or is called or is thought of as) this rather than that, or in virtue of which we use, e.g., the name 'man' rather than the name 'tree'. A body, on the other hand, is called either "the SUBJECT...in respect of any accident," or "in respect of the form [i.e., its essence considered as generated] it is called the MATTER."³⁶ The latter definition is interesting because it would suggest that the matter is that which is regarded as unchanging in change, and that this is body. In fact, Hobbes argues in an earlier article that "body can neither be generated nor destroyed." The argument for this is simple and straightforward and rests upon the principle or the assumption that ex nihilo nihil fit. When that accident or set of accidents in virtue of which we call a thing a tree is destroyed, i.e., when its form or its essence considered as generated or destroyed is destroyed, we give the thing another name. It has, in other words, a different essence according to the accidents remaining or to the accidents which replace those that have been destroyed. "But that magnitude for which we give to any thing the name of body is neither generated nor destroyed. For though we may feign in our mind that a point may swell to a huge bulk, and that this may again contract itself to a point; that is,* though we may imagine something to arise where before was nothing, and nothing to be there where before was something, yet we cannot comprehend in our mind how this may possibly

be done in nature. And therefore philosophers, who tie themselves to natural reason, suppose that a body can neither be generated nor destroyed, but only that it may appear otherwise than it did to us."³⁷ The argument here is one of intelligibility; it cannot be comprehended, it cannot be understood, that or how something should come from nothing or nothing from something.³⁸ But as philosophers we are tied to reason, that is to what can be understood or rendered intelligible, and, if the possibility of a thing cannot be rendered intelligible, if its possibility is inconceivable or incomprehensible, we have no choice but to give up philosophy or to declare that, according to reason, it is impossible, as a round square, because the possibility of it is inconceivable, is impossible. There may be things existent which are, by their very nature, incomprehensible and whose possibility is, therefore, to that extent, inconceivable, but on the assumption that such incomprehensible beings exist, e.g., on the assumption that, say, God exists, they are not the subject of reason and, hence, of philosophy. To become a theologian is, of necessity, to cease to be a philosopher. If such incomprehensible beings were made the subject of philosophy and of reason, we should have no choice but to declare them, like round squares, to be impossible.³⁹ Perhaps this formulation is too strong. Hobbes says only that we must suppose them to be impossible. But the point remains unaltered. On this interpretation, Hobbes becomes something more than just a thoroughgoing empiricist, something more like an empiricist cum rationalist. He will not say that whatever is imaginable is, as far as we can know, possible. For us to know that a thing is possible, its possibility must be, not just imaginable, but conceivable or intelligible; it must be

something accessible to reason. Now, we can imagine that a thing should grow, that magnitude should come from nothing, and furthermore we can understand or make intelligible (whether or not correctly) how we can imagine such an event. But while we can thus understand the event of our imagining the event, we cannot understand how the event itself should occur. We shall have more than one occasion to see that and how Hobbes employs this (rationalistic) form of argument. All he endeavors to prove by it here, however, is what we might call the conservation of matter. We cannot understand that or how matter or body should be generated or destroyed; we can understand this with respect to (some) accidents. Thus, the only supposition that reason allows is that only the latter occurs.

The question of what it is that is generated and destroyed is preliminary to another, broader question, that of how it is in general that things are generated and destroyed, or to the question of the nature of causation. Hobbes' conception of causality, which he expounds in the following chapter, is in many respects highly original and equally worthwhile. It is a theory which deserves to be carefully explored and elaborated. It provides, in my opinion at least, what is probably the best alternative to the theory (no less bizarre than influential) propounded later by Hume. Unfortunately, the elaboration and development of Hobbes' theory lies outside the scope of this thesis. My purpose here, as in the rest of this chapter, is primarily expository. I can hope, at best, only to point out some of the merits of Hobbes' view in passing.

Hobbes' discussion of cause and effect begins, as usual, with the statement of basic terms and their definitions. Hobbes defines, first,

the terms 'to act' and 'to do'. The definitions here are simply propounded and must be so taken. Hobbes is not offering his own definitions, however; he is simply stating that this is how the words are used and how they are to be taken when he uses them. "A body," he says, "is said to work upon or act, that is to say, do something to another body, when it either generates or destroys something in it: and the body in which an accident is generated or destroyed is said to suffer, that is, to have something done to it by another body."⁴⁰ Now, the body which acts is called the 'agent,' and that which suffers or is acted upon, the 'patient,' and "That accident, which is generated in the patient, is called the EFFECT."⁴¹ From these initial terms, the definition of a 'cause' is to be deduced. The argument is brief.

"An agent is understood to produce its determined or certain effect in the patient, according to some certain accident or accidents, with which both it and the patient are affected; that is to say, the agent hath its effect precisely such, not because it is a body, but because such a body, or so moved."⁴² This is a statement of the conclusion. It needs to be amplified somewhat. An agent, which is a body, acts upon or produces an effect in another body, the patient, not in virtue of its or the patient's being a body, but in virtue of their accidents, that is, in virtue of their being bodies of a certain kind. It is crucial to note that this conclusion is not to be drawn with respect solely to the agent, but, rather, with respect to both agent and patient and their respective accidents or qualities. An agent, in other words, produce⁷ an effect in a patient because it is a body of a certain kind and because the patient is a body of a certain kind. The

argument is this: "For otherwise all agents, seeing they are all bodies alike, would produce like effects in all patients...The cause, therefore, of all effects consists in certain accidents both in the agents and in the patients; which when they are all present, the effect is produced; but if any one of them be wanting, it is not produced."⁴³ It is necessary to note what Hobbes has done here. It is tempting, in the wake of Hume, to identify the cause with the agent and the effect with the patient. For Hume both cause and effect are objects and the relation between the two reduces basically to the fact that the one object (the agent) causes, or is succeeded by, another (the patient). Hume effectively collapses the agent-patient distinction into the cause-effect distinction. For Hobbes, on the other hand, the effect is an accident in the patient. The agent is another object which acts upon the patient to produce that effect. The cause, however, is neither the agent nor the patient, but that which produces that specific effect in the patient, and this is the interaction of agent and patient, or the presence of all those accidents of both agent and patient which taken together produce the effect. Accordingly, the definition of "a CAUSE simply, or an entire cause, is the aggregate of all the accidents both of the agents how many soever they be, and of the patient, put together; which when they are all supposed to be present, it cannot be understood but that the effect is produced at the same instant; and if any one of them be wanting, it cannot be understood but that the effect is not produced."⁴⁴ Now, but for one point, all the aspects of this definition are consequences from the fact that production takes place in virtue of the accidents of both agent and patient. Given all those accidents, the effect is produced; i.e., all those accidents taken together

constitute the cause. Take away any of those accidents, that is, change the character of either the agents or the patient which go to the production of a specific effect, and the effect will not be produced (although some other may). What has not been argued for to this point is the claim that the effect is produced at the same instant that the entire cause, the aggregate of all and only those accidents which produce the effect, is present. Hobbes, however, does provide an argument for this point, as he does for each of the others.

He begins by distinguishing efficient and material causes. This distinction, which Hobbes offers as the usual or customary distinction, is basically that between the agent and the patient. The efficient cause is "the aggregate of accidents in the agent or agents, requisite for the production of the effect;" the material cause, "the aggregate of accidents in the patient."⁴⁵ But these two kinds of causes, Hobbes argues, are each only "partial causes." The entire cause is the aggregate of accidents in both agent and patient requisite to the effect, and from this, "it is manifest, that the effect which we expect, when the agents are appropriate, can nevertheless be frustrated for want of the appropriate patient; and when the patient is appropriate, for want of the appropriate agents."⁴⁶ The argument here simply repeats the argument of the preceding article with a view to establishing the difference between efficient and material causes as different parts (corresponding, respectively, to agent and patient) of the entire cause. In this way a basis is provided for reducing all causes to efficient causes. Hobbes later dispenses with formal causes as being unintelligible, "For when it is said the essence of a thing is the cause thereof, as to be rational

is the cause of man, it is not intelligible."⁴⁷ It is not intelligible because the essence of a thing is that accident or set of accidents in virtue of which we give the thing its name; thus, if 'to be rational' is the essence of man, we may legitimately substitute for it 'to be a man'; hence, "to be rational is the cause of man...is all one, as if it were said, to be a man is the cause of man; which is not well said."⁴⁸ Hobbes is willing to grant, however, that some sense can be made out of the claim that the essence of a thing is its cause; it is just a very bad way of saying that "the knowledge of the essence of anything is the cause of the knowledge of the thing itself."⁴⁹ This is obvious if essence is understood as that accident in virtue of which a thing is named; thus, if I know that a thing is rational and if I know that rationality is the essence of man, then in virtue of this I know or can know that that thing is a man. But rationality is not the cause of a thing's being a man; if it were, since 'to be rational' is, as its essence, identical with 'to be a man', we would get 'to be a man is the cause of man', which, taken literally, makes no sense. A final cause, on the other hand, "has no place but in such things as have senses and will,"⁵⁰ and Hobbes promises to prove later that these too are efficient causes. Thus, there are left only efficient and material causes, but this distinction has already been shown to break down into a distinction between agent and patient. It will not reduce, of course, to a distinction between matter and its accidents, since matter reduces to body--called matter in virtue of its accidents or essence considered as generated--and two bodies qua body do not differ and, therefore, do not contribute to the production of a specific effect. What contributes to the cause is the body qua a certain kind of body, i.e., the accidents of body.

The next point is again repetitive, but it serves to amplify an important point and to lay the basis for another. "An entire cause," Hobbes argues, "is always sufficient for the production of its effect, if the effect be at all possible."⁵¹ This follows from the definition of 'entire cause,' since, if any effect is produced or caused, "it is manifest that the cause which produced it was a sufficient cause."⁵² If it were not a sufficient cause, the event could not be produced by it, and if the event were not produced by it, it would not be, by the definition, an entire cause. From this it would seem to follow clearly enough that, if the given event were not produced, when it is possible, there must be something lacking which is necessary to its production or, in other words, that the cause was not entire.

Now, what follows from this, the point in the definition not yet proven, is that "in whatsoever instant the cause is entire, in the same instant the effect is produced."⁵³ The argument rests upon the preceding one. "For if it be not produced, something is still wanting, which is requisite for the producing of it; and therefore the cause is not entire, as was supposed."⁵⁴ The argument here is, I think, both clear and sound enough to require no elaboration. What does require elaboration is its implication, for from this Hobbes argues, "it is manifest that causation and the production of effects consist in a certain continual progress; so that as there is a continual mutation in the agent or agents, by the working of other agents upon them, so also the patient, upon which they work, is continually altered and changed."⁵⁵ Hobbes, in other words, is here taking

essentially a process view of causation. Cause and effect are not two discrete, distinct, temporally separate objects or events. They are rather the "continual mutation" or development of one event of which both agent and patient are a part. But, then, it may well be asked in what way are cause and effect distinct? As if they had to be! In fact, the distinction between cause and effect, on any such view of causality, must be, in a sense, arbitrary. As Hobbes puts it, "But in this progress of causation...if any man comprehend in his imagination a part thereof, and divide the same into parts, the first part or beginning of it cannot be considered otherwise than as action or cause."⁵⁶ We cannot consider it as an effect, since we have taken it to be the first or the beginning and to take it as an effect would require that it had a cause--before the beginning. "And in like manner, the last part is considered only as effect; for it cannot be called cause, if nothing follow it."⁵⁷ The boundary between cause and effect thus reduces to our manner of considering the event. The cause ends and the effect begins where we divide the one event into two, and if we divide it into more than two, the extremes of the event divided (which will itself be a part and a result of our division) will constitute the the cause and the effect; but "the intermediate parts are both action and passion, and cause and effect, according as they are compared with the antecedent or subsequent part."⁵⁸

Of course, it must not be thought that the division or separation of the event into parts is therefore always and totally groundless. We typically have grounds and often very good ones for making the division where we do. The essential point is that it is we who make the division;

it is we who separate the one continuous event, the continual progress or mutation, into two or more separate events and then wonder, like Hume, what is the necessary connection between them. To take an example, if a billiard ball strikes another, we take the point of separation to be the instant of their striking; what comes after is the effect, what before, the cause. But now we have two temporally and spatially separate events and we can no longer see any connection between them; we can see no way to produce from these two distinct events, one continuous event. Nor is there any need to. The one continuous event is already there to be seen. And the answer to Hume's problem is to stop regarding the one event as two separate events. In the case of the example given, this is very difficult to do. We quite naturally consider what happens after the ball's striking as a different event from that which happened before--because the event has acquired such a different character; e.g., whereas before their striking the one ball was at rest and the other moving, precisely the reverse may be true subsequent to their striking. But there is no need to regard the event so. Take a different example; a ball rolling from a point A to B. Say simply that the ball rolls from A to B. Here a question such as "What event is the cause?" or "What event is the effect?" makes no sense. The natural response would be something like "The cause of what?" or "The effect of what?" Only one event is given. Questions about cause and effect do not arise. Now, out of the infinite number of points on the line AB, consider any point C, and, describing the same motion of the same ball differently, say that the ball moves from A to C and then from C to B. Now there are two events, the ball's moving from A to C

and from C to B; these two events are temporally and spatially, even visually (if the point C is some visible mark) distinct. Now, what is the necessary connection between them? So long as the events are thus conceived as distinct, we must give Hume's answer.

Such an argument as this, of course, does not refute Hume. What it does do is show that the process view is capable of avoiding Hume's problem and, at the same time, of explaining in a plausible way (within the context of a process theory) how Hume's problem arises. To put the whole thing somewhat differently, Hume is committed to a view of space and time and, hence, of motion as consisting of discrete distinct parts. As a consequence, he cannot connect the parts. A process theory such as Hobbes', on the other hand, is committed to a view of motion and all change as continuous and, on this view, there is no difficulty in connecting the parts because there are, in fact (if the theory is correct), no parts to connect. It is we who make the parts and, bearing this fact in mind, we may simply unmake them--by considering the one continuous event as one rather than two.⁵⁹ On such a view, of course, cause and effect have to be redefined in non-Humean terms. Rather than defining 'cause' as that event or object preceding some other distinct event or object which is the effect, we say that the cause is that part of an event antecedent to some other part of the same event, and this subsequent part is called the effect. Thus, in the definition itself, we give both the distinction and the connection. Cause and effect are distinct in that they are different parts; they are connected in that they are parts of the same continuous whole. To the extent, however, that cause and effect constitute a continual

progress, a continuous process of change, we face the same problem in distinguishing cause and effect as we face in finding the place of a moving object. A moving object has no exact place; the determination of its place is always to a greater or lesser degree inexact and vague. The same is true of the distinction between cause and effect. The cause ends and the effect begins, it may be said, roughly here and now. But there is no precise point at which the cause ends and the effect begins, although, for practical purposes, we may say that the point is exactly here and now; the two events are continuous, and the distinction is thus always a practical distinction; it is always our own, and it is always inexact and vague.

From this it is clear that Hobbes' argument that "every effect has a necessary cause" is not quite so circular as it might, at first sight, appear. The argument is this. "For whatsoever is produced, in as much as it is produced, had an entire cause, that is, had all those things, which being supposed, it cannot be understood but that the effect follows; that is, it had a necessary cause."⁶⁰ And in the same manner it may be shewn, that whatsoever effects are hereafter to be produced, shall have a necessary cause; so that all the effects that have been, or shall be produced, have their necessity in things antecedent."⁶¹ Hume, of course, was perfectly correct to call the proponents of this argument "frivolous."⁶² On his view of cause-effect as a relation holding between two separate and distinct events, employing this argument to show that every event is caused is blatantly circular. But the question is, is it also circular on a different view of causation? On Hobbes' view of causation as "a certain continual

progress," there is, in effect, only one event. An effect is, in effect, only the latter part of any two (or more) arbitrarily selected parts of this one continuous whole. We may thus rephrase Hobbes' argument, in terms of his distinction between cause and effect, to read that every subsequent part has an antecedent part. Still, this does not by itself enable us to avoid Hume's objection. 'Subsequent part,' like 'effect,' is just a relative term, of which 'antecedent part' or 'cause' is the correlative. So construed, the argument is blatantly circular. But need we construe it so? If we plug into the argument the properties of motion which Hobbes had elucidated earlier, then we could rephrase it so. Take any part of any event, i.e., of any on-going change or motion. That part is also an event and presupposes a preceding event (what is moving has been moved). This preceding event, however, is not a separate and distinct event. The conception of past or preceding motion is a part of the conception of any motion. Similarly, the conception of any part of any event presupposes a succeeding event (what is moving will yet be moved). This distinction of past, present, and future which is involved in the conception of any motion is just the distinction between cause and effect. The cause is the former, the effect the latter part. Thus any part of any event (or motion, but the same would be true of change) is at once both cause and effect, depending on whether we consider it as first with respect to what is to come or as last with respect to what has been. Considered as last, that is as an effect, it presupposes a cause. This argument is not definitional. The reference to 'cause' and 'effect' and their definitional connection is wholly superfluous to the argument. In fact,

it follows from the nature of motion and the use of 'cause' and 'effect' in the argument is necessary, given Hobbes' conception of motion, only so that the conclusion may be put in terms of cause and effect. It is not the definitions of 'cause' and 'effect' that lie at the basis of the argument but, as is nearly always the case with Hobbes, the conception of motion.

Hobbes has been roundly criticized for his argument to show that "there can be no cause of motion, except in a body contiguous and moved." The argument, it is alleged, is circular. It is important, however, that we consider the argument carefully, both for the importance it has for his philosophical system in general as well as for the light it sheds on his theory of causation. The argument, essentially, is this:

- 1) Let there be any two bodies which are not contiguous, and betwixt which the intermediate space is empty... and let one of the propounded bodies be supposed to be at rest; I say it shall always be at rest.
- 2) For if it shall be moved, the cause of that motion... will be some external body;
- 3) and, therefore, if between it and that external body there be nothing but empty space, then whatsoever the disposition be of that external body or of the patient itself [whether it be at rest or in motion]...we may conceive it will continue so till it be touched by some other body.⁶³

Brandt, whose discussion of the argument here, as in so many other aspects of Hobbes' metaphysics, is the most thorough,⁶⁴ charges that the argument is circular because statement three simply asserts the point of statement one, which it is supposed to prove. (It is in order to bring this home that I have underlined 'touched' in statement three). The charge seems prima facie valid. I think, however, that

it is not. To show why it is not, we should note first that Hobbes refers in statement two (in the hiatus) to his discussion of the principle of inertia in the preceding chapter. There he argues that

Whatsoever is at rest, will always be at rest, unless there be some other body besides it, which, by endeavouring to get into its place by motion, suffers it no longer to remain at rest. For we may suppose some finite body to exist and to be at rest, so that all remaining space is understood to be empty; if, now, that body begins to be moved, it will surely be moved through some way. Therefore, since whatever was in the body itself was disposing it to rest, the reason wherefore it is moved through this way is outside the body itself. Similarly, if it were moved through any other way, the reason for the motion through the other way would also be outside it. But, since it has been supposed that there is nothing outside it, the reason for its motion through one way would be the same as the reason for its motion through every other way; therefore, it would be moved equally through all ways at once, which is impossible.⁶⁵

The argument here rests really on the last premiss. If the power to move is in the body itself (all other things being supposed to be equal), it would have as much or the same 'reason' to move in one way as in any other. Hence, it would not and could not move at all. Accordingly, if it is moved, it must be moved by something without and not by itself. This argument would seem to need some additional support, however, since, on the face of it, it would appear to be question begging. Taken as an argument to prove the necessity of a cause, the argument would be question begging. Hobbes, however, is not arguing that point here. That a cause is necessary is supposed, and, given this supposition, there are only two alternatives. Either the body moves itself, i.e., causes its own motion, or it is moved by something else. The argument has to do with the nature and not with the necessity of a cause. Still, it might be objected that it has simply been assumed that the body cannot move itself, that it

cannot determine the direction of its motion by itself. The only premiss to the contrary which Hobbes gives here is that, since the body is, by supposition, at rest, whatever is in it is disposing it to rest. Now, Hobbes has an argument to show how it follows from this that the body cannot move itself. Why he does not give it here it is not possible to say. Perhaps, he thought it obvious. However, he does give it elsewhere. In the unpublished 'little treatise', he argues,

The Agent that moveth by Active power originally in it self, applyed to the Patient, shall always move it.

If A have power active of it self to move B, lett that power be C; supposing then that B have passive power to be moved by A, if A move not B, eyther A hath not C (which is against the supposition), or A suspendeth C; if so, then A hath power to suspend C, which power lett be D. Now if the power D be never suspended, then C is always suspended, and so B can never be moved by A; and if the power D be sometimes suspended, then A hath another power to suspend D, and so in infinitum, which is absurd.⁶⁶

This argument, with only a few minor changes could be applied to the power of a resting body to move itself. Whether or not Hobbes saw the possibility of so applying the argument in De Corpore and thought it too obvious cannot be guessed. It should be noted, however, that even in the 'little treatise' where he uses the argument, he takes the proposition that "That which now resteth, cannot be moved, unless it be touched by some Agent" to be axiomatic.⁶⁷ It may be advisable, then, to take another approach. On the supposition that a cause is necessary and that a body has the power to move itself or to cause its own motion, then, if it is at rest, other things supposed to be equal, we cannot understand but that it is disposing itself to rest. But, unless we suppose that its power to move itself consists in a power to move all

ways at once so that they would cancel out, the supposition that it has a power to move itself would seem to be inconsistent with the supposition that it is at rest. Since the body is supposed to be at rest, we cannot therefore understand but that it will always remain at rest unless it is affected by some external power. Since this is all that we can understand, reason declares that we must suppose it to be the case. Something like this, I would suggest, was in Hobbes' mind when he wrote this argument. Hence, the second statement, "if it [the body supposed to be at rest] shall be moved, the cause of that motion...will be some external body."

Now, for the third statement, that premiss which, according to Brandt, makes the argument circular. Brandt's argument is essentially this: "Hobbes was to show that when bodies do not touch each other...they cannot move each other, and he employs as his argument [in statement three] the fact that bodies with an empty space between them cannot move one another."⁶⁸ But it is interesting, as well as instructive, to note the way in which Brandt continues. He writes, "It must, however, be noted that it is doubtful whether Hobbes has looked upon his argument as a demonstration. The English expression he uses is 'we may conceive,' the Latin 'possumus concipere.' Both expressions are weaker than the word 'conclude'."⁶⁹ It must be noted here what Brandt has done. The proposition to be proved is that no body is moved but by a body contiguous and moved. Brandt thus assumes that Hobbes is here attempting to prove two things, that the cause of motion must be contiguous and that it must be moved, and he takes Hobbes to be offering separate arguments for each, taking the three statements

quoted above to constitute the argument for the first point. But it is intriguing, especially in light of the fact that Hobbes claims in statement three only that we may conceive a body to remain at rest until it is touched, that, in his discussion of the argument which follows (allegedly to prove the second point), Brandt writes, "We confess that we do not understand Hobbes here...and we cannot even see where he has begun and where he ends."⁷⁰ That Brandt should have faced this difficulty is understandable. He is mistaken in his view that Hobbes is offering two separate arguments for two separate points. What follows is not a separate argument but a continuation of the argument. Seeing what follows as a continuation of the argument serves not only to show why Hobbes uses the expression "we may conceive" in statement three but also to remove the charge of circularity. The argument quoted above would be circular if that is all there were to it. But it is not all. It continues,

- 4) But seeing cause, by the definition, is the aggregate of all such accidents, which being supposed to be present, it cannot be conceived but that the effect will follow, those accidents, which are either in external bodies, or in the patient itself, [will not] be the cause of future motion.⁷¹

The reason is now quite clear. We can conceive that the body will continue to rest if it is not touched; hence, the aggregate of the accidents of the external bodies and of the body supposed to be at rest, so long as they do not touch, cannot constitute a cause of its motion. If they did constitute a cause, then we could not conceive the effect not to follow. The effect, however, can be conceived not to follow. Similarly,

- 5) we may conceive that whatsoever is at rest will still be at rest, though it be touched by some other body,

except that other body be moved.⁷²

Taking statements three and five together: we may conceive a body to remain at rest if it is not touched by another body; we may conceive a body to remain at rest if it is touched by a body which is not moving; but we cannot conceive a body to remain at rest if it is touched by a moving body. Thus, by the definition of cause,

- 6) there is no cause of motion in any body, except it be contiguous and moved.⁷³

And, of course, as Hobbes notes, the argument may be applied to a moving as well as to a resting body, so that "The same reason may serve to prove that whatsoever is moved, will always be moved on in the same way and with the same velocity, except it be hindered by some other contiguous and moved body."⁷⁴ This, not the three steps quoted earlier and criticized as circular by Brandt, constitutes the whole of Hobbes' argument, as should be obvious from its form alone. Statement one states the proposition; statements two through five, the argument; and statement six, the Q.E.D.

The validity of this argument cannot, I think, be questioned. It is not circular. To attack it we must attack its premisses, specifically statements three and five. It must be argued that we can conceive that the body be moved (a premiss which Hobbes would allow, although he would say that we could not understand it) and further, if we are to disprove his conclusion, that it cannot be conceived that it will not be moved. This we might do if, to our idea of body, we annex the idea of, say, gravity. But to this Hobbes would have a ready reply. He would ask, first, "What do you understand by 'gravity'? Do you conceive anything

more than that one body moves toward another?" The answer to this is clearly, "No," and gravity cannot be appealed to as the cause of a body's motion. But let us say that by gravity we mean some mysterious quality of which we have no conception but which is supposed to act upon bodies through space. Then Hobbes, no doubt, would reply, "If that gravity reached not to the body in question, do you conceive that it would move it?" Here again the answer is clearly, "No." But now (ala Einstein) we proceed to prove that gravity is material, because it falls under the genus 'somewhere'. Furthermore, we may prove that gravity moves. It cannot traverse any distance in an instant or, since it is a body (or let us say 'mass'), it would be in two places at once, which is impossible. Hence, it traverses space through time; that is, it moves, and since it must reach that body upon which it is to act, that is, be contiguous with it, before it can act upon it, the conclusion will follow still that there is no cause of motion except in a body contiguous and moved. There is, of course, a difficulty which still faces Hobbes, namely, that gravity (supposedly) pulls; it does not push, as does a contiguous and moved body. This will constitute a problem, however, only if it cannot plausibly be accounted for in terms of push rather than pull, and, of course, the mere fact that no such credible mechanistic account of gravity has been given is no argument that such an account cannot be given.

Obviously, this argument, pitting Hobbes' mechanism against modern physics, is intended facetiously. I no more doubt that, as far as his mechanism is concerned, Hobbes is wrong and modern physics right (or at least closer to the correct view) than any of my readers.

But the argument, nonetheless, is not without point. It shows, or is intended to show, two things. It is intended to show, first, that relativity theory or quantum theory or any other physical theory is just that--a theory. It is not a fact. One cannot say that Hobbes is wrong because action at a distance is a proven fact. It is not. It is a theory, and, since the subject with which it deals belongs to natural philosophy, it will forever remain only a theory. This observation brings us to the second point, for the argument shows, or at least indicates, what is wrong with Hobbes' argument. The conclusion is one that belongs, properly speaking, to physics not to metaphysics, to natural as opposed to first philosophy. That the only cause of motion is a body contiguous and moved, given the phenomenon of motion, is a conclusion about the cause of that phenomenon, and, as Hobbes himself stresses, such conclusions cannot be known absolutely. By placing the argument in his metaphysics Hobbes has here tried to introduce certainty where certainty is not attainable. No discourse whatever can end in absolute knowledge of fact, yet this is what Hobbes' conclusion purports to be. He has violated his own precept, "that philosophers may in most things reason more solidly by hypothetical than categorical propositions."⁷⁵ To be appropriate, his conclusion ought to have been of the form: We can conceive or understand no other cause of motion than a body contiguous and moved. Such a conclusion, however, despite appearances, would be always hypothetical. Since body is, by definition, independent of our understanding of it, the antecedent must always be of the form: Given our conception of body, or, alternatively, If body is actually such as we conceive it to be--and experience can alter our

conception of body, at least in principle. Experience cannot take away the defining characteristics of body (although it might, conceivably, convince us there is nothing that has those characteristics), but it can add to those characteristics, and it may be, in fact, the case that among those characteristics which experience (coupled, of course, with reason) may add to our conception of body, there are some which would permit us to say, intelligibly, that bodies can and, with probability, do interact non-mechanistically. Thus, the argument fails, not because it is circular, not because it is invalid, but because it contains a premiss, which is suppressed and which is unsound, to the effect that our conception of body, or that conception which Hobbes has advanced, is complete. The definition of body falls properly within the domain of metaphysics, but our complete conception of body includes more than just its definition; it includes as well our knowledge of its contingent or non-essential properties, and this part of the investigation of body belongs properly to natural philosophy, whose business it is to investigate the contingent properties of things and their possible causes. It is thus in this, in his ignoring his own fundamental tenet, that Hobbes' mistake is to be found.

The same argument which serves to show the inconclusiveness of Hobbes' argument that the only cause of motion is a body contiguous and moved will serve also to show the inconclusiveness of his argument that all mutation is motion. The first premiss in the argument is that, "As effects themselves proceed from their causes, so the diversity of them depends upon the diversity of their causes also."⁷⁶ To this he add the premiss that, "we do not say anything is changed, but that

which appears to our sense otherwise than it appeared formerly,"⁷⁷ and the premiss that "those appearances are effects produced in the sentient."⁷⁸ The latter premiss for Hobbes would appear to be definitional; it follows from his equation of phenomena or appearances and natural effects. Taking these premisses together, it follows that any differences in the effects or appearances and, hence, all mutations must be attributable to differences in their causes. But Hobbes takes himself to have shown in the argument given above that a body can act upon another body (in this case the sentient) only by being contiguous and moved. Thus, diverse effects must be accounted for in terms of diverse motions. But motion can only impart motion (a hidden but intuitively obvious premiss), so that, "it is necessary that mutation can be nothing else but motion of the parts of that body which is changed."⁷⁹ This argument is, in my opinion valid, but, while valid, it is not sound. Its force rests upon the soundness of the argument that there is no cause of motion but a body contiguous and moved, and this argument, as has been shown, is not conclusive. The flaw is even more obvious in this argument, however, for here Hobbes is explicitly talking about phenomena (the appearances or effects) and their causes, and this, according to his own definition is the subject of natural philosophy.

What this untoward digression into natural philosophy shows, however, is the close connection between Hobbes' conception of motion and his conception of causation. Indeed, as has been indicated in the discussion of his argument that every effect has a necessary cause, this connection is clear enough just from the fact that both motion and causation are conceived as continuous processes. In fact, Hobbes seems

to assert the connection almost explicitly when he says, almost immediately after arguing that causation consists in "a certain continual progress," that this "is already no little argument that all mutation consists in motion only."⁸⁰ Understanding this close connection will help to understand Hobbes' discussion of power and act.

Power and act differ from cause and effect only in how they are considered, "For whensoever any agent has all those accidents which are necessarily requisite for the production of some effect in the patient, then we say that agent has power to produce that effect, if it be applied to a patient."⁸¹ Since the accidents of the agent constitute the efficient cause, it follows that "the power of the agent and the efficient cause are the same thing."⁸² A similar argument is used to show that the power of the patient is identical with the material cause. The difference between cause and power is thus, "that cause respects the past, power the future time."⁸³ We do not, in fact, call a given event a cause until the effect has occurred or is occurring. When the effect is supposed to be about to occur, or when the case is put hypothetically, we say that the event has the power to cause the effect. Now, it follows fairly clearly that powers are conditional, i.e., an event is said to have power with respect to some future contingency. Accordingly, Hobbes writes, "the agent has power, if it be applied to a patient; and the patient has power, if it be applied to an agent."⁸⁴ Thus, there is no real power that is not actual. An event has the power actually, i.e., is bringing about the event, or it has it only conditionally in the sense that it would produce its effect if such and such were to be the case. If the requisite conditions are not met, however, if the agent

and patient are never brought together, then "neither of them have [actual] power, nor can the accidents which are in them severally be properly called powers; nor any action be said to be possible for the power of the agent alone or of the patient alone."⁸⁵ An agent, in other words, actually has power if and only if it is or will be applied to the patient. If, however, it never will be applied to the patient, the consequent remains always false, and, hence, it is false that the agent has, or ever will have any actual power. The act, then, which the agent has the hypothetical power to produce, is impossible if it is a fact that the act will never occur. For, if it is a fact that the act will never occur, it follows that the agent does not have, now or in the future, the power to produce it, or, in other words, that the cause is not and never will be complete.⁸⁶ Since, however, "every act, which is not impossible, is POSSIBLE. Every act, therefore, which is possible, shall at some time be produced."⁸⁷ The argument here, of course, rests upon the assumption that every event, mutation or motion, must be caused, but this view is, at least at this point, simply assumed.

Hobbes does have an argument to support this view, however. To understand it we must note the following premisses, already given: (1) Only accidents, not bodies, are generable; (2) all mutation consists in motion; (3) the only cause of motion is motion. Now, premisses two and three are, as we have shown, suspect. Nevertheless, by introducing the laws of motion, we can construct a valid, if inconclusive, argument. Hobbes' formulation of the first law is as follows:

Whatsoever is moved, will always be moved on in the same way and with the same velocity, except it be hindered by some contiguous and moved body.⁸⁸

Hobbes nowhere explicitly states the second and third laws, but it seems likely that he understood them both. In chapter 15 of De Corpore, for instance, he writes that,

motion is considered sometimes from the effect only which the movent works in the moved body, which is usually called moment. Now moment is the excess of motion which the movent has above the motion or endeavour of the resisting body.⁸⁹

And only a little later,

All endeavour tends towards that part, that is to say, in that way which is determined by the motion of the movent, if the movent be but one; or, if there be many movents, in that way which their concurrence determines.⁹⁰

These two statements taken together represent a fairly close approximation to the second law of motion as later stated by Newton. The third law may be gathered in part from his oft repeated dictum that motion is not resisted by rest but by contrary motion. From the first passage quoted above in support of the second law, it is clear that he assumes such resistance in all action, so that for every action there is a contrary action of resistance. And this resistance or reaction is clearly stated to be opposite the action. He writes, in a later chapter, "Action and reaction proceed in the same line, but from opposite terms."⁹¹ Hobbes says nothing about the equality of action and reaction, perhaps, because he thought it to be decidable, perhaps, because he simply did not recognize it.

There is no need here to go more deeply into Hobbes' conception of the second and third laws of motion. What is for him fundamental is

the first law, the principle of inertia. Now, if we couple this with the three premisses given earlier, the argument for the necessity of a cause is easy to see. Given the principle of inertia, we may say that, on the assumption that bodies do not interact, there are no changes in state. Every body persists in its own uniform state of rest or motion. And has reason for doing so. The principle of inertia may, in other words, be construed as a causal principle. Motion is a cause of motion and, accordingly, every body's motion is a sufficient cause, other things being equal, for its continued motion. The assumption that a body might change its state without cause thus becomes not just unintelligible but contradictory, since, if it did so change its state, we should be compelled to say that its motion is not a sufficient cause of its continued motion, or that motion is not a sufficient cause of motion. Thus, unless it is caused by something else to change its state, a body will cause itself to persist in its own state. So viewing the principle of inertia as itself a causal principle is entirely consistent with Hobbes' views on the properties of motion, with the interpretation which I have given to his argument that every effect must have a cause, with the close connection in his theory between causation as a continual progress and motion, and with the argument quoted earlier from the 'little treatise'. While Hobbes himself nowhere offers such an argument explicitly, on the assumption that this or something like it is what he had in mind, we are able to make sense of the fact that, whereas in some writings he endeavours to prove the principle of inertia, in other he takes it simply as axiomatic.⁹²

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So construing the principle of inertia and its place in Hobbes'

system also serves to make his argument for the necessity of a cause the more forceful. His argument, in effect, comes down to this,

that a man cannot imagine anything to begin without a cause, can no other way be made known, but by trying how he can imagine it; but if he try, he shall find as much reason, if there be no cause of the thing, to conceive it should begin at one time as another, that he hath equal reason to think it should begin at all times, which is impossible, and therefore he must think there was some special cause why it began then, rather than sooner or later; or else that it began never, but was eternal.⁹³

Here the connection between Hobbes' conception of causality, his determinism, and his conception of motion is obvious. The argument is exactly parallel to that given for the principle of inertia. What is especially interesting is the final clause. Here Hobbes asserts that either there is a special cause for the event or it is eternal, and this would seem clearly to suggest the hidden premiss that an object's being in or having been in a particular state is, other things being equal, a sufficient cause for its continuing in that state (the principle of inertia). But the principle of inertia, as a corollary of the properties of motion, can also be applied backwards. Since whatever is being moved, has been moved, a thing's being in a state is sufficient for its having been in that state, other things being equal. Now, while it might be objected that the principle of inertia is false, by taking it as an axiom, the argument becomes intuitively far stronger. On the other hand, we could take Hobbes' conception or definition of motion, with its entailed properties, as an axiom. On this basis the principle of inertia could be demonstrated, giving the argument the same intuitive strength. This, as we have seen, is the route which

Hobbes actually takes in De Corpore, thinking, no doubt, that the definition of motion is intuitively more defensible than the principle of inertia which follows from it. Of course, the difficulty with this line of argument, aside from the obvious objection that the definition of motion is incorrect, is that, if it is to be used to support the view that no accidents can come to be except in virtue of an external cause, it presupposes the view that (premiss two) all mutation is motion. Still if this premiss is granted, we have an intuitively convincing, if not logically compelling, argument to show that every mutation, i.e., every change of state, must be caused, and, granting premiss three, that such mutations must be caused by motion. Whether or not the argument is logically compelling, however, may well be an irrelevant consideration, at least as far as Hobbes is concerned. While logical rigor is something which he found desirable and, where possible, necessary, he is quite willing to dispense with it.⁹⁵ In fact, he consistently uses the same method of argument on such points. The conclusion he wishes to demonstrate is "that nothing taketh beginning from itself, but from the action of some other immediate agent without itself." But he argues this by showing that a man cannot imagine otherwise. That something should change its state without cause is simply inconceivable, and, so far as (intuitive) reason is concerned, it must therefore be supposed to be impossible. This is the method of proof used to establish basic principles or axioms in any deductive system, and it is interesting to note that this is always the method of proof employed by Hobbes to establish the principle of inertia.⁹⁶ It

would seem best, therefore, to assume that, as in his earliest work, this principle always served for Hobbes as a fundamental, intuitively evident but logically indemonstrable, principle. It is, in effect, his point of departure, and, as such, to argue against it that it is not logically demonstrated or that it is question begging is to miss the point, is itself to beg the question. It is not the sort of thing that can be demonstrated, and the only alternative is to show that reason can make sense of things with a different principle, "to the end that they who search after other philosophy, may be admonished to seek it from other principles."

From his determinism and his distinction between the impossible and the possible, it follows that the distinction between the necessary and the contingent breaks down into a distinction between knowledge and ignorance. As he writes in De Corpore, "all propositions concerning future things...are either necessarily true, or necessarily false; but we call them contingent, because we do not yet know whether they be true or false; whereas their verity depends not upon our knowledge, but upon the foregoing of their causes."⁹⁷ All future events are necessary. They will come to pass and so, therefore, will their causes. The whole sequence can be traced back to the present and can be seen, not in terms of causation, but in terms of motion. What is moving, and Hobbes believed that everything was moving,⁹⁸ will continue to move until its motion is altered by some other motion, and the motion of bodies affect each other in certain mathematically determinable ways. Hence, every moment is a sufficient condition for some 'immediately succeeding' future moment into which it imperceptibly blends, and, if the 'present'

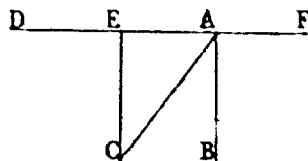
moment is a sufficient cause for the 'next', it follows that, by definition, the next is necessary. In fact, it is no more than a continuation of the present. As Hobbes writes elsewhere, the generation of any change in anything "is the entire progress of nature from the efficient cause to the effect produced,"⁹⁹ or, in an earlier work, "That which I say necessitateth and determineth every action...is the sum of all things, which being now existent, conduce and concur, to the production of that action hereafter."¹⁰⁰

Now, before bringing this, perhaps overlong, discussion of Hobbes' metaphysics to a close, there remain only a few points which should be mentioned to make the transition to his psychology more perspicuous. All of these have to do with Hobbes' conception of motion and consist of definitions, which I shall here discuss only very briefly. Of these, perhaps the most important is the concept of 'conatus' or 'endeavour'. This Hobbes defines in several ways, all of them intended to be taken as equivalent. 'Endeavour' is defined as "motion made in less space and time than can be given; that is, less than can be determined or assigned by exposition or number; that is, motion made through the length of a point, and in an instant of time."¹⁰¹ And in the psychological discussion of Leviathan and The Elements of Law, it is defined as the "small beginning of motion."¹⁰² Similarly, in the early, unpublished Critique, he argues that "Endeavor, however, is the same thing as the beginning of motion, and further, it is manifest that every part of motion is motion, and the beginning of any thing is the first part of it, whence it follows that all endeavor is motion."¹⁰³

Now, it needs to be noted that since endeavor or conatus is defined as motion it has, accordingly, all the characteristics of motion. It is, for instance, always through some distance and some time. It differs only in this; a motion is an endeavor only when its length or duration is not considered or is inconsiderable. It is imperceptible and may be so infinitely small that it would never be observed however long a body which possessed it was watched.¹⁰⁴ The role which the concept of endeavor plays in Hobbes' natural philosophy cannot be overestimated. It is his mechanistic way of dealing with force; the weight of a resting body, for instance, is an endeavor downward; centripetal force is an endeavor from the center of rotation; and the resistance or reaction of any body to any action is an endeavor in the opposite direction. But furthermore, the concept of endeavor constitutes the link between his metaphysics and his psychology which serves to make his mechanistic account of psychological phenomena possible. It must not be forgotten, therefore, that endeavor, for Hobbes, is neither more nor less than motion and that it has all the characteristics of motion.

That concept which for his natural philosophy is second in importance only to that of endeavor is resistance. 'Resistance' he defines as "the endeavour of one moved body either wholly or in part contrary to the endeavour of another moved body, which toucheth the same."¹⁰⁵ Now, crucial to the understanding of 'resistance' is the fact that it is defined as an endeavor, which is, in turn, defined as motion. Resistance is thus contrary motion. This being the case, it follows that rest is not resistant. As Hobbes writes, apparently in response to Descartes, "There is one that has written that things moved are

more resisted by things at rest, than by things contrarily moved; for this reason, that he conceived motion not to be so contrary to motion as rest. That which deceived him was, that the words rest and motion are but contradictory names; whereas motion, indeed, is not resisted by rest, but by contrary motion."¹⁰⁶ Now, a consequence of this would appear to be that motion must be regarded as relative. Hobbes never says explicitly in his published works that all motion is relative (although, given his conception of space as imaginary, one wonders what sense would be made of the claim that it is not relative); however, there are many passages which would seem to indicate that this is his belief. For instance, in his explanation why "a stroke, which falls obliquely, is weaker than a stroke falling perpendicularly, they being alike in all other respect" relies upon the conception of motion or, at least, of velocity, as relative.¹⁰⁷ This is clear from his argument and the accompanying figure. In the figure, CA represents the motion of the oblique stroke, BA that of the perpendicular stroke. All



we need note here is that the argument, which is to show the proportion between the stroke CA and the stroke BA, depends upon the premiss that "the stroke in CA is made by the concurrence of two motions in CE and EA."¹⁰⁸ Now, one could not say that the motions of the body in CA were two unless the motion were regarded as relative. And Hobbes was quite familiar with the stock example of a man walking on a moving ship, which he used to

show that there could be many motions in one body.¹⁰⁹ Whether or not he would have said that all motion is relative, however, remains an open question.¹¹⁰ But another and more important implication of the definition of resistance is that motion cannot be stopped in an instant. That which resists motion is contrary motion, the relinquishing of one place and acquisition of another. Accordingly, as Hobbes puts it in Leviathan, "When a body is once in motion, it moveth, unless something else hinder it, eternally; and whatsoever hindereth it, cannot in an instant, but in time, and by degrees, quite extinguish it."¹¹¹

There is one more definition which should be considered before turning to the discussion of Hobbes' psychology. That is the definition of 'habit.' "HABIT is motion made more easy and ready by custom: that is to say, by perpetual endeavour, or by iterated endeavours in a way differing from that in which the motion proceeded from the beginning, and opposing such endeavours as resist."¹¹² Habit is here used solely as a physical concept. It is nothing more than "an easy conducting of the moved body in a certain and designed way...attained by the weakening of such endeavours as divert its motion."¹¹³ But since motion and, therefore, endeavor can only be "weakened by little and little...this cannot be done but by the long continuance of action, or by action often repeated."¹¹⁴ In this sense, a river would be said, after years of following the same course, to have acquired a 'habit.' It follows this course more easily by having weakened "such endeavours as divert is motion," in other words, by removing and pushing aside the particles that stand in its way until it has worn a definite channel. But while the concept of habit is thus introduced as a physical concept, its applications to psychology are obvious.

NOTES: CHAPTER FOUR

1. EW VII, p. 129.
2. EW I, II, 8, 10.
3. Ibid.
4. Ibid.
5. EW I, II, 8, 8.
6. EW I, II, 7, 10; I, II, 8, 9.
7. EW I, II, 8, 10.
8. EW I, II, 8, 11. As is clear from the fact that he takes it to be true that an object is or has been moved "whether it be now at rest or moved," Hobbes is not here opposing rest to motion. Otherwise, it would be possible for one object to be at rest and in motion at the same time. What he is saying may be made clearer from an example. If I walk into my office and see that my desk is not in the place that it was, then I may say without contradiction that it is at rest and that it is (or has been) moved. It is moved, not because it is now moving, but because it is not where it was yesterday, although it is at rest because it is where it was a moment ago. This must be understood since, in what follows, Hobbes is opposing motion to rest.
9. Ibid. I have inserted 'being' to make the point clearer.
10. Ibid.
11. Ibid.
12. Brandt makes against this view what would, at first sight, seem to be a plausible and obvious objection. No doubt bearing in mind Hobbes' assertion in Decameron Physiologicum that he believed nothing to be absolutely at rest (although he asserts in the same passage that it is possible for a moving body to come to rest). (EW VII, p. 87), Brandt writes that "We might with some justice expect from his process of development that Hobbes would not admit rest at all," and he goes on to argue that "it is characteristic of him that he begins with motion and that from his definition he deduces consequences which--if thought out--preclude the possibility of rest. For it is seen from one of

his consequences 'whatsoever is moved, has been moved' (which is unassailable on the basis of the definition), that we shall never be able to understand the initiation of motion, the transition from rest to motion, for here we must come to a point when the principle is not valid, because the immediately preceding state of the body is not motion but precisely rest...And the same is the case with Hobbes' second consequent, 'what is moved, will yet be moved.' It is unassailable like the first one but, as will be seen, if we maintain it, we shall never be able to understand the cessation of motion, the transition from motion to rest. For here as in the first case we must come to a point when the principle is not valid, because conversely the immediately succeeding state of the body moved will not be motion but rest." (Brandt, 1928, pp. 261-2) The only objection I can see to this argument is that it rests on an assumption which Hobbes, by asserting the infinite divisibility of space and time, denies, that there is an immediately preceding or succeeding state or instant.

13. Ibid.
14. That Hobbes himself took this to be the immediate consequence of this proposition is clear from his summary of this article in chapter 15, where he writes that he has here "shown that whatsoever is moved is not in any determined place, as also that the same has been moved, is still moved, and will yet be moved." (EW I, III, 15, 1)
15. Here I have consciously used 'arbitrary' in a somewhat archaic way (although it was the primary sense in Hobbes' day) to mean simply 'voluntary' or 'depending on the will.' It is in this sense that Hobbes himself used the word (see, for instance, the contrast which he draws between "natural" and "arbitrary" signs in EW I, I, 2, 2), never in the contemporary sense of 'capricious' or 'without basis.' If commentators would bear in mind that the sense of the word has changed and that Hobbes employed it in the former sense, it would do much to ameliorate criticisms of his theory of names and of truth--both of which he held to be 'arbitrary.'
16. Ibid.
17. EW I, III, 15, 1. See above n. 14. Since time is the phantasm of before and after in motion, or of place from which and place to which, this might be put differently. Every part of space in which motion is made, because a thing is supposed to be moving in it, may be considered as consisting of three parts or spaces, the place where the moving body was or from which it has been moved, the place where it will be, or which it will be moved to, and the place where it is. Of course, the place where it is is only so definite as we make it, since it too could be subdivided into these three parts.
18. EW I, II, 8, 20. That the discussion of motion and its nature

intervenes between the discussion of the nature and generation and destruction of accidents may seem puzzling. However, it is quite understandable given Hobbes' view that all mutation, i.e., all generation and destruction, is motion.

19. LW I, II, 8, 20. Quando generari, vel perire animal, arborem, aliudve corpus nominatim dicimus, etsi ea corpora sint, non tamen intelligendum est, ex non corpore corpus, vel ex corpore fieri non corpus, sed ex animale non animal, ex arbore non arborem, etc. id est, accidentia quidem ea propter quae aliam rem animal, aliam arborem, alia aliter nominamus generari et interire.
20. EW I, II, 8, 23. Although 'form' is not there mentioned, the course of the argument may be clearer from the version given in the Critique. "Origination and destruction are sometimes taken for creation from nothing and destruction or reduction into nothing, whereas that can be done and understood by the divine omnipotence alone; for we can in no way understand in our imagination how something can arise from nothing, or nothing from something. However, it is usually and for the most part taken for generation and corruption, that is, for mutation, yet not in anything, but in that on account of which we impose or take away that name of the thing which replies to the question What is it? Thus, a man is said to be generated, not because the matter from which he is made takes on a new color or because it takes on the qualities of flesh and bones, or another insignificant mutation, but when it has undergone such a mutation that, when we look at it, we have from the sight of it that image on account of which we are accustomed to call some thing a man. In the same way, the corruption or destruction of a man is not any mutation, as to become black from white or to become ill from being healthy, but rather not to have the sense and figure of a man. The generation of a body, therefore, is that mutation of it on account of which a new name from those which pertain to the Category of essence agrees to it; a man who, from being one cubit, becomes two cubits tall, has indeed a new name from those which are in the second Category, which is of measures, yet he retains the name of man; but if he is changed into a tree, a tree is said to be generated, and a man to be destroyed. For the destruction of a body is that mutation of it on account of which the name which it had before from among those which pertain to the Category of essence, οὐσία, no longer agrees to it. Nevertheless, the matter, in which the nature of body consists, is not destroyed; as a measure of wine poured into the ocean, although it ceases to be wine, nevertheless, does not cease to be body. (Critique, p. 130. Ortus & interitus accipiuntur aliquando pro creatione ex nihilo, et destructione, sive reductione in nihilum, id quod a sola omnipotentia divina & fieri & intelligi potest; imaginatione enim nostra nullo modo assequi possumus quomodo aut aliquid ex nihilo, aut nihilum ex aliquo oriri possit. Quandoque autem & plerumque pro generatione, et corruptione accipitur, id

est pro mutatione, non tamen qualicumque, sed ea propter quam nomen rei imponimus, vel admimus, quod respondet ad quaestionem quid est? Sic homo dicitur generari, non quod materia ex qua fit, suscipiat novum colorem, vel qualitates carnis aut ossium; aut aliam parvam mutationem, sed quando subierit mutationem tantam, ut cum ipsam intueamur, habeamus ab aspectu eius eam imaginem propter quam solemus rem aliquam appellare hominem. Eodem modo non quaelibet mutatio, ut ex albo fieri nigrum, aut ex sano aegrotum, sed non amplius habere sensum, & figuram hominis, est hominis interitus, corruptio. Generatio ergo corporis est mutatio eius, propter quam ipsi conveniet nomen novum ex iis quae pertinent ad Categoriam essentiae; homo qui, ex cubitali fit bicubitalis, nomen quidem novum habet ex iis quae sunt in Categoria secunda, quae est mensurarum, hominis tamen nomen manet; sed si mutetur in arborem, generari arbor dicitur, & homo interire. Interitus enim corporis, est mutatio eius illa, propter quam nomen ei non amplius convenit quod habebat ante ex iis quae pertinent ad Categoriam ουσίας essentiae. Materia tamen eius, in qua consistit natura corporis, non interit: sicut vini cotyla infusa oceano, quanquam desinat esse vinum, non tamen desinit esse corpus.

21. Watkins, 1973, p. 105.
22. Ibid.
23. Ibid., pp. 105-6.
24. Ibid., p. 106.
25. EW III, ch. 4, p. 21.
26. Ibid. My underlining of 'one'.
27. Ibid. Watkins, failing to note that Hobbes gives the sense in which a name is supposed to be universal, finds these two statements inconsistent, hence, his conclusion that Hobbes was, in some respect at least, a realist. (Watkins, 1973. p. 107).
28. EW I, I, 6, 15.
29. EW I, I, 2, 9.
30. Perhaps, since it is our conceptions of the things which must be correlated, we should say 'inter-subjective.'
31. EW I, II, 11, 6.
32. Ibid.
33. Ibid.

34. This way of looking at the passage compares favorably with what Hobbes writes about relations in the Critique. There he writes, "Those things are related which are compared among themselves; two bodies are compared among themselves, however, according to the accidents of each; for example, father and son are related because of the accidents according to which they are compared, namely because To have begotten is an accident of the father, To have been begotten is an accident of the son. So white and white are related, compared according to color, and are called similar, and white and black, compared according to color, are related and are called dissimilar. Moreover, relation is the same as To be compared with another or with itself at another time, as to be a father, to be similar, to be equal, to be the same, to be diverse, to be greater, etc. But the accidents by which they are compared, are called the foundations of the relation; for instance, to have begotten is the foundation of the relation of paternity; the whiteness of white compared with another white is the foundation of similitude; and the whiteness of white compared with black is the foundation of dissimilitude. However, the foundation of a relation, for instance, whiteness or to be white, is to be or an absolute accident, but to be similar or dissimilar is a compared accident or to be compared, that is a relation: which two words to be white and to be similar to other whites do not signify different things, but the same thing at one time compared, at another not compared, but taken absolutely. For it is the same thing to be white and to be similar to white, but different names; for what we call white when not comparing, that, when we are comparing, we call similar. (Critique, p. 203. Relata sunt quae comparantur inter se; comparantur autem inter se duo corpora secundum accidentia utriusque; exempli gratia, pater & filius relata sunt, propter accidentia secundum quae comparantur, nimirum Genuisse quod Patris, Genitum esse, quod filii accidens est. Ita album & album relata sunt, comparata secundum colorem, dicunturque similia, et album et nigrum relata sunt comparata secundum colorem, dicunturque dissimilia. Relatio autem idem est quod Esse comparatum cum alio vel cum seipso alio tempore, ut esse patrem, esse similem, esse aequalem, esse idem, esse diversum, esse maius &c. Accidentia autem per quae comparantur, vocantur fundamenta relationis; verbi gratia, genuisse est fundamentum relationis paternae; albedo albi comparati cum alio albo est fundamentum dissimilitudinis. Fundamentum autem relationis, puta albedo, vel esse album, est esse sive accidens absolutum, sed esse simile vel dissimile, est accidens comparatum, sive esse comparatum, hoc est relatio: quae duae voces esse album, et esse albis aliis simile, non significant diversas res, sed eandem rem modo comparatam modo non comparatam, sed absolute sumptam. Eadem enim res est, esse album & esse albo simile, at nomina diversa: nam quod album dicimus, non comparantes, id comparantes simile appellamus.)
35. Hence, Hobbes' statement that we need only imagination to determine the extent of a universal name. The doctrine of natural signs, upon

which the theory of names is constructed (See EW I, I, 2, 2) is a two way street. The antecedent evokes the thought of the consequent, but so does the thought of the consequent evoke that of the antecedent. Thus, the thing may evoke the thought of its name, but similarly the name, as the sign of a certain essence or accident may evoke the thoughts of all those things to which it attaches.

36. EW I, II, 8, 23.
37. EW I, II, 8, 20. See above, n. 20.
38. The fact that we can imagine such an event, on the other hand, can be made wholly intelligible. Rightly or wrongly, some rational explanation can be given for it. For instance, in Hobbes' psychology, we could describe such an imagining in terms of compounding several ideas, all of which are taken to be accidents of bodies. Taking an idea to be a single entity, however, we could not understand how it should swell or contract itself. We could not make such an event intelligible. Thus, we could not understand how, in nature, a body or a single entity could swell or contract itself or, in other words, how something could come from nothing or nothing from something.
39. This interpretation is, I think, consistent with all that Hobbes says about what is and is not a subject of philosophy or natural reason and why. Since, for Hobbes, reason and philosophy are the same, what is not the subject of one, is not the subject of either. Thus, God, who is incomprehensible, is the subject of neither. This interpretation, however, has devastating implications for certain recent interpretations of Hobbes' moral and political philosophy, which will be pointed out in greater detail in the appropriate chapter.
40. EW I, II, 9, 1.
41. Ibid.
42. EW I, II, 9, 3. The last clause may indicate either a revision by Hobbes or an attempt by the translator to make the point clearer. In the Latin it reads, "that is, not because they are bodies, but because they are such bodies, or so moved." (LW I, II, 9, 3. id est, non propterea quod sunt corpora, sed quod talia, vel taliter mota.)
43. Ibid.
44. Ibid.
45. EW I, II, 9, 4.

46. LW I, II, 9, 4. hoc manifestum, effectum quem expectamus, cum agentia sint idonea, tamen propter defectum idonei patientis, et cum patiens sit idoneum tamen propter defectum agentium idoneorum, frustrari posse.
47. EW I, II, 10, 7.
48. Ibid.
49. Ibid. See also, EW I, I, 3, 20.
50. Ibid.
51. EW I, II, 9, 5.
52. Ibid.
53. Ibid.
54. Ibid.
55. EW I, II, 9, 6.
56. Ibid.
57. Ibid.
58. Ibid.
59. To the dedicated Humean's immediate empiricist objection, it would be well to give this reply. To borrow an example from T.S. Kuhn, where Galileo saw a pendulum, Aristotle saw a rock writhing on a string. Or, to take a more well known example, where I see a duck, you may see a rabbit. But I, by considering the figure differently, may see the rabbit, and you may see the duck. What is involved in the latter case is a Gestalt shift, and what I am suggesting is that the same sort of shift is possible with respect to the progress of events. We see them as several and disconnected; but we may also see them as one.
60. Not to be confused with 'necessary condition'. Hobbes' term for this is "causa sine qua non, or cause necessary by supposition, as also the cause requisite for the production of the effect." (EW I, II, 9, 3) By 'necessary cause' he means the entire cause, that which necessarily produces the effect. (EW I, II, 9, 10)
61. EW I, II, 9, 5.
62. Treatise, I, III, 3.
63. EW I, II, 9, 7. My underlining.

64. For instance, John Laird, in his discussion of this argument says simply, albeit artistically, that it is "so beautiful an example of a logical circle that any commentary would be inartistic," although he goes on, "speaking clumsily," and I would suggest rather irrelevantly, to "suggest that believers in actio in distans need not be fools, and that Hobbes never even began to prove that all mutation must be motion." (Laird, 1934, p. 101)
65. LW I, II, 8, 19. I have quoted the first sentence from the English translation (EW I, II, 8, 19) although it differs considerably from the Latin. A literal translation might be, "What is at rest, is understood always to be at rest, unless there be some other body besides it, which having been put in its place, it cannot rest any longer." (Quod quiescit, semper quiescere intelligitur, nisi sit aliud aliquod corpus praeter ipsum, quo supposito, quiescere amplius non possit; supponamus enim corpus aliquod finitum existere, ut quiescere, ita ut reliquum omne spatium intelligatur vacuum; si jam corpus illud caeperit moveri, movebitur sane per aliquam viam, quoniam igitur quicquid in ipso corpore erat disponebat ipsum ad quietem, ratio quare movetur per hanc viam quamcunque motum esset, ratio quoque motus, per illam viam, esset extra ipsum. Cum autem suppositum sit, extra ipsum nihil esse, ratio motus per omnem aliam viam; ergo aequae motum esset per omnes vias simul, quod est impossibile.)
66. El.L., p. 195.
67. Ibid.
68. Brandt, 1928, p. 281.
69. Ibid.
70. Ibid., p. 282.
71. EW I, II, 9, 7. The bracketed phrase, in the Latin "non erit", is translated "cannot" in the English version.
72. Ibid.
73. Ibid.
74. Ibid.
75. EW I, I, 3, 11.
76. EW I, II, 9, 8.
77. EW I, II, 9, 9. Laird apparently takes this premiss to constitute the whole of Hobbes' argument. So construed, the argument is obviously question begging.

78. Ibid.
79. Ibid.
80. EW I, II, 9, 6.
81. EW I, II, 10, 1.
82. Ibid.
83. Ibid.
84. EW I, II, 10, 3.
85. Ibid.
86. EW I, II, 10, 4.
87. Ibid.
88. EW I, II, 9, 7. Hobbes' preferred way of stating this law is that given in the preceding chapter in two parts and repeated in ch. 15 as "Whatsoever is at rest will always be at rest unless there be some other body besides it, which by getting into its place, suffers it no longer to remain at rest," and "Whatsoever is moved, will always be moved, unless there be some other body besides it, which hinders its motion." (EW I, III, 15, 1.)
89. EW I, III, 15, 4.
90. EW I, III, 15, 5. This passage has suggested to some that Hobbes did not fully understand the first law since he goes on to say, "for example, if a moved body have direct motion, its first endeavour will be in a strait line; if it have circular motion, its first endeavour will be in the circumference of a circle." Brandt has taken it to follow from this that "according to Hobbes there is a curved inert motion." (Brandt, 1928, p. 328) Similarly, Emile Brehier has argued on the basis of this passage that Hobbes "failed to realize the full significance of the second part of the principle of inertia and went so far as to assume (like Galileo) that it applied to circular motion." (Brehier, 1966, p. 145) But Hobbes is not speaking at all of inertia in this passage; all he is asserting here is that if a body is moved (by concurring movements) in a circle, every part of its motion and, hence, its first part or first endeavour will be in a circle. The point is made solely to illustrate the assertion that, "if there be many movents," a body tends "in that way which their concourse determines." He does not say, nor does he even suggest that a body would continue to move in a circle once the movents were removed. In fact, that he is not claiming that there is an inert circular motion here is

clear from the fact that he goes on in the following article to say, "when any body, which is moved in the circumference of a circle, is freed from the retention of the radius, it will proceed in one of those straight lines, that is, in a tangent." While it is true that Hobbes did extend the principles of inertia to circular motion (supposing an eternal simple circular motion in the sun) it is clear when he comes to talk about those motions that he did so only with respect to rotating solid bodies or to bodies which are in some way constrained to move in the circumference of a circle. This is all the more clear from the fact that in his discussion of circular motion he writes, "it is manifest, that circular motion about an unmoved axis shakes off and puts further from the center of its motion such things as touch, but do not stick fast to its superficies; and the more, by how much the distance is greater from the poles of the circular motion." (EW I, III, 2, 19) The most decisive argument, however, is to be found in the Critique where he argues that the motion of a body moving in a circle about a center A is the result of two motions, one toward the center, impressed by, say, a cord to which the body is attached, and the other in a straight line tangential to the circle, so that "the moving body will therefore perpetually endeavor to be removed from the center A." Critique, pp. 196-7) Still, it might be objected that Hobbes does not consistently apply the principle, since, while he endeavors to account for the motions of the planets about the sun by the supposition of a simple circular motion in the sun, he does not attempt to explain, and apparently sees no need to explain, what keeps the sun in its circle.

91. EW I, III, 22, 19.
92. See, for instance, the 'Little treatise,' sections 1, principles 1 and 2 (El.L., p. 193) and Decameron Physiologicum where he offers as his "second axiom...that nothing can begin, change, or put an end to, its own motion." (EW VII, p. 85)
93. EW IV, p. 276.
94. Hume, in his criticism of this argument, is rather unfair, dealing with it as if it were an argument against the spontaneous coming to be of objects. Actually, the view that bodies are not generated or destroyed is presupposed by this argument. The supposition is that it is only the accidents of bodies that are generated or destroyed and the accident in question here is motion. That this is so is clear from Hobbes' earlier statement of the point being defended, "I conceive that nothing taketh beginning from itself, but from the action of some other immediate agent without itself" (Ibid., p. 274), and the action of an agent presupposes an (existing) patient to which the agent is applied.
95. Necessarily, since he did not believe everything to be logically

- demonstrable, namely "universal principles" which "need no demonstration, though they need explication." (EW I, I, 6, 12)
96. In Decameron Physiologicum, for instance, after explicitly offering the principle of inertia (in its alternative form, that nothing can change its state by itself or, alternatively, that an external cause is always requisite to produce a change in state) as an axiom, Hobbes goes on to offer precisely this same argument for it. (EW VII, p. 85)
 97. EW I, II, 10, 5.
 98. See EW VII, p. 87 and above, n. 12.
 99. EW VII, p. 78.
 100. EW IV, p. 246. See also, EW V, p. 105.
 101. EW I, III, 15, 2.
 102. EW III, ch. 6, p. 39. In El.L. I, 7, 2 it is defined as the "internal beginning of animal motion."
 103. Critique, p. 195. Conatum autem esse idem, quod motus principium, manifestum praeterea est partem omnem motus esse motum, principiumque uniuscuiusque rei esse primam eius partem, inde sequitur conatum omnem esse motum.
 104. The concept of conatus appears to have originated with Hobbes and would seem to constitute his single lasting contribution to the development of mathematical physics. Where he derived it, if he did derive it, is impossible to say. The fact that in the early definitions it is defined as the beginning of motion and the fact that it first appears in El.L, written very soon after the publication of Galileo's Dialogues Concerning Two New Sciences, would suggest a possible source there. See, for instance, Two New Sciences, trans, Crew and de Salvio, pp. 162-4.
 105. EW I, III, 15, 2.
 106. EW I, II, 9, 7.
 107. EW I, III, 22, 8.
 108. Ibid. Figure from EW XI, p. 8. A similar argument is given in EW VII, p. 51.
 109. EW VII, p. 10.
 110. Perhaps not quite so open, since Hobbes seems to argue directly against the relativity of motion in Critique, pp. 202-4.

111. EW III, ch. 2, p. 4.

112. EW I, III, 22, 20.

113. Ibid.

114. Ibid.

PART III

Psychology

CHAPTER FIVE

COGNITIVE PSYCHOLOGY AND ITS MECHANISTIC BASIS

Having discussed Hobbes' metaphysics, it would now be proper, if we were faithfully to follow his own order of exposition, to turn to the discussion of his remarks on geometry and mechanics, the sciences of simple and compounded motions. This aspect of his thought, however, like the bulk of his natural philosophy, is not very pertinent to our goal. Accordingly, we shall pass immediately to a discussion of his psychology. However, it is important to note at the outset a distinction within the domain of psychology. In the early Elements of Law, Hobbes divides the "powers of the mind" into two sorts, the cognitive, comprising the faculties of sense, imagination, thought, and reason, and the motive, comprising motivational psychology in general and covering such topics as appetite, pleasure, good and evil, and the passions or emotions.¹ In that early work, as in all his other works which discuss human psychology, he follows the same order, discussing first what he calls cognitive psychology and proceeding then to the discussion of volitional or motivational psychology. We shall here follow very much the same order. As in the

preceding chapters, we shall take The Elements of Philosophy as the basis for our interpretation. This poses some difficulties, however. The discussion of motivational psychology is confined in this work mostly to De Homine. Unfortunately, the psychological discussion of De Homine is not especially thorough and bears all the marks of having been written in haste and without very great thought. In fact, Hobbes himself tells us in the Epistle Dedicatory that he had had little time for the psychological part of this work (already he had become deeply embroiled in his controversy with Wallis, a dispute which, although it began as an attack on Hobbes' mathematics, very shortly descended to personal attacks and even to criticism of each other's Latin and which was not to end until nearly twenty-five years later with the posthumous publication of Hobbes' Considerations Upon the Reputation, Loyalty, Manners, and Religion of Thomas Hobbes),² and he seems to suggest that it had been written only to fulfill his promise.³ In the discussion of this part of his psychology we shall have, therefore, to rely rather more heavily upon his other works.

Before turning to this discussion, however, it would be well to point out that we should not expect to find Hobbes offering a detailed physiological account of psychological phenomena, nor should we criticize him for failing to do so. It is only within the past fifty years or so that the study of physiological psychology has progressed very much beyond gross neural anatomy and only in a span of less than half that time that any remarkable advances have been made in our understanding of neural functions. Those advances have nearly all of them depended on the availability of a technology so sophisticated that it

would have been inconceivable to a seventeenth century physiologist and which was, even in the early part of this century, no more than the idle fancy of science fiction. Even so, with all this, we do not know, for instance, precisely how the stimulation of visual receptors in the retina is converted into a visual image in the brain, and we are far from knowing how such images are encoded and retained. Lashley's search for the engram is almost as far from being concluded today as it was when he was busy clumsily crushing the cerebral cortices of rats. And understandably so. No science but physiological psychology has ever yet endeavored to investigate in detail anything so complex as the working of the human brain. By comparison, quantum physics is adolescent stuff, and Newtonian physics is a children's game. Those who would criticize Hobbes or any other seventeenth century psychologist for having failed to account for certain psychological phenomena or for having offered a physiological theory which was naive in its outlines and, perhaps, in the light of present knowledge, absurd in its detail, bespeak not Hobbes', but their own naivete. It is to Hobbes' credit that he did not, for the most part, attempt a detailed account of psychological phenomena. His purpose, again for the most part, was not to explain precisely how, e.g., perception works, but rather how, in general terms, it must work, and his conclusions about how it must work, I shall claim, derive from his mechanistic metaphysics.

Psychology, at least physiological psychology, belongs properly to natural philosophy. Accordingly, it is not, like metaphysics, a subject which can be investigated entirely a priori. Its purpose

is to investigate the causes of natural phenomena and the derivation of psychological explanations is thus a consequence of considering the facts, the phenomena, in context of a pre-existing conceptual framework, in this case, the metaphysics. Such a derivation is not, of course, entirely certain. Its purpose cannot be to inform us what are, in fact, the causes of the phenomena in question, only what, given the context of our metaphysics (which, at this point in the investigation, is simply presupposed), may be the causes of those phenomena. Since we are dealing with facts, with natural phenomena, which are simply given, we can never be sure that the details of our (causal) account are correct. The details, since we can never be sure that we have complete access to all the relevant facts, must always be hypotheticalal. But while we cannot be sure of the correctness of the details, we can be sure that, if our metaphysics is correct, so are the general outlines of our account.

Now, the details of Hobbes' physiological psychology are not crucial to his moral philosophy. The consequences he draws from psychology for morality depend, for the most part, upon general truths, those which, given the phenomena and the metaphysics, must be true. Accordingly, we shall spend relatively little time on the details of Hobbes' theory, and we shall attempt to show only that it is those general truths, such as that all sensation is motion, that depend upon or derive from the metaphysics.

The first question which Hobbes takes up is that of sensation or apparition, for natural philosophy is the investigation of "such things as appear, or are shown to us by nature", which "we call

phenomena or appearances", and, "of all the phenomena or appearances which are near to us, the most admirable is apparition itself".⁴ That Hobbes should have spoken so is understandable. As has been pointed out, his first question in philosophy dealt with the nature of sense or apparition. But there was a further, philosophically more fundamental reason as well. Hobbes believed that all our knowledge of the world is derived ultimately from sense, "So that if the appearances be the principles by which we know all other things, we must needs acknowledge sense to be the principle by which we know these principles, and that all the knowledge we have is derived from it".⁵

Here two points are made, as Hobbes goes on immediately to point out. First, our knowledge of the causes of sense cannot derive "from any other phenomenon than that of sense itself". This is no more than a firm statement of the fundamental tenet of empiricism; all our knowledge derives ultimately from sense and this includes our knowledge of the causes and nature of sense itself. But, second, if all our knowledge is derived from sense, then it follows that our knowledge of our sensations must likewise be derived from sense. As Hobbes puts it, "by what sense shall we take notice of sense? I answer, by sense itself". There is the danger here of an infinite regress, but it is precisely this objection which Hobbes is attempting to stave off. He is not claiming that in every act of sense we sense that we sense. Consciousness is not, in other words, self-consciousness, or, as Sartre would have it, consciousness of being consciousness of some object.⁶ What Hobbes is claiming, rather, is that we take notice of sense by memory, "For he that perceives that he hath

perceived, remembers"⁷ and memory, he wishes to claim, does not differ essentially from sense itself. There is no knowledge that is not derived from sense, and, accordingly, before we can know or understand anything about the world, we must know and understand the nature of sense or of apparition itself. It is for this reason that Hobbes takes the question of the nature of apparition itself to be primary. Though we may not be able to answer even this question with full certainty, it is upon the answer to it that our assurance of the veracity of all our other knowledge depends. Before anything else then in natural philosophy, "the causes of our perception, that is, the causes of those ideas and phantasms which are perpetually generated within us whilst we make use of our senses, are to be enquired into".⁸ Before we can derive from apparition any knowledge of the world, we must know the relation, at least in general terms, of apparition to the world.

Thus, the order of exposition shall be, first, the nature of apparition itself and, second, the relation of apparition to the world. It should be noted at the outset, however, that this latter question is not to be subsumed immediately under the problem of the external world. As I have shown, the problem of the external world, as it is generally understood, was not, for Hobbes, a philosophically very important or pressing problem. He was not, like Descartes, an ontological dualist, nor was he writing, as were, for instance, the later British empiricists, in the tradition of post-Cartesian dualism, and his philosophy of perception cannot be fairly read in these terms. Thus, as I shall show when we discuss Hobbes' views on the relation of apparition to the world, the so-called problem of the external world

becomes, in context of his general materialism and mechanism, a problem of a very different order and magnitude.

Now, the fact or phenomenon with which the investigation of the nature of apparition is to begin is the fact that "our phantasms or ideas are not always the same....they are generated, and perish". From this, Hobbes argues, "it is manifest that they are some changes or mutations in the sentient".⁹ This conclusion would not, in fact, seem to be justified. That they are changes or mutations is clear enough, but that they are changes in the sentient needs to be shown. Hobbes, on the other hand, would seem simply to have begun with the assumption that there are sentients, that is beings which sense, and that sense is not identical with the things sensed. The argument might be made more perspicuous, however, if we recall Hobbes' argument that nothing is generated but accidents, and, of course, accidents are the accidents of body. Now, if the accident in question is sense, the body in which the accident is generated or destroyed may be called the sentient. And the conclusion that sense is some change or mutation in the sentient is, thus, legitimate. But now we must recall another of Hobbes' promises, that all mutation is motion in the parts of the things changed. It follows necessarily that "Sense, therefore, in the sentient, can be nothing else but motion in some of the internal parts of the sentient".¹⁰

Of course, we have already shown that Hobbes' argument to show that all mutation is motion is suspect and quite probably false. But this is irrelevant here. Our concern is not with the question of the truth or falsity of Hobbes' system but with the question whether or not

it is a system, that is, with the question whether or not its parts are logically connected. The premisses, then, of the first part must be taken simply as given, as assertions whose truth is not in question, to see what, if anything, follows from them. Thus we have shown the first and most important psychological consequence of Hobbes' metaphysics and that this consequence is deductive. We are given at the outset the metaphysical premisses that (1) what fundamentally exists is body;¹¹ (2) only the accidents of body are generated and destroyed, i.e., changed; and (3) all mutation or change is motion in the parts of the body changed. Now, taking these premisses together with the fact that our apparitions, sensations, or phantasms change, it follows deductively from (1) and (2) that they must be the accidents of some body and, construing 'sentient' as signifying that body which is the subject of sense, that they must be changes in the sentient. Taking this together with (3), it follows that they must be, "can be nothing else but," motions in the parts of the sentient. Thus, that sensation is motion, assuming the truth of Hobbes' metaphysics, is a deductive consequence of that metaphysics. To this point, then, we must deny the claims of those who would hold with Watkins, Gauthier and others that the unity of Hobbes' system is not so much a deductive unity as a unity of (mechanistic) approach to different problems.¹² That which is most fundamental in Hobbes' psychology is his belief that psychological, like all other, phenomena are mechanistic. And this, his most fundamental premise, is clearly a deduction from his more general mechanism. He has not simply asserted that sensation is motion; he has not simply posited a mechanistic account of sensation. He has, rather, demonstrated,

on the force of his basic metaphysical principles, that it can be nothing else but motion.

But there remains yet another, equally basic metaphysical premiss to be employed, that there can be no cause of motion but in a body contiguous and moved. Taking this premiss together with the conclusion that sensation must be, can be nothing else but motion, it follows that sense can be caused only by motion and that only through the contact of the sentient or its parts with a contiguous, moved body. Hence, "the immediate cause of sense or perception consists in this, that the first organ of sense is touched and pressed".¹³ Of course, the conclusion relies upon a premiss, in this case a definition, which I have not given but which Hobbes provides in the preceding paragraph, namely that "the parts of our body, by which we perceive anything, are those we commonly call the organs of sense".¹⁴ The conclusion is thus, again, a straightforward deduction, which results from considering in context of Hobbes' metaphysics the most basic fact about the phenomenon of apparition itself, that it changes, that, in other words, our ideas or phantasms are not always the same.

Hobbes, however, wants to take a somewhat larger step. Some relation must be established between sensation and the world, at least if sensation is to serve as any basis for our knowledge of the world. And it is this step Hobbes wishes to take here. In order to do it, he needs to construct an argument for the external world. And in fact, this is, in a sense, what he does, though he does not put it in quite those terms. That he does not has been admirably well explained by

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We, today, see the problem of the external world as one which is, for the empiricist, very real. That we do is due in large part to the fact that the major British empiricists, while to a large extent adopting Hobbes' empiricism, adopted it in context of Cartesian dualism. Thus, Locke, who was closest to the two, while very much an empiricist, was, at the same time, a dualist; Berkeley, reacting to the scepticism inherent in Locke's position, became a subjectivist; and Hume, in reaction to both, a straightforward sceptic. It is these philosophers whom we study as representative of empiricism and, being imbued with this tradition and its problems, interpret Hobbes accordingly. To quote Balz:

"Appearances" for Hobbes are related to the real thing as the image in the mirror to the object mirrored; they do not imply an order of existence of a nature radically different from the objects of which they are appearances. They are existences, effects, of precisely the same nature as the "real thing"..... The image is thus related to the object as effect to cause, as an echo to the sounding body, or as a reflection in a mirror to the source from which either vibrations spring. Now the question may here be raised: Are not images...equivalent to states of consciousness? The answer must obviously depend upon what is the precise meaning here ascribed to "states of consciousness".....if the phrase be emptied of all so-called subjectivistic implication, Hobbes's phantasms are states of consciousness.....had Hobbes been asked if phantasms were "subjective", if they were dependent for their existence on consciousness, or the soul, or the mind; or had he been asked if the nature of phantasms were altered by the fact that some consciousness was aware of them, he would have been sorely puzzled to discover what the question was about. He would probably have looked upon it as on a par with asking if the image in the mirror were altered by the mirroring.....The trouble...is that subjectivity and objectivity, consciousness, mental states, psychical existences, and the like elements of later psychological and epistemological instruments of terminology are completely beyond the

sphere of Hobbes's thought. The appearance and the real object can not be subsumed under these categories. They belong to the one order of existents. The unlikeness of one to the other is simply the unlikeness of one motion to another....When we inquire concerning Hobbes's position with reference to the cognitive correspondence of idea and thing, we are in danger of forcing his thought into channels foreign to it, if we seek to compel an answer. The danger lies in assuming that the cognitive correspondence of idea and thing is at the same time a psychophysical correlation of idea as psychical state with a physiological state (and since the latter is the effect of an extra-organic physical cause, the correlation extends to that of psychical state and physical object)..... In terms of Hobbes's psychology, there is no such correlation of psychical idea with object....From the psychological standpoint, the only correspondence that exists is that of effects to causes....The experience of the effects affords the opportunity for knowledge of the causes. Therefore, in raising the question of the cognitive correspondence of idea and thing, we are inquiring how Hobbes uses the psychical effects in the sentient, that is, the phantasms in order to arrive at a knowledge of objects, that is, of causes.¹⁵

Balz seems in this passage to use 'image' and 'phantasm' interchangeably, a usage which he would admit runs the risk of being misleading, since Hobbes explicitly denies that all phantasms are images¹⁶ and since construing phantasms as or in terms of images leads naturally to the question of the correspondence between the phantasm and its object. But we need not agree with all that Balz says to recognize that much of what he says here is both penetrating and worth repeating. For Hobbes, the apparent distinction between internal and external is not a distinction between kinds or orders of existents. It is, rather, a distinction between the character of appearances. The closest that his own philosophy comes to expressing our distinction between internal and external, as mental and non-mental, is the distinction

between cause and effect.¹⁷ The phenomenon or appearance is the effect, and its cause, "that from which, as from its fountain, we derive the phantasm or idea that is made in us by our sense, .. is that we commonly call the object".¹⁸ Hobbes' argument, then, for the relation between sense and the object of sense, his argument for the existence of the external world, is not put in terms of the external world (of a non-mental world ontologically distinct from the mental) because it is not in those terms that he thinks. His philosophy is not, therefore, deficient; it is different, and, perhaps, better. No one working within the Cartesian tradition has yet been able to give a convincing argument for the existence of an external world—perhaps because the question itself presupposes the difference and essential unrelatedness of the two worlds. Hobbes' own approach to the problem, which for him is a problem of quite a different order and not nearly so serious and irrefragable, is by way of cause and effect.

The premisses needed for his argument are only those which have thus far been given, together with the axiom that nothing can change its state by itself, or, put differently, that a body's current state is, by itself, a sufficient cause for its continuing in that state. Now, Hobbes has deduced that the cause of sense consists in the organs of sense being touched and pressed. Sense is some change in the sentient, but nothing can change itself. The change must therefore be caused by something without the thing changed. But all change is motion and there is no cause of motion but in a body contiguous and moved. This moved body, however, must either have been moving eternally or its motion must have been caused by some other moving body,

whose motion must, in turn, have been eternal or caused. There must, then, be some body with which this chain of causation begins, or in which it undergoes some alteration such that it is recognizably different, and this body is the 'external' object. Put differently, for Hobbes, the sentient is a causal nexus of motion within a larger causal nexus. There is one, ever changing concourse of motions of which the organism is a part. The two differ, as Balz points out, only as one motion from another. These motions or sets of motions, the one constituting the sentient organism, the other, everything else, as different parts of one concourse of events, interact, and it is this interaction which gives rise to and which constitutes both the distinction and the connection between the 'internal' and the 'external' world. The quandary of the ordinary empiricist (one might better say 'phenomenalist') is, thus, not solved, but avoided. Hobbes is not, and never was, a thorough going empiricist. He did not begin with sensation and try to deduce everything from that. To do so were impossible. He began, rather, with (a rationalistic) metaphysics and, so armed, he proceeded to deduce, not from our several sensations, but from the character of sensation itself, the existence of an 'external' world, although, to make explicit what is implicit in the quotation from Balz, his argument will make no sense to those who, ensconced in the Cartesian and later empiricist tradition, refuse to take it on its own terms. This is not, of course, to say that Hobbes did in fact prove the existence of an external world, although his argument is certainly more persuasive than that offered by Descartes. He has not proved it because the premisses on which his argument rests

are not all of them sound. That all mutation is motion is, at the very least, suspect, and that there is no cause of motion but a body contiguous and moved is, we now have reason to believe, false. Even so, if we accept the principle of inertia as a causal principle applicable to all changes in state (and this may be false, even though we cannot understand how it should be so), the basic form of his argument would appear to be fairly sound. But the truth or falsity of Hobbes' metaphysics is not our concern, and the sole point that needs be made here is that, granting Hobbes' metaphysics, it follows that "Sense, therefore, is some internal motion in the sentient, generated by some internal motion of the parts of the object, and propagated through all the media to the innermost part of the organ".¹⁹

This Hobbes offers as a nearly complete definition of 'sense'. But there is one point that yet remains to be made before the definition is complete. Sense is some motion in the internal parts of the organ of sense. This much must be true and this much he has deduced. But there remains the question, 'What sort of motion is it?' The argument Hobbes offers in answer to this question is essentially this. "All resistance is endeavour opposite to another endeavour, that is to say, reaction." But "there is in the whole organ...some resistance or reaction against the motion which is propagated from the object to the innermost part of the organ." Therefore, "there is also in the same organ an endeavour opposite to the endeavour which proceeds from the object; so that when that endeavour inwards is the last action in the act of sense, then from the reaction, how little soever the duration of it be, a phantasm or idea hath its being".²⁰ Thus, the whole (causal)

definition of 'sense' is "SENSE is a phantasm, made by the reaction and endeavour outwards in the organs of sense, caused by an endeavour inwards from the object, remaining for some time more or less".²¹

The last clause, that it remain for some time, is not directly argued for here, but it is a straightforward consequence of the principle of inertia and the dictum that motion cannot be stopped in an instant. In fact, it is explicitly offered as a consequence of these two premisses in the argument of Leviathan, where it is experimentally confirmed by the experience of after images.²²

This argument does not seem to have quite the deductive force of the foregoing argument. However, the argument can be strengthened by recalling Hobbes' definitions of 'action' and 'effect'. "A body," he writes, "is said to work upon or act, that is to say, do something to another body, when it either generates or destroys some accident in it," and "That accident, which is generated in the patient is called the EFFECT."²³ But, furthermore, the effect and the action of the agent are the same thing. They differ only in that, in the one case, the effect is considered with respect to its cause and, in the other, with respect to the power of the agent,²⁴ and the effect, in any chain of causation, is simply the last action considered in the chain.²⁵ Now, let us recall that, for Hobbes as empiricist, the effects or phenomena of nature are the appearances of things to sense.²⁶ They are, in other words, our phantasms, ideas, or sensations, so that a phantasm, as an effect, is the accident generated in the sentient by the impinging body, is, accordingly, "the last action in the act of sense". The cause of this action or effect, however,

is a motion inwards. That inward motion is, of course, resisted by the parts of the sentient body (otherwise it could not be said to have affected or acted upon them), so that, while it is being propagated inward, at least one of its effects is a resistance or reaction or "endeavour outward". The effect, however, is the last action in the act of sense, wherever the last action might occur in the sense organ, and this last action will, of course, occur when its motion inward is overcome by the resistance of the parts of the sense organ. But, since one motion can be overcome only by an opposite motion, it follows that its last action or effect can be overcome only by an opposite motion or endeavour outward, and this endeavour outward will, accordingly, constitute the phenomenon, effect, or phantasm. Hence, sense is a phantasm (this is simply analytic--to ask the cause of sense is to ask the cause of our phantasms) made by the motion and endeavour outwards in the organs of sense. We thus have the complete definition of sense, and it would appear to have been deduced from the basic metaphysical premisses of Hobbes' mechanism together with the fact of sensation itself.

But while this is a complete definition of sense, it is not a complete characterization of it. We may well ask, for instance, granting that sense is an endeavor outwards in the organ of sense, precisely what sort of outward endeavour it is. Where, for instance, does it occur? How does one sensation differ from another? And why is it, given that all bodies resist motion, that not all bodies are sentient bodies? These are questions about the particulars of the event, about the specific character of its cause. They are questions about what is in fact, rather than what must be, the case, and, as such, the

answer to them can be nothing more than more or less well founded hypotheses. Hobbes, however, does not immediately turn to these questions. There is a point of clarification that must be made first.

Hobbes has often been interpreted as having held an epiphenomenalist theory, although it seems to me that Hobbes himself would simply have been nonplussed to understand how anyone could foist such an interpretation upon his work taken as a whole. An epiphenomenon, on Hobbes' view, could be only a body or an accident of body. But certainly the effect produced in the organ of sense does not consist, even in part, in the production of a body. Bodies, in Hobbes' metaphysics are neither generated nor destroyed. What it does consist in then, to the extent that it is a generable accident, is the production of some motion. But then, is the epiphenomenon simply another motion produced in the same body? If so, it would seem not to be an epiphenomenon at all. Or is it rather a motion produced in some other body? This Hobbes would have regarded, at best, as superfluous and, at worst, as nonsensical. Nevertheless, J.W.N. Watkins has asserted that, "Hobbes claimed to be an uncompromising materialist, but his account of the mind is really an epiphenomenalist rather than a strictly materialist one. He actually treats thoughts and feelings as the shadows and overtones of movements...though he claims they are those movements."²⁷ By what right we are entitled to say that a man held one theory when he explicitly claims to have held another and when it blatantly conflicts with his philosophy in general while that theory he claims to have held does not, I confess, I do not understand. The only justification Watkins provides is the fact

that Hobbes employs a mentalistic vocabulary. But then we might ask what other vocabulary could he have employed? Copernicus is not therefore a Ptolemaic because he used the Ptolemaic vocabulary.²⁸ On the other hand, Hobbes is taken by some to have held a representationalist theory of perception of a Lockian sort.²⁹ Now, a representationalist, it seems to me, is generally one who believes that sensation or perception involves three entities, an object of which we have an idea which the mind perceives. It is representationalist because the idea is supposed, like a picture, to represent the object to the perceiver. As R.S. Peters puts it, Hobbes' thesis was that a "private picture always intervenes between us and the qualities of the object perceived".³⁰ But if Hobbes was in any sense a representationalist, it is only in the sense that ideas or phantasms represent, are images or "patterns" (to use his own word) of, external objects, but here there is a very real danger in viewing Hobbes in Lockian terms.³¹ For Hobbes, a sensation may be said to represent an object only in the sense that sensation is the effect of the object.

Now, that his theory is not a representationalist theory and that it is not an epiphenomenalist theory Hobbes carefully and explicitly attempts to make clear in the article immediately following his definition of 'sense'. "It is more accurately said," he writes, "that we see the sun, than that we see the light. For light and colour, and heat and sound, and other qualities which are commonly called sensible, are not objects, but phantasms in the sentient."³² Here Hobbes is clearly saying that it is the object that we see or perceive or of which we are aware, not the phantasm or idea of it.

To put it in his own words, "The object is the thing received".³³

There is then no ground for calling Hobbes a representationalist, at least in the Lockian sense. There are, in fact, only the two entities, the sentient and the object which acts upon (produces an idea or phantasm in) the sentient, and the sentient perceives, not the phantasm, but the thing. As Hobbes goes on to explain,

"For a phantasm is the act of sense and differs no otherwise from sense than fieri, that is, being a doing, differs from factum esse, that is, being done; which difference, in things that are done in an instant, is none at all; and a phantasm is made in an instant. For in all motion which proceeds by perpetual propagation...in what point of time the first or foremost part proceeded into the place of the second, which is thrust on, in the same point of time the last save one proceeded into the place of the last yielding part; which by reaction, in the same instant, if the reaction be strong enough, makes a phantasm; and a phantasm being made, perception is made together with it."³⁴

Here, as if it were not clear enough from the definition, a phantasm is explicitly identified with a motion of a certain kind, and, because a phantasm is the act of sense, with perception itself. Having a phantasm, in other words, is perceiving; there is no perception of a phantasm or idea distinct from the phantasm itself. The two are the same thing. This is the point of the remark that they differ no otherwise than fieri and factum esse. From this it is also clear that, if the perception of the object and the phantasm of it are one and the same thing, a motion caused by the object, then Hobbes' is not an epiphenomenalist, but a strict identity theory. In fact, if we were to say that Hobbes held anything other than an identity theory, the purpose of much, if not all, of his writing on the nature of

sensation would be totally unintelligible. Why, in every work that he wrote on sensation, would he have argued that sensation is nothing other than motion caused by the object sensed, if this were not in fact the view he held?

Having thus clarified his definition of sense, the first major question Hobbes takes up is why "All bodies are not endued with sense"?³⁵ Here Hobbes is not only attempting an explanation for what seems to him a "most admirable" phenomenon but also anticipating an objection. It might well be maintained that, since sense is defined as a reaction and all bodies react, all bodies possess sense. This conclusion is one which Hobbes admits would be irrefutable "if the nature of sense be placed in reaction only".³⁶ It is not to be so placed, however, and the reason that it is not depends upon a fact which is not a mere hypothesis but a deduction. The argument is this.

For by sense, we commonly understand the judgement we make of objects by their phantasms: namely, by comparing and distinguishing those phantasms; which we would never do, if that motion in the organ, by which the phantasm is made, did not remain there for some time, and make the same phantasm return. Wherefore sense, as I here understand it, and, which is commonly so called, hath necessarily some memory adhering to it, by which former and later phantasms may be compared together, and distinguished from one another.³⁷

The first premise in this argument is a definition; sense consists, by definition, in the comparison of phantasms. As will be clear, Hobbes has in mind here the view that we have only one phantasm at a time (at least in one sensory modality), so that such comparisons must be made between "former and later phantasms". A phantasm must, therefore, remain for some time in order that it may be compared with other phantasms.

Hobbes' hypothesis is, accordingly, that not all bodies have sense because not all bodies have organs "fit for the retaining of such motion as is made in them".³⁸ What is more interesting to us, however, is the more fundamental point that sense consists in comparison and therefore requires that a phantasm remain for some time. This depends, in turn, upon the premiss that we can have only one phantasm at a time, a premiss which Hobbes proceeds to defend in the following article.

As is clear from his argument, Hobbes takes this to be a consequence of the nature of motion and, hence, of his metaphysics.

For seeing the nature of sense consists in motion; as long as the organs are employed about one object, they cannot be so moved by another at the same time, as to make by both their motions one sincere phantasm of each of them at once. And therefore two several phantasms will not be made by two objects working together, but only one phantasm compounded from the action of both.³⁹

We should recall Hobbes' argument that if a body is moved by several movements, its motion will be the result of the concurrence of all the movements taken together. This would seem to be the premiss that he is employing here. By the definition of sense it would seem clearly to follow that two sensations could be caused only by two different agents or by the same or different agents acting at two different times. The former alternative is ruled out, however, by the fact that two motions acting on one body at the same time produce not two different motions but one motion which is the resultant of both. This argument rests upon the assumption, which is certainly false, that there is in the sense organ only one body to be moved. On the more

probable assumption that there are several, however, Hobbes has an additional argument. "What number soever we say there be of times, we must understand the same number of motions also; and as oft as we count many motions, so oft we reckon many times."⁴⁰ This argument is a bit unclear. It would at first seem that Hobbes is arguing that several simultaneous motions, because time is a phantasm of motion, are not simultaneous. This, of course, would be absurd. Time is not the phantasm of motions, but the phantasm of before and after in (one) motion. This objection is too patently obvious to permit us to assume that this is, in fact, the proper interpretation of the argument, at least without some effort to interpret it in a more reasonable way. Such an interpretation, which fits well with what Hobbes says here is fairly clear. Hobbes begins his argument by noting that, "Besides, as when we divide a body, we divide its place; and when we reckon many bodies, we must necessarily reckon as many places; and contrarily, as I have shown..." When we divide a single body we make several bodies. Similarly, when we divide a single motion we make several motions and, since the motions, as parts of a single motion, are before and after, several times. Now we may change the emphasis of the conclusion: "And as oft we count many motions, so oft we reckon many times". Number is one, and one and one, and one and one and one, etc. And counting is the act or the process of numbering, of saying, for instance, one, two, three, etc. So that when we see three things at once, in order to perceive them as, or to judge that they are, three, we must count them. We must go through the act of counting motions, e.g., of saying one, two, three, and we

must, accordingly, "reckon as many times". We have, thus, three phantasms at three different times. The motions being numbered are not those of the several objects taken at once, but of the act of counting, of considering the phantasms of those objects in three different respects. That this is Hobbes' point is, I think, clear from the fact that he goes on, "For though the object we look upon be of divers colours, yet with those divers colours it is but one varied object, and not variety of objects". But if we would divide the object or phantasm into, say, a red object, a green object, and a yellow object, we must go through the act of dividing which takes time. Division, like addition, is an act of comparison, and what Hobbes is saying, in effect, is that comparison as an action or event or motion takes time. So that at any one moment we have but one phantasm, although that phantasm may be varied. This, I think, is the point Hobbes is driving at. If so, then the argument could be put much more briefly and more perspicuously simply by pointing out that comparison as an action or event is a motion and, accordingly, takes time. If this is the correct interpretation, it would serve to explain why what I have taken to be a promise in the argument to show that sense requires that a phantasm remain for some time is not mentioned and not defended until the following article. It may be that Hobbes simply assumed in his argument that his reader would understand, from the facts that comparison is an action (it is something we do) and that all action is motion, that comparison takes time; in which case, the promise that we have only one phantasm at a time would not enter into the argument at all.

The argument that "sense...hath necessarily some memory adhering to it, by which former and later phantasms may be compared together" has another important consequence; namely, that "Sense... must necessarily have in it a perpetual variety of phantasms, that they may be discerned one from another".⁴¹ This Hobbes takes, apparently, to be an analytic consequence. In comparison there is former and later and there must, accordingly, be an earlier and a later phantasm. It may be that we simply switch back and forth between two phantasms; this would be sufficient to establish a perpetual variety, but if that variation should cease, so would comparison and, with it, sense. A consequence of this, of course, is that it is "almost all one for a man to be always sensible of one and the same thing, and not to be sensible at all of any thing".⁴² Or as he puts it in a later work, taking something very like the Aristotelian position that sense is the essential character of animal life, "if all things in the world were absolutely at rest, there would be no variety of fancy; but living creatures would be without sense of all objects, which is little less than to be dead".⁴³ And the reason is evident enough. In the same passage he has his interlocutor ask, "What if a child new taken from the womb should with open eyes be exposed to the azure sky, do not you think it would have some sense of the light, but that all would seem unto him darkness?" And he replies, "Truly, if he had no memory of anything formerly seen, or by any other sense perceived... I think he would be in the dark. For darkness is darkness whether it be black or blue, to him that cannot distinguish."⁴⁴

Thus we have here one more fundamental point which is deduced from Hobbes' mechanism. How fundamental it is will be seen when we come to discuss his motivational psychology.⁴⁵

That sense remains for some time provides Hobbes with the means for defining 'imagination'. "The phantasm remaining after the object is removed or past by, is called fancy, and in Latin imaginatio."⁴⁶ It should be noted that Hobbes is not here hypothesizing or arguing. He is simply pointing out that this is what is called 'imagination' and, therefore, what imagination is. But since a phantasm has been shown already to be necessarily a motion, it follows that imagination is a motion and, in fact, the same motion continued. "IMAGINATION therefore is nothing else but sense decaying or weakened, by the absence of the object."⁴⁷ It is at this point, in his attempt to account for the fact that sense decays, that Hobbes really begins to engage in scientific speculation. The reason, he suggests, since imaginations in dreams are sometimes as vivid as sense, is that, in waking men at least, "their organs being at the same time moved by other present objects, those [older] phantasms are the less predominant".⁴⁸ They are, in other words, obscured by external motions. This ingenious explanation, wrong though it may be, serves at once to explain both the fact that sense decays and the fact that imaginations may sometimes seem as vivid in sleep as sense is in waking. The latter is the case because "in sleep, the passages being shut up, external motion doth not at all disturb or hinder internal motion".⁴⁹ Hobbes proceeds to offer an account of sleep which was, for the time, as good as any but which need not detain us here.

It would be well here to consider, slightly out of order, Hobbes' account of experience and memory. In fact, in Leviathan, 'memory' and 'experience' are defined immediately after 'sense' and 'imagination'. It is not clear why he should have altered the order in De Corpore. "Fancy and memory," he writes, "differ only in this, that memory supposeth the time past, which fancy doth not."⁴⁹ And he goes on to explain, "In memory, the phantasms we consider are as if they were worn out with time; but in our fancy, we consider them as they are; which distinction is not of the things themselves, but of the consideration of the sentient".⁵⁰ Here again, in so distinguishing memory and imagination, Hobbes is not hypothesizing. He is, rather, asserting as an introspective fact that memory and imagination do not differ except insofar as the one is considered as it is past, the other as it is. But here we might well ask several related questions. Namely, "How do we distinguish memory and imagination from sense?" "How do we distinguish memory from imagination?" and "How do we remember?" Hobbes attempts an answer to all these questions. Like most empiricists, he takes the view that memory and, hence, imagination differ from sense in that the former is more obscure.

For there is in memory something like that which happens in looking upon things at a great distance; in which as the small parts of the object are not discerned, by reason of their remoteness; so in memory, many accidents and places and parts of things, which were formerly perceived by sense, are by length of time decayed and lost.⁵¹

When we consider an idea or phantasm as it is obscure, as compared, say, with a present sensation, it appears to us, or we conceive it, as a memory. (This serves also to explain the fact that imagination

seems very vivid in dreams. The phantasms with which they are compared then are also obscure). But when we consider a phantasm without reference to its obscurity, it appears to us as an imagination. This explanation in terms of relative obscurity might be sufficient for the distinction between memory or imagination and sense, but it will hardly suffice for the distinction between memory and imagination. In fact, there is in one sense no such distinction to be made. Since imagination and memory do not differ insofar as they are both decaying sense, the question is simply not well put. A better, but admittedly not very good, way of putting it would be "How do we distinguish veridical from non-veridical memory?" or better, "How do we distinguish between that memory which corresponds to our experience and that which does not?" This still is not good enough, for all our memory corresponds to our experience. I may never have seen a unicorn, it is true, but my imagination of a unicorn is composed solely of things that I have seen. So the best way of putting the question would seem to be, "How do we distinguish that imagination (memory) which occurs in the same order and relation as our past experience from those which do not?" Just putting the question so goes a long way toward providing the answer. We make such distinctions in terms of the order and coherence of our thoughts. Although, Hobbes does not discuss this question specifically with regard to the distinction between imagination and memory, it comes out fairly clearly in his discussion of dreams and how they are distinguished from sense.

In De Corpore he writes that it is a characteristic of dreams

that, "for the most part there is neither order nor coherence in them", and he explains this in this way: "seeing all order and coherence proceed from looking back to the end, that is, from consultation...seeing in sleep we lose all thought of the end, our phantasms succeed one another, not in that order which tends to any end, but as it happeneth."⁵² What he here calls 'consultation' corresponds clearly to what he calls 'reminisconce' in The Elements of Law. This he defines in this way: "There is yet another kind of discursion beginning with appetite to recover something lost, proceeding from the present backward...and this is called REMINISCENCE."⁵³ This he follows with, "The remembrance of the succession of one thing to another, that is, of what was antecedent and what consequent, and what concomitant, is called an experiment....To have had many experiments, is what we call EXPERIENCE, which is nothing else but remembrance of what antecedents have been followed by what consequents."⁵⁴ This should perhaps be taken in context of his earlier discussion of dreams. There he writes, "men wonder not in their dreams at places and persons, as they would do waking; for waking a man would think it strange to be in a place wherein he never was before, and remember nothing of how he came there. But in a dream, there cometh little of that kind into consideration."⁵⁵ Presumably, what goes for dreams may go as well for imagination or day dreams. Day dreams do not always fit our experience. If, for instance, I day dream or imagine that I am in Paris, it is difficult to reconcile this with my present experience which puts me in Hamilton, and similarly, if I 'remember' that yesterday I was in Paris, it is difficult

to reconcile this with the fact that I also remember having been in Hamilton yesterday, which fits well with the remainder of my experiences. But, of course, neither

is it impossible for a man to be so far deceived as when his dream is past, to think it real: for if he dream of such things as are ordinarily in his mind, and in such order as he useth to do waking, and withal that he laid him down to sleep in the place where he findeth himself when he awaketh (all which may happen) I know no ~~ke~~ or mark by which he can discern whether it were a dream or not. 56

The same would seem to apply if, for 'dream', we substitute 'imagination'. What makes the question how we distinguish memory from imagination so difficult, or rather, what makes the answer seem so little like an answer, is the fact that what is generally sought is some criterion, some infallible mark, by which the two may be, without error, distinguished. In fact there is none. There are the standards of order and coherence with the rest of our experience. We cannot press the distinction beyond that. The same thing, of course, is true of the distinction between memory or imagination and sense. It is not infallible, and Hobbes uses this fact to account for men's belief in ghosts and incorporeal spirits. The passage quoted last from The Elements of Law would serve to explain it, but we might appeal as well to his proposed explanation in Leviathan. There he writes,

We read of Marcus Brutus...how at Philippi...he saw a fearful apparition, which is commonly related by historians as a vision; but considering the circumstances, one may easily judge to have been but a short dream. For sitting in his tent...it was not hard for him, slumbering in the cold, to dream of that which most affright him; which fear, as by degrees it made him wake, so also it must

needs make the apparition by degrees to vanish, and having no assurance that he slept, he could have no cause to think it a dream, or any thing but a vision.⁵⁷

If one falls asleep without realizing it and if one awakens without realizing that one has slept, then, if one has had a dream which, given the circumstance, is probable, one might well take it for an actual occurrence and have no way of telling the difference. To take what I think is a compelling instance. Suppose I go to bed and during the night have a dream in which I imagine myself to get up, walk about for awhile, and return to bed. If in the morning I remember this, how will I tell that it was a 'dream', that I had imagined, and not really experienced it? I could not. If, on the other hand, I had prepared something to eat in my dream and left the dirty dishes on the table, then, in the morning, finding the table clear, I would have reason to think it had been only a dream or imagination, because it does not accord with the rest of my experience—but even in such cases there is sometimes cause to wonder.

The question how we remember is likewise answered by Hobbes. His answer in brief is that "in the motion of any continued body, one part follows another by cohesion", and, accordingly, our phantasms, which are motions, "become predominant in the same order in which at any time formerly they were generated by sense".⁵⁸ This is, in effect, the principle of association later styled 'contiguity' by Hume. But it is, at least in one sense, superior to Hume's account, for, whereas Hume is content simply to say (what everybody knew) that objects recall contiguous objects, Hobbes attempts to explain why. His account may

well have been wrong, but that is of little importance. He was at least on the road which would lead eventually to real advances in scientific psychology. Now, it might be thought that this principle, which Hobbes takes to be basic, would greatly limit the possible variety of imagination, but, on the contrary, the principle serves Hobbes to provide an account for that variety. The explanation is put most clearly in Leviathan.

But because in sense, to one and the same thing perceived, sometimes one thing, sometimes another succeedeth, it comes to pass in time, that in the imagining of any thing, there is no certainty what we shall imagine next; only this is certain, it shall be something that succeeded the same before, at one time or another.⁵⁹

There are, of course, other factors that enter into what we might call, for want of a better term, 'creativity', or that ability to imagine which is so vital to the fine arts; chief among them are "celerity of imagining, that is, swift succession of one thought to another; and steady direction to some approved end", but hardly less important are "Good wit, or fancy", the ability to observe similitudes "in case they be such as are but rarely observed by others", and "Good judgement", the ability to note "differences and dissimilitudes...in case, such discerning be not easy", and "Discretion", "wherein times, places and persons are to be discerned".⁶⁰ Good wit or fancy, judgement, and discretion would all appear to be species of what Hobbes calls 'celerity of imagining' and 'steady direction'. But that which would seem to underlie them all is observation or experience. He goes on to write,

fancy, without the help of judgement, is not commended as a virtue; but the latter which is judgement, and discretion, is commended for itself, without the help of fancy. Besides the discretion of times, places, and persons, necessary to a good fancy, there is required also an often application of his thoughts to their end; that is to say, to some use to be made of them. This done; he that hath this virtue, will be easily fitted with similitudes, that will please, not only by illustrations of his discourse, and adorning it with new and apt metaphors; but also, by the rarity of their invention. But without steadiness, and direction to some end, a great fancy is one kind of madness... which kind of fancy, I know no particular name for: but the cause of it is, sometimes want of experience. 61

I have here overlooked Hobbes' emphasis on the "difference in men's passions" to which he appeals as the cause both of the difference in quickness and steadiness of men's ability to think creatively,⁶² but only to emphasize the even more fundamental character of experience. It goes without saying that the poet is a man of feeling. But the poet is also a man of experience. We all of us have feeling; we are not therefore all of us poets nor are we, therefore, appreciative readers of poetry. Without experience, words and passions will not do.

Of Hume's other principles of association, Resemblance and Cause and Effect, Hobbes makes use (as a principle of association) only of the latter. The relation of cause and effect, however, serves not so much to explain the fact that we remember as how it is that we go about actually recalling something. It should be noted, however, that Hobbes does not, for the most part, use 'cause' and 'effect' but 'antecedent' or 'sign' and 'consequent'. It is only in the early Elements of Law that the account is given in terms of cause

and effect. His account there, which is parallel to that given in Leviathan and De Corpore, is worth quoting in full.

The cause of the coherence or consequence of one conception to another, is their first coherence, or consequence at that time when they were produced by sense. As for example: from St. Andrew the mind runneth to St. Peter, because their names are read together; from St. Peter to a stone, for that same cause; from stone to foundation, because we see them together; and for the same cause, from foundation to church, from church to people, and from people to tumult. And according to this example, the mind may run almost from any thing to any thing. But as to the sense the conception of cause and effect succeed one another; so may they after sense in the imagination. And for the most part they do so. The cause whereof is the appetite of them, who, having a conception of the end, have next unto it a conception of the next means to that end. As when a man, from the thought of honour to which he hath an appetite, cometh to the thought of wisdom, which is the next means thereto; and from thence to the thought of study, which is the next means to wisdom, etc.⁶³

This sort of thinking would seem to correspond to what Hobbes was later to call 'regulated' thought in Leviathan. Such thought he describes in this way: "From desire, ariseth the thought of some means we have seen produce the like of that which we aim at; and from the thought of that, the thought of means to that mean; and so continually, till we come to some beginning within our own power."⁶⁴

Of course, corresponding to this kind of regulated thought, which proceeds by association of cause and effect or, more accurately, of antecedent and consequent, backwards from effect to cause, there is another "when imagining any thing whatsoever, we seek all the possible effects, that can by it be produced".⁶⁵ And he goes on here to assert explicitly that a special case of this kind of thought is what "we call remembrance, or calling to mind".⁶⁶ But, whereas in

the earlier Elements of Law Hobbes, as Hume was to do later,⁶⁷ takes it to be sufficient simply to posit these principles as the cause of this sort of association of ideas, in Leviathan and De Corpore he seems to have recognized the emptiness of this explanation (which is equivalent to nothing more than that, e.g., the cause of their present association according to resemblance is their association according to resemblance) and proffers, as has been shown, a mechanistic account of coherence itself. The principles of association of contiguity and cause and effect thus both reduce in the later works to the same mechanistic principle. The association of ideas is effected "by the coherence of the matter moved".⁶⁸

Contrasted with regulated thought, there is another kind of thinking or "mental discourse", which Hobbes refers to as "unguided, without design and inconstant". The difference between this and regulated thought is that, in unguided thought, "there is no passionate thought, to govern and direct those that follow, to itself, as the end and scope of some desire, or other passion in which case the thoughts are said to wander, and seem impertinent to one another, as in a dream".⁶⁹ Yet even in this "wild ranging of the mind" the succession of one thought to another is neither so haphazard nor so unreasonable as it may seem. Hobbes gives an example which, if only for the prose, is worth repeating here.

For in a discourse of our present civil war, what would seem more impertinent, then to ask, as one did, what was the value of a Roman penny? Yet the coherence to me was manifest enough. For the thought of the war, introduced the thought of the delivering up of the king to his enemies; the thought of that, brought in the thought of the

delivering up of Christ; and that again the thought of the thirty pence, which was the price of that treason; and thence easily followed that malicious question, and all this in a moment of time; for thought is quick.⁷⁰

Here again the succession is to be accounted for in terms of 'coherence'. To take an example, the thought of delivering up the king may be analyzed into two thoughts, that of 'delivering up' and that of 'the king'. But the thought of 'delivering up' has in the past been associated with the thought of Christ, or, put differently, the motion(s) constitutive of the thought of 'delivering up' coheres with other motions, namely those constitutive of the thoughts of 'the king' and of 'the Christ'; so that the motion of the thought of delivering up the king drags along with it, in virtue of the coherence of matter, the other motion with which it is connected or of which it is a part, the thought of delivering up the Christ, and, since there is no strong passion to govern which of our thoughts takes the fore, the thought of delivering up the Christ may seem impertinently to become predominant or to occur. Of course, this explanation, from the point of view of contemporary physiological psychology, is naive in the extreme, but Hobbes should not lose credit for that: he has at least seen the positive value of such explanations while admitting that they are only plausible and may be specious, and, if his account is inadequate, it is at least a start. But the explanation does for Hobbes what it needs to do; it serves at once to provide a causal account both of the succession of one thought to another and of the seemingly random succession of thoughts in the imaginative or creative mind.

Essentially the same account of mental discourse is given, albeit far more briefly, in De Corpore. There, however, the distinction between the two kinds of thought is not so explicitly made, although each is briefly described in much the same terms as in Leviathan.⁷¹ What is significant in the account given in De Corpore is that here Hobbes for the first time says explicitly what is only implicit in Leviathan and not mentioned at all in the corresponding discussion in The Elements of Law, that this "perpetual arising of phantasms, both in sense and imagination, is that which we commonly call discourse of the mind, and is common to men with other living creatures".⁷² This is why it is so important to distinguish Hobbes' two senses of 'reason'. Reason in this sense, in the sense of mental discourse, is common both to men and animals. In Hobbes' philosophy both think alike, although in varying degrees, and, in fact, so long as we confine 'reason' to this usage, a man may well be excelled by another animal. As he writes in Leviathan, "it is not prudence that distinguishes man from beast. There be beasts, that at a year old observe more, and pursue that which is for their good, more prudently, than a child can do at ten."⁷³ Equating prudence, for the moment, simply with regulated thought, we can say that 'prudence' is Hobbes' term for that kind of reason or thought which is common to man and beast, and 'reason', his term for that kind of thought which distinguishes man and beast, in virtue of which man is called 'the rational animal'. This kind of reason, as has been shown, is the ability to think in words of general signification. The fact that it is an instance of mental discourse serves also to explain, in part, the fact that

Hobbes carries his discussion of psychology in De Corpore beyond what would seem to be required by his conception of methodical order. That order requires that, before taking up the investigation of sensible qualities and their causes, we enquire into the nature and causes of sense. Hobbes goes beyond this, however, to discuss the nature of thought, dreams, appetite, deliberation, (and will, topics which would at first appear to belong to the second part of the Elements of Philosophy, De Homine.⁷⁴ Man is, like other animals, a natural body, and the discussion of the characteristics common both to men and animals belongs, therefore, to the discussion of body in general, to De Corpore, and not to De Homine, the discussion of man "and his special faculties and affections".⁷⁵

The concept of prudence, as such, although it plays a fundamental role in Hobbes' psychology, is not discussed in The Elements of Philosophy. In De Corpore, without mentioning prudence, he writes only that regulated thought 'supposes both appetite, and judgement to discern what means conduce to the end, which is gotten by experience; and experience is store of phantasms, arising from the sense of very many things'.⁷⁶ Nevertheless, since this concept does belong to Hobbes' cognitive psychology and since it is a characteristic shared both by man and animals, it would seem appropriate to discuss it here.

In Leviathan Hobbes defines 'experience' in this way: "Much memory or memory of many things is called experience."⁷⁷ Since he takes memory to be identical with imagination and that with sense, or phantasms remaining for some time in the mind, it is clear that these

two definitions are intended to be equivalent. The connection of experience with prudence, however, is made more immediately clear from the definition quoted from The Elements of Law.⁷⁸ There Hobbes writes that "The remembrance of the succession of one thing to another, that is, of what was antecedent, and what consequent, and what concomitant, is called an experiment", and he goes on to write that, "To have had many experiments is what we call EXPERIENCE". Here the definition of 'experience' is explicitly linked with the doctrine of natural signs, which, in this work, Hobbes puts in this way:

When a man hath so often observed like antecedents to be followed by like consequents, that whensoever he seeth the antecedent, he looketh again for the consequent; or when he seeth the consequent, he maketh account there hath been the like antecedent; then he calleth both the antecedent and the consequent, SIGNS one of another.⁷⁹

He puts it more succinctly in De Corpore and Leviathan: "Signs are the antecedents of their consequents, and the consequents of their antecedents, as often as we observe them to go before or follow after in the same manner."⁸⁰ Of course, what makes an event the sign of another is the fact that, by their having been observed to occur together or to follow one another in experience, they so succeed one another in thought, so that the thought or sense of the one, by coherence, will recall the thought of the other. "And therefore," as he continues in Leviathan, "he that has the most experience in any kind of business, has the most signs, whereby to guess at the future time."⁸¹

Now in Leviathan prudence is defined first by an example.

Sometimes a man desires to know the event of an action; and then he thinketh of some like action past, and the events thereof one after another; supposing like events will follow like actions. As he that foresees what will become of a criminal, recons what he has seen follow on the like crime before; having this order of thoughts, the crime, the officer, the prison, the judge, and the gallows. Which kind of thoughts, is called foresight, and prudence, or providence; and sometimes wisdom; though such conjecture, through the difficulty of observing all circumstances, be very fallacious.⁸²

This definition, however, is evidently not complete, as is clear from the slightly altered definition given later in the same work.

When the thoughts of a man, that has a design in hand, running over a multitude of things, observes how they conduce to that design; or what designs they may conduce unto; if his observations are such as are not easy, or usual, this wit of his is called PRUDENCE; and depends upon much experience, and memory of the like things, and their consequences heretofore.⁸³

Although it can be gathered from what follows, the reason for the qualification added here and the connection of prudence with the doctrine of natural signs is made most evident from the definition given in The Elements of Law.

PRUDENCE is nothing else but conjecture from experience, or taking signs from experience warily, that is, that the experiments from which one taketh such signs be all remembered: for else the cases are not alike, that seem so.⁸⁴

The prudent man, in other words, is one who is able, among other things, to discern like cases from unlike. Or, as he puts it in De Corpore, "he is said to have a good judgement, that finds out the unlikeness or difference of things that are like one another".⁸⁵ From the example given in Leviathan, prudence would seem to be the same thing as

regulated thought. Thus a man who seeks to determine the outcome of some action thinks of the action, which, if he has had experience with this or a similar action in the past, is a sign for him of whatever followed it and which, accordingly, calls to mind the known consequences. Depending on his experience, however, the thought of the action might be a sign of, and therefore call to mind, any number of consequences and would, thus, be of little help if his experience were limited, for, in that case, there might be nothing in his past experience that corresponds to the action whose outcome he wishes to know. The prudent man, therefore, is one who has much experience, i.e., many experiments in the sense defined, and who has also the ability to distinguish events readily.

Still, aside from the fact that it is a species of regulated thinking, the exact status of prudence as a regulator of conduct needs to be noted. While noting that prudence is sometimes called wisdom, Hobbes is himself reluctant to give it that title, and his reason is clear. Prudence, "is a presumption of the future, contracted from the experience of time past",⁸⁶ and such presumptions, as he points out, "be very fallacious". "For the foresight of things to come, which is providence, belongs only to him by whose will they are to come."⁸⁷ Prudence is a matter of causal inference, of inferring from the fact that such and such an event has followed an event like this in the past, that it will follow again. It is a natural inference, for the doctrine of natural signs upon which prudence is based is a natural psychological propensity to infer that our present experience will resemble our past experience, but as

Hobbes notes in The Elements of Law, "Experience concludeth nothing universally. If the signs hit twenty times for one missing, a man may lay a wager of twenty to one of the event; but may not conclude it for a truth."⁸⁸ Even if the signs were to hit twenty to nothing, if, that is, the antecedent and consequent were constantly conjoined and all our experiments were in accord, the conjecture, as Hume was later to point out so painstakingly, would not be certain. Prudence is thus a matter purely of (educated) guesswork, and so Hobbes writes, "The best prophet naturally is the best guesser; and the best guesser, he that is most versed and studied in the matters he guesses at: for he hath most signs to guess by.....and consequently is the most prudent".⁸⁹ This, it is worth noting by the way, is a neat fillip against divine revelation and prophecy. The remark comes after his noting that, since foresight of the future belongs only to him whose will brings it about, "From him only, and supernaturally, proceeds prophecy". He then proceeds, and one wonders if he chuckled as he did so, to say that naturally the best prophet is the best guesser! Certain conjectures, on the other hand, as Hobbes is careful to point out and as I have stressed in the discussion of Hobbes' conception of reason, are attainable only by reason, which renders the knowledge of universal and eternal truth possible. But prudence or experience can neither conclude that a truth is universal, nor that it is eternal. That prudence is thus only conjectural and never certain will be worth recalling when we come to discuss the laws of nature, which have been thought by some to be only prudential maxims.

We might carry the discussion of Hobbes' cognitive psychology into much more detail and to much more sophisticated levels, to include, for instance, the psychological account of reason. Such a discussion, however, would take us well beyond what is necessary to our primary purpose. For the discussion of Hobbes' cognitive psychology, then, let this suffice. What we must turn to now is his motivational psychology, which he takes up in De Corpore immediately after his discussion of the individual senses and, in his other works, after the discussion of reason and knowledge.⁹⁰

NOTES: CHAPTER FIVE

1. E.L., I, 1, 7.
2. The first part which consists mainly of a discussion of optics we know to have been completed in English at least as early as 1646. See EW VII, pp. 467 n; EW I, p. xii.
3. D.H., Epistle Dedicatory.
4. EW I, IV, 25, 1.
5. Ibid.
6. Sartre, The Transcendence of the Ego, trans., Forest Williams and Robert Kirkpatrick. New York: Noonday Press, 1957, p. 40.
7. EW I, IV, 25, 1.
8. Ibid.
9. Ibid.
10. EW I, IV, 25, 2.
11. A premiss which will be true, according to the definition of sensation given above, even if it is assumed that only phantasms exist. (For an indirect amplification of this point, see below, pp. 255-257.) It would be well here to recall Hobbes' argument, given in Chapter 3 above (pp. 148-152), that whatever we conceive to exist, we must conceive to be corporeal. This argument will apply as well to thoughts as to anything else that might be supposed to exist.
12. See above, Introduction, p. 9, n. 15.
13. EW I, IV, 25, 2.
14. Ibid.
15. Balz, 1918, pp. 20-3. Sir Leslie Stephen, whose account of Hobbes' mechanism, although brief, is one of the best that I have read, seems to take an equivocal position here. While fully perceiving that "the mind...is itself a set of motions in the world", he seems not to grasp the consequence that thought itself is just such a set of motions and differs from the

non-mental only as one motion from another, writing that "The peculiarity of Hobbes' position is just this, that he does not perceive that any problem is raised by the contrast between soul and body--the world of thought and the world of things. He does not seek for any hypothesis...intended to bring the two worlds into unity." Stephen's difficulty would seem to be precisely that pointed out by Balz. He has forced upon Hobbes the subjectivist conception of thought. As he writes, "Bodies are still independent of thought, and are the sole and absolute realities. Thought is a mere play of phantasms, which are unreal because only in the mind." (Stephen, 1961, p. 100). Of course, Hobbes needs no such hypothesis because he is not, in fact, this kind of subjectivist. Not having so distinguished the two worlds, he need not labor to bring them together again.

16. EW I, IV, 25, 7.
17. Of course, it does not follow from the fact that Hobbes' philosophy did not and could not express this distinction that his philosophy is therefore inadequate, merely that it is different. Anyone who would say otherwise, unless he can give some independent reason for thinking that the post-Cartesian distinction is metaphysically valid, is simply being dogmatic.
18. EW I, IV, 25, 2.
19. Ibid.
20. Ibid.
21. Ibid.
22. EW III, Ch. 2, p. 4.
23. EW I, II, 9, 1.
24. EW I, II, 10, 1.
25. EW I, II, 9, 6.
26. EW I, IV, 25, 1; EW I, I, 1, 4.
27. Watkins, 1965, pp. 95-6. In fairness to Watkins, we should point out that he seems to have revised his opinion in his later book. See Watkins, 1973, p. 72.
28. This view of Hobbes as an epiphenomenalist would seem also to have been taken by Stephen (see above, n. 15) and by George Croom Robertson (Robertson, 1886, pp. 122-3, 125). R.S. Peters

does not go quite so far, asserting simply that "Hobbes does not seem to have been sufficiently interested in this problem to define carefully what his position was". (Peters, 1956, pp. 78, 93)

29. Peters, 1956, pp. 101-103.
30. Ibid., p. 101. Although he is not very clear, G.C. Robertson would seem also to have taken this view of Hobbes' theory of perception. See Robertson, 1886, p. 124-5.
31. Peters bases his interpretation almost entirely upon Hobbes' own use of the word 'pattern'. (EW I, IV, 25, 1). But it seems to me there is a danger of reading too much into this word. There is no need to think that it is used here, as it is in Locke, to mean that ideas are copies or resemblances of their objects. One thing may well be said to be the pattern of another because it is in some way causally correlated with it, not because it resembles it, as we might say that the zygote contains the pattern, or 'blueprint', of the man.
32. EW I, IV, 25, 3.
33. Ibid.
34. Ibid. See below, n. 45.
35. EW I, IV, 25, 5.
36. Ibid.
37. Ibid.
38. Ibid.
39. EW I, IV, 25, 6.
40. Ibid.
41. EW I, IV, 25, 5.
42. Ibid. Like other writers on Hobbes, I shall not fail to quote the more parsimonious and proportionately more forceful Latin: *adeo sentire semper idem, et non sentire ad idem recidunt.* (LW I, IV, 25, 5.)
43. EW VII, p. 83.
44. Ibid.

45. Yet another consequence might be pointed out here, if only because it enables us to understand Hobbes' apparent usage of epiphenomenalist language consistently with his materialism. From the fact that sense remains for some time and that we can have only one phantasm at a time, Hobbes writes, "it is manifest, that every endeavour of the organ outwards, is not to be called sense, but that only, which at several times is by vehemence made stronger and more predominant than the rest; which deprives us of the sense of other phantasms, no otherwise than the sun deprives the rest of the stars of light, not by hindering their action, but by obscuring and hiding them with his excess of brightness." (EW I, IV, 25, 6.) That a motion makes a phantasm may thus be given a consistently materialist interpretation. A motion makes a phantasm by making itself, by virtue of its force, the most predominant. The importance of this qualification of his definition of 'sense' should become obvious immediately.
46. EW I, IV, 25, 7.
47. Ibid.
48. Ibid.
49. Ibid.
50. EW I, IV, 25, 8.
51. Ibid.
52. EW I, IV, 25, 9.
53. El.L., I, 4, 5.
54. El.L., I, 4, 6.
55. El.L., I, 3, 9.
56. El.L., I, 3, 10.
57. EW III, Ch. 2, p. 9.
58. EW I, IV, 25, 8. In Leviathan he puts it more clearly. "Those motions that immediately succeeded one another in the sense, continue also together after sense: insomuch as the former coming again to take its place, and be predominant, the latter followeth, by coherence of the matter moved, in such manner, as water upon a plane table is drawn which way any one part of it is guided by the finger." (EW III, Ch. 3, pp. 11-12. See also El.L., I, 3, 3.)

59. EW III, Ch. 3, p. 12.
60. EW III, Ch. 8, pp. 56-7.
61. Ibid., pp. 57-8.
62. Ibid. p. 57.
63. El.L., I, 4, 3. This work, published originally as Of Human Nature, was, unlike Hobbes' other works in English, both popular and well thought of, and it may well be, considering the similarities between this and Hume's account of the principles of association, that Hume was influenced by it. This conjecture is strengthened if we note that Hobbes goes on in art. 9 to speak of causal inferences in terms of antecedent and consequent in a manner that could easily be interpreted in terms of Hume's constant conjunction, and he goes on in art. 10, still speaking of causal inference, to write that, "though a man hath always seen the day and night to follow one another hitherto; yet can he not thence conclude they shall do so, or that they have done so eternally. Experience concludeth nothing universally." Experience, in other words, will not provide us with the knowledge of any necessary connection between the two events. I make this suggestion, however, only as a conjecture and a more detailed comparison would be necessary to determine how probable it is.
64. EW III, Ch. 3, p. 13.
65. Ibid.
66. Ibid., p. 14. In the parallel passage from El.L. he says essentially the same thing, although the word used there is 'reminiscence'. See above, p. 273.
67. Hume, for instance, writes that, "This uniting principle [the principles of association]...we are only to regard as a gentle force, which commonly prevails, and is the cause why, among other things, languages so nearly correspond to each other." And he goes on to say, "The qualities, from which this association arises, and by which the mind is after this manner convey'd from one idea to another, are three, viz. RESEMBLANCE, CONTIGUITY, in time or place, and CAUSE and EFFECT." (Hume, Treatise, pp. 10-11. My underlining). In fairness, however, we should note that, while disclaiming the value of such explanations, asserting that "we must in the end rest contented with experience, then for want of something specious and plausible," Hume does offer a physiological explanation of sorts. This explanation, however, appeals ultimately to the brute fact that "the mind is endow'd with a power of exciting any

idea it pleases; whenever it dispatches the spirits into that region of the brain, in which the idea is plac'd." The fact that we sometimes get the wrong idea is explained by the fact that the animal spirits do not always proceed along the proper traces but, "falling into...contiguous traces, present other related ideas." (Ibid., pp. 60-61. My underlining.) Obviously, this explanation cannot, without begging the question, explain why the other ideas are related in terms of resemblance, contiguity, or cause and effect.

68. It may be that Hobbes had the same sort of mechanistic account in mind in El.L. There, using the same simile that he employs in Leviathan, he writes, "Another sign that dreams are caused by the action of the inward parts, is the disorder and causal consequence of one conception or image to another: for when we are waking, the antecedent thought or conception introduceth, and is the cause of the consequent, as the water followeth a man's fingers upon a dry and level table. But in dreams there is no coherence...which must proceed from this, that the brain in dreams is not restored to its motion in every part alike." (El.L., I, 3, 3.) This, coming in context of a mechanistic account of dreams and imagination, would suggest that Hobbes had also here thought of coherence in terms of the coherence of matter moving. The connection of this account of dreams, however, with the account of waking thoughts, which comes in the following chapter, is not explicitly made nor is it immediately obvious.
69. EW III, Ch. 3, p. 12.
70. Ibid., pp. 12-13.
71. EW I, IV, 25, 8.
72. Ibid. My underlining.
73. EW III, Ch. 3, p. 16.
74. The objection that this discussion is out of order and that "its place is after physics, when the facts of life and mind come up for inquiry" was first lodged, to my knowledge, by Robertson (Robertson, 1886, pp. 114-5). The answer which I shall give to this objection was given first by Brandt (Brandt, 1928, pp. 347-8).
75. EW II, p. xx.
76. EW I, IV, 25, 8.
77. EW III, Ch. 2, p. 6.

78. See above, p. 273, n. 54.
79. El.L., I, 4, 9.
80. EW I, I, 2, 2. In Leviathan the definition reads, "A sign is the evident antecedent of the consequent; and contrarily, the consequent of the antecedent, when the like consequences have been observed, before: and the oftener they have been observed, the less uncertain is the sign." (EW III, Ch. 3, p. 15.)
81. EW III, Ch. 3, p. 15.
82. Ibid., pp. 14-15.
83. EW III, Ch. 8, p. 60. My underlining.
84. El.L., I, 4, 10.
85. EW I, IV, 25, 8. See above, p. 289, n. 60.
86. EW III, Ch. 3, p. 16.
87. Ibid., p. 15.
88. El.L., I, 4, 10.
89. EW III, Ch. 3, p. 15.
90. The reason for this differing order, on the assumption (justifiable from the preface to De Cive) that Hobbes had always held roughly the same view of methodical order, may be explained by the fact that, in El.L. and Leviathan, his concern is primarily with men. In the more systematic Elements of Philosophy, however, he is concerned with all natural bodies. Since all animals possess appetites, prudence, and so on, the fundamentals of his motivational psychology are, accordingly, discussed in the work on body. The work on man, however, in its psychological parts, follows the order of his other works, beginning with a discussion of reason and scientific knowledge, the peculiar characteristics of men, and proceeding then to discuss the passions which are, for the most part, peculiar to men (a fact which, as we shall see, is due to the fact that language is peculiar to men). Hobbes would seem to suggest explicitly that this is the reason when he writes, at the end of the psychological discussion in De Corpore, "But because the passions and perturbations of the mind are innumerable, and many of them not to be discerned in any creature besides men; I will speak of them more at large in that section which is concerning man." (EW I, IV, 25, 13) What would seem to be out of order in this work is the long discussion of optics which takes up the first part of De Homine. For this we may or may not wish to say with Brandt that this "must be presumed to be due especially to the build of the eye in man." (Brandt, 1928, p. 351)

CHAPTER SIX

MOTIVATIONAL PSYCHOLOGY AND THE PSYCHOLOGICAL CONCEPTION OF MORALITY

As has been noted, the object of sense causes a motion, an endeavor outward, in the sentient. This endeavor outward is sensation and, depending on how it is considered, imagination or memory. This, it has been suggested, has been deduced by Hobbes from his metaphysics, given the phenomenon of sensation. There are, however, other facts which must be brought into consideration. We do not just sense and feel; we act and we do things. This is a fact, a phenomenon, of which we are aware. Why and how we act is yet to be considered, but, coupled with the knowledge that we sometimes act, there is also the knowledge that all voluntary actions (Hobbes' examples are such actions as going and speaking) "depend always upon a precedent, thought of whither, which way, and what."¹ Now this knowledge is partly straightforward knowledge of fact and partly analytic. The distinction between what Hobbes calls "vital" and "animal" or "voluntary motion" is just that some of our bodily motions do and some do not depend upon a precedent thought.² Those which do are called voluntary; those which do not, vital or involuntary.³ The thought or imagination upon which voluntary motion depends, however, has been shown to be some motion, or sensation, worked in the sentient by the action of the object of sense. Thus, "it is

evident, that the imagination is the first internal beginning of all voluntary motion," but, since the beginning or principle of motion must be some motion (and all action is motion) and since sense or imagination has been defined as an endeavor, it is also evident that "These small beginnings of motion" are those which "are commonly called ENDEAVOUR."⁴ I have taken the argument here from Leviathan simply because, as we shall see, it is clearer. In fact, this is the only passage, to my knowledge, in which Hobbes gives the argument in this form. In De Corpore the argument is not given and animal or voluntary motions are simply introduced as concomitant effects of the object of sense, as "certain motions proceeding from sense."⁵ Likewise, in the earlier Elements of Law that animal motion is endeavor or internal beginning of motion toward or away from something caused by sense is simply presented as if it were self-evident from the fact that "conceptions or apparitions are nothing really, but motion in some internal substance of the head."⁶ And it may well be that Hobbes took it to be an obvious consequence. In all of his psychological works, he attempts first to show that sense, imagination, and thought are motions caused by the object of sense, and, on the assumption that it is analytic that animal or voluntary motions depend upon a precedent thought or that they take their beginning from such a thought, it follows obviously that the beginning of animal motion must be some endeavor, defined as the small beginning of motion, caused by the object of sense. But since the beginning of animal motion is a thought or conception, which has been shown to consist in motion, that the beginning of animal motions is some thought and that it is an endeavor would seem to be convertible propositions.

Now, "This endeavour, when it is toward something which causes it, is called APPETITE or DESIRE...And when the endeavour is fromward something, it is generally called AVERSION."⁷ Again the argument is clearest from Leviathan. Here, it is clear, appetite and desire are simply being identified analytically with those antecedent thoughts or conceptions upon which voluntary motions depend, so that it follows, since those thoughts or conceptions are motions or endeavors caused by the object and since appetites and aversions are the beginnings, respectively, of motions or actions to and away from their objects, that those endeavors to and away from some object which causes them are what are commonly called appetite and aversion.

The definition of 'appetite' and 'aversion' quoted above from Leviathan is not quite correct, and Hobbes makes the necessary correction in De Corpore. There he writes that "this first endeavour, when it tends toward such things as are known by experience to be pleasant is called appetite, that is, an approaching; and when it shuns what is troublesome, aversion, or flying from it."⁸ The significations of 'appetite' and 'aversion' are stricter than the definition from Leviathan would lead us to expect. Only those endeavors toward things which are known or expected to be pleasant are properly called appetites. Of course, this is not to say that we must have had some (pleasurable) experience of the object sometime before we desire it; the object may cause pleasure and, hence, desire at the same time. Nor is it necessarily to deny that we sometimes desire that which we know to be unpleasant; it is to assert, rather, that, if ever we desire something which is, by itself, unpleasant, it is because we expect to gain something by it

which is pleasant; it is, in other words, desirable or good "as the means" to some end desired or "in the promise," i.e., as a sign of some end desired.⁹ There is, then, a distinction to be made between appetite as desire and pleasure and between aversion and pain. This distinction is one which Hobbes makes in all his psychological works. He is not consistent, however, in the way in which he makes it, although the distinction itself remains much the same. For instance, in The Elements of Law and De Corpore he defines 'pleasure' or 'delight' and 'pain' first and then proceeds to define 'appetite' and 'aversion' in terms of these, writing in the earlier works that "when the object delighteth, [it] is called APPETITE; when it displeaseth, it is called AVERSION."¹⁰ In Leviathan, however, he reverses the procedure, first defining 'appetite' and 'aversion' and then defining 'pleasure' and 'pain' in terms of them as, "This motion, which is called appetite, and for the appearance of it delight, and pleasure," and similarly, "That which men desire they are also said to LOVE; and to HATE those things for which they have an aversion."¹² Thus, it might seem that, in the earlier work, as in the later, he is saying that we desire a thing because (or insofar as) it pleases and, in the intervening work, that the thing is pleasing because (or insofar as) we desire it. The confusion is perhaps cleared up by De Homine where he defines the two in this way:

Appetite and aversion do not differ from delight and annoyance otherwise than desire from satisfaction of desire, that is, than the future differs from the present. For appetite is delight, and aversion, annoyance; but the former differs from pleasure, the latter from displeasure, as being not yet present, but foreseen or expected.¹³

And in this work delight and annoyance (pleasure and pain) are asserted to be, like appetite and aversion, endeavors which are, respectively, "outward" (toward the object) and "inward" (away from the object).¹⁴ The motions involved, then, or, if you will, the physiology of appetite and delight and aversion and annoyance are the same. They differ only in how they are considered, with respect either to the present or the future or to the presence or the absence of the object desired or shunned, and it does not matter which is defined in terms of which. The apparent distinction thus collapses into a semantic distinction. There are, in fact, the two basic passions of appetite and aversion or delight and annoyance, call them what you will, which differ only in how they are considered. In fact, Hobbes seems explicitly to take the view that there are only these two basic passions, but that they "have their names for divers considerations diversified."¹⁵ He puts the same thing more strongly elsewhere, writing, "So that pleasure, love, and appetite, which is also called desire, are divers names for divers considerations of the same thing."¹⁶ And he attempts in all of his works to define the other pleasures in terms of these.

But while we can know analytically and from introspection that appetite and pleasure, aversion and displeasure do not essentially differ and while, given this, we can deduce that each must be an endeavor caused by the object of sense, it is not so easy to say how they differ in causal terms or why it is that one object causes pleasure, another displeasure. In his attempt to give a causal account of this phenomenon Hobbes is, of course, hypothesizing. From experience we know that there are certain activities which, if they are interrupted,

cause bodily harm. These activities are called vital motions. We know, too, from experience that those things which cause bodily harm are generally those which cause us pain or displeasure and, likewise, that those things which reverse this situation are generally those which cause delight or pleasure. Given all this, it is a reasonable, although not a certain conjecture that those objects which cause pleasure are those whose actions aid the vital motions and that those which disrupt or impede the vital motions are those which cause pain or displeasure. This at least would seem to be the kind of argument Hobbes has in mind in Leviathan. There he writes that

This motion, which is called appetite, and for the apparence of it delight, and pleasure, seemeth to be a corroboration of vital motion, and a help thereunto; and therefore such things as caused delight, were not improperly called jucunda a juvando, from helping or fortifying; and the contrary molesta, offensive, from hindering, and troubling the motion vital.¹⁷

In his other works, however, his argument takes a different form, relying (explicitly only in De Corpore) on Harvey's work on the circulation of the blood and the traditional notion that the heart is the center of life, of the body's vital motion. Thus, he writes, on the assumption that the motion of sensation is transmitted to or from the heart,¹⁸ that

the original of life being in the heart; that motion in the sentient, which is propogated to the heart, must necessarily make some alteration or diversion of vital motion, namely, by quickening or slackening, helping or hindering the same. Now when it helpeth, it is pleasure; and when it hindereth, it is pain, trouble, grief, &c.....Now vital motion is the motion of the blood, perpetually circulating (as hath been shown from many infallible signs and marks by Doctor Harvey, the first observer of it) in the veins and arteries.¹⁹

And his hypothesis is, accordingly, that pleasures and displeasures are,

respectively, those motions which help and those which hinder the circulation of the blood. This account, which we now know to be incorrect, is Hobbes' attempt at providing a scientific account of what are for him the most basic psychological phenomena. That it is neither correct nor deduced from his metaphysics (except to the extent that it is hypothetico-deductive) is, for our purposes, irrelevant, irrelevant because it plays no role in his moral philosophy. Those of his physiological premisses upon which his moral philosophy depends are all of them deductions, not hypotheses.

What we have seen so far is that, for Hobbes, appetite and aversion, delight and annoyance, are motions or endeavors, respectively, to and away from some object by whose action they are, at least initially, caused and, further, that these endeavors are the same as or are caused by those which constitute sensation or imagination. This much he has deduced from his metaphysics, given the phenomena of appetite and actions. What is not deduced is the explanation of how the same motion can cause, on the one hand, a sensation and, on the other, a passion such as pleasure. The hypothesis is that this motion affects the vital motion and that the effect on the vital motion is pleasure or pain.

This account of appetite and aversion (that part of it which is deductive) has consequences which are in themselves interesting and some of them crucial to understanding Hobbes' moral philosophy. In the first place, the account supports, in fact requires, a causal view of human action and choice. When we deliberate, for instance, about some action, we consider or imagine the action alternately with respect to those of its aspects or consequences which are desirable and undesirable and alternate, accordingly, between

appetite and aversion,²⁰ so that, "while that vicissitude of appetites and aversions remains in them, they have that series of thoughts which is called deliberation."²¹ Now deliberation ends in a decision to perform or not to perform the action in question, and this decision, that antecedent thought or conception on which voluntary action depends or from which it takes its beginning, is called the will. That thought or conception which results in an action, however, is an appetite or aversion, an endeavor to or away from the object in question. "Will therefore is the last appetite in deliberating,"²² or, as it is put in De Corpore, "the same thing is called both will and appetite; but the consideration of them, namely, before and after deliberation, is divers."²³ This, of course, is not a deduction from Hobbes' metaphysics. It is a deduction, rather, from our understanding of the terms involved and our experience. What is deduced from his metaphysics is that the will, as an appetite which, if it is strong enough, results in the performance of some action, is some motion or endeavor toward the object of that action and that, accordingly, the whole sequence of deliberation is mechanistic and, therefore, given Hobbes' mechanism, deterministic. The succession of appetites and aversions, like mental discourse, is explicable entirely in mechanistic causal terms, and our choices can be understood and accounted for entirely in terms of our understanding of the present situation and our past experience. Deliberation, in other words, is the exercise of prudence.

That this is so provides us with some opportunity for observing the sophistication of Hobbes' psychology. However unsophisticated we may take his causal explanations to be, he offers a mechanistic psychology

which both allows for and explains the modification of behavior by experience. Let us note first his distinction between the pleasures of sense and the pleasures of the mind.

Of pleasures or delights, some arise from the sense of an object present; and those may be called pleasures of sense....Of this kind are all operations and exonerations of the body; as also all that is pleasant in the sight, hearing, smell, taste, or touch. Others arise from the expectation, that proceeds from foresight of the end, or consequence of things; whether those things in the sense please or displease. And these are pleasures of the mind of him that draweth those consequences, and are generally called JOY. In the like manner, displeasures are some in the sense, and called PAIN; others in the expectation of consequences, and are called GRIEF.²⁴

Hobbes here speaks of pleasures of the mind only in terms of consequences, but this should not be understood in a calculating way. So understood it becomes clearly false, for there are many pleasures of the mind, e.g., poetry, that do not fit such a model. Poetry, for instance, would seem to have few if any consequences which are pleasant but it is, nevertheless, a pleasure of the mind. Hobbes' view of consequences, however, is not so narrow. Poetry is not, to be sure, utile or desirable as a means to some end; it is rather, pulchrum, good in the promise,

For pulchritude is that quality in an object that makes one expect good from it. For whatsoever things are seen as similar to those that have pleased, seem as though they would please. Therefore pulchritude is an indication of [as distinct from a means to] future good....when it dwells in a form, it is called beauty, and it pleaseth by imagination, even before the good of which it is a sign is acquired.²⁵

To take an example which might make the distinction between utile or 'profitable' and pulchrum more perspicuous, "Wisdom," Hobbes writes,

"is useful. For some protection is to be had from it....It is also pulchrum because it is difficult to acquire."²⁶ Likewise, "Extraordinary form is pulchrum; for it is a sign in all things of the extraordinary execution of the work whereunto one was born. That is finely formed, moreover, that hath the form of that thing which we have proved to be the best of its kind,"²⁷ and "Self-confidence is pulchrum: being a certain sign of one conscious of his own virtue."²⁸

It should be noted too that the qualification Hobbes adds here, "whether those things in the sense please or displease," is important because it offers at least a partial reply to the stock objection to psychological egoism. It is the distinction between pleasures of sense and of the mind as well as the distinction between pulchrum and utile that allows Hobbes to accept the fact, which might otherwise serve as a counterexample, that we sometimes choose that which is unpleasant or undesirable and still assert that we always choose that which is most pleasant or most desirable. A thing which is a displeasure to the sense may, nevertheless, be chosen if it is a greater pleasure to the mind, or if it is inutile, unprofitable or a means to that which is undesirable, it may still be chosen if it is a greater pulchrum. How and why this is the case we shall soon see.

Now, that foresight which we have of the end or consequence of things, taking them as means, is, as has been pointed out before, prudence, and this is a function of our experience. So that, if we have in the past experienced some ill effect from the performance of some action, that action will be, in virtue of the foresight thus acquired, distasteful. Although the performance of the action might be pleasurable

to sense, it will be to the mind or the imagination a displeasure or grief,²⁹ and our choice will be governed accordingly. And this choice will be governed by the same mechanistic principles that govern prudence or mental discourse. Our present actions and choices are thus governed, in Hobbes' psychology, by the consequences of our past actions. It would thus seem fair to say that, speaking very generally, Hobbes was at heart an operant psychologist.³⁰ For instance, B.F. Skinner, the founder and foremost spokesman of contemporary operant psychology, has written that

An adequate formulation of the interaction between an organism and its environment must always specify three things: (1) the occasion upon which the response occurs, (2) the response itself, and (3) the reinforcing consequence. The interrelationships among them constitute the "contingencies of reinforcement."³¹

Now, we may recall Hobbes' account of prudence, quoted above (p. 284) from Leviathan. This account, with the proper changes, seems to be almost exactly equivalent to the passage quoted here from Skinner: The crime we may call the response; the officer, etc., the reinforcer (in this case a punisher); and the circumstances, the occasion upon which the response is made. The latter point is the important one to make here. If, in Hobbes' terms, one observes that the circumstances are the same or similar and if, in the past, a particular action performed under those circumstances has had pleasurable consequences, the prudent man will perform the action. In other words, if we take 'stimulus' to refer to the observed circumstances and 'response', to the action in question, we may say that the stimulus sets the occasion for the response (as opposed to eliciting or causing the response) and

this is precisely Skinner's definition of a discriminative stimulus. All three factors taken together, the crime, the officer, the circumstances, which comprise the contingencies of reinforcement, together with the associations acquired from one's past experience would constitute the cause of the action, and Hobbes' concept of prudence as a psychological principle governing behavior translates easily into the vocabulary of modern operant psychology. We might here instance another notable point of similarity, both to illustrate the point in question and to lay the basis for overcoming a difficulty which many have felt with Hobbes' theory of motivation. Compare, for instance, the two following passages from Hobbes and Skinner respectively:

Desire of praise disposeth to laudable actions....
Desire of fame after death does the same. And though after death, there be no sense of the praise given us on earth...yet is not such fame vain; because men have a present delight therein, from the foresight of it.³²

How one feels about behaving for the good of others depends upon the reinforcers used...His behavior depends upon the control exerted by the social environment.....In an extreme case a person may be reinforced by others on a schedule which costs him his life.....The group...reinforces the hero with approval, praise, honor, affection....Some of this may be unintentional....Some may be intentional.... The important fact about such contingencies is that the greater the threat, the greater the esteem accorded the hero who alleviates it. The hero therefore takes on more and more dangerous assignments until he is killed.³³

Of course, the differences between these two passages should not be underestimated, but neither should their similarities be overlooked. The important thing is that both Skinner and Hobbes would agree that dying for others is not in our actual self interest and that men do

not naturally desire death. But both would also agree that the motivating force in such cases is self interest or pleasure (although Skinner declines to use such terms, partly for their mentalistic associations, partly because their referents are unobservable). Men, if they do not desire death or praise or the good of others, can be made to desire it. Only a small part of man's desires are the immediate consequence of his biological endowment, the rest are acquired as a result of experience. But the agreement between Hobbes and Skinner is yet more fundamental, for each would grant that our desires may be changed in two ways, by what has come to be called respondent (classical) and operant conditioning. To quote Hobbes:

According to the method of nature, sense is prior to appetite. For it cannot be known whether or not what we see as a pleasure would have been so, except by experience, that is, by feeling it....Whence it is that infants desire few things....Even if first experiences of something be sometimes displeasing, especially when new or rare, by habit they are rendered not displeasing, and afterwards pleasing; that much can habit change the nature of single men.³⁴

And again:

For pulchritude is that quality in an object that makes one expect good from it. For whatsoever things are seen as similar to those that have pleased, seem as though they would please. Therefore pulchritude is an indication of future good.³⁵

These two passages, especially the latter, come very close to expressing the concept of respondent conditioning. But we may note as well what is perhaps Hobbes' clearest statement of the operant principle.

Forasmuch as will to do is appetite, and will to omit, fear; the causes of appetite and of fear are the causes also of our will. But the propounding of benefits and

harms, that is to say, of reward and punishment, is the cause of our appetite and of our fears, and therefore also of our wills, so far forth as we believe that such rewards and benefits, as are propounded, shall accrue unto us. And consequently, our wills follow our opinions, as our actions follow our wills. In which sense ~~they say~~ truly that say the world is governed by opinion.³⁶

Now, an opinion Hobbes defines as any proposition which we hold to be true.³⁷ That certain actions are rewarded by praise may be such an opinion. But praise is something that delights (not naturally, as Hobbes points out, but because it is pulchrum, a sign or an indication of other things which are pleasing for their own sake,³⁸ or, as Skinner puts it, "We reinforce a person positively by saying 'Good!' or 'Right!'...and these verbal stimuli are effective because they have been accompanied by other reinforcers."³⁹) and delight is appetite. So that, if the delight one takes in praise is great enough, the appetite to do praiseworthy deeds may be great enough to overcome the greatest of all fears, the fear of death. Hobbes' statement of the basic principles of operant psychology is not, of course, entirely adequate, but neither is it essentially incorrect. Again, we may quote Skinner on the point: "The principles of hedonism, utilitarianism, and adaptation were not wrong, they simply were not precise."⁴⁰ And we might add, I think without exaggeration, that Hobbes' psychology was more precise and, for all its introspective elements, far more amenable to scientific approach than most.

I have noted the fact that, for Hobbes, men desire power. Power is something that delights. This is something few of us would or could truthfully deny.⁴¹ But Hobbes' statement of this evident fact has

shocked many and dismayed as many more. For he does not simply say that men desire power. He writes, rather, in one of the most memorable passages from Leviathan, "I put for a general inclination of all mankind, a perpetual and restless desire of power after power, that ceaseth only in death."⁴² That Hobbes should have taken such a view, however, given his general metaphysical views, is not surprising much less shocking. It is, in a sense, as much a deductive consequence of his mechanism as his conceptions of sense and appetite. And it hardly need be pointed out that it is one of those "principles sufficiently known by experience" that it does not stand in need of metaphysical or any other demonstration.⁴³ A Marxist reader of Hobbes, such as C.B. Macpherson, might, of course, take the view that this claim and the experiential evidence which confirms it "is got not from physical observation or analysis, but from observation and analysis of social relations," so that "even Hobbes's physiological postulates are about the physiology of socialized men,"⁴⁴ and more specifically of men socialized in what Professor Macpherson calls "possessive market society."⁴⁵ And one might go further to claim with Macpherson that, given a different model of society, such desires might not, in fact, obtain.⁴⁶ Hobbes would, of course, attempt to confute this claim in two ways. First, by an appeal to history, for Hobbes was from first to last a classicist, and his observations on human nature were taken as much from his reading of history as from his reading of his fellow men. Though it is the latter course he recommended as the test of his observations, it is hardly the single, and perhaps not even the most important, source. It is well to remember Hobbes' assertion in his verse autobiography that it was Thucydides who taught

him that a monarchy was preferable to democracy,⁴⁷ and in this context to read this remark from his Introduction to his translation of Thucydides:

For his opinion touching the government of the state, it is manifest that he least of all liked the democracy. And upon divers occasions he noteth the emulation and contention of the demagogues for reputation and glory of wit; with their crossing of each other's counsels, to the damage of the public; the inconsistency of resolutions, caused by the diversity of ends and power of rhetoric in the orators; and the desperate actions undertaken upon the flattering advice of such as desired to attain, or to hold what they had attained, of authority and sway amongst the common people.⁴⁸

But he would try, second, to confute such a claim by deriving the desire for power from premisses that had nothing to do with existing social relations. And, in fact, it is just such a derivation as this that he performs.

It will be recalled that, for Hobbes, to be without sense is very much the same thing as to be dead. But the same is true as well of appetite or desire. "For there is no such thing as perpetual tranquillity of mind, while we live here; because life itself is but motion, and can never be without desire, nor without fear, no more than without sense."⁴⁹ The reason is clear enough on several counts. If to be without sense is as much as to be dead, then, to the extent that sense and appetite are the same motion, the same is true of appetite. We may note, too, the argument given in The Elements of Law that, from the fact that delight and appetite are defined as an endeavor toward some object, "Seeing all delight is appetite, and appetite presupposeth a farther end,⁴⁰ there can be no contentment but in proceeding."⁵¹ Similarly, since sense and appetite or delight consist in the same

motion and since sense requires a perpetual variety of fancy,

The greatest good, or as it is called, felicity and the final end, cannot be attained in the present life. For if the end be final, there would be nothing to long for, nothing to desire; whence it follows not only that nothing would itself be a good from that time on, but also that man would not even feel. For all sense is conjoined with some appetite or aversion; and not to feel is not to live.....Even the enjoyment of a desire, when we are enjoying it, is an appetite, namely, the motion of the mind to enjoy by parts the thing that it is enjoying. For life is perpetual motion that, when it cannot progress in a straight line, is converted into circular motion.⁵²

That delight or pleasure, then, is evanescent follows from the fact that it is, as sense, a motion and cannot last forever. It must, along with sense, decay. And it follows, accordingly,

that the felicity of this life, consisteth not in the repose of a mind satisfied. For there is no such finis ultimus, utmost aim, nor summum bonum, greatest good, as is spoken of in the books of the old moral philosophers. Nor can a man any more live, whose desires are at an end, than he, whose senses and imagination are to a stand. Felicity is a continual progress of the desire, from one object to another; the attaining of the former, being still but the way to the latter.⁵³

Now, Hobbes defines the "POWER of a man" as "his present means to obtain some future apparent good."⁵⁴ The discussion of 'good' is one which I wish to put off for the moment. Let us say here only that that is good which is an object of desire or, to put it differently, which delights. But there is no continual delight, no highest good beyond which there is no other. A delight is but the way to future delight, for every delight, as motion, passes. Now, if power is taken to be a man's present means to future delight, the perpetual desire for power follows. It is no more than the desire for continual happiness or felicity, which consists in continual progress or in perpetually

obtaining one's desires.

The cause whereof is, that the object of a man's desire, is not to enjoy once only, and for one instant of time; but to assure forever the way of his future desires. And therefore the voluntary actions, and inclinations of all men, tend, not only to the procuring, but also to the assuring of a contented life.⁵⁵

Now, that there is no summum bonum, no single lasting state of felicity follows from the mechanistic account of the nature of sense and appetite or pleasure. That men are cognizant of this fact and that, accordingly, they do not desire "to enjoy once only, and for an instant of time," while it is not such a deductive consequence, is just as certain. That a man should desire that which is annoying, unpleasant, or painful or, in other words, that a man should desire that which is, to him, undesirable, immediately and for its own sake, would be for Hobbes an outright contradiction. But it is, furthermore, given the mechanistic account of desire and delight and their relation to their objects (as that which causes a motion toward itself or a desire and that which causes a motion away from itself or an aversion), physiologically impossible. But "sense is prior to appetite," and appetite is toward some end which must be future. Now, any man, by his experience, will have suffered delights and annoyances and will have appetites and aversions toward the future accordingly. He will desire that to be the case which has delighted him in the past; he will desire that not to be the case which has annoyed him in the past. But things are desirable in three ways. A thing may be desirable in itself, that is, pleasing or jucundum; it may be desirable as a sign of that which is desirable, that is, pulchrum; and it may be desirable as a means to that which is desirable, that is, utile.

Likewise, a thing may be undesirable in three ways, if it is displeasing or molestum, turpe, or inutile. But now we must recall that experience is not just store of (separate) phantasms and their associated pleasures. It is as well the remembrance of what antecedents have had what consequents, of what is a sign of or a means to what, of what, in other words, is pulchrum or utile, turpe or inutile. Now, power, as a man's present means to some future good, is just another word for that which is utile. To the extent, then, that a man comes, through his experience, to desire what is utile, he comes to desire power.

The word 'power', as it is applied to a man has undesirable connotations. We do not approve of an immoderate desire for power in men. But if we think solely in these terms, we shall not understand Hobbes here. The desire for power over other men, that desire for power of which we most disapprove, is but one of the many manifestations of the desire of power in general. The desire for power, as Hobbes understands it, is just the desire to obtain that which is a means to whatever we desire, and having power over other men is sometimes and in some situations such a means.⁵⁶

Now, properly understood, the assertion that men desire power seems innocuous enough. But it should be recalled, too, that desire is toward the future. If a man conceives some future event which has pleased him in the past, he will desire it; if it has displeased him in the past, he will shun it, and this, whether the event be conceived to be ten or a hundred years hence. It is not our conception of the time intervening, but our conception of the event that pleases or displeases. So that a man desires to assure forever the way of his future

desire; he desires the means, in other words, to all that he desires and to all that he may (conceive himself to) desire in the future. This, in essence, is the fundamental reason for the perpetual desire for power after power. A loaf of bread may stave off my hunger today, but what about tomorrow, or the next day, or a year from now? I may conceive myself today to desire bread then, too, and, however much I have, I cannot be sure that it will be enough and will accordingly desire more. It is not that men are greedy or insatiable; it

is not always that a man hopes for a more intensive delight, than he has already attained to; or that he cannot be content with a moderate power: but because he cannot assure his power and means to live well, which he hath present, without the acquisition of more.⁵⁷

Now, what we have seen is that the argument for this desire for power after power requires no social presuppositions; it requires no premisses about the structure of society. On the contrary, far from requiring such a preconceived view of society, it requires that there be no such preconception. A caeteris paribus clause must be added to the premisses of the argument. Without such a clause, the argument will not be universally valid, for if one conceived a society which assured the way of one's future desires, one might well be content with a moderate power and feel no need for more. But this is not something of which Hobbes was unaware. It is in fact his question. What is necessary to the construction of such a society? Hobbes does not consider the structure of society in his argument here because the fact that, without such a society, the continual desire for power after power follows from the basic facts of man's experience, is one of the

facts, among others, that makes the construction of such a society necessary. But, as we shall see, the premiss that men desire power after power is not necessary to Hobbes' moral and political philosophy. It is introduced in its strongest form in Leviathan but even there, as such, it is not used. What is necessary to his argument is only the innocuous but related premiss that men desire power.

As in Leviathan, Hobbes devotes a chapter in De Homine to "The Emotions, or Perturbations of the Mind." It is beside our purpose to discuss his account of the various passions in detail. What needs most to be noted is that here, as elsewhere, Hobbes takes the various emotions to be reducible to the two basic passions of appetite and aversion or delight and annoyance. They are all of them, as he puts it here, "species of appetite and aversion, their differences having been taken from the diversity and circumstances of the object that we desire or shun."⁵⁸ To take but one example, love, which is not defined in this work, but which is defined in Leviathan as desire, "save that by desire we always signify the absence of the object; by love, most commonly the presence of the same,"⁵⁹ "may be divided into almost as many passions as there are objects of love." Thus, "The love of money, if it exceeds moderation, is called covetousness; the love of political power, if immoderate, ambition."⁶⁰ Covetousness, ambition, and other such strong feelings, which we would be apt to think very different, are all ultimately the same passion, appetite or desire. They differ in that they are desires for different things and are, to that extent, associated with very different thoughts and opinions. At the cognitive level they thus seem to be very different; at the physiological level,

however, they are the same.

I have chosen to use love as an example for a very good reason. Hobbes has often been criticized for his selfish psychology, for supposedly claiming that man is a selfish, self-centered, egoistic beast who does nothing that is not in his own calculated self-interest. Few interpretations of any philosopher have ever been further from the truth than this. Hobbes is not denying, of course, that men are vain, envious, and competitive. Indeed, he makes these the chief bones of contention among men. He quotes with approval the proverb that "man is an arrant wolf to man," but we should not forget, as some have, that he quotes as well that "man to man is a kind of God," and asserts that, "To speak impartially, both sayings are very true."⁶¹ And it should never be overlooked, if Hobbes' conception of man is to be understood, that it is not, according to his account, man's rapaciousness that makes him a wolf to man, but the need for defence, and his 'rapacity' is not the cause, but the consequence. "Good men must defend themselves by taking to them for a sanctuary the two daughters of war, deceit and violence: that is, in plain terms, a mere brutal rapacity."⁶² That and why this is so it is Hobbes' purpose to show in his discussion of the state of nature. It is only natural, therefore, that, when he considers man in that hypothetical state, he should appear to consider him as being a naturally selfish or self-centered creature. What Hobbes seems to be claiming, in fact, is nothing more controversial than that men desire the good of others, when they do, because they want others to do well, because seeing another's good gives one pleasure, because seeing another's misery gives one sorrow. If, in other words, I give

to the starving poor that which I have to give, it is because so giving gives me pleasure. If it did not give me pleasure, I would not give. If this is selfishness, it would be difficult to say what generosity might be, for both the selfish and the unselfish man may take pleasure in what they do. It is not pleasure that distinguishes the two. What is at issue here, really, is a question of motive. The selfish man gives for the sake of personal gain; the unselfish man, for the gain of others.

To take an instance, "the love, whereby man loves man," Hobbes writes, "is understood in two ways; and good will appertains to both."⁶³ This is hardly the sort of thing one would expect to hear from a man who held that man acts always from purely selfish motives. Man can so act, of course, but he need not. As Hobbes goes on to write, "But it is called one kind of love when we wish ourselves well, and another when we wish well to others. Therefore a male neighbor is usually loved one way, a female another; for in loving the former, we seek his good, in loving the latter, our own."⁶⁴ If we seek the good of another out of love, and Hobbes is clearly asserting that sometimes we do, surely this cannot be imputed to selfish motives. But it will be said that, on Hobbes' view, one seeks the good of another only because one gets something in return, namely, pleasure. Love is a species of desire; its fulfillment, in this case the good of another, is delight, and it is only because of this selfish pleasure that we seek the good of others. Ergo, man is selfish. Here the distinction between acting for the sake of pleasure, i.e., acting for the good of another for the sake of or as a means to one's own pleasure,

and acting for the sake of someone else because it is pleasant, i.e., acting for the good of someone else because one loves him, has been collapsed, and to this objection there really is no rational reply. By collapsing this distinction, the grounds for such a reply are removed.

To take another example. We have already quoted Hobbes' remark that "Desire of praise, disposeth to laudable actions," even to the sacrifice of one's own life. The motive here, praise, is one which might not improperly be called selfish. But what we failed to note in quoting this passage is that Hobbes does not say just that the desire of fame after death provides such a motive. What he does say is that men have a present delight from the foresight of their own fame "and of the benefit that may redound thereby to their posterity."⁶⁵ The selfish delight which a man takes in the thought of his own fame and glory may dispose him to work, even to the loss of his life, for the good of others. A man may be willing to risk, and sometimes even to give, his life for the sake of his family and loved ones. Surely, there is no human action more selfless than this. Yet some have charged, and no doubt will continue to charge, that such actions, because they are motivated by our own delight, by the pleasure we take ourselves in the thought of our children's well-being, are selfish actions and selfishly motivated. The point is that, for Hobbes and, I would think, for most people, the selfish man is not distinguished from the unselfish man by the fact that he takes pleasure in what he does or that he does it because doing it or the thought of doing it is pleasurable: they are distinguished, not by the fact that they delight

in what they do, but by what they delight in doing. The selfish man delights in his own good; the unselfish man, in others'. But if this is denied, if the mere fact that one acts as one does because it is enjoyable is by itself sufficient to declare the action selfish, even when it involves sacrificing one's life for the good of another, we are left with no reply. We cannot even appeal to ordinary usage, for the question is not really about how the word 'selfish' is ordinarily used or on what grounds it is ordinarily applied. The question is how should it be used or how should such an action be evaluated? We can only appeal to the sensibility of every man and ask whether he is willing to accept the consequences that such an objection necessarily entails. It would not be sufficient, for instance, that a man die for the sake of another to deem him or his action either selfless or moral, for if he died willingly, if he undertook to die for the sake of another because he wanted to, because his desire for the good of that other outweighed his desire for his own preservation, we should be required, on this objection, to deem both him and his action "selfish". And selfishness is morally culpable. We could be assured, therefore, of his selflessness, of his morality, only if he died reluctantly. Similar observations would, if this objection were accepted, apply to all presumably selfless actions. One could be assured that they are, in fact, selfless and that the person performing them is, indeed, moral, and to be esteemed so, only if they are performed reluctantly. One can only ask whether this is the sort of life men (to the extent they are required to be moral) should be required to lead.

But it will be objected that my defence of Hobbes on this point

is one-sided. It will be argued that, those few passages to the contrary, the main tendency of Hobbes' thought on man precludes any sincere fellow-feeling. What a man feels for another, it will be alleged, is always, on Hobbes' account, a matter of calculated self-interest. Even pity is, by his definition, a matter purely of self-regard. Let us look, then, to Hobbes' definition of 'pity.' In Leviathan, he writes,

Grief, for the calamity of another is PITY: and ariseth from the imagination that the like calamity may befall himself; and therefore is called also COMPASSION, and in the phrase of this present time, a FELLOW-FEELING.⁶⁶

Likewise, and even more forcefully in The Elements of Law:

PITY is imagination or fiction of future calamity to ourselves proceeding from the sense of another man's present calamity: but when it lighteth on such as we think have not deserved the same, the compassion is the greater, because then there appeareth the more probability that the same may happen to us. For the evil⁶⁷ that happeneth to an innocent man, may happen to every man.

Here, clearly it would seem, our regard for others is being claimed not to be a fellow-feeling at all, but a regard for ourselves. I think, on the contrary, that it is not so clear at all. It is difficult indeed for a man to feel pity for the starving millions of Africa, though he has heard their condition described a hundred times. Put one of those starving children before him, however, where he can see plainly the marks of his misery and despair and it would be a hard man indeed who did not feel pity, who was not moved to feed and comfort him. Why the difference? Why, in the one case, does a man feel such great compassion and why, in the other, is he hardly moved at all? It is this fact that Hobbes is concerned to explain, and he explains it very much as a modern psychologist might, though he does not use the crucial term. In the one case, the man is able to empathize with the child. Africa is a long way off and too foreign to most people to seem a setting for anything but unreal

fantasy. But let such a child be put in one's own environment, in familiar circumstances, and the thought of his condition is vivid enough, from the sight of him, that a man may put himself in the other's shoes, that he may imagine himself to suffer the same calamity, to feel what he feels, and so to feel sorrow and grief, not for himself, but for the other. For pity is not self-pity; it is "Grief for the calamity of another," grief which we are able to feel only because we are able, by imagining ourselves in a like situation, to feel his pain and his affliction. Thus, we feel more pity for innocent men, not because the calamity is more likely to happen to us, but because it is more apt to happen to us, because he is more like us and we may the more easily imagine ourselves in his place. For the same reason, we feel less pity for great men because, being little, we cannot so easily put ourselves in their places. That this is Hobbes' meaning is clear from De Homine. There he writes,

To grieve because of another's evil, that is, to feel another's pain and to suffer with him, that is, to imagine that another's evil could happen to oneself, is called compassion. And so those who have become accustomed to similar evils are more compassionate; and conversely.⁶⁸

Compassion, pity, is what we feel when we feel another's pain and suffer with him, and this we do and are able to do only because we can put ourselves in the same situation. How else could we feel what he feels? But the point is that the pity which we feel is grief, not for our own, but for his misfortune.

There is another passage, however, which ought to be considered here, both for the light it sheds on the point at issue and because it

helps to clarify Hobbes' approach to moral and political philosophy.

In De Cive, he writes,

How, by what advice, men do meet, will be best known by observing those things which they do when they are met. For if they meet for traffic, it is plain every man regards not his fellow, but his business; if to discharge some office, a certain market-friendship is begotten, which hath more of jealousy in it than true love, and whence factions may arise, but good will never; if for pleasure and recreation of the mind, every man is wont to please himself most with those things which stir up laughter, whence he may...by comparison of another man's defects and infirmities, pass the more current in his own opinion...it is manifest they are not so much delighted with the society, as their own vain glory. But for the most part, in these kind of meetings we wound the absent....And these are indeed the true delights of society, unto which we are carried by nature, that is, by those passions which are incident to all creatures.....So clear is it by experience to all men who a little more narrowly consider human affairs, that all free congress ariseth either from mutual poverty, or from vain glory, whence the parties met endeavour to carry with them, either some benefit, or to leave behind them that same esteem, some esteem and honour with those, with whom they have been conversant.⁶⁹

Now, one might well wish to agree with the opinion of C.B. Macpherson that this passage represents "a brilliant dissection of men's behavior in contemporary society."⁷⁰ In fact, I think that if we but observe the behavior of our fellows and our selves, we shall be compelled to agree. Hobbes was no mean observer of men. We may not like what he saw, but we should deceive ourselves in thinking that it is therefore untrue. But, while we may agree with Macpherson on this point, we should not think, as he does, that it is no more than a dissection of the behavior of men in contemporary society. That it is at least intended to be more fundamental than this is clear from the fact that Hobbes goes on to say,

The same is also collected by reason out of the definitions themselves of will, good, honour, profitable. For when we voluntarily contract society, in all manner of society we look after the object of the will, that is, that which every one of those who gather together, propounds to himself for good. Now whatsoever seems good, is pleasant, and relates either to the senses, or the mind. But all the mind's pleasure is either glory, (or to have a good opinion of one's self), or refers to glory in the end; the rest are sensual, or conducing to sensuality...All society therefore is either for gain, or for glory; that is, not so much for love of our fellows, as for love of ourselves.⁷¹

Nor will it do to suggest that, despite Hobbes' intentions, he was working with a specific model of society, albeit unconsciously. This kind of observation, of course, is one which can be made about any philosopher, and it cannot be disproved. But it can be made implausible by considering how far the philosopher was explicitly aware of what he was doing. Now, it is clear from the last passage quoted that Hobbes was explicitly distinguishing that knowledge of the nature of man derived from the observation of men in society from that derived from reasoning about men without reference to a particular society. The same, he says, is also collected from reason and is true in all manner of society. There would be no point to this remark if he were not distinguishing the observational analysis of man from the philosophical and if he were not aware of the need for doing so. What he wants to present is a picture of man which is true for all time and not just for the competitive market society. So, having given first his conclusions as they are derived from his observation of men in such a society, he goes on to provide the universal derivation, and this derivation is given in psychological terms, in terms

of the nature of desire and its object. All of our actions, whether or not they are for the good of others, stem from our own desires; accordingly, all society is for gain or glory.

This passage, I will freely admit, offers the strongest support for the conception of man as selfish. But it need not be read so. Hobbes is not arguing here whether man is selfish or not, but rather, whether "man is a creature born fit for society," and, taking this to mean that man seeks society for its own sake, he concludes that he is not such a creature. We seek society for our sake, because we get something out of it. We desire society because society delights. The question is how it delights, and his answer, in brief, is that society is both pulchrum and utile.⁷² From it we derive both glory and gain. Now, this may be taken to show that and why man is selfish, but it may also be taken, as I have argued earlier, to show that and why men are selfless. That we do things because we desire to do them, because we obtain some personal delight in doing them, does not, by itself make us selfish; it is, rather, the kind of thing we delight in doing that makes us so.

But we should note as well Hobbes' purpose in this passage. He may not be saying that man is naturally selfish, but he is saying that man is naturally egoistic, and it might be thought accordingly that, in the construction of his moral and political philosophy, he would take the individual as the fundamental value. This seems to be, for instance, the tendency of Macpherson's thought. But I think, on the contrary, that Hobbes introduces this example, as well as the state of nature, explicitly to deny this conclusion. His avowed purpose in introducing

this argument is to show that men are not, by nature, fit for society, and they are not so fit, he argues, because they are egoistic, because they are each individualists. Far from being the fundamental value for morality and society, it is this value which each places on himself that is fundamentally inimical to society. As he concludes, "but no society can be great or lasting, which begins from vain glory. Because that glory is like honour; if all men have it no man hath it." And he goes on to state more forcefully that, since men are fundamentally egoistic,

though the benefits of this life may be much furthered by mutual help; since yet those may be better attained to by dominion than by the society of others, I hope no body will doubt, but that men would much more greedily be carried by nature, if all fear were removed, to obtain dominion than to gain society.⁷³

Other things being equal, man's natural egoism, his individualism, carries him to dominion and away from society. This is what Hobbes is trying to show in this passage. He is not speaking here of social man (nor of antisocial man), but of asocial man. And he is not denying, I think, although in this passage he comes as close as he might, that genuine friendships, love, and fellow-feeling are possible. Still it is probable he would deny them to be as common as we would like to think.⁷⁴

It is difficult to tell precisely where Hobbes' moral philosophy begins and where his psychology ends. This is due, in large part, to the fact that, for Hobbes, 'good,' the basic term of evaluation, both moral and non-moral, is very much a psychological concept. This is something at which the contemporary philosopher is likely to balk. Evaluative statements and statements of fact are conceptually distinct.

The one cannot be deduced from the other, and philosophers today regard it as a commonplace that morality and psychology are, thus, distinct and independent domains of inquiry. This radical distinction, however commonplace as it may be today, is entirely foreign to Hobbes. For him what we call moral philosophy is a species of which psychology, and especially social psychology, is the genus. And for him the vocabulary of moral philosophy is very much the vocabulary of psychology. To understand the extent to which this is so, it will be well to examine here the simplified moral-cum-psychological argument of De Homine. Such an examination will provide us as well with a basis for understanding the more complicated argument of De Cive and Leviathan.

The argument of De Homine begins, for practical purposes, with this observation, which is also, in part, its conclusion:

Before covenants and laws were drawn up, neither justice nor injustice, neither public good nor public evil, was natural among men any more than it was among beasts.⁷⁵

To understand how Hobbes reaches this conclusion, we shall have first to examine his understanding of 'good'.

'Good' and 'evil' are not, for Hobbes, exclusively moral terms. Indeed, it would be true to say, in a sense, that they are not for him moral terms at all. They are to be sure evaluative, though this is not his term. But not all evaluations, obviously, are moral; only a few are moral. Likewise, only a few uses of 'good', the most general term of evaluation, are moral uses. Now, it may be that when we use 'good' in, say, a prudential context, we do not mean anything like what we mean when we use it in a moral context. It may be, in other

words, that 'good' is equivocal. But this would make it difficult, considering the many kinds of circumstances in which the omnibus term 'good' is used, to understand how we are able to apply the word properly and without coaching in new circumstances and even more difficult, if the word were, in fact, equivocal, with no apparent connection between its various applications beyond an arbitrary convention of the language in which it occurs, to explain the fact that in so many languages there is a (roughly) equivalent term that extends to very much the same situations. On the other hand, it may well be that the word is applied in those different contexts for something which they have in common. 'Good,' then, would be the term which signifies that particular character, and this would accommodate both the facts adduced above against the equivocity of the word. This latter view, that the word is univocal, is that which, keeping very much to the Aristotelian tradition, Hobbes himself takes. In De Homine he writes,

The common name for all things that are desired, insofar as they are desired, is good; and for all things we shun, evil. Therefore Aristotle hath well defined good as that which all men desire.⁷⁶

The character, then, which is common to all things good is desirability. Hobbes is neither the first nor the last to have proposed such a definition, but the definition, as many modern philosophers have been eager to point out, faces several objections. Hobbes himself does not so much answer the objections as side step them. They are, for the most part, based upon a misapprehension of the nature of the good, the misapprehension being, of course, that there is such a thing as The Good. As he writes in Leviathan,

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But whatsoever is the object of any man's appetite or desire, that is it which he for his part calleth good: and the object of his hate and aversion, evil.⁷⁷

Note that Hobbes does not say that whatsoever is desired is good in any objective sense. He says, rather, only that what is desired is called good. This is the word we use to express the fact that we find or think a thing desirable. There is not in Hobbes' ontology of values such a thing as The Good existing in the abstract as an ideal to be obtained or striven for, nor is there such a thing as goodness embodied in things. The use of the word 'good', as it must be if it signifies our desire of a thing, is relative.

For these words of good, evil...are ever used with relation to the person that useth them: there being nothing simply and absolutely so; nor any common rule of good and evil, to be taken from the nature of the objects themselves.⁷⁸

Those who wish to maintain the objectivity of good might, of course, object that there is in man a certain evaluative faculty, and that failure to perceive the objective good is to be accounted for by some impairment of this faculty. But is this not already to yield the point; is it not to admit, with Hobbes, that "while every man differeth from other in constitution, they differ also one from another concerning the common distinction of good and evil"?⁷⁹ And darkness, as we have already noted, is darkness to one who cannot distinguish. It may be true to say, for instance, that the visual faculties of a man who can see only black and white are impaired; this will not change the fact that for him all things are either black or white. Yet it will be objected in return that the fact that things appear to be only black and white does not entail that they really are so in themselves and, analogously, the fact

that a thing appears good to a man does not entail that it really is. It may be in itself evil. But, taking good as a regulator of conduct, the only sense in which it has any practical importance, does this mean anything more than that a thing is good insofar as it appears to be good? If there is a good beyond that which we can come to know (what if all men were--morally--blind?), it would make no difference to us. A man who can see only black and white cannot distinguish red and green. Even if, per impossibile, he could, we would still be forced to admit that, if a man did not want or desire that which is good, the fact that he could perceive it would make no difference to his actions, and we would have to admit as well that, as men's constitutions vary, their desires may vary.

The distinction, however, between the apparent and the real good, though it cannot be construed as a distinction between an objective and a non-objective good, is not therefore an empty one. It is just that it applies in only certain cases. As Hobbes writes in De Homine,

in many things, whereof part is good and part evil, there is sometimes such a necessary connexion between the parts that they cannot be separated....Whence it happens that inexperienced men that do not look closely enough at the long-term consequences of things, accept what appears to be good, not seeing the evil annexed to it; afterwards they experience damage. And this is what is meant by those who distinguish good and evil as real and apparent.⁸⁰

But of course, if one were to say of, for instance, a piece of pie that it tastes good, there could be no dispute. Here the distinction does not apply. The object is such that there is no possibility of my mistakenly thinking that the good in it outweighs the bad. On the other

hand, I could mistakenly say that this piece of pie is good, not knowing that it would make me ill. I will discover, and could discover, my mistake, however, only if later I came to feel the ill effect of the poison. If I did not, I should never have any reason to call it bad, and the pie, as far as I am concerned, would be good. There would thus seem to be good reason to assert with Hobbes that the use of 'good' is relative to its user, and, if this is so, that a thing might be inherently good, independently of those who use the word, would make no sense. And since we would wish to speak of the good as a regulator of conduct both for those who use and for those who do not use language, it would seem that we have little choice but to understand it in terms fundamentally of the likes and dislikes, desires and aversions, of individual men. That which a man calls good, then, is good for his part and, "since different men desire and shun different things, there must needs be many things that are good to some and evil to others; so that which is good to us is evil to our enemies."⁸¹ Good is fundamentally private good. A thing is good, in the final analysis, if it is good for me. Of course, as Hobbes points out, it is possible to speak of a common good, but only in the sense that "it is commonly a good...but this way of speaking is relative."⁸² There is thus no "common rule of good and evil, to be taken from the nature of the objects themselves; but from the person of the man."⁸³ Originally, what is good is what each man singly calls or believes to be good, and that is what each man singly desires.

Thus far we have discussed only the definition of 'good'. It

would seem that we have not been discussing psychology at all and that we have only touched upon morality. But that we have, from Hobbes' point of view, been engaged very much in a psychological discussion is clear from the fact that 'good', as that which a man desires, is a psychological concept. And Hobbes obviously took it so. In all those works in which he treats psychology, from the earliest, the 'little treatise', to the latest, he discusses the nature and definition of 'good' either along with the discussion of appetite and aversion or with the discussion of the various passions or emotions, and in his table of contents to The Elements of Law, he groups the discussion of good and evil with that of delight and pain under the heading "Of the faculties motive."⁸⁴ That he treats 'good' as a psychological concept may be seen, perhaps more clearly, from his discussion of specific goods. The discussion here is, as we shall see, clearly psychological. It is given in terms almost entirely of basic human motives.

The greatest of all goods, he writes in De Homine, "for each is his own preservation."⁸⁵ Many have taken Hobbes to be arguing that self-preservation is an instinct, no doubt on the basis of his remark in De Cive that

every man is desirous of what is good for him, and shuns what is evil, but chiefly the chiefest of natural evils, which is death; and this he doth by a certain impulsion of nature, no less than that whereby a stone moves downward,⁸⁶

"and therefore by natural necessity he shuns it all he can."⁸⁷ These remarks certainly would seem, prima facie, to suggest an instinct view. If this were the correct interpretation, it would be all the more clear that, at least as far as the greatest good is concerned, the discussion

is a psychological one. Life is the greatest good because instinctively, by a certain impulsion, we naturally desire it over all others; and death, the greatest evil because instinctively we shun it before all others. But Hobbes was never an instinct theorist. An instinct to him would have been on par with an occult quality. It leaves the basic question, Why we desire it, unanswered, asserting simply that we desire it because we do. That he is content with such an explanation in De Cive, however, is understandable. De Cive is not a psychological work. It takes as its starting point the psychological phenomena as they are known directly by introspection, among which is the fact that men shun death as the greatest evil. In his other psychological works, Hobbes attempts to account for this natural impulsion. In The Elements of Law, for instance, he writes,

necessity of nature maketh men to will and desire bonum sibi, that which is good for themselves, and to avoid that which is hurtful; but most of all that terrible enemy of nature, death, from whom we expect both the loss of all power, and also the greatest of bodily pains in the losing.⁸⁸

Similarly, in De Homine he writes,

For nature is so arranged that all desire good for themselves. Insofar as it is within their capacity, it is necessary to desire life, health, and further, insofar as can be done, security of future time.⁸⁹

Surely, if the aversion to death were instinctive, it would be within any man's capacity to desire life and shun death. Why, then, the qualifier, "insofar as it is within their capacities"? The answer is fairly clear from the fact that Hobbes goes on to say,

On the other hand, though death is the greatest of all evils (especially when accompanied by torture), the pains of life can be so great that, unless their quick end is foreseen, they may lead men to number death among the goods.⁹⁰

We desire life and shun death because we desire, and life is the necessary condition of the fulfillment of our desire. To take his own example, from death we expect the loss of our power, which we desire, and furthermore, in dying we expect to suffer pain, and pain is that we shun. But we may come to desire death if that is, in the circumstances, the only means of fulfilling our desires. If, for instance, we are suffering from some hideous pain, or if we are laboring under some great burden of sorrow and distress, then we may well choose death as the lesser evil. The pains of this life may be great enough that death itself, as an end to our suffering as well as our joys, may be preferable. Life, then, is a good, and the greatest of all goods because without it there are no goods; and death, for the same reason, is the greatest of all evils.⁹¹ Still we must answer why, if he was not thinking of self-preservation as an instinct, Hobbes should have said in De Cive that men avoid death by a natural impulsion and by a natural necessity. The reason, or what I take to be the reason, is fairly clear. "Sense," he writes, "is prior to appetite. For it cannot be known whether or not what we see as a pleasure would have been so, except by experience, that is, by feeling it."⁹² Now, to live, on Hobbes' view, might well be equated with to sense or to feel and, since "all sense is conjoined with some appetite or aversion," to desire. Desire is natural to men; to the extent that they sense, by natural necessity they desire, and they desire bonum sibi, their own good, or, to make the analytic character of this argument more apparent, the object of their desire. But desire presupposes an end, an object, which is future. So that

in desiring, that is, in living, men strive to continue desiring. Men desire life to the extent that they desire anything. And men desire to the extent that they sense and feel. So that all living men, who to the extent that they are living have sensed and, hence, desired, desire to continue living. And this will be true as much of children who have not acquired the concepts of life and death (as well as of animals) as it is of articulate men. Since to enjoy, to sense, and to desire may all be equated with to live, to desire anything is, in effect, to desire to live and, since the object of our desire is future, to continue to live. Of course, once we have acquired the concepts 'life' and 'death', the desire to live will manifest itself all the more clearly as a conscious desire. Having learned that life is the precondition of the fulfillment of all desire, we will act to avoid, not just pain, but death and to maintain, not just pleasure, but life. Unless, of course, the burden of living becomes itself intolerable, in which case the inarticulate child, as the inarticulate animal, would desire simply to put an end to its suffering, whereas the articulate man, for the same reason, would desire death. This, I think, is why Hobbes speaks of self-preservation in terms of natural necessity. It is necessary because to sense is necessarily to desire, and 'to enjoy', 'to desire', and 'to live' are, in this respect at least, nearly convertible terms. It is natural because it is a part of the nature of desire and, hence, of man. That life or self-preservation, then, is the greatest good and death the greatest evil is a psychological phenomenon, explicable in psychological terms. In fact, except for the fact that it would be awkward, we

could do away with the terms 'good' and 'evil' in this context altogether and substitute for them 'object of desire' and 'object of aversion'.

There are, of course, other goods which Hobbes discusses. Chief among them is power. We have already shown that and why men desire power, what their psychological motives are. Since power is an object of desire, power, too, is a good. What needs to be noted here, however, is that power is not a natural good, at least not in the sense that it is something like, for instance, food that men desire by nature because it is pleasing for its own sake. Men come (naturally) to desire power because they learn that it is a means to or a sign of that which they desire naturally. Power, in other words, is pulchrum or utile because, for instance, food is jucundum. What goes for power goes even more clearly for particular powers. 'Power' is an abstract term, and we do not desire it until we have acquired the concept. What we desire, rather, is particular powers, particular means to future ends. Thus, wisdom is good, "For some protection is to be had from it."⁹³ It is, and we learn this through experience, a way of assuring our future desire. But it is good, further, because, "It is also desirable for its own sake, that is, pleasing."⁹⁴ "For nature hath made man an admirer of all new things, that is, avid to know the causes of things."⁹⁵ Here Hobbes seems to come closest to taking an instinct view. Curiosity, he says, is a "Desire to know...such as is in no living creature but man,"⁹⁶ and it is excited by "the passion of joy in novelty; for it is natural for men to love novelty."⁹⁷ But even here it seems that Hobbes is not, in the last analysis, taking an instinct view. Here, in explanation, he says only that "we call things novel that happen

rarely; further, in each kind of thing the best are also rare" and that men "rejoice in novelty as an occasion for learning about causes and effects."⁹⁸ In The Elements of Law, however, the explanation is fuller:

As in the discerning faculties, man leaveth all community with beasts at the faculty of imposing names; so also doth he surmount their nature at this passion of curiosity. For when a beast seeth anything new or strange to him, he considereth it so far only as to discern whether it be likely to serve his turn, or hurt him, and accordingly approacheth nearer it, or flieth from it; whereas man, who in most events remembereth in what manner they were caused and begun, looketh for the cause and beginning of everything that ariseth new unto him.⁹⁹

In this connection, too, we might note his argument in De Homine that, since sense is prior to appetite,

Therefore it is commonly said that there is no desire for the unknown. In truth, however, there can be a desire to experience the unknown. Whence it is that infants desire few things while youths try many things, and with increasing age, mature men (especially educated ones) experiment with innumerable things, even with those that are unnecessary.¹⁰⁰

Hobbes would thus seem to be making curiosity, the desire to learn the causes of things, a consequence of experience, although it should be noted that in Leviathan he offers a physiological explanation. There he argues that man is distinguished

by this singular passion from other animals; in whom the appetite of food, and other pleasures of sense, by predominance, take away the care of knowing causes; which is a lust of the mind, that by a perseverance of delight in the continual and indefatigable generation of knowledge, exceedeth the short vehemence of only carnal pleasure.¹⁰¹

This 'explanation' seems singularly unconvincing and he seems wisely to have given it up. In any case, that wisdom, the knowledge of cause and

effect, is a good is explained wholly in psychological terms.

It would serve little purpose, at this point, to list the various goods. The point is solely that they are good because they are desired, and they are desired because of the individual's psychological makeup and experiences. It is necessary to say both 'psychological make-up' and 'experience', for a variation in either may cause a variation in desire and, hence, of good.

For though the nature of that we conceive be the same; yet the diversity of our reception of it, in respect of different constitutions of body, and prejudices of opinion, gives every thing a tincture of our different passions. And therefore in reasoning a man must take heed of words; which besides the signification of what we imagine of their nature, have a signification also of the nature, disposition, and interest of the speaker; such as are the names of virtues and vices.¹⁰²

It should be noted, if we would understand Hobbes' conception of human nature, that physiology and experience are not quite so radically distinct as they might appear. This is clear from his discussion of disposition. A disposition, on Hobbes' view, would appear to be a kind of generalized desire or increased readiness to act in certain ways. Thus, in De Homine he defines them as "men's inclinations toward certain things."¹⁰³ Such dispositions, he says, "arise from a six-fold source," of which we need mention only three. They arise "from the condition of the body, from experience, from habit."¹⁰⁴ The explanation of the first two sources is clear enough. A given action will produce a different effect in a different patient, so that people with different physical constitutions will react differently to different stimuli. Similarly, experience affects our reactions to things, as has been explained in the discussion of prudence. Habit, however, might be thought of as a combination of

experience and bodily constitution. Dispositions may be changed

From habit: because of this, that those things that offend when new (that is, those things that man's nature initially resists) more often than not whet that same nature when repeated; and those things that at first are merely endured soon compel love. ¹⁰⁵

Here the conception of habit as physical is reaffirmed. A habit in this context is a change brought about (by repeated experience) in the body itself, so that the same action comes eventually to have a different effect. Though a man may be so structured initially that he resists a certain kind of motion or that his vital motions are hindered by it, by repeated action this resistance is overcome, the vital motions accommodate themselves, and the organism's manner of reacting is, accordingly, changed. What was unpleasant formerly becomes pleasant; what undesirable, desirable. This is an important point because it shows the inadequacy of the view that Hobbes took a pessimistic view of man in the sense that men are, in his opinion, incurable savages whose brutality can be restrained only by the constant threat of punishment. In fact, what Hobbes is saying is that man may, in effect, be domesticated. If he is not by nature a social animal, he may become one. If he does not initially have a 'moral sense' or a desire to act for the good of others, he may acquire them. Through the inculcation of cultural norms, his nature may be changed. That he does in fact have culture in mind here is clear from the example he gives.

Therefore among all peoples, religion and doctrine, which everyone hath been taught from their early years, so shackle them forever that they hate and revile dissenters: as is made manifest principally from the books of theologians...which are full of

the most atrocious abuse. The disposition of these men is not suited to peace and society.¹⁰⁶

The clear implication is that by the inculcation of a different sort of cultural values, the dispositions of men can be rendered fit for society. For this reason alone, we must dissent from those who would claim that the state of nature, in Hobbes' view, is that state which would result from the removal of the sovereign power alone. The state of nature, as we shall see, is a deeper and more fundamental hypothesis than this.

We come now to the heart of the moral argument in De Homine, which needs only to be quoted here with little elaboration.

Dispositions, when they are so strengthened by habit that they beget their actions with ease and with reason unresisting, are called manners. Moreover, manners, if they be good, are called virtues, if evil, vices.¹⁰⁷

Virtues, in other words, are good manners, those ways of behaving that are desired in a man. Now, it should be noted that, as is more or less clear from the context here and as he makes explicit in Leviathan, by 'manners' Hobbes does not mean

decency of behaviour; as how one should salute another, or how a man should wash his mouth, or pick his teeth before company, and such other points of the small morals.¹⁰⁸

He is not, in other words, speaking of etiquette but, rather, of "those qualities of mankind, that concern their living together in peace, and unity."¹⁰⁹ We may well wish to deny that manners of etiquette are virtues, but that virtues are good manners is offered as definitional, and it is hard to dispute. We may disagree with Hobbes' definition of 'good', but it is difficult to see what virtue and vice might be, when applied to

man, if not good and bad manners, or good and bad dispositions.

Since, however, good and evil are not the same to all, it happens that the same manners are praised by some and condemned by others, that is, are called good by some, evil by others, virtues by some, vices by others. So, just as the proverb hath it, "So many men, so many opinions," one can also say, "Many men, many different rules for vice and virtue."¹¹⁰

As what is good is relative to the person (other things being equal), so too are good manners and, hence, virtue and vice. Now, virtue and vice are plainly terms of moral discourse. Indeed, the terms are so often restricted in ordinary usage to moral discourse that it is tempting to say that all virtues are moral virtues. Of course, this is not the case. Some virtues we would wish to say are not moral, but prudential. We make a distinction between kinds of virtues, prudential virtues, those which pertain to the good of the individual, and moral virtues, those which pertain to the good of nobody-is-agreed-about-what, though all agree that it is somehow distinct from the good of the individual. Now, what is surprising, especially in light of the fact that many have claimed on the basis of this distinction that Hobbes did not intend to offer a moral theory at all but only a prudential one, is that Hobbes makes precisely the same distinction, although without using the word 'prudential,' and disclaims any interest in the prudential virtues! The moral virtues, he says here, reduce ultimately to two:

that moral virtue, that we can truly measure by civil laws, which is different in different states, is justice and equity; that moral virtue which we measure purely by the natural laws is only charity. Furthermore, all moral virtue is contained in these two.¹¹¹

Now, Hobbes has not here justified his claim that these are the only two moral virtues or, more accurately, the only two classes of moral virtues,

nor has he yet justified his claim that they are moral virtues at all, but he does so in what follows, in his distinction between the moral and non-moral virtues. Having pointed out that these are the two moral virtues, he goes on to say,

However, the other three virtues...that are called cardinal--courage, prudence, and temperance--are not virtues of citizens as citizens, but as men, for these virtues are useful not so much to the state as they are to those individual men who have them...For courage, like prudence, is more a strength of the mind than a goodness of manners; and temperance is more a privation of those vices that arise from the greedy dispositions of those that harm not the state, but themselves, than it is a moral virtue. For just as every citizen hath his own private good, so hath the state its own public good.¹¹²

The non-moral virtues Hobbes thus construes precisely as prudential virtues. They are those virtues that pertain to the good of the individual. They are private goods. But if we distinguish virtues into moral and non-moral and equate the latter with those manners that are privately good, it would seem that the moral virtues could be only what is left, those manners that are publicly good, that is, those which are good for all as members of a public. Thus, he goes on to say,

So, condensing this whole teaching on manners and dispositions into the fewest words, I say that good dispositions are those which are suitable for entering into civil society; and good manners (that is, moral virtues) are those whereby what was entered upon can be best preserved.¹¹³

The moral virtues are, thus, those that are good for, or best preserve, society, the public, or the state. The prudential virtues, on the other hand, while they are good for society insofar as they are good for its members, are those which make a man suitable for entering into society. We may put this differently. Prudential virtues are those which preserve

individual men and, hence, society. Moral virtues are those which preserve society and, hence, men.

We have thus seen what moral virtues are, for Hobbes, and why. Let us now take up his claim that the moral virtues are all contained in justice and charity. Hobbes does not expressly defend the claim here that charity is the sum of natural law. Nor does he offer here a definition of charity. We can, of course, give a formal definition on the basis of what he calls a moral virtue. But we must note first that charity, as a natural law, is prior to civil law. That Hobbes does not say this here is understandable. He did not need to. He was the first to take a contrary view (and that only in a special sense). Now, we can define charity formally as that manner or disposition which, independently of civil law, is the most conducive to the preservation of society. It is to be understood that we are speaking of an existing society and that charity is a social virtue, a virtue which, as I have put it, preserves men by preserving society. Such a formal definition can fairly clearly be extracted from the text. What this virtue is, however, is not so clear. It may be assumed, however, since he does not define it, that Hobbes is here relying upon common usage. Now, The Shorter Oxford English Dictionary gives the meaning of 'charity' at about this time as "fairness, equity," and it may be safely assumed that this is something like what Hobbes means. Charity then would be, not doing good to others, but treating them fairly or equitably as one's equals, as one would have oneself treated in the same situation. It is to be noted, however, that in The Elements of Law Hobbes defines 'charity' as the "desire to assist and advance others."¹¹⁴

Later, however, he says that "the accommodation and forgiveness of one another, which have before been put for laws of nature...are the essence of charity, which is the scope of the whole law."¹¹⁵ But in this, as in his other works, the rule or scope of the whole law of nature is said to be the rule: Quod tibi fieri non vis, alteri ne feceris.¹¹⁶ What you would not have done to you, do not to another. And he reasserts this rule in the article immediately following his assertion that charity is the scope of the whole law.¹¹⁷ Thus, his definition of 'charity' notwithstanding, it would seem that what Hobbes has in mind when he speaks of charity in the broad sense, as containing the moral virtues, is the rule of equity. That charity so construed is the primary moral virtue is not justified. But recalling Hobbes' remarks on the a priori or analytic method of demonstrating ethics, we could say that we know by experience and introspective evidence that being treated unfairly gives rise to resentment and, hence, to contention and, hence, to the dissolution of society. Still the justification is not complete and it is probable that Hobbes was relying upon the assumption that his readers had read his political works or that they would read De Cive, the sequel to De Homine, where the justification is given. In fact, at the end of De Homine, he refers the reader to "the third section, which is entitled De Cive"¹¹⁸ for a fuller treatment of the natural laws.

Now, given that there is a natural law, namely charity, what, given that men judge virtue or vice for themselves, will constrain a man to judge with another that a particular action is virtuous or charitable? So many men, so many opinions, and "those who are outside of a state are

not obliged to follow another's opinions."¹¹⁹ All goods originally are private goods, but morality pertains to public good. Who will judge, then, what is the public good? Since there is no common standard but, rather, only the individual standards of private men for judging good and evil, there is no morality, and those who exist outside civil society "can have no moral science because they lack any certain standard against which virtue and vice can be judged and defined."¹²⁰ "Therefore a common standard for virtues and vices doth not appear except in civil life; this standard cannot, for this reason, be other than the laws of each and every state."¹²¹ Accordingly, since they are the (public) standards of virtue and vice,

whatsoever the laws are, not to violate them is always and everywhere held to be a virtue in citizens, and to neglect them is held to be a vice. Although it is true that certain actions may be just in one state and unjust in another, nevertheless, justice (that is, not to violate the laws) is and shall be everywhere the same.¹²²

Hence, the conclusion of the moral argument in De Homine, "before covenants and laws were drawn up, neither justice nor injustice, neither public good nor public evil, was natural among men any more than it was among beasts."

The argument here relies heavily in some places on psychological premisses. But it would seem to have no relation at all to Hobbes' mechanism. Rather, it would seem to be a distilled version of the a priori version of the demonstration. The a posteriori or synthetic version more complicated and requires the state of nature hypothesis. It is principally through this hypothesis that the connection between Hobbes' moral philosophy and his mechanism, via his basic psychological premisses, is to be seen.

NOTES: CHAPTER SIX

1. EW III, ch. 6, p. 39.
2. Ibid., p. 38.
3. Lest action theorists get up in arms, I should point out that I have here deliberately used 'involuntary' in rather an unsophisticated way. The distinctions between the various kinds of involuntary actions are not relevant to our purpose here.
4. Ibid., p. 39.
5. EW I, IV, 25, 10.
6. El.L. I, 7, 1-2.
7. EW III, ch. 6, p. 39.
8. EW I, IV, 25, 12.
9. EW III, ch. 6, pp. 41-2. Hobbes' conceptions of pulchrum, that which is good or desirable "in the promise" and turpe, that which is evil or undesirable "in the promise," suggest to me something very close to the notion of the conditioned stimulus (which, taken by itself, may be initially undesirable or aversive) in classical conditioning.
10. El.L. I, 7, 2.
11. EW III, ch. 6, p. 42.
12. Ibid., p. 40.
13. DH XI, 1. Likewise in Leviathan he writes, "So that desire and love are the same thing; save that by desire, we always signify the absence of the object; by love, most commonly the presence of the same. So also by aversion, we signify the absence; and by hate, the presence of the object." (EW III, ch. 6, p. 40)
14. Ibid.
15. EW III, ch. 6, p. 43. In fact he says this with respect to what would seem to be seven "simple passions called appetite, desire, love, aversion, hate, joy, and grief." (Ibid.) But he says explicitly that 'appetite' and 'desire' differ only as a general to a less general name, the latter being "oftentimes restrained

to signify the desire of food" (Ibid., p. 39), and that "desire and love are the same thing." (See above, n. 13) The closest he comes to multiplying the simple passions is in the distinctions between joy and grief and pleasure and pain. These differ, however, only that they are, respectively, pleasures and displeasures of the mind and of the body. But qua pleasures and displeasures they would seem otherwise to be the same.

16. El.L. I, 7, 2.
17. EW III, ch. 6, p. 42.
18. Which view he held varies. In El.L. and in the Critique he seems to have held the view that it is transmitted from the brain to the heart (El.L. I, 7, 1; Critique, pp. 349, 359); in Leviathan, to both (EW III, ch. 1, p. 2); and, in De Corpore, from the heart to the brain (EW I, IV, 25, 4, 9, 10). In all of these works, however, sensation is held to be a motion in the brain; "the motions of the heart are appetites and aversions." (EW I, IV, 25, 9)
19. EW I, IV, 25, 12.
20. I am, of course, aware that some might object strenuously to my using 'desired' and 'desirable' interchangeably. I am convinced, however, that, given a philosophical basis such as Hobbes', and with the proper qualifications, such a use is justifiable. See the discussion of good and evil below (pp. 327-331).
21. EW I, IV, 25, 13.
22. EW III, ch. 6, p. 49.
23. EW I, IV, 25, 13.
24. EW III, ch. 6, pp. 42-3.
25. DH XI, 5.
26. DH XI, 8.
27. DH XI, 13.
28. Ibid.
29. Here Hobbes might have done better to have made a distinction between grief and anxiety or joy and anticipation corresponding to the distinction between annoyance and aversion or delight and appetite.
30. The tenet that our present behavior is governed by the consequences of our past behavior is taken by B.F. Skinner to be almost definitive of operant psychology. Thus, in one of his works he writes, "instead

of saying that a man behaves because of the consequences which are to follow his behavior, [no final causes] we simply say that he behaves because of the consequences which have followed similar behavior in the past. This is of course, the Law of Effect or operant conditioning." (Skinner, 1953, p. 87)

31. Skinner, 1969, p. 7. For those not familiar with the vocabulary of operant psychology, a reinforcer is, technically, any event whose occurrence after a response is followed by an increase in the rate or frequency of the response. Speaking somewhat less technically, however, we may think of a reinforcer simply in terms of a reward.
32. EW III, ch. 11, p. 87.
33. Skinner, 1971, pp. 105-6.
34. DH XI, 3.
35. DH XI, 5.
36. El.L. I, 12, 6.
37. El.L. I, 6, 6.
38. DH XI, 13.
39. Skinner, 1971, p. 104.
40. Skinner, 1969, p. 10.
41. Except by defining 'power' in a very narrow way and then pointing out the obvious fact that there are many who do not desire it in the sense defined.
42. EW III, ch. 11, pp. 85-6.
43. EW II, p. xx.
44. Macpherson, 1962, p. 69.
45. Ibid., pp. 53-9.
46. Macpherson claims, for instance, in a much earlier work, that the desire for personal fame and glory and, consequently, power, since the desire for glory is one of "the basic drives which lie behind that search of power," is "a quality which is largely a product of the social relationships set up among members of the upper classes by the Renaissance encroachment of capitalism on the older society," (Macpherson, 1965, pp. 172-3) Presumably, Macpherson would have claimed that in pre-capitalist societies such desires either would not

obtain or, if they did, they would do so in a negligibly weak form. I do not know whether he would take this view now. It is worth pointing out, however, that the work of ethologists on dominance hierarchies in social animals tends strongly to support Hobbes' claim and, further, by making the 'drive' for dominance innate, to make it even more fundamental than Hobbes thought--for, as I shall show, Hobbes was willing to meet those who maintain the mutability of human nature in society more than half way.

47. See above, Introduction, n. 34.
48. EW VIII, pp. xvi-xvii. My underlining.
49. EW III, ch. 6, p. 51.
50. This is a consequence of his earlier argument that "As appetite is the beginning of animal motion toward something which pleaseth us; so is the attaining thereof, the END of that motion, which we also call the scope, and aim, and final cause of the same. (El.L. I, 7, 5)
51. El.L. I, 7, 7.
52. DH XI, 15.
53. EW III, ch. 11, p. 85.
54. EW III, ch. 10, p. 74.
55. EW III, ch. 11, p. 85.
56. I am not here concerned with Hobbes' assertion that "power simply is no more, but the excess of the power of one above that of another." (el.L. I, 8, 4) Power is here being considered in a social context, and where men are pitted against one another it would seem to be true that "equal powers opposed, destroy one another," but, as Hobbes makes clear, "such their opposition is called contention." (Ibid.) It is only between contending men that this conception of power holds good. I am here concerned only with the psychology of individual men, not with that of men as they relate to other men.
57. Ibid., p. 86.
58. DH XII, 1.
59. EW III, ch. 6, p. 40.
60. DH XII, 8.
61. EW II, p. ii.

62. Ibid. My underlining.
63. DH XII, 8.
64. Ibid. Note well the qualifier 'usually.' This is merely an example and Hobbes would not have wished to say it held true universally with respect to the love either of men or women.
65. EW III, ch. 11, p. 87. My underlining.
66. EW III, ch. 6, p. 42.
67. El.L. I, 9, 10.
68. DH XII, 10. My underlining.
69. EW II, I, 1, 2.
70. Macpherson, 1962, p. 26.
71. EW II, I, 1, 2.
72. Of course, it might well be objected that some argument need be given to show that society is not, like food, pleasing for its own sake. Hobbes does, in fact, offer such an argument. On the assumption that men by nature desire society, as they do food, he infers that such a desire would be universal, common to all men, and he argues that this is not the case, "For they who shall more narrowly look into the causes for which men come together, and delight in each other's company, shall easily find that this happens not because naturally it could happen no otherwise, but by accident. For if by nature one man should love another, that is, as man, there could no reason be returned why every man should not equally love every man, as being equally man; or why he should rather frequent those, whose society affords him honour or profit." (EW II, I, 1, 2)
73. Ibid.
74. Thus, taking psychological egoism to entail the view that men never act unselfishly, I would be inclined to agree with Gert, who writes, "I do not deny that Hobbes held a pessimistic view of human nature; I do deny that he held an egoistic view." (Gert, 1969, p. 109)
75. DH X, 5. My underlining.
76. DH XI, 4.
77. EW III, ch. 6, p. 41. My underlining of 'for the most part.'

78. Ibid.
79. El.L. I, 7, 3.
80. DH XI, 5.
81. DH XI, 4.
82. Ibid.
83. EW III, ch. 6, p. 41.
84. El.L. I, 14, 6.
85. DH XI, 6.
86. EW II, I, 1, 7.
87. EW II, I, 2, 8.
88. El.L. I, 14, 6. My underlining.
89. DH XI, 6. My underlining.
90. Ibid.
91. This argument, I think, is sufficient to confute F.S. McNeilly's assertion that "the concept of an overriding desire for self-preservation is not merely unsupported but incapable of being supported within the system" of Leviathan. (McNeilly, 1968, p. 180) I see no evidence, however, to suggest that the psychological system of Leviathan differs essentially from that of the earlier El.L. or the later DH.
92. DH XI, 3.
93. DH XI, 8.
94. Ibid.
95. DH XI, 9.
96. EW III, ch. 6, p. 44. ✱
97. DH XII, 12. My underlining.
98. Ibid.
99. El.L. I, 9, 18.
100. DH XI, 3.

101. EW III, ch. 6, pp. 44-5.
102. EW III, ch. 7, pp. 28-9.
103. DH XIII, 1.
104. Ibid.
105. DH XIII, 3.
106. Ibid. Here we might also note his assertion in Leviathan that passions "are different, not only from the difference of men's complexions; but also from their difference of customs, and education." (EW III, ch. 8, p. 61. My underlining)
107. DH XIII, 8.
108. EW III, ch. 11, p. 85.
109. Ibid.
110. DH XIII, 8.
111. DH XIII, 9. My underlining.
112. Ibid. Bernard Gert has argued that it is only in this passage that we "encounter the explicit distinction between two types of virtue." (Gert, 1969, p. 116) In a sense, this is true. It is only here that Hobbes explicitly draws attention to the distinction as a distinction between virtues "of citizens as citizens" and "of citizens as men." But as Gert would seem willing to admit, the distinction, though not given in quite those terms is clearly implicit in Leviathan (EW III, ch. 15, p. 144). There the distinction is between that which pertains to the "conservation of men in multitudes; and which only concern the doctrine of civil society" and "other things tending to the destruction of particular men." Morality and virtue are not mentioned here, however, although they are only two pages later. It seems to me that the distinction is also explicitly drawn in De Cive, though in different, but, for our purposes, much more clearly relevant, terms. There Hobbes writes, "The laws of nature therefore are the sum of moral philosophy, whereof I have only delivered such precepts in this place, as appertain to the preservation of ourselves against those dangers which arise from discord. But there are other precepts of a rational nature, from whence spring other virtues; for temperance, also, is a precept of reason....And so fortitude too." (EW II, I, 3, 32) Here, as in De Homine, he is clearly identifying the moral virtues with those that accord with the laws of nature. This is clear enough from the passage quoted, but the context makes it indisputable. The laws of nature are the sum of moral philosophy and, hence, presumably, of the moral virtues.

These, as in De Homine, are those that pertain to the preservation of ourselves against discord or, in other words, to the preservation of peace. But there are other virtues, which are here called virtues because they tend to our preservation--but not in the same way. Fortitude, for instance, is a virtue because "it is a means tending to the preservation of him that resists" (Ibid. My underlining), i.e., of the individual. Thus, it would seem that in the earlier work the distinction between the two kinds of virtue is explicitly drawn, though in different terms. But the terms of the distinction in De Homine are clearly implied. For, as we shall see, the whole tenor of Hobbes' account of laws of nature as moral virtues (as opposed to merely rational virtues) is that they are social; they are "the conditions of society, or [what would seem to be the same thing] of human peace." (EW II, I, 1, 1) They are, in other words, the virtues of "citizens as citizens."

- 113. Ibid.
- 114. El.L. I, 9, 17.
- 115. El.L. I, 18, 8.
- 116. El.L. I, 17, 9.
- 117. El.L. I, 18, 8.
- 118. DH XV, 4.
- 119. DH XIII, 8.
- 120. Ibid.
- 121. DH XIII, 9.
- 122. Ibid.

PART IV

Moral Philosophy

CHAPTER SEVEN

THE STATE OF NATURE AND THE DERIVATION OF NATURAL LAW

A thorough discussion of the details of Hobbes' moral philosophy and its implications for political philosophy lies outside the scope of this thesis. Accordingly, we shall be concerned in this chapter primarily with how he lays the basis for his moral philosophy in the state of nature hypothesis and with how that is, in turn, connected with his psychology. In the chapter following, we shall discuss some alternative interpretations and his argument that the natural law is the moral law.

Many have taken the state of nature to be equivalent simply to the conditions that would obtain in the absence of a common power. This interpretation, although it would seem to be the most common, is not one that I can accept in quite this form. It has, however, some substantial support. In the first place, Hobbes generally contrasts the state of nature with civil society. Thus, in De Cive he introduces it in this way:

I demonstrate, in the first place, that the state of men without civil society, which state we may properly call the state of nature, is nothing else but a mere war of all against all.¹

And he makes the presence of a common power a necessary and sufficient condition for the constitution of civil society. It would thus seem that taking away such a common power, with the necessary collapse of civil society, would be sufficient by itself to produce what Hobbes calls the state of nature. This interpretation is further supported by the fact that Hobbes seems to accept this conclusion. This will be clearer if we consider that, as in the passage quoted above, he often seems to identify the state of nature with the state of war, and he often states that such a state of war is a necessary consequence of the absence of a common power. Thus, in Leviathan, he writes that men voluntarily undertake to set up such a common power for the sake

of getting themselves out from that miserable condition of war, which is necessarily consequent, as hath been shown in chapter XIII, to the natural passions of men, when there is no material power to keep them in awe.²

Since the chapter referred to here, chapter thirteen, is that chapter in which, in this work, he discusses the state of nature, it would seem clear that he is taking the state of nature to be identical with the absence of a common power. This interpretation is made all the more plausible if we refer to that chapter. There we find him asserting, apparently in context of a discussion of the state of nature and its causes, that

it may be perceived what manner of life there would be, where there were no common power to fear; by the manner of life, which men that have formerly lived under a powerful government, use to degenerate into, in a civil war.³

But while this interpretation is well supported, there are, nevertheless, good reasons for thinking it an oversimplification (although not,

perhaps, entirely incorrect).

We may note, in the first place, that this interpretation would seem to rely upon the assumption that there are only the two alternatives, civil society and the state of nature. Thus, for instance, C.B. Macpherson, who seems to accept this interpretation, writes, consistently with his view that Hobbes' conception of human nature in the state of nature is derived from the nature of man in contemporary society, that Hobbes'

state of nature is a statement of the behaviour to which men as they now are, men who live in civilized societies and have the desires of civilized men, would be led if all law and contract enforcement...were removed. To get the state of nature, Hobbes has set aside law, but not the socially acquired behaviour and desires of men.⁴

It is not at all clear, however, that Hobbes himself saw the distinction between the state of nature and civil society in quite this light. Thus, in Leviathan at least (and perhaps, depending on how the passages are to be interpreted, in De Cive and The Elements of Law) he seems to accept the possibility of a condition between that of the bare state of nature and civil society, writing that

It may peradventure be thought, there was never such a time, nor condition of war as this; and I believe it was never generally so, over all the world: but there are many places, where they live so now. For the savage people in many places of America, except the government of small families, the concord whereof dependeth on natural lust, have no government at all: and live at this day in that brutish manner, as I said before.⁵

Now, it is evident from De Cive that, since he allows the government of small families, Hobbes is not here speaking of the state of nature in the strictest sense, what he refers to in De Cive as "the bare state of nature" and which he there equates with that state which existed "before

such time as men had engaged themselves by any covenants or bonds."⁶

For there he writes that

a son cannot be understood to be at any time in the state of nature, as being under the power and command of them to whom he owes his protection as soon as ever he is born, namely, either his father's or his mother's, or him that nourished him.⁷

It is, thus, in context of his discussion of the condition of the American Indians and not in context of a discussion of the state of nature that Hobbes writes the passage previously quoted from Leviathan (p354). He is not, therefore, asserting (or at least not clearly) that the state of nature is a consequence of the loss of a common power as in civil war, but that a state somewhat like the state of nature is such a consequence. This is all the more clear if we consider the way in which he introduces this passage. He writes,

It may seem strange to some man, that has not well weighed these things; that nature should thus disassociate, and render men apt to invade, and destroy one another: and he may therefore, not trusting to this inference, made from the passions, desire perhaps to have the same confirmed by experience.⁸

He proceeds, then, to give four examples in confirmation of "this inference, made from the passions," of which the savages of America and the manner of life of men during a civil war are but two. The third is the suspicion and distrust men have of one another within civil society and the fourth, the state of mutual hostility existing between civil societies. This is again confirmed by the parallel passage in De Cive. There, not using the example of civil war, but of war, he writes that

it happens, that through fear of each other we think it fit to rid ourselves of this condition, and to get some fellows; that if there needs must be war, it may not yet be against all men, nor without some helps.⁹

But this is precisely the condition that obtains in civil war; for civil

war is a war not against all men, but of factions against factions.¹⁰ It is, in effect, like that war of the savages of America, a war of (civil) societies against (civil) societies.¹¹ And it merely resembles, it is not identical with, the state of nature. It is not, nor is it intended to be an instance of the state of nature; it is intended, rather, as an instance of a state which resembles the state of nature and which, therefore, provides some experiential confirmation for his conclusions about the state of nature itself. That this is the point of this example, I think, is fairly clear from the fact that, immediately after giving it, he goes on to say that "there had never been any time, wherein particular men were in a condition of war one against another."¹² The state of nature, then, is not just that state in which there is no sovereign power; it is that state in which, except for the power of single men, there is no power at all. It is a state not just of war, as between clans, factions, or kings, but of "war of every man, against every man."¹³ It is not that state of men which exists as a consequence of the breakdown of civil society; is it, rather, that hypothetical state of men which existed, per impossibile, before any civil society at all, "or before such time as men had engaged themselves by any covenants or bonds."

The same point may be made by taking a slightly different approach. The first point which Hobbes attempts to prove in De Cive is that man is not "a creature born fit for society." And he attempts to defend the claim in the following way:

Since we now see actually a constituted society among men, and none living out of it...it may seem a wonderful kind of stupidity...to deny man to be born fit for society. Therefore I must more plainly say, that it is true indeed, that to man by nature, or as man, that is, as soon as he

is born, solitude is an enemy; for infants have need of others to help them to live and those of riper years to help them live well. Wherefore I deny not that men (even nature compelling) desire to come together. But civil societies are not mere meetings, but bonds to the making whereof faith and compacts are necessary; the virtue whereof to children and fools, and the profit whereof to those who have not yet tasted the miseries which accompany its defects, is altogether unknown; whence it happens, that those, because they know not what society is, cannot enter into it; these, because ignorant of the benefits it brings, care not for it. Manifest therefore it is, that all men, because they are born in infancy, are born unapt for society. Many also, perhaps most men, either through defect of mind or want of education, remain unfit during the whole course of their lives; yet have they, infants as well as those of riper years, a human nature. Wherefore man is made fit for society not by nature, but by education.¹⁴

Now, we have already noted that the family relationship is precluded by the state of nature hypothesis. The state of nature becomes, accordingly, not only a hypothetical, but an impossible, state. It is clear, then, that the savages of America and men engaged in civil war in which the structure of the family and other, even more extensive, social relationships are maintained, are not in the state of nature. But we may note, too, a more important point. Hobbes' conclusion here is that "man is made fit for society not by nature, but by education." Education, of course, may take place in two ways. It may be semi-formal, as it is in the family where knowledge and culture are handed down from parent to child, or formal, as between student and teacher; both these are social and, therefore, precluded by the state of nature hypothesis. On the other hand, education may be the outcome of experience. Hobbes seems to have both sorts of education in mind, and, interestingly enough, he contrasts man as he is by nature with educated man in general. It would

seem then that he is arguing that man is by nature unfit for society, and to consider man as he is by nature, it would seem, is to consider him as he would be without either education or experience or, at least, without that sort of experience which would make him fit for society, without, that is, any social experience. The state of nature, then, cannot be the result simply of removing the sovereign power in an existing society. That would be to leave men fit for society; whereas Hobbes wants to say that men as they are in the bare state of nature, that is, men by nature, are unfit for society.

This view of the state of nature hypothesis fits well with Hobbes' remarks in the preface to De Cive. There he writes,

in the first place I set down for a principle...to wit, that the dispositions of men are naturally such, that except they be restrained through fear of some coercive power, every man will distrust and dread each other. ¹⁵

And only a little later,

For though from nature, that is, from their first birth, as they are merely sensible creatures, they have this disposition; that immediately as much as in them lies they desire and do whatsoever is best pleasing to them. ¹⁶

Similarly, in The Elements of Law he writes,

it will be expedient to consider in what estate of security this our nature hath placed us, and what probability it hath left us of continuing and preserving ourselves against the violence of one another. ¹⁷

And again,

since men by natural passion are diverse ways offensive one to another. ¹⁸

Now, in all these passages Hobbes would seem clearly to be speaking of the passions, but more precisely, of the natural passions. And those it would appear are primarily those passions men have "from their first

birth," before they have any acquaintance with civil society or any experience which would convince them of the necessity of it. This would seem to be confirmed by his remark in the Epistle Dedicatory to De Cive that

Having therefore thus arrived at two maxims of human nature; the one arising from the concupiscible part, which desires to appropriate to itself the use of those things in which all others have a joint interest; the other proceeding from the rational, which teaches every man to fly a contra-natural dissolution, as the greatest mischief that can arrive to nature.¹⁹

Here Hobbes clearly contrasts the maxims of reason, and the use of reason is not born with us but gotten by industry,²⁰ with the natural, which he seems to identify with the maxims of desire. Such a contrast is not explicitly made in The Elements of Law, but it is clear enough there that he has it in mind. There the discussion of the state of nature follows his discussion of human psychology and the causes of contention are all put in terms of man's passions and appetites. There is no argument drawn here, as there is in De Cive, from the nature of civil society. This, of course, fits well with his assertion in Leviathan that the condition of man in the state of nature is an "inference, made from the passions." And it seems quite clear that here, as in the earlier works, he has in mind the natural passions of man, not those acquired in civil society. It is the fact that it is derived from the natural passions of man, those which they have "from their first birth" or qua individual men that makes the inference an inference about the state of nature or about "THE NATURAL CONDITION OF MANKIND."²¹ It is a question about how "Nature hath made man,"²² nature as opposed to society or culture. But first and foremost it is a question about the natural inclinations

or passions of men as they are derived from their individual human natures (as a result, let us say, of their individual genetic endowments) and from their individual, non-social experiences qua sentient organisms or "as they are merely sensible creatures."

The state of nature hypothesis would thus seem to be, in a very real sense, an entirely unrealistic hypothesis. Far from considering men as they would be after the disruption of civil society, we must consider men as if they had had no social experience at all, not even the experience of the mother-child relation. When we consider men in the state of nature, then, we are, in effect, to "consider men as if but even now sprung out of the earth, and suddenly, like mushrooms, come to full maturity, without all kind of engagement to each other,"²³ or "as if they were but even now all at once created male and female,"²⁴ without experience, education, or culture.

There are thus, in effect, two sides to the state of nature. We may well note Macpherson's penetrating observation that,

The trouble with Hobbes's concept of a state of nature is that it tends to telescope two different conditions: the condition of antipathy and competition in which men are said to find themselves all the time because of their natures, and the brutish condition of war.²⁵

Macpherson himself, to avoid this confusion, chooses to consider the state of nature hypothesis in terms only of the latter condition, the condition of war, and this he proposes to do

by holding steadily to the fact that the men who would fall into the state of war if there were no common power are civilized men, with civilized desires.²⁶

Given Macpherson's interests, such a view of the state of nature hypothesis would seem to be adequate. Considering the state of nature simply

as a state of war between otherwise civilized men, we might be able to derive most of Hobbes' political philosophy, and it is this with which Macpherson is primarily concerned. But if we are to consider Hobbes' state of nature hypothesis simply in terms of war between civilized men, then, since men must be civilized in some particular society, not only does Hobbes fall prey to Macpherson's objection that his inferences are not valid for all human societies (and Hobbes quite clearly thinks they are), but much of his writing on the state of nature becomes unintelligible.

For instance, Macpherson goes on to say that, by so considering the state of nature,

we can avoid the error of treating Hobbes's state of nature as an analysis...of men considered apart from all his socially acquired characteristics.²⁷

But this, as I have argued, is precisely what it is intended to be. There is a further difficulty with this view, however. Hobbes says explicitly that the state of nature "is nothing else but a mere war of all against all,"²⁸ "of every man, against every man."²⁹ Yet why should it be so? Not all wars are such wars as these. Certainly not the wars of civilized men. In fact, there has never been, nor will there ever be, such a war. For the state of nature is an impossible state. Civil wars, on the other hand, are neither impossible nor uncommon; they are the wars of civilized men when the sovereign power has broken down, and they are never wars of every man against every man, but of faction against faction, of small groups with their own leaders, their own petty sovereigns, against other groups. In such a war civil society never completely breaks down, and it never does

precisely because the men involved are civilized men who know the advantages of mutual helps in time of war. If this were all that were necessary to Hobbes' purpose, why should he have felt compelled to introduce the state of nature, the impossible war of all against all? Why should he have asserted something as outlandishly unnecessary as that a son is not, indeed cannot be, in the state of nature? Or why should he have argued, as he does in all his works, that in the state of nature men are equal when there were no societies, his own or historical, in which this was the case? Again, why should he have bothered to prove that men are not born fit for society, that they are made fit for society only by education; what relevance, if he were in fact concerned only with civilized men already made fit for civil society, would this have had to his argument? Finally, why, if he were concerned with civilized men with civilized desires, should he have continually asserted that the condition of man in the state of nature is an inference from man's natural passion, those that he has from his first birth as merely a sensible creature and before such time as they were under any social engagements? These are questions, it seems to me, which any interpretation of Hobbes' state of nature hypothesis must be prepared to handle, and I do not see how this can be done on the view that the state of nature is simply a state of war consequent to the absence of a sovereign power, especially if it is seen in terms of a war between civilized men.

There is another, to my mind, equally serious objection to this interpretation of the state of nature hypothesis. It runs the risk of ignoring or of obscuring Hobbes' purpose. That purpose, at least as

far as we are concerned here, was two-fold. He intended, first, to construct a moral and political theory. But he intended further to demonstrate that theory within and from his own philosophical system. Like all adherents to the natural law tradition, Hobbes did not see morality as man-made; it is not, like culture, a produce of man's invention and subject to man's whims. It is, rather, something which is eternal and immutable. It is natural. It derives from nature. It is for this reason that it is called natural law. And in this respect Hobbes was not peculiar. His peculiarity lies rather in thinking that morality derived from, was constituted by, human nature, as opposed, say, to the nature of Reason, and more specifically from the nature of the human passions. Following the tradition common to moral philosophy since Plato, Hobbes opposes the passions to reason, the concupiscible to the rational part of man. And again, still following the tradition, he makes reason the final arbiter of morality; it is reason that teaches men to "fly a contra-natural dissolution." But it is here we come to a parting of the ways. For on Hobbes' view, the moral law, the natural law, is not derived by reason from the nature of reason itself. It is derived from the passions of men and, since the moral law is the natural law, from the natural passions of men. Hobbes' purpose, then, is to ground his moral philosophy upon, to deduce it from, the universal characteristics of human psychology. To do this, he must consider men and their passions as they are by nature, not as they are modified by culture. He must consider the natural condition of mankind, men in the state of nature, men untouched by society. This, however, is not a thing that can be done on the basis of observation alone. For the men we observe

are civilized men, with civilized desires. It must, therefore, be done on the basis of the laws of human psychology. On the interpretation we have before us, however, the psychological theory is not needed. We could say, then, that Hobbes' moral theory takes its beginning from experience and that the state of nature is an inference drawn from observation. In fact, it is essentially this kind of argument that Hobbes offers in De Cive, and it is worth noting that the force of Macpherson's argument derives primarily from this work. Moreover, were he to speak only of De Cive, we should be compelled to grant his interpretation. Whatever Hobbes may say there to the contrary, the state of nature, if it is derived from our experience of men in society, from our observations of men's behaviour toward one another, must be derived from the observation of civilized men. Taken by itself, De Cive presents the demonstration of moral philosophy primarily in its a priori or analytic form. We cannot fully understand the a posteriori or synthetic form of the demonstration unless we understand the state of nature in terms of Hobbes' psychological theory, as an extrapolation from it. Unless we so read De Cive, it is difficult, if not impossible, to understand its place in his system. Yet, while he owns that the moral theory, as it is presented in De Cive, is sufficiently grounded in experience, he quite clearly claims that it is derivable from the two preceding parts of his system. It is thus essential that we understand the state of nature hypothesis as more than just an hypothesis about the state of war.

This much must suffice for a discussion of the nature of the state of nature hypothesis. We may turn now to a discussion of Hobbes'

argument from it.

It has become almost a commonplace that, for Hobbes, men in the state of nature are equal. In all his arguments which employ the state of nature hypothesis this is the first point he attempts to prove. But while it has become a commonplace, this does not hinder that it is a commonplace mistake, and this, I shall claim, is what it is. For Hobbes does not claim that men in the state of nature are equal; in fact, he explicitly denies it. What he does claim is that such men are to be esteemed equal. The difference may seem trivial or insignificant to some, yet it is important, because at least one commentator, on the basis of the commonplace interpretation, has charged Hobbes with self-contradiction. Thus, Stanley Moore has written that,

Hobbes contradicts himself in claiming that all inequality has its origin in civil law. His chapters on political theory discuss two origins of government: commonwealths by institution come into existence through mutual agreement among equals in power; commonwealths by acquisition, through the weaker submitting to the stronger. Perhaps in the commonwealth by institution inequality has its origin in the civil law. But certainly in commonwealths by acquisition the civil law has its origin in inequality. When constructing his model of sovereignty by acquisition, Hobbes explicitly withdraws the assumption that men are equal in power, on which he has previously constructed his model of the state of nature and his model of sovereignty by institution.... The verdict seems inescapable that Hobbes's principle of equal treatment is not a theorem but an axiom of his moral theory. What he presents as a maxim of prudence is a moral imperative in disguise.³⁰

And Moore makes it clear that by 'the principle of equal treatment' he means the principle that "Each man... must treat all men as equal in power."³¹ Now, there are a few things that need to be noted here. In

the first place, we must note that, while the principle of equal treatment does, as Moore suggests, play a fundamental role in Hobbes' philosophy, it does so at two different levels, and the arguments offered for it at each level are different. It enters, first, not so much as a principle, but as a consequence of the condition of man by nature or of man in the state of nature. It enters again in the form of the ninth law of nature.³² Moore, on the other hand, would not seem to differentiate these two levels. But we must note as well the more important fact that, if Moore is correct in his claim that the principle of equal treatment enters as an axiom, we must grant his conclusion that it serves as "a moral imperative in disguise", in which case, our argument that Hobbes' moral philosophy is derived from a set of non-evaluative or non-moral statements of fact fails.

Obviously, if one take Hobbes' opening argument in the state of nature to be intended to show the equality of men, an equality which he later denies, he will be left with no argument for the principle of equal treatment, for the view, that is, that in the state of nature men are to be esteemed equal. It is easy to show, however, that it is for the latter and not the former view that Hobbes is arguing. It will be well, first, to look at the sort of argument he propounds and then to examine the nature of his conclusion.

In all three of his works on the state of nature Hobbes seems to be arguing that men are by nature equal in both the powers of the body and of the mind. In Leviathan he offers two arguments for the equality of mental abilities. He notes, in the first place, that, prudence, is but experience; which equal time, equally

bestows on all men, in those things they equally apply themselves unto.³³

Obviously, without some additional premise, which Hobbes does not supply, to the effect that in the state of nature men apply themselves equally, this argument for the equality of men is not only not conclusive but blatantly fallacious. But the additional premise would seem also to be inconsistent with Hobbes' earlier assertion that men differ in natural wit as a consequence partly of natural differences in their passions. The weight of Hobbes' argument, it would thus seem, must be born by the second argument.

For such is the nature of men, that howsoever they may acknowledge many others to be more witty, or more eloquent, or more learned; yet they will hardly believe there be many so wise as themselves; for they see their own wit at hand and other men's at a distance. But this proveth rather that men are in this point equal, than unequal. For there is not ordinarily a greater sign of the equal distribution of any thing, than that every man is contented with his share.³⁴

If this argument is offered in support of the claim that men are mentally equal, one can only wonder if it is not offered in jest. That men are contented with their share may argue that their contentment is equal, but it will hardly show that their shares are equal. One can only ask, then, if this is what Hobbes was, in fact, trying to show. If, now, we look to his argument to prove the equal strength of men, we find ourselves faced with the same question. He argues that men are by nature equal in strength because,

as to the strength of the body, the weakest has strength enough to kill the strongest, either by secret machination, or by confederacy with others, that are in the same danger with himself.³⁵

Here the very argument which purports to show the equality of men assumes

the opposite. The argument assumes that there is a weakest and a strongest among men in the state of nature. Was Hobbes, then, attempting to argue the natural equality of men? Clearly, his arguments will not support this conclusion. Neither will his conclusion support this interpretation. As was his wont, Hobbes states his conclusion first:

Nature hath made men so equal, in the faculties of the body, and mind; as that though there be found one man sometimes manifestly stronger in body, or of quicker mind than another; yet when all is reckoned together, the difference between man, and man, is not so considerable, as that one man can thereupon claim to himself any benefit, to which another may not pretend, as well as he. ³⁶

Here Hobbes explicitly affirms that, in the state of nature, one man may be manifestly more powerful than another. What he argues, however, is that men are not so unequal that, "when all is reckoned together," a man reasonably esteem himself more powerful than another. In the state of nature, one's greater power is not such that one can reasonably be assured by it of any benefits to which another may not pretend with equal assurance. One may be killed or robbed even by the weakest, however strong one may be. In The Elements of Law we find Hobbes affirming this conclusion even more clearly. There he writes that

we may conclude that men considered in more nature, ought to admit amongst themselves equality. ³⁷

And in De Cive he concludes similarly that

there is no reason why any man, trusting to his own strength, should conceive himself made by nature above others. ³⁸

Hobbes' conclusion, then, would seem to be not that men are by nature equal but that men in the state of nature cannot reasonably assume and be assured of the contrary. This conclusion, much weaker than the

plainly false assertion that men are by nature equal, is sufficient for Hobbes' purposes. And his purpose, as is clear from his discussion of the ninth law of nature, is in part to provide an alternative to the Aristotelian basis for moral and political philosophy. As he writes in De Civo,

I know that Aristotle, in his first book of Politics, affirms as a foundation of the whole political science, that some men by nature are made worthy to command, others only to serve; as if lord and servant were distinguished not by consent of men, but by an aptness, that is, a certain kind of natural knowledge or ignorance. Which foundation is not only against reason... but also against experience. For neither almost is any man so dull of understanding as not to judge it better to be ruled by himself, than to yield himself to the government of another; neither if the wiser and stronger do contest, have these always or often the upper hand of those. Whether therefore men be equal by nature, the equality is to be acknowledged.³⁹

What Hobbes has in mind primarily in the argument that men are by nature equal is the distinction between lord and servant. What he wishes to argue is that, in the state of nature or the natural condition of mankind, there are no natural servants. Each man is and takes himself to be his own lord and master. His argument for this view is that, in the state of nature, where each may kill the other, if not by strength by machination, there is no good reason to assume the contrary. That men acknowledge some to be more powerful, and sufficiently more powerful that they are willing and think it reasonable to subject themselves to them, is a consequence of consent (and consent may be compelled by conquest and fear of death as in sovereignty by acquisition), not of their consideration of their own and others' natural abilities.

This, then, is Hobbes' first premise concerning men in the state

of nature: Men are to account themselves equal. It is not, as Moore argues, an axiom, but a conclusion which is argued for. The argument for it, however, we shall have to admit, is not derived from his psychological premisses. It is, rather, a consequence of considering the observed facts about man's (non-social) nature, namely that men are easily killed and that killing can be as much a consequence of cunning as of physical prowess, in context of the state of nature hypothesis. If, however, we couple this principle with Hobbes' psychological premisses, we can derive important psychological conclusions. Since men have no assurance of being able to provide for and to defend themselves, and since men by nature desire their own good and chiefly their own preservation and fear death and other, lesser evils, that men should fear each other would seem to be a clear consequence. In the state of nature a man is supposed to understand none of the benefits of society. Given this, it seems clear that he would invariably put his own good before another's. Every man, then, in the state of nature is pitted against every other, and a man cannot help, in such a state, but feel fear of every other man.

But on the other hand, while men can have no reason in the state of nature to think themselves "made by nature above others," men are vainglorious, and while one man may be temperate and, "according to that natural equality which is among us, permit as much to others as he assumes to himself," another, being vainglorious and "supposing himself above others, will have a license to do what he lists, and challenge respect and honour, as due to him before others."⁴⁰ The connection here with Hobbes' psychology is fairly clear. We have already shown that, for

Hobbes, as a consequence of their nature, all men desire power. We have noted, further, that delight and desire are the same passion but that the different terms are applied because, in the one case, the object is present, in the other, not. Now, when we conceive ourselves to have power, since we desire it, we feel delight. Thus Hobbes defines the natural passion of 'glory' in this way:

GLORY, or internal gloriation or triumph of the mind, is that passion which proceedeth from the imagination or conception of our own power, above the power of him that contendeth with us.⁴¹

Glory is thus a natural passion, to the extent that the desire for power is a natural desire. On the other hand, since glory is a delight of the mind and depends upon our imagination or conception of ourselves, it may be unfounded. We may imagine ourselves to be more powerful than we are. In this case, the delight we feel, since it is based upon a false opinion of ourselves, is called 'vain glory'. Thus, the man who thinks himself to be more powerful than others when, in fact, "when all is reckoned together," he is not or, at least, is not warranted in thinking himself so, is vainglorious. Some men in the state of nature, those whose natural wit is the greater, whose passions, given equal experience, are most conducive to quickness and steadiness of thought, and who are therefore the more prudent, may recognize the unreasonableness and futility of thinking themselves appreciably more powerful than others and, hence, the necessity of being contented with their share. Others, however, and they may be many or few, "considering the great difference there is in men, from the diversity of their passions,"⁴² are likely to have an unwarrantably high opinion or conception of themselves and their power. Such men will not fear the power of others. And since all men,

moderate and vainglorious alike, desire that which delights and act according to their desires, and since a man will soon learn that the honor and esteem of others is a sign of power and, therefore, delightful, all will act to gain what honor and esteem they can, and the vainglorious man, not fearing the power of others, will attempt to gain that honor and esteem by force. There is, then, in the state of nature not only a mutual fear, but a mutual will to hurt. The vainglorious "man's will to hurt ariseth from vain glory, and the false esteem he hath of his own strength; the other's [the moderate man's] from the necessity of defending himself, his liberty, and his goods, against this man's violence."⁴³ And since the violence of the vainglorious man provokes the moderate man to violence, he too will have reason to fear. Or, as Hobbes puts it in The Elements of Law,

We must needs acknowledge that it must necessarily follow, that those men who are moderate, and look for no more but equality of nature, shall be obnoxious to [i.e., exposed or open to] the force of others, that will attempt to subdue them. And from hence shall proceed a general diffidence in mankind, and mutual fear one of another.⁴⁴

Here, then, we have an argument to show that, in the state of nature, all men have a desire to hurt and, accordingly, a mutual fear of one another which is clearly "an inference made from the passions." This argument, drawn from vainglory, although Leo Strauss has claimed, I think incorrectly, that it provides the foundation for Hobbes' moral theory,⁴⁵ is not the only argument Hobbes offers in support of his claim that the state of nature, because it is a state of mutual fear and will to hurt, is a state of war of all against all. He offers two others, the weaker of which we may take up first.

In The Elements of Law he argues that,

since men by natural passion are by divers ways offensive to one another, every man thinking well of himself, and hating to see the same in others, they must needs provoke one another by words, and the other signs of contempt and hatred, which are incident to all comparison.⁴⁶

Here, I think, we must agree with Macpherson. The argument here clearly relies upon a model of civilized or social man, although Hobbes inconsistently asserts that this sort of provocation is a consequence of men's natural passion, for words, on Hobbes' view, are social inventions, as are signs of honor and contempt. But that Hobbes has a model of civilized man in mind here is, I think, much clearer from the version of the argument given in De Cive. There he writes that,

since the combat of wits is the fiercest, the greatest discords which are, must necessarily arise from this contention. For in this case it is not only odious to contend against, but also not to consent. For not to approve of what a man saith, is no less than tacitly to accuse him of an error in that thing which he speaketh: as in very many things to dissent, is as much as if you accounted him a fool whom you dissent from. Which may appear hence, that there are no wars so sharply waged as between sects of the same religion, and factions of the same commonweal.⁴⁷

It may well be true that, from the nature of men, it could be deduced that all men in civil society would acquire a desire for reputation, but the sort of intellectual comparison arising from philosophical, doctrinal, and political disputes which Hobbes has in mind here is a strictly social phenomenon. It depends upon socially settled signs of contempt. But there are and can be no words of settled signification in the state of nature. Nor can there be any combat of wits as such; but furthermore, we could not know, in the state of nature, what contempt might be except in terms of whether our enemies, when they are

encountered, choose to fight or to flee, in which case, to say that men scorn or contemn us has nothing to do with reputation of wit, but with power. We are thus, I think, compelled to reject this argument as out of place, as concerning civilized and not natural man.

It might be possible, however, to reconstruct the argument so that it would be appropriate to the state of nature by considering contempt in terms of power. It is possible that Hobbes himself leaned toward this reconstruction in Leviathan. There he writes that

men have no pleasure, but on the contrary a great deal of grief, in keeping company, where there is no power able to over-awe them all. For every man looketh that his companion should value him, at the same rate he sets upon himself: and upon all signs of contempt, or undervaluing, naturally endeavours, as far as he dares... to extort a greater value from his contemners, by damage; and from others, by the example.⁴⁸

It is clear that Hobbes is still using a model of social man. He speaks of companions and of keeping company and, again, of signs of contempt. But he has, on the other hand, put the argument more clearly in terms of men's natural passions. Considering Hobbes' definition of 'contempt' as neither loving nor hating a thing,⁴⁹ we may say that, in the state of nature, a man is contemned if he is ignored, if others care neither to fight with him nor to flee from him. And "To contemn, or less to love or fear, than he expects, is to dishonour," as "To give way, or place to another...is to honour; being a confession of greater power."⁵⁰ Now, it has been shown that, because all men desire power, all men delight in and desire honour as a sign of power. We may thus say that, in the state of nature, when a man does not choose to fight or to flee us, since he does not fear us, he dishonors or contemns us, and, especially since he is

also an enemy who, to the extent that he does not fear us, constitutes a threat, this is a grief. Consequently, all men in the state of nature would desire all other men to fear and obey them, for "To obey is to honour."⁵¹ Desiring this, they would try, if there were nothing to stop them, to exact such obedience, where it is possible, by force.

Still, while the argument as it is given in Leviathan is more amenable to this kind of reconstruction, we must admit that the reconstructed argument is not the argument Hobbes gives, nor can it be said with any real assurance that he had this kind of reconstruction in mind. We must, then, reject this argument, as it is propounded by Hobbes, as being out of place in the state of nature. We may, however, accept the reconstructed version of the argument, not as Hobbes' own, but as an additional argument, the premisses for which are all provided by Hobbes.

Having offered these two arguments, the one from vainglory, the other from glory, reputation or vanity, Hobbes proceeds in De Cive to offer a third. Of the three arguments explicitly offered in De Cive, it is this that I take to be the most important. He writes,

But the most frequent reason why men desire to hurt each other, ariseth hence, that many men at the same time have an appetite to the same thing; which yet very often they can neither enjoy in common, nor yet divide it; whence it follows that the strongest must have it, and who is strongest must be decided by the sword.⁵²

Before attempting to draw the connections between this and the earlier psychological argument, we should stop to answer a likely but ill founded objection. It might well be argued, but it is more likely to be simply asserted, that nature has provided plentifully for the needs of man as

for those of all her creatures. Accordingly, such contention for limited resources need not arise. This is very much the objection one might expect from a civilized man, but even more from an academic man, accustomed to plentiful resources and not very clear about where they come from. But our abundant supplies of food come from highly organized farms, farms that are owned generally by one man or a consortium of men and worked by others, often times employing equipment that one man working alone could not produce in a life time. But in the state of nature a man would have to work alone, for we have supposed, as the essential part of the hypothesis, that in the state of nature there are no social relationships and, further, that those men in the state of nature do not, at least initially, know even the value of such relationships. They are sprung like mushrooms out of the earth and have no knowledge of culture, either of the land or of men. But having no such knowledge, what reason would any man have to respect the value of another's land and produce? It may be easy enough to pick the fruit of the trees, which, by the way, would not be very abundant in most climates without cultivation, but it would be far more easy to pick the readily available fruit of cultivated land, if, per impossible, there were any. On the other hand, such an objection might well come from one who takes the state of nature hypothesis as an historical hypothesis. To go back in time to a state which might even remotely resemble the state of nature would be to go back to a time when men were very few and when the naturally available resources would be more than sufficient. To counter this sort of objection we need only to point out that the state of nature is not an historical hypothesis; it

is not even a "practically possible condition," as has been asserted, for instance, by Stuart M. Brown.⁵³ In the state of nature men may well be assumed to be as plentiful as they are now without damage to the hypothesis, yet men would have to be very few indeed for their desires never to overlap. The tree may be laden with apples enough for all (although without cultivation they may be all of them worm eaten, stunted, and green), yet every man who sees it will want the biggest, the brightest, and best. Even today in most small hunter-gatherer societies much social cooperation is required to assure an adequate supply of food. All things considered, Hobbes' assertion that in the state of nature, on the assumption that there are a sufficient number of men that several may know of the same commodities, they will sometimes desire the same commodities seems fair enough. And when they do, what but strength will decide who is to have them?

It would be well here to note the more elaborate form of the argument given in Leviathan. There, recalling the argument that in the state of nature men are to be esteemed equal, Hobbes argues,

From this equality of ability, ariseth equality of hope in the attaining of our ends. And therefore if any two men desire the same thing, which nevertheless they cannot both enjoy, they become enemies; and in the way to their end, which is principally their own conservation, and sometimes their delectation only, endeavour to destroy, or subdue one another. And from hence it comes to pass, that when an invader hath no more to fear, than another man's single power; if one plant, sow, build, or possess a convenient seat, others may probably be expected to come prepared with forces united, to dispossess, and deprive him, not only of the fruit of his labour, but also of his life, or liberty. And the invader again is in the like danger of another.⁵⁴

Here if we interpret 'forces united' to mean necessarily a social arrangement, since we have rejected Macpherson's interpretation, we shall have to accuse Hobbes of being inconsistent. The whole point of the state of nature hypothesis is to consider men without society and socialized desires. We may, of course, interpret 'forces united' to mean simply the invasion by several men with the same end in view at once. Such men would cooperate more by accident than design. This interpretation would explain Hobbes' assertion at the end of his argument that the invader, who in this case would be that single man who succeeded first in attaining the end desired, would be again "in the like danger," for to be in the like danger clearly must mean to have his own "single power" pitted against the united forces of others, those with whom he had invaded. This interpretation seems to me to be plausible, but even if it is rejected, the inconsistency is not serious. The assumption that one may be invaded by the united force of others is not necessary to the argument. In fact it is rather surprising when it comes, since Hobbes begins by talking about "any two men." I would suggest that he has introduced the notion of united forces only to make his argument more persuasive. All that is needed for the argument is two men with conflicting desires who, because they have no reason to think themselves, all things considered, unequal in power or in means, will have equal hopes. The consequence will be the same. Their conflict can and will be decided only by combat of strength or cunning.

Now, in this argument the appeal to the passions of men is explicit, although the connections are not explicitly drawn. That task Hobbes

would seem to have left to his readers. To draw them we must note first Hobbes' assertion in De Cive that he has employed

two maxims of human nature; the one arising from the concupiscible part, which desires to itself the use of those things in which all others have a joint interest; the other proceeding from the rational, which teaches every man to fly a contra-natural dissolution.⁵⁵

Here it would seem clear that he is opposing reason or the teachings of reason to men's natural dispositions and equating men's natural dispositions with the promptings of desire, the concupiscible part. What is to be considered in the state of nature is how men act, or would act, not as rational but as appetitive creatures. But it is a quality of the concupiscible part of human nature, that is, of men in the state of nature, that

from nature, that is, from their first birth, as they are merely sensible creatures, they have this disposition, that immediately as much as in them lies they desire, and do whatsoever is best pleasing to them.⁵⁶

In the state of nature we are to consider men as if they were merely sensible, i.e., appetitive, creatures who act, accordingly, always with regard to their strongest immediate desires. And while men "receive not their education and use of reason from nature, we must needs acknowledge that men derive desire, fear, anger, and other passions from nature."⁵⁷

Reason may be introduced later, when these natural men have had sufficient experience that they may "arrive to understanding of this hateful condition."⁵⁸ But they are, initially at least, to be considered as if they were governed only by passion.

Now, we have already developed Hobbes' account of the passions sufficiently in the preceding chapter that it should be obvious that,

if a man desires something, unless he has some stronger desire or some overriding fear or aversion, he will act to obtain it. This follows quite clearly from the fact that desires are the small internal beginnings of motion toward something. It is simply a mechanistic consequence of the fact that where there are two or more opposed movements or motions the stronger prevails. We have shown, further, that the connection between delight and desire is such that whatever delights a man he will desire and, with the same qualifications, will act to obtain. All men desire their own self preservation and that which they take to be necessary or conducive to it. All men desire that which delights. All men, then, in the state of nature, where they are guided by their immediate passions alone, will strive to get that which delights them or which they desire. But we need now to consider another premiss, that men do not by nature love their fellow men. It is chiefly this that Hobbes wishes to establish in his opening argument in De Cive that men are not by nature fit for society. Men must learn as children to love others, to put their own desires aside in deference to others', and generally to be sociable. As Hobbes notes,

Unless you give children all they ask for, they are peevish and cry, aye, and strike their parents sometimes; and all this they have from nature.⁵⁹

He would have done better, perhaps, to have noted the behavior of very young children to other children. As every parent knows, a child must learn to play. The young child of two or three, if he sees a bright toy, simply takes it; that another child might be playing with it makes little difference, and should the other resist, unless their parents intervene, "the strongest must have it, and who is strongest must be

decided by the sword," if children had swords--though toys are often effective weapons. This is not, of course, to say that children are malicious or that men are by nature evil; it is to say simply that (the excuse every parent legitimately makes) they 'do not know any better'. . . And the spoiled child, the child who is allowed always to 'have his own way', i.e., what he wants, the child without discipline who is not taught more sociable behavior, who never learns a better way, grows up to be a spoiled man. From this one instance alone, and of course there are others, it would seem clearly to follow that men do not come together because by nature they love or care for one another.

For if by nature one man should love another, that is, as man, there could no reason be returned why every man should not equally love every man, as being equally man; or why he should rather frequent those, whose society affords him honour or profit. We do not therefore by nature seek society for its own sake.⁶⁰

A child may desire the company of his parents, but not out of any natural love for them, though mothers, who do love their children, fondly think it is. The child 'loves' his mother and desires her company because he is hungry, because he is uncomfortable, or simply because he is bored. These things, of course, may bring the child eventually to love its mother. The dispositions of men are modifiable, in Hobbes' psychology, by experience. Were it otherwise, it is doubtful that any lasting society would be possible. We must come to love one another, to desire the good of our society, its culture, and its laws. These things we may be brought to desire and for their own sake. But the process by which we are brought to desire them, to put it in modern terms, is roughly that of conditioning, or to put it in terms less objectionable to some, that of acquiring some

sense of the value of these things. The point is just that we do not have this sense by nature. We are not, like ants and bees, born with it. And the point of all this is simply to argue that men do not by nature have any care for the cares of their fellow men. It is not to argue that they cannot acquire it. They may, and, in fact, if a society is to be lasting, it must ensure that they do.

Now, if we couple these two facts, the one, that men do not by nature love their fellow men, derived from our knowledge of men, the other, that men act by nature to obtain that which they most desire, derived from our knowledge of the (mechanistic) nature of desire, we are bound to accept the conclusion that where the desires of men overlap, and when, as in the state of nature, they have no care for their 'fellows', they will each strive by force, when they do not have it, to obtain that which they both desire, and when they have it, to retain it. We shall be forced to admit, then, that in the state of nature, when men have desires in common, each will try to destroy or to subdue the other. We shall have to admit as well a desire and a will to hurt, that is, to destroy or subdue, not only those with whom a man would contest for some immediate object of desire, but all people. For a man may desire many things, not only those he has before him, but those which have delighted him in the past. This, of course, is consequence of the mechanistic account of imagination as the same motion as sensation (to which pleasure and pain or delight and annoyance is attached) continued. If I saw an apple on the tree yesterday when I was not hungry, the thought of its being there to fill me at my need may delight, and I shall desire accordingly that it stay there for my use, if not today, then tomorrow or

the next day or forever. The thought of its being there, if it delights, is sufficient for my desiring it to be there, even though I may have no desire to eat it. This, one may well say, is irrational. Let it be so; it is irrational man, that is, men as they are merely sensible or appetitive creatures, or men considered as full-grown children, we are talking about. Yet while the apple hangs there it is a prey to any man who sees and desires it. And what could I feel at the thought of his eating my apple, that apple which so delights me being devoured and its beauty being utterly destroyed by that unfeeling brute about whom I feel nothing (for I, in the state of nature, am little more than a brute myself); but rage, a blind passion and an irrational will to hurt, to destroy the destroyer of my felicity? Yet any man in the state of nature is potentially such a destroyer and may be considered so. I can imagine any man as picking my delightful apple; any man, then, constitutes at least a potential threat to my happiness. And imagining him so, whoever he may be, as eating that apple which I love, as causing my displeasure, I cannot help but hate him and the thought of him, and in my rage, if possible, to kill him or at least to inflict on him that pain which he, or the thought of him, has inflicted on me. If we add to this the fact that I may have no fear of him, there is nothing to prevent my acting on my desire to hurt and I will so act. But, then, let me think, let my train of thought go but a bit further; how do I or can I think of others except as like myself? I am the only model that I have. I must think him like myself. Prudence works this way. Like causes like, and he, as far as I can tell, is just like me, maybe a little hairier and with bigger feet, but like enough, and what can I think then but that, if he looks like me,

he thinks like me? Suppose I imagine, thinking of him and my delightful apple, that he delights in that same apple; he thinks of other men devouring his apple; he thinks of me devouring his apple; he hates me; he would like to hurt me; he is coming. But now I have two causes to hate him; not only would he eat my apple, he would kill me if he could. But I do not fear him, nor can he kill me if I kill him first.

And from this diffidence of one another, there is no way for any man to secure himself so reasonable, as anticipation; that is, by force, by wiles, to master the persons of all men he can, so long, till he see no other power great enough to endanger him.⁶¹

And what will he do, what can he do, given that his passions and his nature are just like mine, but what I do? There would seem, then, to be no escape from the conclusion that men are by nature such that, given their natural passions, some modicum of experience, and, hence, of imagination and prudence, all, in the hypothetical state of nature, will have a desire to hurt all others and, imagining that same desire in others and the pain one would feel if they were to succeed, a mutual fear one of another, a fear of hurt, to be sure, but a fear which would drive them to fight and to hurt to prevent their own hurt. Of course, a man in the state of nature would doubtless not think quite as I have written. I must put the train of his thought in words. For him they would be only a train of imaginations to each of which would be appended some feeling of desire or aversion, of love or of hate. And in this elaboration of Hobbes' argument, the connection between his psychological premisses and the condition of men in the state of nature is clear to see.

But we are not yet done with the argument. There is an added, almost superfluous touch which we have already noted from De Cive. From

these conflicting, or only presumably conflicting, desires, there will arise, as we have shown, a desire to hurt. But perhaps not all men will have this train of thoughts; perhaps, if they do, their passions and experience will be such that they see farther, that they recognize the very real possibility of their being hurt and even killed themselves. Perhaps, as a result, they will be content only with what they have or with what they can obtain without fighting. But I am supposed to have had this series of thoughts and a subsequent will to hurt. Now, suppose that I act upon this desire, and suppose that I succeed. What will I feel? I will have defeated my 'enemy', him who, in the thought of him, caused me so much grief. This will give me joy. I can now think both of myself and of my apple as being unmolested by him. This is pleasing. I will have learned to kill and that to do so is pleasing. Now I have killed my enemy there is one less threat to my own preservation. My own hands and my own strength are that much surer as means to that which I and he desired. When I think of myself attempting to obtain some good, I need no longer think of him standing in my way. I am that much more the guarantor of my own felicity. I am become powerful. So killing will become for me a sign of power, power which delights, as utile, as a means to my good. So killing, as a sign of power, will be for me pulchrum, and I shall delight in killing itself. Though others may not be like me in this respect, because they have not had the same trains of thought or the same experiences, yet,

because there be some, that taking pleasure in contemplating their own power in the acts of conquest, which they pursue farther than their security requires; if others, that otherwise would be glad to be at ease within modest bounds, should not by invasion increase their

power, they would not be able, long time, by standing only on their defence, to subsist.⁶²

We need not then say that, in the state of nature, all men are vainglorious. In fact, the majority may not be. Nor need we say that, in the state of nature, men compete for goods they desire in common. It is enough that they should imagine they do. And this, certainly, given the nature of the connection between our thoughts, they will do. Nor need we say even that all men will have such a series of thoughts. It is sufficient that some do. For they will, for their own protection, desire, if not to kill, at least to wound and, succeeding, to kill for the sake of killing or conquest itself. Those, then, who would behave otherwise, for their own protection, must kill and will want to kill in turn. This much follows from the nature of men understood merely as sensible, appetitive creatures. And thus we may see how it is that in the state of nature, that is, in the condition of men without civil society, without any social experience, and without any knowledge of the benefits of society, men would be in a state of "war, and that not simply, but a war of all men against all men,"⁶³ and furthermore, that in such a state such a war

is perpetual in its own nature; because in regard of the equality of those that strive, it cannot be ended by victory. For in this state the conqueror is subject to so much danger, as it were to be accounted a miracle, if any, even the most strong, should close up his life with many years and old age.⁶⁴

Nor could there be in such a ceaseless war of all against all anything the production or acquisition of which depends upon some assurance of future security, nor anything that depends upon culture or society, for in such a condition of war of every man pitted against every man, there

is and can be no society. There could therefore be "no mine and thine distinct; but only that to be every man's, that he can get; and for so long, as he can keep it."⁶⁵ What a man could count on would be only "continual fear, and danger of violent death," and that life he would lead, if we could call it living, would be indeed "solitary, poor, nasty, brutish, and short."⁶⁶

And thus much for the ill condition, which man by mere nature is actually placed in; though with a possibility to come out of it, consisting partly in the passions, partly in his reason.⁶⁷

The possibility of coming out of it consists in this:

Every man by natural necessity desires that which is good for him; nor is there any that esteems a war of all against all, which necessarily adheres to such a state, to be good for him.⁶⁸

The reasoning behind this assertion is clear enough. The state of nature, which is a consequence of human passions, is inconsistent with the fulfillment of those passions. Because in the state of nature we have a "fear of death," we desire to kill those who would kill us; because we desire "such things as are necessary to commodious living," we desire to kill or subdue those who may desire them as well; and because men in the state of nature have "a hope by their industry to obtain" those things which they desire, they are ready and willing to rid themselves of whatever obstacles that may stand in their way.

Yet these self same passions are those "that incline men to peace,"⁶⁹ to do that, that is, which reason suggests is necessary to peace. For "all men as soon as they arrive to understanding of this hateful condition, do desire, even nature itself compelling them, to be freed from this misery."⁷⁰ Such understanding requires sufficient

experience and prudence both to understand the nature of this condition and to see a way out of it, and any man who has had sufficient experience to understand this estate and the suffering that attaches to it, if he desires to remain in it,

contradicteth himself. For every man by natural necessity desireth his own good, [e.g., self-preservation, commodious living] to which this estate is contrary, wherein we suppose contention between men by nature equal, and able to destroy one another.⁷¹

Hobbes here speaks of such a desire as self-contradictory. A better term would be 'self-defeating'. 'Contradictory' is too much a technical term and, on Hobbes' own view of reason, would require the possession of language. It is hard to think of a desire or of the attempt to fulfill a desire as self-contradictory. Each may well be understood, however, to be self-defeating, and since contradictions, at least in practical affairs, are self-defeating nothing would seem to be lost in using the broader term.

One might, of course, suggest certain 'irrational' desires such that the desire to remain in the state of nature would not be, in this sense, self-contradictory. For instance, it might be thought that this conclusion could be rejected on the ground that some men may receive their greatest joy from combat and might reasonably desire that the state of nature continue. But such a desire, even for such men as these, is self-defeating. For "the object of man's desire, is not to enjoy once only, and for one instant of time; but to assure for ever, the way of his future desire," and death, the threat of which, by stealth and a knife in the dark or by open combat, is ever present in the state of nature, puts an end to the fulfillment of all our desires, even (and especially) those

for combat. Even so, it is difficult to conceive that the desire for combat, however strong, could override all other desires taken together. In any event, we must grant that a desire to remain in the state of nature is, or is likely to be, self-defeating (unless a person's desire is to die, in which case he would desire to remain in the state of nature only to get out of it) in the sense that it threatens an end to all our desires, including the desire to remain in it, and that, recognizing this, a person would necessarily desire to get out of such a state if possible. Thus reason, as soon as he is arrived to it, teaches a man "to fly a contra-natural dissolution, as the greatest mischief that can arrive to nature." To follow the immediate dictates of our nature, in other words, is, as we learn by experience and reason, the greatest mischief that can arrive to that nature--as a child must learn by experience that not everything that tastes good is edible and by reason (in the sense of prudence or regulated thought) that things ought not, therefore, to be eaten without some assurance that they are edible.

It would be helpful here to make a distinction between the state of nature hypothesis as a material hypothesis (which I shall henceforth refer to simply as the state of nature or the natural condition of mankind) and as a formal hypothesis (henceforth, the state of nature hypothesis), for there is a tendency on the part of many to confuse the two. This confusion is one fostered by Hobbes himself who does not clearly distinguish between them, but in fact the two must be distinguished if the connection between Hobbes' moral philosophy and his psychology is to be understood, for it is through the state of nature that the two

are connected. We might, for instance, think of the state of nature or the natural condition of man as a state of contention, as a war of all against all, but the state of nature hypothesis in virtue of which this condition is inferred is not an hypothesis about such a state of war, nor is it, for that matter, an hypothesis about man in the state of nature or about the nature of man. The hypothesis, rather, is simply this: Men may be conceived to be sprung up out of the earth fully grown and without any experience, education, or culture, or, in other words, without the use of reason and without any knowledge of the nature and value of society. This is the formal hypothesis. The material hypothesis, on the other hand, is that state of affairs which would obtain if, per impossibile, this formally hypothetical state were realized, and it is an inference drawn from the facts of human psychology. The form of Hobbes' argument, in other words, is essentially this: Given that men are sprung up out of the earth, fully grown and without experience or education (the formal hypothesis) and the laws of human psychology, how would such men behave? The answer to this question, the material hypothesis, is what we generally call the state of nature or the natural condition of mankind.

The first inference is, in effect, that, since they are supposed to have been 'born' without experience, such men would be without the use of reason, as children are without the use of reason, and would accordingly be governed by their immediate passions, the concupiscible part of their nature. The remaining question to be answered, then, is how, in such an hypothetical state, men's passions would lead them to behave and what the consequences of such behavior would be. The answer, in brief, is that it would lead to a war of all against all in which

every man would live in continual fear and poverty. This is the natural condition of mankind, the condition of man's life in the hypothetical state of nature, and it is an inference. Given the state of nature hypothesis, it is inferred from the psychological theory that in such a state men would behave in a self-defeating way--for a time at least, until they came, like children through experience and the acquisition of prudence, to the use of reason. In thus showing the connection between Hobbes' psychology and the condition of men in the state of nature and by thus deriving, on the basis of the nature of that condition and men's passions, their desire to be out of it, we have shown the connection between Hobbes' moral philosophy and his psychology and, hence, his mechanism. For Hobbes' psychology, as we have shown in the preceding chapters, is a mechanistic psychology and, given the nature of his metaphysics, cannot be anything else but a mechanistic psychology. Thus, for instance, given the fact, known by introspection, that men's actions follow their desires and the mechanistic metaphysical framework, it follows, since actions can be nothing but motions, that desires must be the internal beginnings of motion; i.e., they must be motions themselves, and, since actions are toward a goal or since they are directed to the attainment of some end or object, they must be motions to or (if they are aversions) away from some object. From this it follows as a straightforward consequence of his mechanism that the strongest desire or aversion, that is, the strongest movement, must prevail. Likewise, given the mechanistic conception of the causes of motion, it follows that desires, since they are motions, and, hence, actions must be caused by some antecedent motion. It follows also from the basic tenet of Hobbes' mechanism that, given the phenomenon

of sensation, sensation too must be a motion and, since memory and sensation are qualitatively similar, that they must be the same or qualitatively similar motions, and further, given that we remember nothing we have not sensed and imagine nothing that we have not, in some way, remembered, that imagination too must be a motion qualitatively similar to that of sensation and that both are derived from sensation, that they are, in other words, the motion of sensation continued or the causal effects of sensation. Given the introspective fact as well that sensation is always accompanied with some desire or aversion or that desire and aversion cannot be conceived to be without sensation, it follows that sensation is, in some way, the cause of desire and, since they are but sensation continued, that memory and imagination are causes of desire. Given the fact that experience consists in memory and that memory, to the extent that it causes the motion of desire, causes actions, it follows that our present actions are modified by our past experiences, in other words, that we learn. Given the introspective fact that delight and desire do not differ, it follows that delight, like desire, is a motion toward something and that, accordingly, a man always does that which, on the basis of his present and his past experience, delights him most. Given the mechanistic principle of the coherence of matter moved, it follows that our thoughts, as memories and imaginations, must succeed one another according to this principle and that, accordingly, so must their accompanying delights and aversions, so that we are able to derive 'conditioned' desires such as the desire for power and the fact that, by reason or prudence, the presumption

or imagination of the future, men are able to act (because the foreseen or imagined consequences are aversive) in a manner contrary to their immediate desire and in accordance with the fact that a man always does and (as a consequence of the mechanistic conception of desire) must do that which he most desires. Considering all this in the framework of the state of nature hypothesis, together with the fact that the desire of another's good is not among man's natural desires or that it is not, in other words, jucundum or pleasing for its own sake but learned, we are able to derive that the natural condition of mankind, that condition in which men are governed by their passions only and are without the use of reason, would be a state such as that which Hobbes describes. But in the same way, since prudence is a consequence of experience, we are able to derive that, as they acquire experience and the use of reason, such men will come to despise their condition and to desire a way out of it.

Now, Hobbes' moral philosophy is predicated upon and derived from his conception of the natural condition of mankind. It is, in fact, the way out of that condition suggested by reason and prudence. To the extent, then, that his moral philosophy derives from his conception of the natural condition of mankind and to the extent that this, as a consequence of his psychology, derives in turn from his mechanism, his moral philosophy will be derived from and systematically related to his mechanistic metaphysics. All that remains now, then, to complete this chapter is to expound the derivation of his moral philosophy. As I said at the beginning, however, it is not my intention to discuss the moral philosophy in detail. There are many thorough discussions in the literature. All I wish to show here

is that Hobbes' moral philosophy is, as he claimed, systematically related to his metaphysics and psychology, and that not only in the sense that there is "a single 'passionate thought' that pervades its parts,"⁷² but in the sense of a coherent deductive system, beginning with certain very general and certain (because known by introspection or by definition) facts and a conceptual framework or metaphysics from which, given those known facts, certain other 'facts' may be deduced. For this the basis has been laid sufficiently by developing the connections between the condition of man under the state of nature hypothesis and the psychological theory and, in turn, between the psychological theory and the metaphysics. This, I believe, I have done. What I shall do now is simply to provide an outline of the moral argument with some elaboration, and here, because it is clearer, I shall for the most part follow the argument as it is presented in De Cive.

- (1) the first foundation of natural right is this, that every man as much as in him lies endeavour to protect his life and members.⁷³

This, it should be noted, is a permission, not an injunction. Here we may well agree with Leo Strauss's observation that,

Because Hobbes was the first to distinguish with incomparable clarity between 'right' and 'law', in such a way that he sought to prove the State as primarily founded on 'right', of which 'law' is a mere consequence...Hobbes is for that very reason the founder of modern political philosophy.⁷⁴

It is what is right that Hobbes attempts to derive first from the condition of man by nature, and it is on the basis of this fundamental natural right that he attempts, in part, to derive the natural law. Aristotle, it will not be forgotten, wrote that what the law does not expressly

permit it forbids.⁷⁵ But it was Hobbes who wrote, on the contrary, that,

though they that speak of this subject, use to confound jus and lex, right and law: yet they ought to be distinguished; because RIGHT, consisteth in liberty to do, or to forbear; whereas LAW, determineth and bindeth to one of them.⁷⁶

And he writes accordingly that, "In cases where the sovereign has prescribed no rule, there the subject hath the liberty to do, or forbear, according to his own discretion."⁷⁷ What is not forbidden is, in other words, permitted.

Hobbes' argument for this, the first foundation of natural right, while one might deny the truth of several of his premisses, is, I think, straightforward and valid. The argument might be summarized in this way:

- (1a) By natural necessity, a certain impulsion of nature, "every man is desirous of what is good for him, and shuns what is evil...
- (1b) It is therefore neither absurd nor reprehensible, neither against the dictates of true reason, for a man to use all his endeavours to preserve and defend his body and the members thereof from death and sorrows."⁷⁸

This conclusion, of course, rests upon the implied premiss that what is necessary cannot be contrary to reason. This, coupled with (1a), a man by natural necessity desires what is good for him, and shuns what is evil, legitimately yields (1b), that it is not contrary to reason for a man to use all his endeavors to obtain what is good for him and to avoid what is evil. It should be noted that (1b) is not concerned solely with the reasonableness of self-preservation. Self-preservation is the greatest of goods, death the greatest of natural evils; but it is not life alone that men by natural necessity seek to obtain and preserve, neither is it,

therefore, the attempt to preserve oneself that is alone consistent, by necessity, with reason.

There follow at this point two statements so closely allied that they ought to be given as one premissa.

(1c) that which is not contrary to right reason, that all men account to be done justly, and with right. Neither by the word right is anything else signified, than that liberty which every man hath to make use of his natural faculties according to right reason.

What Hobbes is asserting here is neither more nor less than that, as a matter of definition, what is not contrary to right reason, in the sense of true or correct reason, is right and that, accordingly, anything done in accordance with reason is done with right. If, now, we couple (1c), what is not contrary to reason is right; with (1b), it is not contrary to right reason for a man to use all his endeavors to preserve and defend himself from death and sorrows, we obtain, by an entirely legitimate deduction, the conclusion that it is right, i.e., not contrary to reason, that (1) "every man as much as in him lies endeavour to protect his life and members." This right he refers to as "the first foundation of natural right" apparently for two reasons. It is the first to be derived or demonstrated, and it is from it that all other natural rights are derived. It is the foundation of natural rights because it is derived from the nature of man, from the fact that man by natural necessity, i.e., according to his nature as an appetitive animal, seeks to obtain what he desires and to avoid what is evil, and chiefly death and harm.

Now, while it is to take Hobbes' argument somewhat out of order, there are certain points that ought here to be clarified--precisely what he means by 'right' and in what sense it is connected with right

reason. We need also to discuss his use of the term 'obligation'; for Hobbes nowhere defines it satisfactorily, and it is around his concept of obligation that many contemporary interpretations of his moral theory revolve.

On the basis of (lc) I have claimed that Hobbes is asserting as a definition that what is not contrary to reason is right. In fact, he asserts this explicitly in the next chapter. There he writes,

But since all do grant, that is done by right, which is not done against reason, we ought to judge those actions only wrong, which are repugnant to right reason, that is, which contradict some certain truth collected by right reasoning from true principles.⁸⁰

'Right' and 'wrong', then, are defined by Hobbes solely in terms of reason. An action is right or is done with right if its performance is consistent with reason, i.e., if it contradicts no true and certain principles collected by right reasoning, and it is wrong if its performance is, in the same sense, inconsistent with reason. Of course, it must be remembered that the principles or certain truths with which we are primarily concerned here are practical principles. An example might be the desire for self-preservation. Taking this to be man's fundamental desire and therefore, on the definition, the fundamental good, we could say that all other desires or goods, taken by themselves, are subservient to this. Acting in ways conducive to self-preservation will then be consistent with (practical) reason and right; acting in ways inconsistent with one's self-preservation, however, would be self-defeating or inconsistent with reason and, therefore, wrong.

We should note also Hobbes' remark that this is the only signification of the term 'right'. He says, "Neither by the word right is

anything else signified." I cannot, then, agree with the assertion of Howard Warrender and D.D. Raphael that Hobbes uses the term 'right' in two distinct senses, not, at least, without accusing Hobbes of being inconsistent. Warrender puts his claim in this way:

Hobbes uses the term right with two distinct meanings:

- (1) as that to which one is morally entitled;
- (2) as that which one cannot be obliged to renounce. ⁸¹

It is worth noting that Warrender does not offer any textual evidence directly in favor of this claim, not does he attempt to reconcile it with Hobbes' explicit definition of 'right' or with the claim that this is its only signification. Now, it is almost certainly true that Hobbes uses the term in these two different ways and it may be true that he uses it in other ways as well. He would indeed grant both that, if a man is morally entitled to something, he has a right to it and, further, that he has a right to that which he cannot be obliged to renounce. No doubt he would grant too that a man has a right to that which he is non-morally entitled and, further, to that which he can be but is not obliged to renounce. ⁸² But I see no reason to claim, especially when Hobbes asserts explicitly that the term has only one meaning, that different and distinct meanings are involved in any of these uses. This we should say, it seems to me, only if it could be shown that these different uses of the term are not merely the result of its application to different situations in virtue of the same fundamental meaning. And if this can be shown, then the conclusion ought to be asserted, not just as an interpretation, but as an objection, for, if it turns out that the term 'right' has two or more distinct meanings, Hobbes will have a very hard time

indeed defending his predication of almost the whole of his moral and political philosophy upon the definition of 'right'. But, in fact, I think it can be shown that in all of these different uses the same meaning of the term is operating. Thus, in Warrender's sense (1), we could say that to say a man is entitled to something, morally or otherwise, is to say that there is some principle, e.g., it has been promised to him, with which his getting it is consistent and his not getting it is inconsistent or, alternatively, such that his getting it is right and his not getting it, wrong. Similarly, in case of Warrender's sense (2), we could say that there is some necessary principle, e.g., self-preservation, with which undertaking an obligation to forbear some action, e.g., self-defense, would be inconsistent and its performance consistent or, alternatively, such that the performance of the action would be under any circumstances (since it is supposed that he cannot be obliged to renounce it) right.

Now, such a definition of 'right' allows for several possibilities. The performance of an action may be consistent with reason and, hence, right or it may be inconsistent with reason and, hence, wrong. The same may be true with regard to the non-performance of a given action. Similarly, the performance of an action may be consistent with reason, that is, right, and its non-performance inconsistent or wrong, or its non-performance may be right and its performance wrong. Now, this will allow us to define the sense in which reason may be said to dictate or require an action and the sense in which an action may be said to be obligatory. If the performance of an action is consistent with reason and its non-performance inconsistent, then we may say that reason requires the performance of that

action. Any other course would be inconsistent or self-defeating. Likewise, reason may be said to forbid an action or to require its non-performance if its non-performance is consistent with reason and its performance inconsistent with reason. Hobbes does not himself offer an explicit definition of the phrase 'dictate of reason' which would explain the sense in which reason dictates; however, this definition, as we shall see, is sufficient to account for the use of the phrase. It should be noted, too, that, as is clear from his conception of deliberation, Hobbes, like Hume, would have regarded reason or, at least, practical reason, as the slave of the passions, and the same would be true, if to a somewhat lesser extent, of non-practical reason since, for Hobbes, one of the major causes of differences in wit is differences in passion. It should not therefore be thought that, for Hobbes, a dictate of reason in any way compels us to act. What compels action is the appetite or aversion associated with the conclusion of reason. It is thus understandable that Hobbes should have held the passions to be, consistently with the philosophical tradition, "perturbations of the mind." It may well be that the aversion we feel toward the performance of some action as a consequence of (rational) deliberation is outweighed by our immediate desire to perform it. It is largely for this reason that Hobbes maintains that the laws of nature require "the terror of some power, to cause them to be observed."⁸³

Neither does Hobbes anywhere explicitly define 'obligation' or 'obliged'. He does, however, offer a partial definition. Thus, in Leviathan he writes,

when a man hath...abandoned, or granted away his right; then he is said to be OBLIGED, or BOUND, not to hinder those, to whom such right is granted, or abandoned, from the benefit of it: and that he ought, and it is his DUTY, not to make void that voluntary act of his own.⁸⁴

There are many difficulties in Hobbes' use of the term 'obligation', and I cannot attempt to resolve all of them here. The passage quoted here, if it is taken as a definition, would seem to support Hobbes' assertion that "all obligation arises from contract,"⁸⁵ and many have taken Hobbes to be maintaining essentially that all obligations are voluntary. On the other hand, he sometimes speaks of obligations where there is plainly no prior consent from which the obligation might arise. Thus, he speaks of the laws of nature as "always and everywhere" obliging (although in the state of nature only "in foro interno"),⁸⁶ though there may have been no promise of any kind to abide by them. Elsewhere he distinguishes between "that obligation which arises from contract," or voluntary obligation, and two kinds of "natural obligation. One, when liberty is taken away by corporal impediments....The other, when it is taken away by hope or fear."⁸⁷ The obligation to obey God, he says here is the latter kind of natural obligation. All this, of course, has led to many charges of inconsistency. Perhaps the best way of accounting for these many apparent inconsistencies would be to note some of the ambiguities in the ordinary usage of the term.⁸⁸

The terms 'to be obliged' and 'to be bound' are used roughly synonymously, and it is clear from the partial definition given in Leviathan that Hobbes so uses them. One may be obliged or bound to the performance of some action, according to ordinary usage, in any number

of ways. We can, for instance, speak of the planet Mars as being obliged or bound to follow a specific orbit. The term 'obligation', however, is, in most contexts, restricted to moral obligations, and these are generally the sorts of obligations we have to someone. On the other hand, according to the rules of English, the proper nominalization of the verb 'obliged' is 'obligation'. Thus, we can speak of Mars's 'obligation' to follow its course or of a man's 'obligation' to do that which he fears not doing or which he is physically compelled to do. But, while this is not improper English, these uses of the term sound very odd. We typically restrict 'obligation' to moral contexts. Thus, we would or we could say, for instance, that all obligations are voluntary and no one would raise the objection that Mars's obligation to follow its orbit or a man's obligation to do that which he is forced to do or which he is compelled by fear to do confutes this assertion, although it would refute the assertion that all legitimate uses of the term refer to voluntary obligations. Now, my suggestion is this: Hobbes' own use of the terms 'obliged' and 'obligation' follows ordinary usage and contains the same ambiguities. Thus, when he speaks of all obligations as arising from contract, he is using 'obligation' in the ordinary restricted sense. When he speaks of a man's being obliged to do that which he fears not doing, he is using it in the broader sense. So that while he is to be blamed for not having made the senses in which he uses the terms clear, he is not guilty of any inconsistency. Now the question arises: Are these different kinds of obligation? Or is there not, rather, some underlying common denominator? Thus, Michael Oakeshott has argued that there are in Hobbes four "entirely different" kinds of obligation,

physical, rational, moral, and political.⁸⁹ Now, I shall argue that there are, in fact, only two, the physical and the rational. First let us dispense with the political. Oakeshott calls this "a mixed obligation consisting of physical, rational and moral obligation."⁹⁰ I see no evidence, however, in any of Hobbes' works for the physical element in political obligation, nor does Oakeshott provide any. This I think we may safely dispense with. Furthermore, if the moral can be shown to reduce ultimately to the rational, political obligation would have also to reduce to rational obligation. Now, that the moral reduces to rational obligation is, I think, not too difficult to show.

Most, I think, would agree with the assertion (which Hobbes does not make) that if the performance of an action is right and its non-performance wrong, a man is obliged and it is his duty to do it. Now, the question is: Does Hobbes construe rational obligation so? The partial definition quoted from Leviathan gives us a clue. There he writes that a man "ought and it is his DUTY, not to make void that voluntary act of his own, and that such hindrance is INJUSTICE, and INJURY, as being sine jure,"⁹¹ that is, as being without right, but 'right' we have already shown to be defined in terms of reason. That is right which is consistent with reason, that is, which is not contradictory or self-defeating.

So that injury, or injustice, in the controversies of the world, is somewhat like to that, which in the disputations of scholars is called absurdity. For as it is there called an absurdity, to contradict what one maintained in the beginning: so in the world, it is called injustice, and injury, voluntarily to undo that, which from the beginning he had voluntarily done.⁹²

And even more clearly he writes in De Cive,

he who through weakness of mind does or omits that which he first maintained, is said to be brought to an absurdity; in like manner, he who through weakness of mind does or omits that which before he had by contract promised not to do or omit, commits an injury, and falls into no less contradiction than he who in the Schools is reduced to an absurdity. For by contracting for some future action, he wills it done; by not doing it, he wills it not done: which is to will a thing done and not done at the same time, which is a contradiction.⁹³

And again,

he that contracts, in that he doth contract, denies that action to be in vain; and if he think himself not bound to keep it, in thinking so he affirms the contract to be made in vain. He therefore who contracts with one with whom he thinks he is not bound to keep faith, he doth at once think a contract to be a thing done in vain, and not in vain; which is absurd.⁹⁴

Keeping a promise or a covenant, then, would seem to be rationaly obligatory, because breaking it involves a contradiction; it is contrary to reason and without right, or wrong. And that action whose non-performance is wrong and whose performance is, other things equal, right is obligatory. A rational obligation, then, is one whose obligatory character accrues from the fact that fulfilling it is consistent, and not fulfilling it inconsistent, with reason. The question now is: Are those obligations which Oakeshott calls moral also obligatory for the same reason? Here I think the answer is fairly clearly, "Yes." This, according to Oakeshott, is that sort of obligation which arises from authority, but, as he notes, "An authority is a will that has been given a Right by a process called authorization, which (in turn) is the voluntary act of those who are to be morally obliged."⁹⁵ Here clearly, since authorization is a voluntary act, that of conferring one's right upon another, that is, of a man's promising or declaring to another

that he is willing that it should be unlawful for him to resist him, in going about to do somewhat in the performance whereof he might before with right have resisted him,⁹⁶

the act of authorization is the act of covenanting, of transferring one's rights, by promise not to resist, to another. The obedience one owes to an authority, then, has the same source in reason as one's obligation to keep promises. Not to obey would be inconsistent. In fact, it is in context of a discussion of transferring rights that the definition quoted from Leviathan occurs. What Oakeshott calls moral obligation, then, would seem to reduce to rational obligation.

Here it is well to note Hobbes' distinction between 'to be obliged' and 'to be tied being obliged'. "A contract," he writes, "obligeth of itself."⁹⁷ We have already shown why. Breaking a contract involves a contradiction; it is self-defeating. But he writes as well that "covenants being but words and breath, they have no force to oblige, contain, constrain, or protect any man, but what it has from the public sword."⁹⁸ He does not say that covenants do not oblige, but that they have no force to oblige. The point of the distinction is fairly clear from De Cive. There he writes,

I say thus: that a man is obliged by his contracts, that is, that he ought to perform for his promise sake; but that the law ties him being obliged, that is to say compels him to make good his promise for fear of the punishment appointed by the law.⁹⁹

Keeping a promise is obligatory because breaking it is self-defeating; it involves a contradiction. But if keeping a promise threatened the loss of one's goods, to keep it might seem, in the face of one's immediate passion, to be even more self-defeating. No man makes a promise or

covenant except for his own good, "For it is a voluntary act: and of the voluntary acts of every man, the object is some good to himself."¹⁰⁰ If, then, keeping a promise would involve a greater harm to oneself than anticipated, while one might be obliged by the promise itself, one has, in a sense, an even stronger obligation not to keep it. There is need, then, of some force to compel promise keeping, such that to break a promise would involve greater harm than keeping it. Since we necessarily choose the lesser of two evils, keeping it would in this case be obligatory. One would be tied being obliged.

Now, this brings us to another sort of obligation, that which Hobbes calls the second kind of natural obligation, and which Oakeshott calls rational obligation. This is the sort of obligation that arises, according to Oakeshott, from "a combination of rational perception and fear," and which covers the obligation both to abide by the laws of nature and, apparently, given his irresistible power, to obey God.¹⁰¹ Here again I would say that the reason that it is obligatory is that non-obedience would be inconsistent with reason. We shall discuss the obligation to obey the laws of nature separately, but this is, I think, clear enough from Hobbes' remarks on the second kind of natural obligation. There he writes that

From this last kind of obligation, that is to say, from fear or conscience of our own weakness in respect of the divine power, it comes to pass that we are obliged to obey God in his natural kingdom; reason dictating to all, acknowledging the divine power and providence, that there is no kicking against the pricks.¹⁰²

It is reason, Hobbes writes here, that dictates obedience. Because God is omnipotent, we have "not power enough to resist."¹⁰³ To attempt to

resist, then, would be self-defeating. God being omnipotent cannot possibly be resisted. Acknowledging this, to attempt to resist would be, in effect, to assert that one could resist the irresistible. To obey God, therefore, is obligatory. But furthermore, God as the supreme power is the supreme punisher, the supreme object of fear, so that not only is one obliged to obey in the weaker sense, one is 'tied being obliged'. (Similar considerations apply in civil society once unequal powers have been instituted.)

This discussion will not have overcome all the difficulties in Hobbes' use of the term 'obligation'. It does, however, provide an approach which, in my opinion, will solve those difficulties if carried out in detail. But this is too great a digression and we must return to the argument.

- (2) In the state of nature a man "must also be allowed a right to use all the means, and do all the actions, without which he cannot preserve himself."¹⁰⁴

Without the right to the means, the right to the end is empty, and to assert that a man had a right to self-preservation while denying that he had a right to the means of preserving himself would be self-defeating. Since, therefore, it is consistent with reason for a man to act so to preserve himself, it must be consistent with reason, that is, right, for him to take those steps or to do those things requisite to his so acting.

- (3) whether the means...be necessary to the preservation of his life and members or not, he himself, by the right of nature, must be judge.¹⁰⁵

This is, perhaps, Hobbes' most important premiss. It is in virtue of this premiss that he establishes the necessity for a supreme moral legislator. The question facing each man in the state of nature is

whether or not a given action is right, that is, whether or not it is consistent with right reason. But who shall judge, in the state of nature, what constitutes right reason? What claim will any man have to judge that cannot be made with equal right by every other? As Hobbes argues here,

For if it be contrary to right reason that I should judge of mine own peril, say, that another man is judge. Why now, because he judgeth of what concerns me, by the same reason, because we are equal by nature, will I judge also of things which do belong to him. Therefore it agrees with right reason, that is, it is the right of nature that I judge of his opinion,¹⁰⁶ that is, whether it conduce to my preservation or not.

Or, as he puts it in The Elements of Law,

the same reason that maketh another man judge of those things that concern me, maketh me also judge of that that concerneth him. And therefore I have reason to judge of his sentence, whether it be for my benefit, or not.¹⁰⁷

If, given our equality, it is consistent with reason that he should judge what is right for me, it is equally consistent with reason that I should judge his judgement. In the following chapter he argues in this way:

Since, in the state of nature,

no man can know right reason from false, but by comparing it with his own, every man's own reason is to be accounted, not only the rule of his own actions, which are done at his peril, but also for the measure of another man's reason.¹⁰⁸

The argument here is reminiscent of the claim made in De Homine, "Many men, many different rules for vice and virtue," and that "Therefore a common standard for virtues and vices doth not appear except in civil life," "for those who are outside of a state are not obliged to follow one another's opinions."¹⁰⁹ Even if there were some truth or principle in virtue of which we could say that men should follow one another's

opinions, there would be no principle by which one could determine whose opinion should be followed. So we would be thrown right back into the same situation. Having no standard to judge by but his own opinions, each man would be compelled to admit that, since the question at issue is his own well being and what is conducive to it and since, as far as he could tell, there is no one better qualified to judge of that than himself, it would be contrary to reason to think anyone more qualified for the role or arbiter than himself.

(4) Nature hath given to every one a right to all.¹¹⁰

This premiss is supported by the following argument:

- (4a) whatsoever a man would, it therefore seems good to him because he wills it,
- (4b) and either it really doth, or at least seems to him to contribute towards his preservation,
- (4c) but [by (3)] we have already allowed him to judge
- (4d) insomuch as we are to hold all for necessary whatsoever he shall esteem so.¹¹¹

Hence, by (2) we obtain (4), that "Nature hath given every one a right to all." Implicit in this argument, of course, is the assumption that a man may esteem almost anything to be a means to his preservation.

This premiss is made explicit in Leviathan where he argues that, because

there is nothing he can make use of, that may not be a help unto him, in preserving his life against his enemies; it followeth, that in such a condition, every man has a right to every thing; even to one another's body.¹¹²

Given this premiss and the fact that in the state of nature each man is his own judge of what is useful to his preservation and, therefore, right, the conclusion would seem to be inescapable "that in the state of nature, to have all, and do all, is lawful for all."¹¹³

(5) the effects of this right are the same, almost, as if there

had been no right at all.¹¹⁴

This premiss is almost superfluous, but it is nice as showing Hobbes' belief that men have neither rights nor liberties effectively except to the extent they impose constraints upon their rights and liberties.

(6) The state of nature is a war of all against all.

This we have already shown in our discussion of the mutual will to hurt. But what Hobbes wants to show here is that even without presupposing the will to hurt, we can derive this conclusion from the right of all to all. What he argues is that, "If now to this natural proclivity of men, to hurt each other...you add, the right of all to all," what will follow is--a will to hurt. We need not begin by showing that men will in the state of nature have, from their passions, a will to hurt. We can begin, rather, by demonstrating "the right of all to all, wherewith one by right invades, the other by right resists, and whence arise perpetual jealousies and suspicions on all hands."¹¹⁵ It does not matter whether we start with men's passions and derive the will to hurt and the right of all to all or whether we start with the right of all to all and, considering the passions of men, derive the mutual will to hurt. The conclusion is the same: The state of nature is a state of war of all men against all men. But while the conclusion is the same, the point is different. By beginning with the right of all to all we learn that unless we get rid of this right, the will to hurt and the state of mutual fear and hostility is unavoidable. Now, we have already shown that,

(7) Whosoever holds, that it had been best to have continued in that state in which all things were lawful to all men, he contradicteth himself.¹¹⁶

We may consider now the definition and derivation of the law of nature.

In De Cive Hobbes defines "the law of nature" as the dictate of right reason, conversant about those things which are either to be done or omitted for the constant preservation of life and members, as much as in us lies.¹¹⁷

In Leviathan he defines it so:

A LAW OF NATURE, Lex Naturalis, is a precept or general rule, found out by reason, by which a man is forbidden to do that, which is destructive of his life, or taketh away the means of preserving the same.¹¹⁸

What we should note first is the fact that a law of nature concerns our "constant preservation." Hobbes would appear to be making the same point differently in Leviathan when he calls it a "general rule." Reason may dictate what a man must do in a particular situation, but such dictates are not natural laws. As he puts it elsewhere, speaking in a somewhat different context, "the law regardeth not the particular, but the general inclination of mankind."¹¹⁹ A natural law, by definition, is concerned with those actions or inclinations which apply to the general human condition, not with our preservation in particular circumstances. To put this differently, Hobbes' moral theory, as Stanley Moore has argued, is not an act-egoist theory (if it is an egoist theory at all) but a rule-egoist theory. Moore argues that the principle of rule-egoism, like that of equal treatment, functions as an axiom or a disguised moral imperative in Hobbes' theory.¹²⁰ I do not see why this should be so if the need to obey the rules (in this case, the laws of nature) is demonstrated in Hobbes' system. I

shall show that it is. To the extent that Hobbes demonstrates the laws of nature to be dictates of reason, he justifies obedience to them as general rules.

We have already seen the sense in which reason may be said to dictate. What we need to turn to now is Hobbes' reason for calling these dictates of reason 'laws of nature'. He says,

that which is done wrong, we say it is done against some law. Therefore true reason is a certain law; which, since it is no less a part of human nature, than any other faculty or affection of the mind, is also termed natural.¹²¹

What we need to note here is that Hobbes does not say that true reason is, without qualification, a law strictly speaking. This is what we say speaking freely. The qualification that is needed, of course, is that there be some standard for judging true reason. Without such a standard every man's reason is true reason or is, at least, equally entitled to the claim, and where every conflicting opinion is equally law there is, strictly speaking, no law at all. With this qualification understood (and Hobbes adds it in the following sentence with a footnote to 'right reason')¹²² there is no inconsistency between his claim that the law of nature as a dictate of right reason is a law and his claim, to be discussed later, that the laws of nature are not, strictly speaking, in the state of nature, laws. The phrase 'law of nature' was a traditional one which Hobbes had borrowed, and he is here giving, or so it would seem, an explanation of the phrase. But what is important to us, at this point, is not whether the laws of nature are, strictly speaking, laws, but that they are dictates of reason. Acting in accordance with them is consistent with reason; not so acting is not.

In general, to do anything but obey the laws of nature is self-defeating.

Now, nothing can be more self-defeating than the right of all to all. It is, in effect, no right at all and it leads necessarily, given the nature of man, to the state of war of all against all with all its concomitant miseries. Anyone who holds that this condition is desirable contradicts himself. It is the self-defeating condition par excellence. To desire to remain in it is inconsistent with reason. Accordingly,

- (8) it is a dictate of reason, "that peace is to be sought after, where it may be found; and where not, there to provide ourselves for helps of war."¹²³

This is "the first and fundamental law of nature." The emphasis is on the first part, to seek peace, and it is compelling in the extreme. The state of war is a state that threatens the constant frustration of all desires. And for that reason, to the extent we desire anything, we must desire peace to obtain it. Peace is the necessary condition for the assurance of the way to our future felicity. It is the precondition of our felicity, and no man in the state of nature could, consistently with reason, fail to desire peace. Of the dictates of reason, then, the most fundamental, the most general, and the most pressing is "that peace is to be sought after, where it may be found."

But the right of all to all as a cause of war, of mutual fear and hostility, is inconsistent with peace, nor can peace be had, as has been shown, while this right is retained. Accordingly, it is a dictate of reason and a law of nature

- (9) that the right of all men to all things ought not to be retained; but that some certain rights ought to be transferred or relinquished.¹²⁴

Or, as he puts it in Leviathan,

that a man be willing, when others are so too, as far-
forth, as for peace, and defence of himself he shall
think it necessary, to lay down this right to all
things; and be contented with so much liberty against
other men, as he would allow other men against himself. 125

A man could not, understanding the connection between the two, consistently desire peace and desire that the right of all to all be retained. But it is a fundamental dictate of reason that peace be sought, that is, desired; to desire anything else is self-defeating. It is, therefore, a law of nature as well that one seek to divest oneself of the right to all things. On the other hand, it is also a part of the fundamental law of nature (which might, for the sake of a label, be thought of as the law of security of self-preservation) that where peace cannot be had, a man must prepare for war. He must be prepared, in other words, both to seek peace and to defend himself. But to lay down all his rights would be to give up the fundamental right of nature and, since it would entail giving up the right to defend himself, would be inconsistent with the first law. Likewise, to give up only some of his rights without any assurance that others would do the same would be to leave himself a prey to others and at a disadvantage in the struggle for survival. It is a requirement of the second law of nature, then, that a man be willing to give up all and only those rights which he thinks necessary to peace and only when others are willing to do the same.

Here it would be well to recall Hobbes' two senses of 'reason'. The laws of nature are the dictates of right reason, and it might well be objected that since reason requires language, the laws of nature could not be known in the state of nature. In fact, Hobbes himself seems to endorse this objection. In De Homine he writes,

they, who consider men by themselves and as though they existed outside of civil society, can have no moral science because they lack any certain standard against which virtue and vice can be judged and defined. For all sciences begin with definitions, or other wise they must not be called sciences, but mere verbiage.¹²⁶

But in the state of nature a man may be prudent, and for him the dictates of reason will be, not scientific conclusions, but maxims of prudence. In the state of nature reason does not exist in any other sense. It does not therefore follow that the laws of nature are only prudential maxims. For we and Hobbes are not in the state of nature. We do possess a language with settled definitions, and we are capable of deriving the laws of nature from our consideration of the nature of man and his condition in the hypothetical state of nature as scientific, certain, and universal conclusions. This, I would suggest, is what Hobbes has done. Whether or not the premisses of his mechanism and his psychology are correct, if they are, his conclusions, the laws of nature, follow.

From these two laws of nature there follow some eighteen others. We need not note them all here, but it is worthwhile to note a few, if only to see how they are derived. The third, which he calls in Leviathan "the fountain and original of JUSTICE,"¹²⁷ is "to perform contracts, or to keep trust."¹²⁸ It is by contract or covenant that we transfer certain rights and thus fulfill the second law of nature. But not to keep our covenants would be, as has been shown, self-defeating. Hence, the third law of nature. The fourth is the law of "gratitude," that men, in essence, show their gratitude for favors received and attempt, where possible, to return them.

For without this, he should act without reason, that would confer a benefit where he sees it would be lost; and by this means all beneficence and trust, together with all kind of benevolence, would be taken from among men, neither would there be aught of mutual assistance among them, nor any commencement of gaining grace and favour; by reason whereof the state of war would necessarily remain, contrary to the fundamental law of nature.¹²⁹

As is clear from Hobbes' psychology of desire, a man's benevolence and good will may well be due to a genuine desire for another's good, but if his good will is contemned or taken for granted, he will not feel it long. The fifth is that of "mutual accommodation or complaisance"¹³⁰ or "that every man render himself useful unto others."¹³¹ It is a dictate of reason that every man, for the preservation of a peaceful society, endeavor to be sociable,

because each one not by right only, but even by natural necessity, is supposed with all his main might to intend the procurement of those things which are necessary to his own preservation; if any man will contend on the other side for superfluities, by his default there will arise a war...he therefore acts against the fundamental law of nature,¹³²

"which commandeth to seek peace."¹³³ The sixth is that enjoining forgiveness or "facility to pardon,"¹³⁴ "that we must forgive him who repents and asks pardon for what is past, having first taken caution for the time to come."¹³⁵ And this is a dictate of reason and a natural law because

The pardon of what is past, or the remission of an offence, is nothing else but the granting of peace to him that asketh it, after he hath warred against us, and now is become penitent....Now to him that will not pardon the penitent and that give future caution, peace itself it seems is not pleasing: which is contrary to the natural law.¹³⁶

The seventh is that against cruelty or against vindictiveness, and this law is "that in revenge and punishments we must have our eye not at the

evil past, but the future good." For

each man is bound by the law of nature to forgive one another, provided he give caution for the future... Furthermore, because revenge, if the time past be only considered is nothing else but a certain triumph and glory of mind, which points at no end...that revenge therefore which regards not the future, proceeds from vain glory, and is therefore without reason. But to hurt another without reason, introduces a war, and is contrary to the fundamental law of nature.¹³⁷

The eighth is that "against contumely"¹³⁸ or "reproach," and it is "that no man, either by deeds or words, countenance or laughter, do declare himself to hate or scorn another."¹³⁹ The arguments for this law are clear enough; hell hath no fury like a woman (or a man) scorned. The positive form of this law we might call mutual respect or esteem. The ninth law of nature is that "against pride"¹⁴⁰ and this law is "that every man be accounted by nature equal to another."¹⁴¹ This is the principle which Stanley Moore calls the "principle of equal treatment" and which he claims functions as an assumed axiom. But here it is derived. The argument from Leviathan is the same but more clearly put:

For there are very few so foolish, that had not rather govern themselves, than be governed by others: nor when the wise in their own conceit, contend by force, with them who distrust their own wisdom, do they always, or often, or almost at any time, get the victory. If nature therefore have made men equal, that equality is to be acknowledged: or if nature have made men unequal; yet because men that think themselves equal, will not enter into conditions of peace, but upon equal terms, such equality must be admitted.¹⁴²

The tenth is that "against arrogance,"¹⁴³ that is,

that what rights soever any man challenges to himself, he also grant the same as due to all the rest; otherwise he frustrates the equality acknowledged in the former article. For what is it else to acknowledge

an equality of persons in the making up of society, but to attribute equal right and power to those whom no reason would else engage to enter into society.¹⁴⁴

The remainder of the laws of nature are, in order, as follows: equity or impartiality in judges; equal use of things common; distribution either by arbitrary or natural (primogeniture) lot of things that cannot be divided nor used in common; safe conduct for mediators of peace; settlement of controversies by an arbiter; that no man judge his own case; that no man judge in cases where he has a vested interest; and that witnesses be employed in controversies of fact.¹⁴⁵ There is no man, Hobbes says, who cannot understand these laws and what they require, for

they have been contracted into one easy sum, intelligible even to the meanest capacity; and that is, Do not that to another, which thou wouldest not have done to thyself; which sheweth him, that he has no more to do in learning the laws of nature, when weighing the actions of other men with his own, they seem too heavy, to put them into the other part of the balance, and his own into their place, that his own passions, and self-love, may add nothing to the weight.¹⁴⁶

Or, as he puts it in De Cive,

that when he doubts whether what he is now doing to another may be done by the law of nature or not, he conceive himself to be in that other's stead. Here instantly those perturbations which persuaded him to the fact, being now cast into the other scale, dissuade him as much.¹⁴⁷

The question is whether this action, if done to me under the same or similar circumstances, would provoke me, in violation of the first and fundamental law, to war. If so, it is, in virtue of the passions of men, an unreasonable and unlawful act.

Now, we have seen that in the state of nature every man is his

own judge of what is right. Since the consequence of this is the state of war of all against all, the second law of nature requires that we transfer our rights. We must, by transferring our rights to another, one man or many, set up an authority, a common standard of right reason and a moral legislator. Without such a common standard we relapse into the state of nature, that is, the war of all against all where every man with equal right is judge. It would thus seem to be required by the second law that we elect for ourselves a sovereign to serve as a standard and, since every man is governed by his passions, with sufficient power of reward and punishment to compel even the passions of men to obedience. Yet the power of the sovereign to rule and protect is only that derived from the loyalty of his subjects.¹⁴⁸ Accordingly, in Leviathan Hobbes adds another law, "that every man is bound by nature, as much as in him lieth, to protect in war the authority, by which he is himself protected in time of peace."¹⁴⁹

Some of these laws, as we have seen, are derived more or less independently from a consideration of men's passions and the effects of breaking them, e.g., the law enjoining gratitude. Others are derived as more or less analytic consequences of the preceding laws. Yet all derive their force from the first and fundamental law, to seek peace. And this law is in turn derived from a consideration of the nature and passions of men and their consequences for men entirely outside civil society. The whole point of the state of nature hypothesis is to show the absolute necessity men are under of forming and preserving peaceful societies. It is the laws of nature that state the conditions necessary

to this end. It might, perhaps, be thought that these laws could be demonstrated without appeal to the state of nature hypothesis. Yet I think it is true, as Hobbes writes, that

The utility of moral and civil philosophy is to be estimated not so much by the commodities we have by knowing these sciences, as by the calamities we receive from not knowing them.¹⁵⁰

The paradigm condition of men not knowing these sciences is the condition of men in the hypothetical state of nature, and it is by so considering men that Hobbes is able to determine

what are the conditions of society, or of human peace; that is to say, (changing the words only), what are the fundamental laws of nature.¹⁵¹

Justice, Gratitude, Forgiveness, Humility, Equity, Mutual Respect--these are the laws that Hobbes derives from a consideration of the nature of man, and though one may question his premisses, though one may not like the way he derives them, still one is compelled to grant with Warrender that, "if this is not morality, it ought to be."¹⁵²

NOTES: CHAPTER SEVEN

1. EW II, p. xvii.
2. EW III, ch. 13, p. 153.
3. EW III, ch. 13, pp. 114-5.
4. Macpherson, 1962, p. 22.
5. EW III, ch. 13, n. 114. My underlining. See also Fl.L. I, 1, 14, 12 and EW II, I, 1, 3.
6. EW II, I, 1, 10.
7. Ibid., n.
8. EW III, ch. 13, pp. 113-4.
9. EW II, I, 1, 13.
10. Thus, in De Cive he writes, "there are no wars so sharply waged as between sects of the same religion, and factions of the same commonwealth," (EW II, I, 1, 5) and again, "when a faction is inferior in votes, and superior, or not much inferior in power, then what they cannot obtain by craft and language, they attempt by force of arms." (EW II, II, 10, 12)
11. "A faction...is as it were a city in a city: for as by an union of men in the state of nature, a city receives its being, so by a new union of subjects there ariseth a faction." (EW II, II, 13, 13)
12. EW III, ch. 13, p. 115. I have altered the grammatical sense of the passage by dropping the words "But though" with which it begins. Left intact, the passage might suggest Hobbes' belief that there was, or at least may have been, such a state at some time in the past. As it stands, the passage is ambiguous in this regard: however, it is now generally agreed that Hobbes did not intend the state of nature as an historical hypothesis, and, as I shall show, as an historical hypothesis it could not be true. Since I am not concerned here with the historical status of the state of nature, I feel justified therefore in quoting the passage as I have.
13. Ibid.

14. EW II, I, 1, 2n. My underlining in the last two sentences.
15. EW II, pp. xiv-xv. My underlining.
16. EW II, p. xvi. My underlining.
17. El.L. I, 14, 2. My underlining.
18. El.L. I, 14, 4.
19. EW II, p. vii. My underlining of "contra-natural."
20. EW III, ch. 5, p. 35; ch. 8, p. 61.
21. EW III, ch. 13, p. 110.
22. Ibid.
23. EW II, II, 7, 1.
24. El.L. II, 3, 2.
25. Macpherson, 1962, p. 28.
26. Ibid.
27. Ibid., pp. 28-9.
28. EW II, p. xvii; I, 1, 12.
29. EW III, ch. 13, p. 113.
30. Moore, 1971, pp. 54-5.
31. Ibid., p. 45.
32. In De Cive, where it is given as the eighth, there would seem to have been a mistake in numbering. There the second law is introduced as a separate law following from the first, but it is unnumbered, so that what is numbered the third law in Leviathan is numbered the second in De Cive.
33. EW III, ch. 13, p. 110.
34. Ibid., p. 111.
35. Ibid., p. 110. My underlining.
36. Ibid.
37. El.L. I, 14, 2.

38. EW II, I, 1, 3.
39. EW II, I, 3, 13.
40. EW II, I, 1, 17.
41. El.L. I, 9, 1.
42. El.L. I, 14, 3.
43. EW I, I, 1, 4.
44. El.L. I, 14, 3.
45. See below, ch. 8.
46. El.L. I, 14, 4.
47. EW II, I, 1, 5.
48. EW III, ch. 13, p. 112.
49. EW III, ch. 6, p. 40.
50. EW III, ch. 10, p. 77.
51. Ibid., p. 76.
52. EW II, I, 1, 6.
53. Brown, 1969, p. 62 n. 37.
54. EW III, ch. 13, p. 111.
55. EW II, p. vii.
56. EW II, p. xvi. My underlining.
57. EW II, p. xvii.
58. Ibid.
59. EW II, p. xvi.
60. EW II, I, 1, 2.
61. EW III, ch. 13, p. 111.
62. Ibid., pp. 111-2.
63. EW II, I, 1, 12.

64. EW II, I, 1, 13.
65. EW III, ch. 13, p. 115.
66. Ibid., p. 113.
67. Ibid., pp. 115-6.
68. EW II, I, 1, 13.
69. EW III, ch. 13, p. 116.
70. EW II, p. xvii.
71. El.L. I, 14, 12.
72. Oakeshott, 1960, p. xlx. See above, Introduction, p. 9, n. 15.
73. EW II, I, 1, 7.
74. Strauss, 1952, p. 157.
75. Aristotle, Nicomachean Ethics, 1138a 6-8.
76. EW III, ch. 13, p. 117. Many have had difficulties understanding Hobbes' definition of 'right,' for, from this passage, it would seem clearly that he is defining it as the absence of external impediments, whereas there are many of his uses of 'right' which this definition will not cover. This difficulty is to be explained by the fact that Hobbes is not in this passage defining 'right.' He is giving only enough of the definition to contrast it with 'law'. A more complete definition is given only two pages earlier in his definition of a 'right of nature', which he defines as "the liberty each man hath, to use his own power, as he will himself, for the preservation of his own nature...and consequently, of doing any thing, which in his own judgement, and reason, he shall conceive to be the aptest means thereunto." (Ibid., p. 116. My underlining) It is, as we shall see from De Cive, the element of "judgement, and reason" which is essential. The difficulties that are felt with the definition of 'liberty' as "the absence of external impediments" are overcome if we note that it is only in civil society that there are any other impediments to a man's actions and that, in civil society, the impediments are, as Hobbes explicitly notes, like the society itself, "artificial chains called civil laws," which, unlike non-artificial external impediments to motion, may "be made to hold, by the danger, though not the difficulty of breaking them." (EW III, ch. 21, p. 198) It is by constructing a situation in which we are compelled to act through fear of the consequences that we construct artificial constraints on our liberty and, hence, on our rights.

77. EW III, ch. 21, p. 206.
78. EW II, I, 1, 7.
79. Ibid.
80. EW II, I, 2, 1.
81. Warrender, 1957, p. 18. See Also, Raphael, 1962, pp. 348-9.
82. As Raphael has argued. (Raphael, 1962, p. 349)
83. EW III, ch. 17, p. 153.
84. EW III, ch. 14, p. 119. Since some take this passage to support the view that, for Hobbes, all obligation is voluntarily undertaken, i.e., that a man has no obligations where he has not voluntarily obliged himself, it is worth pointing out that the passage does not occur in the Latin edition of Leviathan (LW III, ch. 13, p. 104). Taken literally, the passage will support only the view that a man is obligated if he has voluntarily obligated himself, not that he must have voluntarily obligated himself, and, as we shall see, Hobbes holds that all men are obliged by the laws of nature, even though they have not undertaken an obligation to abide by them.
85. EW II, II, 8, 3. It is this and a similar passage from Leviathan that most clearly supports the view that, for Hobbes, all obligation is voluntary. In Leviathan he writes, "there being no obligation on any man, which arises not from some act of his own." (EW III, ch. 21, p. 203) Taken out of context this remark provides unequivocal support for this interpretation. It is not so clear, however, when it is considered in context. The remark is made in context of a discussion of the liberty of subjects. Now, as we have seen, the liberty of subjects is limited by artificial bonds (See above, n. 76); in fact, in the Latin the passage is rendered, "For no one is bound by an obligation" (LW III, ch. 21, p. 164. *Nulla enim tenetur obligatione quisquam*) and, as he writes earlier in the same chapter, these artificial bonds are made by covenant, but he goes on to say that "In relation to these bonds only it is, that I am to speak now, of the liberty of subjects." (EW III, ch. 21, pp. 198-9) The passage with which we are concerned here, however, occurs in the same chapter in context of a discussion "of the true liberty of a subject," as is all the more clear from the fact that it is introduced by the assertion "For in the act of our submission [i.e., covenanting], consisteth both our obligation, and our liberty." (Ibid., p. 203) Since he speaks elsewhere of obligations where there is no prior covenant, it seems reasonable to assume that here Hobbes is saying only that the obligations of subjects arise from their own acts, but not that all obligations must arise so. The same is true for his similar assertion in

De Cive where he is speaking explicitly of "the obligations...of a servant to his lord." (EW II, II, 8, 3)

86. EW II, I, 3, 27.
87. EW II, III, 15, 7.
88. A similar suggestion has been made by Moore (Moore, 1971, p. 55), although he does not seem to follow it up.
89. Oakeshott,[†] 1960, pp. lviii-lxi.
90. Ibid., p. lxi.
91. EW III, ch. 14, p. 119.
92. Ibid.
93. EW II, I, 3, 3.
94. EW II, I, 3, 2.
95. Oakeshott, 1960, p. lx. My underlining.
96. EW II, II, 2, 4.
97. EW II, II, 4, 2.
98. EW III, ch. 18, p. 162.
99. EW II, II, 14, 2n.
100. EW III, ch. 14, p. 120.
101. Oakeshott, 1960, p. lix. Gauthier has suggested that "the laws of nature do not create obligations....men create obligations for themselves....But the laws of nature are not themselves obligatory." (Gauthier, 1969, pp. 66-7) In the ordinary restricted sense of 'obligation' this is quite true, but it need not follow that the laws of nature do not oblige. In fact, Hobbes says explicitly that they do, in the state of nature, in foro interno. Gauthier seems to take this view because otherwise the rights of nature would be limited by the laws of nature (Ibid., pp. 50-2). This difficulty is overcome by the distinction between 'being obliged' and 'being tied being obliged'. The laws of nature oblige in the sense that not to abide by them when one can would be contradictory or self-defeating. But given the dangers adhering to abiding by them in the state of nature, they do not tie us being obliged. It would be contrary to reason in the state of nature to act in accordance with them without some assurance that others will so act, and this assurance, in the state of nature cannot be had. Thus, while

in the state of nature they will oblige or bind "to a desire they should take place," they do not oblige "to the putting them in act;" that is, in the state of nature it is consistent with reason and, hence, right not to act in accordance with them, "For he that should be moderate and tractable, and perform all his promises, in such time, and place, where no man else should do so, should but make himself a prey to others, and procure his own certain ruin, contrary to the ground of all laws of nature, which tend to nature's preservation." (EW III, ch. 15, p. 145) Thus, the claim that the right of nature in the state of nature is unlimited may be reconciled in an entirely consistent manner with Hobbes' further claim that the laws of nature always oblige. It is worth noting that Hobbes took this view of the laws of nature as always obliging in all of his moral and political works, including his latest. In DCL, for instance, he has his interlocutor say "Thus far I agree with you that Statute Law taken away, there would not be left, either here, or any where, any Law at all that would conduce to the Peace of a Nation; yet Equity, and Reason which Laws Divine and Eternal, which oblige all Men at all times, and in all places, would still remain, but be Obeyed by few." And then comes the distinction between the laws of nature as they oblige in the state of nature and in civil society, "for of these Laws of Reason, every Subject that is in his Wits, is bound [in virtue of "the Authority of the king, which hath the Sovereignty"] to take notice at his Peril, because Reason is part of his Nature, which he continually carries about with him, and may read it, if he will." (DCL, pp. 55-6)

102. EW II, III, 15, 7.
103. Ibid., n.
104. EW II, I, 1, 8.
105. EW II, I, 1, 9.
106. Ibid. The first sentence reads more clearly in Gert's edition: "For say, another man judge that it is contrary to right reason that I should judge of mine own peril." (Gert, 1972, p. 116)
107. El.L. I, 14, 8.
108. EW II, I, 2, 1 n.
109. DH 13, 8.
110. EW II, I, 1, 10.
111. Ibid.

112. EW III, ch. 14, p. 117.
113. EW II, I, 1, 10.
114. EW II, I, 1, 11.
115. EW II, I, 1, 12.
116. EW II, I, 1, 13.
117. EW II, I, 2, 1.
118. EW III, ch. 14, p. 116.
119. EW III, ch. 27, p. 295.
120. Moore, 1971, pp. 49-51.
121. EW II, I, 2, 1.
122. Her writes that "By right [true] reason in the natural state of men, I understand not...an infallible faculty, but the act of reasoning, that is, the peculiar and true ratiocination of every man....I call it peculiar, because although in a civil government the reason of the supreme, that is, the civil law, is to be received by each single subject for the right; yet being without this civil government...every man's own reason is to be accounted, not only the rule of his own actions...but also for the measure of another man's reason." (Ibid., n.)
123. EW II, I, 2, 2.
124. EW II, I, 2, 3.
125. EW III, ch. 14, p. 118.
126. DH, 13, 8.
127. EW III, ch. 15, p. 130.
128. EW II, I, 3, 1.
129. EW II, I, 3, 8.
130. EW III, ch. 15, p. 138.
131. EW II, I, 3, 9.
132. Ibid.
133. EW III, ch. 15, p. 139.

134. Ibid.
135. EW II, I, 3, 10.
136. Ibid.
137. EW II, I, 3, 11.
138. EW III, ch. 15, p. 140.
139. EW II, I, 3, 12.
140. EW III, ch. 15, p. 140.
141. EW II, I, 3, 13.
142. EW III, ch. 15, p. 141.
143. Ibid.
144. EW II, I, 3, 14.
145. EW II, I, 3, 15-24; EW III, ch. 15, pp. 142-4.
146. EW III, ch. 15, pp. 144-5.
147. EW II, I, 3, 26.
148. I say 'his', but the sovereign should more accurately be referred to as an 'it'. Hobbes' theory, as he himself admits (EW II, p. xxii), does not require a monarch.
149. EW III, Review and Conclusion, p. 703.
150. EW I, I, 1, 7.
151. EW II, I, 1, 1.
152. Warrender, 1962, p. 82.

CHAPTER EIGHT

THE NATURAL LAW AS MORAL LAW: ALTERNATIVE INTERPRETATIONS

There are those who would have us believe that this is not, in fact, morality, that the laws of nature in Hobbes' system are not moral rules at all, but, rather, prudential maxims like "doctor's orders". This view has been recently advocated, for instance, by J.W.N. Watkins and David Gauthier.¹ Now, such an interpretation might do well as an objection to Hobbes, although, at least as Watkins presents it, it would seem to have no more basis than just the assertion of the dogma, foreign to Hobbes, that an 'ought' cannot be derived from an 'is'. But it will not do as an interpretation, for Hobbes clearly intends the laws of nature to be moral rules, and anyone who argues the contrary will have to contend with Hobbes' argument to show that they are. And here, I am afraid, it will not be sufficient simply to assert, however firmly, that it cannot be done—because Hume said that it could not or because of the logical canon that a term cannot be deduced in the conclusion which is not in the premisses. The question has nothing to do with the spurious introduction of terms. It has to do with the question, rather, whether in any argument which concludes with a moral, evaluative, or prescriptive statement, one or more of the premisses must be of the same

character, and the mere fact that a premiss contains or mentions a moral term, need not make the premiss a moral statement. If it did, then it seems to me the distinction between moral and non-moral, normative and non-normative statements becomes entirely trivial; it will not work as an objection to the naturalist's enterprise which is to derive statements of a kind which we call moral from statements of a kind which we call non-moral, whether or not the two kinds of statements are really distinct.

But we may here reject the claims of this interpretation by an appeal to Hobbes' own explicit argument. In all three of those works in which he discusses the laws of nature, he ends his discussion by declaring, in essence, that "the natural law is the same with the moral".² The natural law and the moral law are one and the same. The laws of nature are not mere maxims of prudence; they are the fundamental moral rules. Hobbes offers an argument to show "wherefore this is true", which we may summarize in the following way:³

- (1) def. "good and evil are names given to things to signify the inclination or aversion of them, by whom they were given".

Note that this is a definition. Nothing is here said to be good or evil. The words 'good' and 'evil' are not used; they are mentioned, and the statement asserts no more than that this is what the words mean. Shall we therefore call it a moral statement? If so, then there would seem to be no reason whatever to deny that "'Good' is a four-letter word" is also a moral statement.

- (2) the inclinations of men are diverse.

- (3) thus...necessary it is there should be discord and strife.

(4) They are, therefore, so long in the state of war.

(5) All men easily acknowledge this state, as long as they are in it, to be evil, and by consequence that peace is good.

This, of course, has already been shown in the discussion of the state of nature. What (5) relies upon is the conclusion reached there that all men will find this state aversive, that is, they will have an aversion to it. This, together with (1) yields (5) as a conclusion. Note now that no moral or, for that matter, evaluative statements have been introduced into the argument. That one has an aversion to a thing is taken to be a fact, and, by definition, the appropriate adjective for expressing one's aversion to such a thing is 'evil'. The thing is, therefore, evil. Now, one might wish, it is true, to regard desires and aversions as species of evaluation. I see nothing wrong with such a view, and, given a theory such as Hobbes', it would seem to be necessary. Furthermore, such a view might make the is-ought dichotomy a valid doctrine, but in a way wholly consistent with a naturalistic theory such as Hobbes'. It would be true, on this view, that to obtain an evaluative conclusion at least one of the premisses must be evaluative, e.g., that the state of nature is aversive. This is why it is important to establish the connection between Hobbes' mechanism and his psychology, for nothing precludes that men's desires might be derived from premisses which are non-evaluative. If this were effected by a mechanistic or any other causal psychological theory, it would be entirely possible to say that the necessary evaluative premiss is itself a conclusion from premisses which are not evaluative, premisses which would take the form: This is the way the human organism works or These are the laws according to which the

human organism behaves. Of course, if the doctrine of free will could be proved to be true or if it could be proved that such a causal account of human behavior is, in fact, conceptually and a priori impossible, such a derivation of the necessary premisses could not be effected. This, it will be recalled, is Hobbes' challenge--to show that the human will is not inconstant, that it follows certain determinate causal laws and that ethics is, therefore, demonstrable.⁴ Now, this, I think, Hobbes has done. He has given a mechanistic account of appetite and aversion, and, whether or not true, his account is, or so I have argued, within the context of his mechanistic framework (which is almost certainly incorrect), a valid deduction.

- (6) They therefore who could not agree concerning a present good, do agree concerning a future good; which indeed is a work of reason.⁵
- (7) Reason declaring peace to be good, it follows by the same reason, that all the necessary means to peace be good also.

This, of course, has been shown in the discussion of the natural right of all to all.

- (8) and therefore that modesty, equity, trust, humanity, mercy (which we have demonstrated to be necessary to peace) are good manners or habits, that is, virtues.

This premiss needs to be broken down into

- (8a) modesty, equity, trust, humanity, and mercy are necessary to peace.
- (8b) modesty, equity, trust, humanity, and mercy are manners.

This last premiss relies upon two others, one of which we have not brought fully to light. The laws of nature, in the state of nature, oblige us "to a desire they should take place"⁶ or "to a readiness of

mind to observe them",⁷ "that is, as they are considered in the court of conscience, where only [in the state of nature] they oblige and are laws...we take them for dispositions of the mind".⁸ Or, as he puts it in Leviathan, in the state of nature they are "but qualities that dispose men to peace".⁹ The laws of nature as they bind us internally or in foro interno are dispositions. This is the first premiss. The other is not given in De Cive, but it is in De Homine. There Hobbes writes that "dispositions, when they are so strengthened by habit that they beget their actions with ease and with reason unresisting, are called manners".¹⁰ Now the state of nature provides few opportunities for putting the laws of nature into effect so that the disposition could not be strengthened by habit in this way. A habit could be formed, however, by a repeated desire to put them into effect, and desires are the beginnings of actions, so that, when possible, when the condition of fear and distrust is removed, the action could be begotten with ease. And, of course, reason is unresisting. On the other hand, we could drop the emphasis on 'habit' and construe 'manners', as Hobbes does in Leviathan, as "those qualities of mankind that concern their living together in peace, and unity".¹¹ Of course, the qualities referred to here would be dispositions. On either view it would turn out that the qualities referred to, taking these two premisses together, are manners.

(8c) modesty, equity, trust, humanity, and mercy are good manners.

This follows, of course, from (7), (8a), and (8b).

(8d) modesty, equity, trust, humanity, and mercy are virtues.

This, again, is definitional. In De Homine Hobbes writes, "moreover, manners, if they be good, are called virtues, if evil, vices".¹² Thus, given (8c), (8d) and (8) follow.

- (9) The [natural] law therefore, in the means to peace, commands also good manners, or the practice of virtue.

Now, as we have shown in the discussion of the moral argument from De Homine, moral virtues are taken, by definition, to be those that tend to the conservation of man in society, that is, those which are necessary to peace and unity. It is to be noted, however, that Hobbes nowhere explicitly offers this definition of 'moral', yet it would seem that it is this sort of definition he has in mind. Taking this definition together with (9), we get, as a necessary consequence,

- (10) The [natural] law therefore...is called moral.

Now, Hobbes has here offered an argument (which, so far as I can see, is valid) to prove that the natural law is the same with the moral. It is clearly his intention to construct a moral and not just a prudential theory. From this conclusion there is no escape. And if one succeeds in showing that his moral rules are not moral rules at all, because they are grounded ultimately upon prudential considerations, what one will have succeeded in doing is refuting, not interpreting, Hobbes. But as is clear from the fact that the argument is valid, one will not succeed in refuting Hobbes by appealing to an alleged is-ought dichotomy. Of course, one might well object to this definition of 'moral'. I do not think, however, that it could be shown to be completely false. Even if it were found to be the case that the term is applied to some things which have nothing to

do with the conservation of men in society, still it seems to me to be true that all those ways of behavior which are necessary to the conservation of society are called 'moral', and all those which tend necessarily to the disruption of society, of peace and unity, 'immoral'. If this is so, then, while Hobbes' definition would not be entirely adequate, it would be sufficient to show that the natural laws are moral laws. On the other hand, the objection that this definition, in the absence of a better, is inadequate or even false would not seem to prove very much. The obligatory character and the existence of that which we call morality does not depend upon the definition or the existence of the word, nor, if the word were to be dropped entirely from the language, would there cease to be things which a man ought and things which he ought not to do. Nor is it, for that matter, the business of the moral philosopher to discover what those things are; this, at least in general and for the most part, he already knows. They constitute his data and his business is to prove that and why they are to be done or left undone. The moral theorist's data are ultimately just the facts that certain things are, in general, to be done and that certain others are not to be done, that certain actions are, or are held to be, in general praiseworthy and certain others, blameworthy. That certain of those actions are called, in English, 'moral', certain others, 'immoral', is a fact of little significance to the moral philosopher and of no significance at all to the philosopher whose language does not possess an equivalent term or other terms with moral connotations such as 'obligation', 'duty', 'right', and 'wrong'; there would nevertheless be, in his culture,

things which are to be done and things which are to be left undone, some which are to be praised, others dispraised, and in general they would be the same in his culture as in ours and in all others. If Hobbes' definition of 'moral' is inadequate or wrong, we may discard it. We may do the same, if it is thought to be necessary, with his definition of 'good'. Still, it would remain that, with the proper changes, he has demonstrated that certain kinds of actions (which we call 'moral', 'good', and 'obligatory') are in general to be done and that certain others are to be left undone. Little more, I think, could reasonably be asked of him or of any other man.

The objection that the laws of nature cannot be moral laws because their justification is ultimately prudential is not so clearly true as it might seem. It is true that we distinguish the (merely) prudential from the moral, as does Hobbes. Those actions which ought to be done solely for the good of the individual who will do them are generally recognized to be prudential and not moral. But it does not follow that moral actions cannot have a prudential justification or that morality itself cannot have such a justification. If we take moral actions to be those which are good for all, not as individuals, but as members of society, then the justification could well be prudential. It would be the demonstration of the prudential desirability for each of society itself. This, in fact, is the kind of argument Hobbes employs. What he attempts to demonstrate is the desirability of society to each on prudential grounds and, hence, the desirability of those kinds of actions which are necessary to society. It is, then, a mistake to criticize Hobbes, as do most who take this line, by

pointing out that within society, a man might on prudential grounds be compelled to act contrary to the natural law. This, of course, is true, and what is more remarkable, considering that it is offered as an objection to show that the foundation of his moral philosophy sometimes inconsistently justifies immoral actions, is that Hobbes grants it.¹³ It is largely for this reason that a sovereign is necessary to compel obedience. It is not the prudential value of a given action within society that makes it moral; it is the prudential value of society itself. This might not be sufficient to compel a man within society to behave morally. Once societies are instituted, they are not likely to collapse from the immoral behavior of one man, and a man might, accordingly, decide that a given immoral action is, on prudential grounds, that action which he ought to do. He would not make this decision, however, because it would not be prudent, if society would collapse as a result. His decision rests upon the assumption that others will continue to behave morally. And, when Hobbes attempts to justify morality, when, for instance, he attempts to show that justice is not contrary to reason, it is to this, the prudential value of society itself that he appeals, not the prudential value of an individual action to be performed within society. That the latter may conflict, within society, with justice he does not deny; in fact, as his psychology requires, he affirms it, and he affirms, as a consequence, that the sovereign must have a power of reward and punishment sufficient to compel the assent of prudence within as well as without society,

For the punishment foreknown, if not great enough to deter men from the action, is an invitation to it: because when men compare the benefit of their injustice, with the harm of their punishment, by necessity of nature they chuse that which appear-eth best for themselves.¹⁴

This form of the objection, then, does not so much refute as it confirms Hobbes' theory. Men are not, by nature, social creatures; they are not by nature fit for society, largely because they are not by nature moral creatures. They are and they remain creatures of prudence. It does not therefore follow that there is and can be no behavior which is moral. What follows is that moral behavior must be compelled. Would that men were angels; they are not. But if men are not angels, it need not follow, as Leo Strauss has argued, that they are therefore devils.

Strauss has argued for an interpretation of Hobbes which is both ingenious and powerful. The weight of Strauss's argument rests upon the emphasis which Hobbes places upon pride, glory, and vain-glory. Strauss's catch-all term for these passions is 'vanity'. Now, that vanity does play a fundamental role in the early Elements of Law and in De Cive is clear. In The Elements of Law, for instance, at the end of his discussion of the passions Hobbes writes in his "comparison of the life of man to a race", that "this race we must suppose to have no other goal, nor other garland, but being foremost; and in it:...

To consider them behind, is glory.

To consider them before, humility.

To lose ground with looking back, vain glory....

Continually to be out-gone, is misery.

Continually to out-go the next before, is felicity.

And to forsake the course, is to die."¹⁵

Similarly, in De Cive he writes,

But all the mind's pleasure is either glory, (or to have a good opinion of one's self), or refers to glory in the end....All Society therefore is either for gain, or for glory.¹⁶

And we have noted already that two of the three arguments he offers in this work for the mutual will to hurt in the state of nature rest upon the passion of vanity. It must be admitted, too, I think, that Hobbes himself took vanity to be fundamental. In fact, de-emphasizing the role played by vanity is, I think, my only major departure from Hobbes' argument in De Cive. But the real question, it seems to me, is not so much whether vanity is important as whether or not it is crucial. As I have argued, the arguments from vanity, since vanity is principally a social passion, have no place in Hobbes' consideration of the state of nature, and I have shown, too, that the mutual will to hurt and the war of all against all can be derived from contention and the desire for gain without reference to the passion of vanity. We should note too that in Leviathan the role of vanity is de-emphasized by Hobbes himself. There, while glory is employed as an argument for the will to hurt, it takes third place, and Hobbes clearly regards the other two, the desire for gain and safety, as more important. Even in De Cive he introduces the contention for common goods as "the most frequent reason why men desire to hurt each other". Even if Hobbes himself regarded vanity as crucial to his argument,

since the same conclusions can be derived without it, there is no reason for us to regard it so. But while Hobbes certainly did regard vanity as fundamental, at least in his two earlier works, I see no real evidence to think that he took it to be crucial, at least not in the sense that Strauss has claimed it to be crucial.

Like many others, Strauss would seem to think that, since Hobbes offers a moral argument, it must have a moral basis, and on his interpretation, it is vanity that provides Hobbes with such a basis. He writes, for instance,

Naturalistic political philosophy necessarily leads to the annulment of the conception of justice as such. Thanks to the moral basis of his political philosophy and thanks to it alone, Hobbes kept the possibility of acknowledging justice as such and distinguishing between right and might.¹⁷

Strauss does not really say why this is so. He simply asserts it. The assertion would appear to be no more than the old is-ought dichotomy in a different form. Hobbes has a political, i.e., a moral, philosophy, and his philosophy must therefore have, not a naturalistic, but a moral basis. Accordingly, he writes,

not the naturalistic antithesis of morally indifferent animal appetite (or of morally indifferent human striving after power) on the one hand, and morally indifferent striving after self-preservation on the other, but the moral and humanist antithesis of fundamentally unjust vanity and fundamentally just fear of violent death is the basis of Hobbes's political philosophy.¹⁸

Of course, what is crucial to Strauss's anti-naturalist interpretation is not so much that, for Hobbes, vanity provides the basis for moral and political philosophy as that vanity is not a morally indifferent

appetite. What he wishes to claim is that, in Hobbes' view, vanity is "fundamentally unjust", and that Hobbes' philosophy is not, therefore, a naturalistic philosophy.

Now, there is a difficulty for this interpretation, which Strauss himself notes. Hobbes nowhere gives any real indication that he took vanity in this sense to be the basis for his moral philosophy. Rather, he always speaks as if his moral philosophy had a naturalistic basis and one grounded ultimately in the natural sciences. Why then, if "fundamentally unjust vanity" was his moral basis, did he never say so? Because, says Strauss,

If this conception of natural appetite is right, if man by nature finds his pleasure in triumphing over all others, then man is by nature evil. But he did not dare to uphold this consequence or assumption of his theory.¹⁹

Why Hobbes did not dare uphold this consequence Strauss does not say. Neither does it seem especially plausible. Hobbes certainly upheld consequences far more controversial than this. He was not afraid to argue that man is not by nature fit for society, nor that men owe an almost unlimited obedience to their sovereigns, however constituted. He was not afraid to maintain that God was corporeal, that the soul was material, that the resurrection is a resurrection of the body, that there is no eternal punishment, that the only doctrine of faith necessary to salvation is the belief that Jesus was the savior, nor even that the church is subservient to the state and that the gospel says only what the sovereign says it says. Why then should he not have dared to hold that man is by nature evil? But surely this whole approach is ad hominem. We have no idea what Hobbes' motives were,

nor do we have any business imputing motives to him. Certainly we have no business imputing motives which require that we accuse him of a fundamental dishonesty. Yet this is, in effect, what Strauss's interpretation requires us to do. For Hobbes more than once explicitly argues that man is not by nature evil and that his passions are in themselves no sin. In the preface to De Cive he asserts explicitly

But this, that men are evil by nature, follows not from this principle. For though the wicked were fewer than the righteous, yet because we cannot distinguish them, there is a necessity of suspecting, heeding, anticipating, subjugating, self-defending, over incident to the most honest and fairest conditioned. Much less does it follow, that those who are wicked, are so by nature... For the affections of the mind, which arise only from the lower parts of the soul, are not wicked themselves; but the actions thence proceeding may be so sometimes, as when they are either offensive or against duty. Unless you give children all they ask for, they are peevish and cry, aye, and strike their parents sometimes; and all this they have from nature. Yet are they free from guilt, neither may we properly call them wicked; first, because they cannot hurt; next, because wanting the free use of reason they are exempted from all duty. These when they come to riper years...if they shall continue to do the same things, then truly they both begin to be, and are properly accounted wicked. Inasmuch as a wicked man is almost the same thing with a child grown strong and sturdy, or a man of childish disposition; and malice the same with a defect of reason in that age when nature ought to be better governed through good education and experience. Unless therefore we will say that men are naturally evil, because they receive not their education and use of reason from nature, we must needs acknowledge that men may derive desire, fear, anger, and other passions from nature, and yet not impute the evil effects of those unto nature.²⁰

Here Hobbes is clearly saying both that the natural desires of men

(among which vanity is to be numbered) are not evil in themselves and further, that, even if they were, those men whose desires they are would not be therefore wicked. A man is not and cannot be said to be evil until he knows a better way, until, that is, he has had sufficient experience and education that by reason he may determine the wrongness of his actions. Strauss too quotes this passage and says in response to it,

Because man is by nature animal, therefore he is not by nature evil, therefore he is as innocent as the animals: thus vanity cannot characterize his natural appetite.²¹

But why cannot vanity characterize his natural appetite? Surely this is to do violence to the text, to assert simply the contrary of Hobbes' claim, for Hobbes speaks here of all the natural passions. If, on the other hand, we agree that vanity does not characterize man's natural appetite, if, that is, men are not by nature vain, how then could the fact that vanity is fundamentally unjust be used to prove that man is by nature evil? The one thing that Strauss's interpretation cannot permit is that vanity, as the basis of Hobbes' moral philosophy, should not be a natural passion. But this passage from De Cive is hardly isolated. In Leviathan, for instance, he writes,

The desires, and other passions of men, are in themselves no sin. No more are the actions, that proceed from those passions, till they know a law that forbids them.²²

Now Strauss says of the passage quoted from De Cive that

It is indicative that Hobbes in his defense against the reproach that according to his theory man is by nature evil does not mention vanity at all.²³

But this can hardly be said of this passage from Leviathan. This passage occurs in his discussion of the state of nature after his observation that that state is an "inference, made from the passions", and among the passion listed earlier as the causes of strife, glory or vanity is conspicuous. It would seem then that Strauss's interpretation cannot be accepted without doing violence to the text. On the other hand, the passage quoted from De Cive is entirely consistent with the interpretation that I have given and especially if it is seen in terms of Hobbes' definitions of 'right' and 'wrong'. It is reason that makes an action right or wrong. An action is wrong if it is against reason. It is in terms of reason, then, that a man's passions and the actions consequent to them are wrong, and, accordingly, a man may not be said to be wicked, that is, to do evil knowingly, until he has come to the 'use of reason'. It is only then that 'wickedness' is applicable to him, and since the use of reason is not derived from nature, that is, from a man's 'first birth', neither the man nor his passions may be said to be by nature evil. What can be said is that for all men to act in accordance with the passion of vanity, since it leads to the state of war of all against all, is irrational and that so acting is, therefore, wrong, and for a man to desire to act wrongly, wicked. But this extra step is needed; it is not that a man desires glory that is evil, but that he desires to act wrongly. Vanity is not evil in itself. It is evil because for men to act according to it is self-defeating or contrary to reason. But for a man alone in the world, this extra step could not be taken; the passion of vanity could not be shown, for such a man, to be irrational or wrong,

and the passion of vanity could not therefore be said to be by nature evil. Strauss's interpretation must, therefore, be rejected, and Hobbes' theory remains what he claimed it to be, a naturalistic theory.

In 1938 A.E. Taylor set a new trend in Hobbes criticism by arguing that

Hobbes' ethical theory is commonly misrepresented and unintelligently criticized for want of sufficient recognition that it is, from first to last, a doctrine of duty, a strict deontology.²⁴

I have no objection to this claim so far as it goes. Hobbes grounds his ethical theory in the passions and their consequences, to be sure. So far he might properly be called a teleologist. But he shows the rightness and wrongness of certain actions always by an appeal to reason, by an attempt to show that they are self-defeating or contradictory. An action is right not so much because its consequences are more desirable than another's as because they are self-defeating, contradictory to reason. The moral worth of certain actions is not something to be calculated in each new situation and varying as their consequences vary; for

The laws of nature are immutable and eternal; what they forbid, can never be lawful; what they command, can never be unlawful.²⁵

They are as enduring as the laws of human nature and of reason itself. So far Hobbes would seem to be a deontologist. But Taylor wanted to make Hobbes a peculiar kind of deontologist. As he writes,

I can only make Hobbes's statements consistent with one another by supposing that he meant quite seriously what he so often says, that the "natural law" is the command of God, and to be obeyed because it is God's command.²⁶

This interpretation, which has come to be known as the Taylor-Warrender thesis, has been defended more recently and in greater detail by Howard Warrender, who writes, for instance,

With regard to moral obligation, 'person "p" is obliged to do action "a"', means...

(b)...either there is a law, valid for 'p', which prescribes 'a'; or 'p' has made a valid covenant to do 'a': which means also

(c)...God has commanded 'a'; or 'a' follows from what God has commanded: and further

(d)...what God has commanded, directly or indirectly, is a command which it is logically and psychologically possible for 'p' to know and obey.

And, he suggests, "with this account of obligation in the State of Nature, Hobbes's entire theory of moral obligation has now been given in outline".²⁷

The weight of the Taylor-Warrender thesis is borne largely by the following passage from Leviathan:

These dictates of reason, men used to call by the name of laws, but improperly: for they are but conclusions, or theorems concerning what conduceth to the conservation and defence of themselves; whereas law, properly, is the word of him, that by right hath command over others. But yet if we consider the same theorems, as delivered in the word of God, that by right commandeth all things; then are they properly called laws.²⁸

Now, nothing is a law on Hobbes' view where it or the legislator cannot be known.²⁹ The laws of nature, then, to be laws, must be known, and, further, it must be known that God has commanded them. But the laws of nature are dictates of reason. What they are and by whom they are commanded must be knowable by reason. This, in essence, is the Taylor-Warrender thesis. The laws of nature are laws and oblige because they are the commands of God, and that this is so can be known by reason.

To this interpretation there are several objections, which I shall give here only briefly. In the first place, we may note Hobbes' assertion in Leviathan that

the laws of nature...in the condition of mere nature, as I have said before in the end of the fifteenth chapter, are not properly laws, but qualities that dispose men to peace and obedience. When a commonwealth is once settled, then are they actually laws, and not before; as being then the commands of the commonwealth.³⁰

The laws of nature, Hobbes is clearly asserting, are laws because they are commanded, but they are commanded by the sovereign and are not laws until they are commanded by the sovereign. There is no reference here to the command of God. One would expect, however, if the Taylor-Warrender thesis were correct, that, since that God is their author is supposed to be knowable by reason, the laws of nature would be properly called laws in the state of nature. This Hobbes denies. They are not laws until they are commanded by the sovereign. Hobbes says here that he has said this before, at the end of chapter fifteen. At the end of chapter fifteen there is only one passage to which he could possibly be referring, the one which carries the weight of the Taylor-Warrender thesis. Now, Hobbes has told us explicitly how to interpret this passage. If the laws of nature are not laws until commanded by the commonwealth, and if he has said this in this passage, then obviously we are not to take him to be saying here that the laws of nature are to be considered as the commands of God but, rather, that if they are so considered, then they are properly called laws.

Still, the passage does not quite fit Hobbes' later description of it, and it is ambiguous. Are we, then, to rest contented with this

ambiguous passage and allow the Taylor-Warrender thesis, albeit weakened, to stand? There is no need to do so; for Hobbes seems to have become aware that the passage did not say clearly what he had intended it to say, and in his later Latin version he puts it somewhat differently.

These dictates of reason have indeed obtained the name of laws, but they have been improperly so called. For they are only theorems concerning those things which conduce to the conservation of men. But a law, properly speaking, is the word of one who commands, either spoken or written, so that all, who are bound to obey, may know that it is his word.³¹

Here there is no reference to God. Here there is not even a hint that the laws of nature are laws because God commands them. They are simply the word of one who commands, and if we couple this with his later assertion that they are not laws until commanded by the commonwealth, it is clear that the one who commands is the sovereign. But, furthermore, we should note that, to be laws, they must be spoken or written. What reason discovers are natural laws only in the sense of dictates of reason. But it is not reason that makes them laws; it is command. This is all Hobbes is asserting here.

There is a further difficulty with the Taylor-Warrender thesis. It requires that men be able to know by reason that the laws of nature are commanded by God. What we must examine here, very briefly, is whether or not, on Hobbes' view, this is possible. In the passage quoted above from Leviathan Hobbes suggests that the laws of nature may be considered as the commands of God and, hence, as laws. In the parallel passage from De Cive he says this explicitly, writing that "as

they are delivered by God in holy Scriptures, as we shall see in the chapter following, they are most properly called by the name of laws".³²

Now, immediately after, in the following chapter, he writes,

The same law which is natural and moral, is also wont to be called divine, not undeservedly; as well because reason, which is the law of nature, is given by god to every man for the rule of his actions; as because the precepts of living which are thence derived, are the same with those which have been delivered from the divine Majesty for the laws of his heavenly kingdom, by our Lord Jesus Christ, and his holy prophets and apostles. What therefore by reasoning we have understood above concerning the law of nature, we will endeavour to confirm the same in this chapter by holy writ.³³

We need not be concerned with Hobbes' scriptural arguments. Scriptural law, insofar as it is revealed, is not known by reason. But further, interpretation of the scripture belongs, on Hobbes' view, to the sovereign, for

the interpretation of all laws, as well sacred as secular, (God ruling by the way of nature only), depends on the authority of the city, that is to say, that man or counsel to whom the sovereign power is committed; and that whatsoever God commands, he commands by his voice.³⁴

What does concern us is that here Hobbes is clearly saying that the natural law is given by God, and this much favors the Taylor-Warrender thesis. The natural law is reason and reason is given by God. This is a point which he makes more clearly elsewhere. Divine law, he says,

is twofold; natural or moral, and positive. Natural is that which God hath declared to all men by his eternal word born with them, to wit their natural reason; and this is that law, which in this whole book I have endeavoured to unfold.³⁵

And again,

God's laws are declared after a threefold manner: first, by the tacit dictates of right reason; next, by immediate revelation...thirdly, by the voice of one man.³⁶

And in Leviathan,

God declareth his laws three ways; by the dictates of natural reason, by revelation, and by the voice of some man.³⁷

And later, speaking of God's delivering the ten commandments to Moses,

Before that time there was no written law of God, who as yet having not chosen any people to be his peculiar kingdom, had given no law to men, but the law of nature, that is to say, the precepts of natural reason, written in every man's own heart.³⁸

The law of nature, then, is, according to Hobbes, identical with the law of God. But this fact will not by itself support the Taylor-Warrender thesis. Far from it. For, to the extent that the law of nature is identical with God's law as the dictate of reason, we may substitute 'laws of God' for 'laws of nature' in the passage quoted from Leviathan with the result that the laws of God, until they are commanded, are not, properly speaking, laws. The question, then, is can they be known by reason to have been commanded by God and, if so, in what sense?

Now, there is good reason for thinking that, on Hobbes' view, this cannot be known by reason. We should note, in the first place, these passages from De Cive:

they who have gotten this sovereign command, must be obeyed simply, that is to say, in all things which repugn not the commandments of God. There is this one thing only wanting to the complete understanding of all civil duty, and that is, to know which are the laws and commandments of God.³⁹

And, from the following article,

Now although God govern all men so by his power, that none can do anything which he would not have done: yet this, to speak properly and accurately, is not to reign. For he is said to reign, who rules not by acting, but speaking, that is to say, by precepts and threatenings.....Those only therefore are supposed to belong to God's kingdom, who acknowledge him to be the governor of all things, and that he hath given his commands to men, and appointed punishments for the transgressors.⁴⁰

And immediately after,

But none are said to govern by commands, but they who openly declare them to those who are governed by them. For the commands of the rulers, are the laws of the ruled; but laws they are not, if not perspicuously published.⁴¹

It is not then so foolish to suggest the substitutability of 'God's laws' for 'laws of nature'. For neither are God's laws properly called laws until they are known to have been commanded. But clearly, if this were capable of being known by reason, as are the laws of nature, there would be no question about what are the commands of God. Yet Hobbes takes such a question to be a pressing one.

Let us suppose, however, that Hobbes did believe this possible. How could he have argued for it? There is, that I can see, only one way. The natural laws, the dictates of reason, are God's laws, because God, as the creator, is the creator of reason and of human nature. Now, if we can know by reason that God is the cause or creator of reason and that there is or was, in fact, such a cause, we can know that the laws of nature are God's laws. But the fact that God is the creator and that the laws of nature are therefore his laws does not by itself oblige us to obey them, nor does it make them laws. As Hobbes

writes in Leviathan,

The right of nature, whereby God reigneth over men, and punisheth those that break his laws, is to be derived, not from his creating them, as if he required obedience as of gratitude for his benefits; but from his irresistible power.⁴²

But neither will this, in the state of nature, be sufficient to oblige us, by itself, to obey God.

According to Hobbes, at least in Leviathan, we can know that there is a first or eternal cause of all things and, hence, by definition, that there is a God.

For he that from any effect he seeth come to pass, should reason to the next and immediate cause thereof, and from thence to the cause of that cause, and plunge himself profoundly in the pursuit of causes; shall at last come to this, that there must be, as even the heathen philosophers confessed, one first mover; that is, a first, and an eternal cause of all things; which is that which men mean by the name of God.⁴³

But while we can thus know that there is a first cause, we can know no more. As I have argued in the second chapter, God is not a subject of reason. His attributes are incomprehensible. As Hobbes goes on to say here,

and therefore, men that by their own meditation, arrive to the acknowledgement of one infinite, omnipotent, and eternal God, chose rather to confess he is incomprehensible, and above their understanding.⁴⁴

In fact, Hobbes explicitly excludes God from the subjects of philosophy, i.e., from reason. In De Corpore he writes,

The subject of Philosophy, or the matter it treats of, is every body of which we can conceive any generation [but God is eternal], and which we may, by any consideration thereof, compare with other bodies [but God is incomprehensible], or which is capable

of composition and resolution [but God is simple]; that is to say, every body of whose generation or properties we can have any knowledge.and, therefore, where there is no generation or property, there is no philosophy. Therefore it excludes Theology, I mean the doctrine of God, eternal, ingenerable, incomprehensible, and in whom there is nothing neither to divide nor compound, nor any generation to be conceived..... Lastly, the doctrine of God's worship is excluded from philosophy, as being not to be known by natural reason, but by the authority of the Church; and as being the object of faith, and not of knowledge.⁴⁵

What then can we know of God by reason?

Forasmuch as God Almighty is incomprehensible, it followeth that we can have no conception or image of the Deity; and consequently all his attributes signify our inability and defect of power to conceive any thing concerning his nature, and not any conception of the same, excepting only this: that there is a God.⁴⁶

And our knowledge that there is a God, as in Leviathan, is just our knowledge that there is a first eternal cause. From the fact that there is a first eternal cause of all things, it follows, by definition, that there is a God, and, since the laws of nature follow from men's reason, which is caused, "by secondary causes", by God, it follows, that the laws of nature are, in this sense, God's laws. But since, as has been shown, God rules in virtue of his irresistible power, the mere fact that the laws of nature are, in this sense, God's laws, is not enough to oblige us to them or to make them laws. The obligation to obey God is the second kind of natural obligation, that arising from fear, fear of his might and irresistible power. But that God is powerful, that he makes commands, that he exacts obedience, that he punishes transgressors, all these are among his attributes

which we cannot know by natural reason. In fact, it should not pass unnoticed that in all those cases in which Hobbes discusses God's attributes, he assigns them, not on the basis of anything we can know about God, but on the (religious) assumption that He is to be honored. His attributes are those requisite to honoring Him. Even His existence is taken to be a consequence of honor, "For no man can have the will to honor that, which he thinks not to have any being".⁴⁷ Likewise his "care of mankind" is a consequence of honor, for to take this away, "takes away men's love, and fear of him; which is the root of honour".⁴⁸ But reason can hardly require us to honor a being unless we have some reason to believe his attributes are honorable; in the case of God, however, we can know this only in virtue of the fact that we honor Him. But this must be only an assumption, a matter of faith and of the authority of the church, i.e., of the sovereign. By natural reason, then, we can know only that there is a God, that is, a first cause of all things. The obligation to obey God, then, rests only upon those, (to use Hobbes's phrase) "acknowledging the divine power and providence",⁴⁹ that is, upon the faithful and the superstitious. The Taylor-Warrender thesis may, thus, be rejected.

Like the others, the interpretations of Taylor and Warrender rest upon an assumption of the is-ought dichotomy. The argument is essentially this. We have an obligation to obey the commands of the sovereign. But an obligation can only arise from some pre-existing obligation. There must, then, be some obligation in the state of nature. Both writers locate this obligation in the obligation which all men have to abide by the laws of nature as the commands of God.

As we have seen, however, there is no need to look to God to account for the fact that men are obliged, in foro interno, to abide by the laws of nature. The laws of nature oblige because, as dictates of reason, any other course would be self-defeating or contrary to reason. This, I claim, is that interpretation which is most consistent with Hobbes' own remarks. Throughout his derivation of the laws of nature he does not mention God, yet he claims that the laws of nature oblige, and never once in his argument for this does he appeal to the will of God; nor could he, that being the subject, not of philosophy, but of theology.

I suggest, then, that Hobbes' philosophy is, as he claimed, a system, that he began by constructing a conceptual framework, a metaphysics, in terms of which he deduced certain facts about the nature of man as an appetitive animal, and that from these premises he was able to deduce, in turn, those general rules which he called the laws of nature, i.e., those rules concerning how men must, in general, behave if they would achieve their fundamental ends. There are few, I think, who would deny, if they were to read them out of context, that these rules are indeed moral rules. If this is so, it will hardly do to claim that, taking them in context of Hobbes' moral theory, they are not or cannot be moral rules because they are derived from the non-moral facts of human nature and desire. And, whether or not we choose to accept Hobbes' premises, granting that his derivation of the moral rules is valid, we shall have to admit at least that such a derivation is possible.

Comparing the traditional to the modern approach to Hobbes,

Stuart M. Brown has written that,

What characterizes the traditional view is that it takes Hobbes seriously as a philosopher arguing step by step to establish the details of his position. On the traditional view the question as to whether Hobbes succeeds or fails is never begged nor settled on merely general grounds; it is answered, always with regard to specific steps in his arguments, by a detailed analysis of the relevant passages.⁵⁰

This is the approach to Hobbes that I have attempted throughout to take. I cannot say that I have succeeded in interpreting him correctly but I have tried throughout to understand him in his own terms, and throughout, to base my interpretation upon his own remarks. I have not attempted, in fact I have deliberately avoided, looking for inconsistencies. Like W.H. Greenleaf, "I belong to the 'tout comprendre' school of thought".⁵¹ It is my belief, mistaken or otherwise, that, when an interpreter finds an apparent inconsistency, he is to assume first of all that the fault is his own and that the inconsistency will vanish if it is considered in context of a detailed analysis of the broader context in which it occurs. Those who belong to that school of criticism which holds that we ought to study historical philosophers in order only to find out the dead ends and errors of the past are bound to find this disappointing. On the other hand, they are very likely to find their initial assumption to be a self-fulfilling prophecy. If we would understand a philosopher, if we would appreciate his insights and not his errors, we must give him a sympathetic reading. We must read him with the assumption that, perhaps, he had something to say which is in its own right worthwhile.

If I am correct in my interpretation, then I think we are

forced to admit that Hobbes did have something worthwhile to say, something worth studying for its own sake, and something, like truth, of perennial value. If I am correct, then we need not look to his originality in breaking with his own philosophical tradition, to his vague resemblances to the works of other, later, and more popular philosophers, or to his possible influence on the subsequent philosophical tradition to explain his claim to greatness. The reason is to be found in his own works, in the rigorous and profound unity of his own thought.

ID EST PERFECTUM

(sed 'perfectum' in lingua Anglica non est)

NOTES: CHAPTER EIGHT

1. Watkins, 1973, p. 5]; Gauthier, 1969, pp. 89-98.
2. EW II, I, 3, 31.
3. The summary here follows the argument as it is given in De Civo. (Ibid.)
4. See above, Introduction, p. 1.
5. 'Reason' here must be used in the sense of 'prudence' or 'presumption of the future'.
6. EW III, Ch. 15, p. 145.
7. EW, II, I, 3, 27.
8. EW II, I, 3, 29.
9. EW III, Ch. 26, p. 253.
10. DH 13, 8.
11. EW III, Ch. 11, p. 85.
12. DH 13, 8.
13. See, for instance, EW II, II, 6, 4.
14. EW III, Ch. 27, p. 281.
15. E.L.L. I, 9, 21.
16. EW II, I, 1, 2.
17. Strauss, 1952, p. 28.
18. Ibid., pp. 27-8.
19. Ibid., p. 13.
20. EW II, pp. xvi-xvii.
21. Strauss, 1952, p. 14.

22. EW III, Ch. 13, p. 114.
23. Strauss, 1952, p. 14.
24. Taylor, 1969, p. 48.
25. EW II, I, 3, 29.
26. Taylor, 1969, p. 45.
27. Warrender, 1957, p. 102.
28. EW III, Ch. 15, p. 147.
29. EW III, Ch. 26, pp. 257, 259.
30. Ibid., p. 253. My underlining.
31. LW III, p. 122. Dictamina haec rationis nomen quidem obtinuerunt legum, sed improprie dictarum. Sunt enim de iis rebus, quae ad conservationem hominum conducunt, tantum theoremata. Lex autem, proprie dicta, est vox imperantis, vel prolata vel scripta, ita ut omnes, qui obedire tenentur, sciant vocem ejus esse.
32. EW II, I, 3, 33.
33. EW II, I, 4, 1.
34. EW II, III, 15, 17.
35. EW II, III, 14, 4.
36. EW II, III, 15, 3.
37. EW III, Ch. 31, p. 345.
38. EW III, Ch. 42, p. 513.
39. EW II, III, 15, 1.
40. EW II, III, 15, 2.
41. EW II, III, 15, 3.
42. EW III, Ch. 31, p. 345.
43. EW III, Ch. 12, pp. 95-6.
44. Ibid., pp. 96-7.
45. EW I, I, 1, 8.

46. El.L. I, 11, 2.
47. EW III, Ch. 31, p. 351.
48. Ibid.
49. EW II, III, 15, 7.
50. Brown, 1969, p. 55.
51. Greenleaf, 1972, pp. 28-9.

REFERENCES

1. Aaron, R. I., "A Possible Early Draft of Hobbes' De Corpore." Mind, LIV (1945), 342-56.
2. Balm, A. G. A., Idea and Essence in the Philosophies of Hobbes and Spinoza. New York: Columbia University Press, 1918.
3. Brandt, Frithiof. Thomas Hobbes' Mechanical Conception of Nature. Copenhagen: Levin & Munksgaard, 1928.
4. Brehier, Emile. The Seventeenth Century, trans., Wade Buskin, Chicago: University of Chicago Press, 1966.
5. Brown, Stuart M., Jr. "Hobbes: The Taylor Thesis." in Baumrin, Bernard H., ed., Hobbes's "Leviathan": Interpretation and Criticism. Belmont: Wadsworth, 1969, 49-66. Originally published in Philosophical Review, LXVIII (1959), 302-23. Also reprinted in Brown, K. C., ed., Hobbes Studies. Oxford: Blackwell, 1965, 31-32, 57-71.
6. Engel, S. Morris. "Hobbes's Table of Absurdity," in Brown, K. C., ed., Hobbes Studies. Oxford: Blackwell, 1965, 263-73. Originally published in Philosophical Review, LXX (1961), 533-43.
7. Galilei, Galileo. Dialogues Concerning Two New Sciences. trans., Henry Crew and Alfonso de Salvio, New York: Macmillan, 1914; Dover, 1954.
8. ----- Discoveries and Opinions of Galileo. trans., ed., Stillman Drake. Garden City: Doubleday, 1957.
9. Gauthier, David P. The Logic of Leviathan: The Moral and Political Theory of Thomas Hobbes. London: Oxford, 1969.
10. Gert, Bernard. "Hobbes and Psychological Egoism." in Baumrin, Bernard H., ed., Hobbes's "Leviathan": Interpretation and Criticism. Belmont: Wadsworth, 1969, 107-126. Originally published in Journal of the History of Ideas, XXVIII, (1967), 503-20.
11. Greenleaf, W. H. "Hobbes: The Problem of Interpretation." in Cranston, Maurice and Peters, Richard S., eds., Hobbes and Rousseau. Garden City: Doubleday, 1972, 5-36. Originally published in Koselleck, Reinhart and Schnur, Roman, eds., Hobbes-Forschungen. Berlin: Duncker & Humblot, 1969.

12. Halliwell, James Orchard, ed., A Collection of Letters Illustrative of the Progress of Science in England from the Reign of Queen Elizabeth to that of Charles the Second. London: Historical Society of Science, 1841.
13. Historical Manuscripts Commission. The Manuscripts of His Grace the Duke of Portland. London: Eyre and Spottiswood, 1893.
14. Hobbes, Thomas. The English Works of Thomas Hobbes. ed., Molesworth, William. 11 vols. London, 1839.
15. -----Thomas Hobbes Opera Philosophica Quae Latine Scripsit. ed., Molesworth, William. 5 vols. London, 1839.
16. -----The Elements of Law Natural and Politic, ed., Tonnies, Ferdinand. 2nd ed. London: Cass, 1969.
17. -----A Dialogue Between a Philosopher and a Student of the Common Laws of England. ed., Cropsy, Joseph. Chicago: University of Chicago Press, 1971.
18. -----Man and Citizen, ed., Gort, Bernard. Garden City: Doubleday, 1972.
19. -----Thomas Hobbes Critique Du "De Mundo" de Thomas White, eds., Jacquot, Jean and Jones, Harold Whitmore. Paris: Vrin, 1973.
20. Hume, David. A Treatise of Human Nature. ed., Selby-Bigge, L.A. London: Oxford, 1888.
21. Hungerland, Isabel C. and Vick, George R. "Hobbes's Theory of Signification." Journal of the History of Philosophy, XI (1973), 459-482.
22. Laird, John. Hobbes. London: E. Benn, 1934.
23. Leibniz, Gottfried Wilhelm. Die Philosophischen Schriften von Gottfried Wilhelm Leibniz. ed., Garhardt, C.F. 7 vols. Berlin, 1875.
24. McNeilly, F.S. The Anatomy of "Leviathan." London: Oxford, 1968.
25. MacPherson, C.D. The Political Theory of Possessive Individualism: Hobbes to Locke. London: Oxford, 1962.
26. -----"Hobbes's Bourgeois Man." in Brown, K.C., ed., Hobbes Studies. Oxford: Blackwell, 1965, 169-183. Originally published as "Hobbes Today," in Canadian Journal of Economics and Pol

27. Moore, Stanley, "Hobbes on Obligation, Moral and Political." Part one. Journal of the History of Philosophy, IX (1971), 42-62. Part two. Journal of the History of Philosophy, X (1972), 24-42.
28. Oakeshott, Michael. "Introduction." in Hobbes, Thomas. Leviathan, ed. with intro., by Michael Oakeshott, Oxford: Blackwell, 1960.
29. Peters, Richard. Hobbes. Middlesex: Penguin, 1956.
30. Raphael, D.D. "Obligations and Rights in Hobbes." Philosophy, XXXVII (1962), 345-52.
31. Robertson, George Croom. Hobbes. Edinburgh: Blackwood, 1886.
32. Skinner, B.F. Science and Human Behavior. New York: Macmillan, 1953.
33. -----Contingencies of Reinforcement: A Theoretical Analysis. New York: Appleton-Century-Crofts, 1969.
34. -----Beyond Freedom and Dignity. New York: Bantam, 1971.
35. Stephen, Leslie. Hobbes. Ann Arbor: University of Michigan Press, 1961. London: Macmillan, 1904.
36. Strauss, Leo. The Political Philosophy of Hobbes: Its Basis and Its Genesis. trans., Elsa M. Sinclair. Chicago: University of Chicago Press, 1952. London: Oxford, 1936.
37. Taylor, A.E. Thomas Hobbes. London: Constable, 1908.
38. -----"The Ethical Doctrine of Hobbes." in Baumrin, Bernard, ed., Hobbes's "Leviathan": Interpretation and Criticism. Belmont: Wadsworth, 1969, 35-48. Originally published in Philosophy, XIII (1938), 406-24. Also reprinted in Brown, K.C., ed., Hobbes Studies. Oxford: Blackwell, 1965, 35-55.
39. Vaughn, Robert, ed., The Protectorate of Oliver Cromwell. 2 vols. London, 1838.
40. Warrender, Howard, The Political Philosophy of Hobbes: His Theory of Obligation. London: Oxford, 1957.
41. -----"Hobbes's Conception of Morality." in Baumrin, Bernard II, ed., Hobbes's "Leviathan": Interpretation and Criticism. Belmont: Wadsworth, 1969. Originally published in Revisita

42. Watkins, J.W.N. "Philosophy and Politics in Hobbes." in Baumrin, Bernard H., ed., Hobbes's "Leviathan": Interpretation and Criticism. Belmont: Wadsworth, 1969, 83-106. Originally published in Philosophical Quarterly, V (1955), 125-146. Also reprinted in Brown, K.C., ed., Hobbes Studies, Oxford: Blackwell, 1965.
43. -----Hobbes's System of Ideas. 2nd ed. London: Hutchinson, 1973.