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'READ THYSELF': SCIENCE AND SELF-KNOWLEDGE IN HOBBS' *LEVIATHAN*

by

ANDREW J. OTTO, B.A. (Hons.)

A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfilment of
the requirements for the degree

Master of Arts

Department of Political Science

Carleton University

Ottawa, Ontario

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**'READ THYSELF': SCIENCE AND SELF-KNOWLEDGE IN
HOBBS' *LEVIATHAN***

submitted by

Andrew James Otto, B.A. (Hons.)

in partial fulfilment of the requirements
for the degree of Master of Arts

Chair, Department of Political Science

Thesis Supervisor

Carleton University
April 11, 1995

'Yes, into evil!!' cried the young man. 'How is it possible you can uncover my soul?'

Zarathustra smiled and said: 'There are many souls one will never uncover, unless one invents them first.'

'Yes, into evil!!' cried the young man again.

Friedrich Nietzsche

Abstract

The central question of this thesis concerns science and its relation to the possibility of self-knowledge. In his Leviathan Hobbes writes that Man creates the Commonwealth by an act of self-imitation, and that 'reading the self' is the key to essential political knowledge. I want to explore how, and to what extent, Hobbes believes such knowledge and imitation is possible. The first section deals with the question of 'Natural Mind' and examines Hobbes's phenomenal and mechanical theory of sensation, imagination, and mental discourse. In the second section I explore what is artificial about human mind and the central role of language in Hobbes's vision of human Reason and Science. The epistemological explanation offered by Hobbes brings out the question - is the 'self' discovered or is it invented? How this question is answered is critical to the very possibility of pursuing a science, as opposed to an art, of politics.

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Science and Self-Knowledge

The definitive characteristic of the study of politics in our universities today is its categorization as a 'science'. This classification may initially seem inept since those who study politics are not usually considered 'scientists' as are the physicists and chemists of Natural Science. Political Science is a study of human and social things, a department within the Faculty of Social Science, and is more akin to the Humanities than to Natural Science in respect to its subject matter. What is scientific about the study of politics is the techniques employed by many of its practitioners. Political scientists, by their use of the name 'science', profess to pursue knowledge of politics through the same methods used so effectively in Natural Science. Despite this profession of being scientists and employing the same methods and techniques as the natural scientists, the perception still remains that those who study things social, political, and human are only nominally scientists. The name is ill-fitting and uncomfortable. Why is this so?

To categorize any subject as a 'science' implies that there is an actual corpus of knowledge concerning its subject matter. The word 'science' literally means 'knowledge', and is distinct from, for example, 'philosophy' which is a pursuit of wisdom without a necessary claim to knowledge (like Socrates' recognition of his lack of

knowledge which made him the wisest man in Athens). Thus, the word 'science' refers properly to the actual body of knowledge possessed rather than the pursuit of knowledge.¹ Political scientists, like many in the universities, do often make claims to knowledge; however, the application of the term 'science' to the study of political things today signifies something more specific than a general claim to knowledge. The use of the term science today signifies a certain desire of political thinkers to achieve the same kind of results, and consequently the same status and reputation, enjoyed by the Modern natural sciences.² The great success of Natural Science in Modern times has been an impetus for political thinkers to adopt those postulates and techniques in the study of politics that have proven so successful in the study of nature. The hope of many political scientists in employing the methods of natural science is especially to possess the kind of useful or 'effective' knowledge and capacities in human things which the natural sciences have achieved in the natural realm.

However, it is generally accepted that the social sciences have not achieved the same success and recognition that the natural sciences enjoy. Hence the existence of the

¹ Though one may pursue knowledge according to 'The Scientific Method', this phrase is related to the proper name 'Science', which is applied to a particular Modern approach to generating knowledge, and not the general term science (which is rarely used anymore in deference to Science).

² Alan Bloom, The Closing of the American Mind, p. 358.

perception that the term 'science' is more aptly applied to the natural sciences than the social. The study of human things has not proved as amenable to the application of the techniques used in the natural sciences as may have been hoped. A problem arises for social scientists when they attempt to apply the methods of the natural sciences to the primary object of the social sciences - the human 'self'; for, observing and measuring this object, as one would an object of Modern Science, is difficult. Alan Bloom writes that social scientists are often unsure just what this prime object is, or "whether it even exists":

All that is human, all that is of concern to us, lies outside of natural science. That should be a problem for natural science, but it is not. It is certainly a problem for us that we do not know what this thing is, that we cannot even agree on a name for this irreducible bit of man that is not body. Somehow this fugitive thing or aspect is the cause of science and society and culture and politics and economics and poetry and music. We know what these latter are. But can we really, if we do not know their cause, know what its status is, whether it even exists? *

Bloom says that the essential question for all the social sciences is the enduring one of 'self' knowledge. The titles of the various departments may proclaim their objects of study to be 'society' or 'economics' or 'politics', and to some extent this is valid. However, it is the human self - as the source of those thoughts and actions which create society and politics - that is the unifying object of study

* Bloom, pp. 356-357.

in all the social sciences. In true scientific fashion, it is knowledge of the self as the cause of our thoughts, passions, and actions which is most important for the social scientists. Knowledge of our human bodies is primarily gathered by the medical and the natural sciences (for our bodies are yet natural), but knowledge of our 'selves' - as something we can distinguish from our bodily existence, what some call the soul or that "fugitive thing or aspect" that creates society and politics, and seeks knowledge of itself - is the very 'raison d'etre' of the social sciences.⁴

Therefore, the problem of the application of scientific techniques to the question of self-knowledge is that the central object of knowledge cannot be studied objectively or 'put under the microscope' in the same way as the objects of the natural sciences. Modern natural sciences have a strong empirical bent which leads them to begin with observation of their subject matter. The natural sciences are equally quantitative in their approach and try to reduce objects and

⁴ The Dictionary of Philosophy (Littlefield and Adams, 1965, D.D. Runes Editor) defines 'Self' as "The metaphoric principle of unity underlying subjective experience, which may be conceived as dependent upon the given organism or as distinct in nature; sometimes identified with the soul." I would like to distinguish between a substantive 'soul', which can be clearly distinguished from the body (like the Greek dichotomy of 'soma' and 'psyche') and the more Modern notion of a 'self' which is less substantive, less clearly distinct from the body and more readily identifiable with mind and the unity of experience (more Modern in so far as a 'self' as opposed to a soul, is first discussed by such men as Hobbes and Locke).

phenomena to mathematical form where it is possible.* The human self is not subject to direct observation or to quantitative measure (except indirectly) like most natural objects. The central question of 'what' it is that must be observed and measured remains unanswered in the social sciences. Moreover, one must recognize that it is always a human self who is observing and measuring when attempting to study the self. The epistemological question - 'how' this human scientist can be a 'knower' - is coincident to the ontological question - 'what' the human being is whom the scientist takes up as his object. While the natural sciences may try to be 'objective' with regards to their natural objects by distinguishing the human knower from the realm of nature, the social scientist cannot discount his shared nature as a human self with the human being he studies.

The dilemma and paradox that confronts the social scientist is that it seems necessary to answer the question 'what' or 'who' a human being is, before one can answer the question 'how' that human can be a scientist or knower; and, at the same time, equally necessary to answer 'how' one can

* The empirical bent of Modern Science we can see beginning in the writings of men like Francis Bacon. The mathematical character of Science, in the writings of men like Descartes. The greatness of Sir Isaac Newton was his ability to synthesize these seemingly disparate approaches into what we know as Modern Science. See E. A. Burtt, The Metaphysical Foundations of Modern Physical Science, p. 19: "He will find in him (i.e. Newton) the first clear statement of that union of the experimental and mathematical methods which has been exemplified in all subsequent discoveries of exact science."

know 'what' one is. The so-called 'epistemological' question of 'how can I know' is inextricably attached to the 'ontological' question of 'what am I' for social scientists, because of the identity of the 'self' as both subject (i.e. scientist) and object of study. The dilemma would seem to be a paralysing one for social scientist. However, in his seminal work The Metaphysical Foundations of Modern Physical Science, E. A. Burtt observes that this problem of epistemology has been a particularly acute for Modern thinkers:

What are the problems whose correct treatment, it has generally been taken for granted, constitute the main business of metaphysical thinkers? Well, most conspicuous of these is the so-called problem of knowledge; the main current of speculative inquiry from Descartes onward has been permeated by the conviction that investigation into the nature and possibility of knowledge forms a necessary preliminary to the successful attack upon other ultimate issues.*

This statement leads one to ask - why has the epistemological question been particularly problematic for Modern thought? What is it about the nature of Modern

* E. A. Burtt, The Metaphysical Foundations of Early Modern Science, pp. 1-2. I have found Burtt's work provides a keen insight into the nature of Early Modern Science and I refer extensively to it in the introduction to this thesis because it provides a solid, learned foundation for further exploration of the thoughts of Thomas Hobbes. For other perspectives on Early Modernity see also A. Koyre's From The Closed World To The Infinite Universe, A. Debus's Renaissance Science and Modern Science, B. Willey's The Seventeenth Century Background, E. Tillard's The Elizabethan World Picture, and M. Berman's The Disenchantment of the World.

thought in particular that exacerbates and accentuates the epistemological question? Has this epistemological dilemma not always faced those who studied things human and political? According to Burt, the answer to this last question is no:

Knowledge was not a problem for the ruling philosophy of the Middle Ages; that the whole world which man's mind seeks to understand is intelligible to it was explicitly taken for granted. That people subsequently came to consider knowledge a problem implies that they had been lead to accept certain different beliefs about the nature of man and about the things which he tries to understand.⁷

This leads us to refine the question - why is the problem of epistemology more acute for Modern thinkers than for Medieval thinkers? The answer is that solutions to the epistemological question are always affected by any sort of 'a-priori' answers or assumptions made about the nature of the self that is the possessor of knowledge and the objects of its knowledge. As stated above, the ontological and epistemological questions cannot be separated. Therefore, the Modern question of knowledge is particularly acute because of certain 'ontological' assumptions made about the nature of the Modern self as a knower, and the nature of the objects he tries to comprehend. The lines preceding the quotation given above state:

The central place of epistemology in modern philosophy is no accident; it is a most natural corollary of something still more pervasive and

⁷ Burt, p. 2.

significant, a conception of man himself, and especially of his relation to world around him.*

Thus, the epistemological question rises to the surface of Modern consciousness because of ontological preconceptions. In Early Modern thought there was a broad transformation in the understanding of nature (from a Medieval to a Modern conception), including human nature and the nature of the human 'mind' in its knowing relationship to the Universe around it. Modern metaphysicians have felt inclined to begin their philosophic projects by addressing the problem of knowledge because of certain conceptions of human nature and knowledge which emerged and made the question of knowledge problematic. The key to this transformation begins with men like Copernicus, Kepler, and Galileo who, in defining a new vision of the Universe, forced everyone to reconsider and redefine human nature and knowledge in the light of the New Universe of Modernity. It is with one of these first Modern, philosophic redefinitions of Man - that of Thomas Hobbes's Leviathan - that this thesis is predominantly concerned.

Two key changes in the picture of the Universe which affected the perception of human being and knowledge were the denigration of the notion of divine purpose or 'telos' in the motions of the Universe, and the transformation in categories of conception of the Universe.* The first way in

* Burt, p. 2.

* Burt, pp. 4-7.

which the Modern question of knowledge is distinct from the Ancient and Medieval is that the latter tended to believe that the Universe was 'teleological' - divinely created for Man's needs and his happiness. Aristotle himself had said that nature was oriented to human ends.¹⁰ Christian-Medieval thought also held ideas of 'telos' and Providence, synthesizing elements of the Greek philosophic tradition with the Biblical. 'Telos' or final cause was the centerpiece and ultimate point of explanation of the nature of things for many Ancient and Medieval metaphysicians. Explanations that did not address the question of 'why' phenomena occurred (and not simply in terms of efficient cause) would have been considered incomplete by these thinkers.

The second point Burtt makes about the transition to Modern philosophy is that Medieval thought generally began with the assumption that the evidence of the senses corresponded to the reality of the surrounding world. The categories which arose from casual observation were also the categories employed in scientific thought. The images of sensation, even those like hot and cold, were perceived to have a real and substantive existence in things and not simply a relative existence with reference to some other thing (i.e. something is 'hot' because it is perceived by someone to be relatively hotter than some other thing).¹¹

¹⁰ Aristotle, The Politics, pp. 78-79.

¹¹ Burtt, p. 5.

Burtt writes of the character of Medieval sciences of nature:

This view underlay medieval physics. The entire world of nature was held not only to exist for man's sake, but to be likewise immediately present and fully intelligible to his mind. Hence the categories in terms of which it was interpreted were not those of time, space, mass, energy, and the like; but substance, essence, matter, form, quality, quantity - categories developed in the attempt to throw into scientific form the facts and relations observed in man's unaided sense-experience of the world and the main uses which he made it serve.¹²

This immediacy of the categories of understanding is a main reason why knowledge was not so problematic for Medieval thinkers. For their Modern counterparts, however, the important qualities of things in Nature have not been derived from the immediate categories of sensation. Men like Copernicus, Kepler, and Galileo lead Early Modern thinkers to the general assumption that the reality or truth of things is not readily evident through our senses but is available only through rational speculation and measure. Copernicus' heliocentric theory of our solar system contradicted that most evident fact of our senses, that the sun revolved around the Earth, and so helped many to appreciate the need to develop new categories of understanding for studying natural phenomena. This 'Copernican revolution' has resonated throughout Modern thought and the immediate distrust of evidence of our senses

¹² Burtt, pp. 4-5.

as a way to the truth of things has been important in the evolution of Modern philosophy and Science (again, one can see how this can make the epistemological question more acute).

The 'anthropocentrism' of Ancient and Medieval thinkers can be broadly distinguished from the 'objectivity' of Modern thought.¹³ The question of 'telos' or a 'summum bonum' is often regarded by Modern thinkers as having a retarding effect upon, rather than being the completion of, human understanding.¹⁴ It is characteristic of much of Modern thought that humans are not assigned a special place at the summit of the natural order. Instead, humans are usually portrayed as a product of nature - subordinate to and guided by the natural order (this is seen to be a more 'objective' view of the human relationship to Nature). Early Modern natural philosophers established new ways and categories of conceptualizing the Universe that are considered more rational or objective than the anthropocentric ones of the Ancients and Medieval. Not only in terms of 'telos' but in terms of the categories employed in understanding the objects of the Universe. The more objective categories of matter, motion, force, time and

¹³ Pre-Modern 'anthropocentrism' refers both to the human-centred idea of 'telos' or Providence, as well as the categories of understanding Nature that were derived from sense-experience.

¹⁴ Both Descartes, Philosophic Works, Vol. 1. p. 173., and Hobbes, Leviathan, p. 160., say that 'final cause' or the 'summum bonum' are dispensable categories of understanding.

space have become the primary concepts of Modern Science's picture of Nature. In general, the transition from what we call Medieval to Modern thought was rooted in these new conceptions of the Universe, moving from a view of the Universe that was essentially spiritual and teleological to one that was essentially mathematical and mechanical.

However, Burtt says that men like Galileo, Descartes, and Newton, choose these categories of understanding, not because of their seeming 'objectivity', but because they made the subject matter of their investigations more amenable to mathematical treatment. There was a common assumption amongst these men that the ultimate reality or truth of the Universe was expressible in exact mathematical terms and formulae. Burtt offers the following quotation from Galileo to illustrate his point.

"Philosophy is written in that great book which ever lies before our eyes - I mean the universe - but we cannot understand it if we do not first learn the language and grasp the symbols in which it is written. This book is written in the mathematical language and the symbols are triangles, circles, and other geometric figures, without whose help it is impossible to comprehend a single word of it, without which one wanders in vain through a dark labyrinth".¹⁸

Galileo says that anyone who wishes to know Nature in its truth must learn to 'read' it by first learning the mathematical and geometrical language in which it is written (or wander helplessly in opinion, without a clue). The

¹⁸ Burtt, p. 64. Quoted from the Opere Complete de Galileo Galilei (Firenze, 1842., Vol 4. p. 171).

true knowledge in Modernity, and our capacity as humans to have knowledge of our selves. Descartes's Meditations and Hobbes's Leviathan, both monumental works in the foundations of Modern philosophy, each seek to provide answers to the questions about the Modern self and knowledge. The latter work, Hobbes's 'magnum opus', is of particular significance for political scientists both because politics is the central subject matter of the book and because of the professed scientific character of it. The influence of Hobbes on Modern political thought is second to none and the value of studying his works is unquestionable. However, to more fully appreciate Hobbes's extended consideration of the self in Leviathan, I first want to briefly examine his written 'Objections' to Descartes's Meditations.²⁰ The exchanges between Hobbes and Descartes provide a good overview of two distinct solutions to the central problem of the nature of human being and knowledge in the Early Modern Universe.

²⁰ Descartes solicited 'Objections' to his Meditations, seven of which are published along with Descartes's 'Replies'. See Descartes, Vol. 2.

Hobbes's 'Objections' to Descartes's Meditations

In his Meditations on First Philosophy, Rene Descartes presents one of the first philosophic treatises to address the question of mind and knowledge in the New Universe of Modern natural philosophy. Descartes was a mathematician and physicist who wrote on questions of mathematics and physics early in his life and saw that the emerging natural philosophy lacked a thorough explication of the relationship between the human self as a knowing soul or mind and the Universe of extended substance in motion. It still needed broader metaphysical justifications, especially with regards to the epistemological question and the problem of primary and secondary qualities, to demonstrate with certainty the truth of its speculations.¹ Descartes's philosophic writings were undertaken to establish more solid foundations for this emerging revolution in thought.² While intuition and faith may have first lead Kepler, Galileo, and even Descartes himself to believe strongly in the soundness of the mathematical essence of the Universe, the epistemological question of how humans could know with certainty the truth

¹ Burtt, p. 97. Descartes actually invented 'analytic geometry' in his early years; affirming a one-to-one correspondence between space (geometry) and number (arithmetic and algebra). Thus, we know that Descartes, before he turned to metaphysical questions in works like Discours on Method and the Meditations, had good reason to be firmly convinced of the mathematical truth of the Universe.

² Descartes, Meditations. The reference to 'foundations' is found in The Philosophic Works of Descartes, Vol. 1, p. 144.

is absolute, objective, immutable, and mathematical; and that which is relative, subjective, fluctuating, and sensible. The former is the realm of knowledge, divine and human; the latter is the realm of opinion and illusion.¹⁷

This division of qualities, though it helped men like Galileo get on with their work, is problematic with regards to the question of knowledge since it remained unsaid how one could be certain that primary qualities described the reality of the Universe more truly than secondary qualities. The symmetry, harmony, and even the beauty of mathematical explanation did not mean that such explanation was true. Moreover, what was peculiarly human seemed to be something 'secondary' and illusory according to the schema of two qualities; for, Man seems to be something else besides matter in motion. As Burtt says, Galileo's doctrine of primary and secondary qualities had the effect of beginning to separate Man, especially as he was defined by his mind, from the truth of nature:

Now, in the course of translating this distinction of primary and secondary into terms suited to the new mathematical interpretation of nature, we have the first stage in the reading of man quite out of the real and primary realm.¹⁸

This is a consequent of Early Modern natural philosophy which Burtt feels is important to Modern thought in general, and one reason why the epistemological problem is felt so acutely. While the objects of natural philosophy, by being

¹⁷ Burtt, p. 73.

¹⁸ Burtt, p. 79.

classified and understood by the mathematical categories of matter, motion, and forces, became amenable to the techniques and methods we associate with Modern Science, this is not true of the understanding of things human. For things human have resisted the kind of mathematical treatment applied successfully to natural objects. This is especially true because the human self in Modernity becomes defined more and more by what we call 'mind', as that part of Man which makes him capable of knowing the truth of the Universe around him. As the question of how Man can be a knower, the more significant becomes the capacity for knowledge. However, the self as mind, which stands at the very foundations of Science, cannot be easily made an object of knowledge through the mathematical categories and methods used in Science. The techniques of Modern Science are ill-suited to understanding something as insubstantial, 'spiritual', and as unamendable to quantification and mathematical treatment as the human mind. Burt writes of the nature of the human mind as an object of Modern contemplation:

... mind was not subject to mathematical handling. It consists of too many irreducible, unpredictable, unformulable things; it is a wild and violently changing jumble of feelings, beliefs, longings, visions, secondary qualities. In the face of such volatile phenomena the mathematical mind stands confounded and abashed. It can accomplish nothing when they are around. The objects of its attention must be purged of such fantastic elements.¹⁰

¹⁰ Burt, p. 324.

While the 'mathematization' of the Universe has been a great boon for Modern Natural Science, it has provided a whole new series of problems for those who study things human and social. The Old Universe of Ancient and Medieval thinkers was more teleological, spiritual, and immediate, and so more 'anthropocentric' - its truth was more akin to the human knower who sought it (even though that Truth could be 'Other-worldly'). With the emergence of a New Universe of extended matter in mechanical motion the question arises - how are we to portray the human self who lives in this New Universe? Is this human being simply matter in motion like the other objects of nature? If this is so, how can one account for the knowing or thinking activity? If this is not so, and the human essence is other than 'matter in motion', then what can human nature or essence be given the evidence of Kepler and Galileo? These are some of the key questions which confronted Early Modern thinkers in light of the proposals of natural philosophers and the consequential problems associated with primary and secondary qualities.

It was philosophers like Descartes and Hobbes who took up the results and implications of Early Modern Natural philosophy and sought new answers to questions in the realm of human sciences. The results of their works provide us with important insight into the nature of the Modern self, its capacity to be a knower of the Universe, and the relationship between 'Science', as the central vision of

true knowledge in Modernity, and our capacity as humans to have knowledge of our selves. Descartes's Meditations and Hobbes's Leviathan, both monumental works in the foundations of Modern philosophy, each seek to provide answers to the questions about the Modern self and knowledge. The latter work, Hobbes's 'magnum opus', is of particular significance for political scientists both because politics is the central subject matter of the book and because of the professed scientific character of it. The influence of Hobbes on Modern political thought is second to none and the value of studying his works is unquestionable. However, to more fully appreciate Hobbes's extended consideration of the self in Leviathan, I first want to briefly examine his written 'Objections' to Descartes's Meditations.²⁰ The exchanges between Hobbes and Descartes provide a good overview of two distinct solutions to the central problem of the nature of human being and knowledge in the Early Modern Universe.

²⁰ Descartes solicited 'Objections' to his Meditations, seven of which are published along with Descartes's 'Replies'. See Descartes, Vol. 2.

Hobbes's 'Objections' to Descartes's Meditations

In his Meditations on First Philosophy, Rene Descartes presents one of the first philosophic treatises to address the question of mind and knowledge in the New Universe of Modern natural philosophy. Descartes was a mathematician and physicist who wrote on questions of mathematics and physics early in his life and saw that the emerging natural philosophy lacked a thorough explication of the relationship between the human self as a knowing soul or mind and the Universe of extended substance in motion. It still needed broader metaphysical justifications, especially with regards to the epistemological question and the problem of primary and secondary qualities, to demonstrate with certainty the truth of its speculations.¹ Descartes's philosophic writings were undertaken to establish more solid foundations for this emerging revolution in thought.² While intuition and faith may have first lead Kepler, Galileo, and even Descartes himself to believe strongly in the soundness of the mathematical essence of the Universe, the epistemological question of how humans could know with certainty the truth

¹ Burtt, p. 97. Descartes actually invented 'analytic geometry' in his early years; affirming a one-to-one correspondence between space (geometry) and number (arithmetic and algebra). Thus, we know that Descartes, before he turned to metaphysical questions in works like Discours on Method and the Meditations, had good reason to be firmly convinced of the mathematical truth of the Universe.

² Descartes, Meditations. The reference to 'foundations' is found in The Philosophic Works of Descartes, Vol. 1, p. 144.

of a Universe of mathematics qualities had yet to be resolved. Descartes turns Modern philosophic thought towards the question of 'mind' which specifically examines the question 'how' humans come to have knowledge, rather than 'what' is the Truth.³

In his Meditations, Descartes proposes that the essence of human being is mind or a thinking substance that is distinct from material substance.⁴ The distinction of these two kinds of substances - one corporeal, extended and in motion; and another unextended, motionless, to which the activity of thinking is proper - is the basis of Descartes's so-called 'dualism'. Corporeal substance is the proper object of investigation in natural philosophy and is governed in its motions by mechanical, mathematically-expressible forces. Thinking substance, conversely, is that which is capable of imagining, reasoning, and having insight into truth about the Universe through the possession of ideas. One should notice that Descartes writes in the Preface to Meditations that his concept of human essence as a thinking substance does not exclude those other attributes traditionally associated with the soul (e.g. passions and

³ The use of the word 'mind' implies that the question of knowledge is central. This can be contrasted with 'soul', which implies an broader idea of substantive being that is not present in 'mind'.

⁴ Descartes, Vol. 1, pp. 152-153. Thus, one could call Descartes's 'thinking substance' a 'soul' because it clearly distinguishes the 'self' from the body (unlike Hobbes who's 'self' is less clearly distinct from the body).

willing); however, in so far as he could know with certainty, he knew that he was something that was capable of knowing itself as a thing which thinks.* He writes in the Meditations:

I do not now admit anything which is not necessarily true: to speak more accurately I am not more than a thing which thinks, that is to say a mind or soul, or an understanding, or a reason, which are terms whose significance was formerly unknown to me. I am, however, a real thing and really exist; but what thing? I have answered: a thing which thinks.*

Descartes argued that sensation and imagination lead us to certain impressions of the Universe that can be demonstrated by reason to be false.⁷ Since the senses can be deceptive, Descartes concludes they cannot be trusted as sources of absolute certainty in knowledge. The mind which seeks certain truth must somehow detach itself from the objects of perception and opinion, and employ the faculty of reason upon its proper objects - ideas. In his depiction of mind, Descartes's clearly distinguishes between a faculty of sensation and imagination which has images or 'phantasma' as its objects, and a faculty of reason or judgement with rational 'ideas'. This distinction of two main faculties of mind is a key to Descartes proposed solution to the problem of primary and secondary qualities. According to Descartes,

* Descartes, Vol. 1, pp. 137-138.

* Descartes, Vol. 1, p. 152.

⁷ Descartes, Vol. 1, pp. 145-147.

primary and secondary qualities do not exist in the world, but only in the human mind because of the distinct faculties and kinds of ideas inherent in that mind. According to nature, humans have these two disparate faculties of mind which can be employed in perceiving the world. The key to certainty in knowledge lies in using the faculty of reason and its ideas, instead of the faculty of imagination and the immediate categories of its images, to comprehend the real nature of the objects of the Universe.

By the example of 'the wax', Descartes demonstrates that what we know most truly about corporeal objects is known by the rational ideas of extension, flexibility, and motion, and not by the secondary ideas of colour, shape, and odour.* These rational ideas give us insight into the most enduring and hence the most essential characteristics of things. It is by such primary ideas, and not sensual impressions, that we most clearly and distinctly know the things of this world in our minds. It is by an act of judgement or intuition of the mind that we truly know things. Descartes looks down from his window and says he 'sees' men walking past in the street; but, more accurately stated, he actually 'judges' them to be men under the hats and coats he perceives.* If the essence of human being is -----

* Descartes, Vol. 1, pp. 154-155.

* Descartes, Vol. 1, p. 155. The image of Descartes looking down from his window gives us a picture of his conception of the nature of mind. As he looks out upon men on the street through

mind, then the essence of this mind is reason; for, it is reason which gives mind those capacities which make humans distinct from other creatures.

Descartes says that we can be assured of the validity of rational or clear and distinct ideas by his deduction of the existence of a benevolent God who guarantees the truth of reason and our judgments upon clear and distinct ideas.¹⁰ Descartes says that the cause of the idea of an infinite and omnipotent God in his mind must proceed from a source other than finite human mind, and that this other source must be an actual substance that is infinite (i.e. must be as much 'reality' in the cause as the effect: according to the principle of conservation in causation). The deduction of the truth of an omnipotent God who could not be a deceiver assured Descartes of the verity of 'clear and distinct ideas' and so of those primary qualities (extension and motion) that are subject to mathematical handling. With the veracity of the natural faculty of reason assured, the key to avoiding error in thought, Descartes says, is to allow the clear knowledge of the understanding or reason to proceed the will in judging the truth of things.¹¹ By

his window, so the mind looks out upon the world via the senses, and then makes judgments about the truth of existence of things which often hide beneath the cloak of sensual images.

¹⁰ Descartes, Vol. 1, pp. 170-171: That idea of God, like idea of self, is innate in mind. And pg. 184: That idea of God lessens doubt about ideas and that clear and distinct ideas may be judged to be true. See also Koyre, pp. 100-101, 116-117 - on Descartes's God as 'Deus verax'.

¹¹ Descartes, Vol. 1, pp. 176-177.

proceeding in such a manner, we can come to know with certainty the truth of our selves as thinking substances and the truth of mathematical qualities as the essence of the corporeal Universe.

We can see how Descartes's solutions to the questions of human nature focus upon the nature of human mind and its capacity for knowledge. It is by the special kind of idea and faculty of reason which Descartes portrays that humans are said to be capable of knowing themselves as thinking substances, knowing God, 'clear and distinct' qualities, and the mathematical-logical truths of natural philosophy. The dual substances and dual faculties of imagination and reason within thinking substances, with the two kinds of ideas proper to them (i.e. images and rational ideas), were important philosophic proposals for solving the problem of secondary and primary qualities in Early Modern thought.

However, E. A. Burtt speculates that Descartes's conclusions about the primacy of mathematical extension and motion as the truth about bodies were not the simple deductions, like those of the wax, which he portrays in his Meditations.

The fact is and this is of central importance for our whole study, Descartes' real criterion is not permanence but the possibility of mathematical handling'; in his case, as with Galileo, the whole course of his thought from his adolescent studies on had inured him to the notion that we know objects only in mathematical terms, and the sole type for him of clear and distinct ideas had come to be mathematical terms, with the addition of certain logical propositions into which he had

been led by the need of a firmer metaphysical basis for his achievements, such as the propositions that we exist, that we think, etc.¹²

Descartes was motivated to write his Meditations by a keen desire to resolve logical difficulties regarding the human mind and its 'knowing' relation to a mechanical-mathematical universe (since the old theories of knowledge were inadequate in light of the work of Copernicus, Kepler, and Galileo). Descartes's solution to the question of primary and secondary qualities was to remove human mind from the mechanic-corporeal world, and then assign it the exact sort of nature which would allow him both to account for the existence of secondary qualities in the mind (as images), and still demonstrate how this mind could know with certainty that primary qualities were the essence of the Universe. While Descartes's theories are enlightening and impressive, it is not an exaggeration to describe it as a philosophic 'apologia' for a view of knowledge and the Universe that was already in place. Burttt says of the early Modern thinkers in general something that is especially applicable to Descartes and his Meditations:

These founders of the philosophy of science were mathematical pragmatists, of a rather extreme type. They were absorbed in the mathematical study of nature. Metaphysics they tended more and more to avoid, so far as they could avoid it; so far as not, it became an instrument for their further mathematical conquest of the world.¹³

¹² Burttt, p. 110.

¹³ Burttt, p. 325.

The implication of this statement is that Descartes, amongst others, undertakes philosophic writings to establish 'foundations' - but for an edifice that was already erected in his mind. So, when examining Descartes's depictions of the self, one should consider the possibility that this self he portrays was constructed for a particular end, secondary to the simple desire for self-knowledge. Descartes's vision of the self may be an epistemological solution more than the result of a detached meditation. This should not be a condemnation of Descartes's philosophic works, but an enlightening perspective upon motives he may (or may not) have had in writing his Meditations.

Yet, Descartes's depiction of the Modern self is not the only one of Early Modernity. Amongst the solicited 'Objections' to his Meditations which Descartes received were those of a "Celebrated English Philosopher" - Thomas Hobbes.¹⁴ Like Descartes, Hobbes was an admirer of both Euclid and Galileo and also sought answers to metaphysical questions of human nature and knowledge. Hobbes also recognized the importance of the question of mind in light of the assumptions and achievements of natural philosophy. However, unlike Descartes, Hobbes was not a mathematician or physicist but a writer on things political. Hobbes's 'Objections' show a fundamental disparity between his own and Descartes's view of human nature and how knowledge of

¹⁴ Descartes, Vol. 2, p. 60, note #1.

nature and self was possible. These 'Objections' to Descartes's Meditations provide an excellent introduction to Hobbes's own portrayal of human nature and knowledge, especially with reference to Hobbes's theories of the origin and foundation of political obligation and order. It is Hobbes's portrayal of the self in the light of Early Modern natural philosophy which is of special interest to us because of the centrality of the questions of self and science for all political scientists.

There are three main ways in which Hobbes contests Descartes's depiction of the self. First, he disputes the dualism of mental and corporeal substances. Unlike Descartes's description of mind as a distinct substance, Hobbes believes that mind itself ought to be explained in terms of the motions of the body (indeed, Hobbes is not the only Objector who sees Descartes' attempt to wholly separate the self as thinking substance from corporeal body as problematic.¹⁵). For Hobbes, 'mind' is a name that we give to the posited subject of the act of thinking (he says that it is a necessary condition of our thought that we conceive a subject along with any activity), and this subject is the

¹⁵ Descartes, Vol. 2, p. 25 (Second set of Objections, collected by Rev. Father Mersenne): "What if that were a body which by its various motions and encounters produces that which we call thought?". Also p. 82. (Fourth set of Objections by M. Arnauld): "Hence body would be so related to mind as genus is to species." And p. 141. (Fifth set of Objections by P. Gassendi): The Objector argues that the complete separation of self from body is conditioned by Descartes' singular consideration of self as a thing that thinks.

corporeal body and not a separated substance. Hobbes presents a kind of 'monistic' counter-argument to Descartes' dualism, in which he asserts the identity of the mind with the body.¹⁶ Hobbes writes in one of his 'Objections':

Hence, since the knowledge of this proposition, 'I exist', depends upon the knowledge of that other, 'I think', and the knowledge of it upon the fact that we cannot separate thought from a matter that thinks, the proper inference seems to be that that which thinks is material rather than immaterial.¹⁷

The second way in which their two theories of mind differ is their respective characterizations of 'ideas'. Hobbes denies the existence of purely rational (i.e. innate) ideas, or 'a-priori' deductions that are not dependent upon images of sense-perception and/or the conventions of speech. He believes that all of our thoughts and ideas are ultimately rooted in sense-perception and our impressions of corporeal bodies. Ideas which we distinguish from sensual images (i.e. Descartes's rational or innate ideas), he says, are not distinct objects of thought, but are more likely words that we ascribe to objects of belief and imagination.¹⁸ Therefore, Descartes's reliance upon 'innate

¹⁶ To be fair to Descartes, in his Notes Directed Against a Certain Programme. (Descartes, Vol. 1, p. 432.), Descartes explicitly says that his theory of 'thinking substance' does not conflict with ideas about the unity of body and mind. Yet, this is not so clear in his Meditations.

¹⁷ Descartes, p. 62.

¹⁸ Especially in the example of the Angel. Descartes, Vol. 1, pp. 66-67.

ideas' of self and God for certainty is misplaced (we can see how, in one sense, Hobbes's monism negates the potential for innate ideas as there is no 'thinking substance' upon which they could be imprinted).

Perhaps the most important disparity in their descriptions of mind is that of the nature of the faculty of Reason. Hobbes writes in his 'Objections' that reason may simply be calculations upon the conventional meanings of words and not the natural, God-given faculty which Descartes portrays.¹⁹ Coupled with the notion that ideas are always based in sensation and imagination, Hobbes's hypothetical proposal that reason is rooted in the conventions of language stands in stark contrast to Descartes's faculty of reason which could know itself, God, and primary qualities with certainty. Hobbes writes:

But what shall we now say, if reasoning chance to be nothing more than the uniting and stringing together of names or designations by the word 'is'? It will be a consequent of this that reason gives us no conclusion about the nature of things, but only about the terms that designate them, whether, indeed, or not there is a convention (arbitrarily made about their meanings) according to which we join these names together. If this be so, as is possible, reasoning will depend on names, names on the imagination, and imagination, perchance, as I think, on the motion of the corporeal organs. Thus mind will be nothing but the motions in certain parts of the organic body.²⁰

In the 'Reply' which Descartes makes to the 'Objection'

¹⁹ Descartes, Vol. 2, p. 65.

²⁰ Descartes, Vol. 2, p. 65.

quoted here, he provides a clear picture of the disparity between the two respective views of the nature of the human self as mind. When Hobbes holds out the possibility that mind is motion and that we may judge the essence of things by means of reasoning words wrested from images, Descartes makes the following, terse reply:

Moreover, in reasoning we unite not names but the things signified by the names; and I marvel that the opposite can occur to anyone. For who doubts whether a Frenchman and a German are able to reason in exactly the same way about the same things, though they yet conceive the words in an entirely diverse way? And has not my opponent condemned himself in talking of conventions arbitrarily made about the meanings of words? For, if he admits that words signify anything, why will he not allow our reasonings to refer to this something that is signified, rather than to the words alone? But, really, it will be as correct to infer that earth is heaven or anything else that is desired, as to conclude that mind is motion.²¹

For Hobbes, meaningful explanations of Man and the Commonwealth can only be made upon the more explicable assertions that the Universe is a singular realm of bodies in motion, such that we cannot "separate thought from a matter which thinks", ideas are rooted in sense-experience, and that the power of reason is based on the conventions of language. While both Descartes and Hobbes see mind as something which encounters the world as phenomena, Hobbes does not detach it from material and motion in the same way as Descartes. Hobbes also rejects the notion that human mind could have some kind of insight into the nature of God and

²¹ Descartes, Vol. 2, p. 66.

his purposes in nature, such that we could know God would not allow humans to be subject to deception without some natural help (like an innate faculty of reason to correct that deception). While we can make hypothetical conjecture about the existence of God via our perception of the mechanical order of nature (i.e. assume the existence of an artificer from the existence of the artifice), we can say no more of God's own nature and purpose in the Universe with any assurance. In this rejection of Descartes's rational faith in God and his assurance of reason, Hobbes is saying that human knowledge of nature or the Universe remains hypothetical and cannot attain the certainty which Descartes assures.

Hobbes's 'Objections' to Descartes's Meditations, and the subsequent 'Replies' of the latter, show how the question of human nature and knowledge was an important one for Early Modern philosophers. Moreover, they show that there was more than one possible solution to these questions in the light of Early Modern natural philosophy. Hobbes also accepted Galileo's assertion of the primacy of the categories of extension and motion (or space and time), but said that this need not lead to the 'dualism' of substances that Descartes proposes. The debate carried on in Hobbes' 'Objections' and Descartes' 'Replies' is a window to an important debate about the nature of the knowing human 'self' in the light of the tenants and postulates of the

Modern natural philosophy (and later Modern physical Science). Yet, Hobbes's whole vision of the Modern self and its capacity for knowledge remains unstated. All we have seen is a limited counter-argument to Descartes's vision of the self and knowledge. Therefore, in the next section I want to begin a thorough examination of Hobbes's depiction of the Modern self.

Thomas Hobbes has had profound influence on Modern politics; not only through political theory and practice, but also indirectly through his influence on men like Newton (and so upon Modern Science). Studying Hobbes's characterization of the self and the nature of self-knowledge in Leviathan allows one to engage the Modern question of self knowledge through the works of a philosopher who has had a particularly important influence upon the tradition of English political thought (a tradition within which I myself study today). With Hobbes's Leviathan we have one of the central questions of political science addressed at length by one of the greatest philosophers in Western history. His ideas and opinions on the questions of self-knowledge and political science are unquestionably worth the extended consideration I hope to give them here.

The Introduction to Leviathan

This section is meant to be both an introduction to the general argument of Leviathan and an analysis of the 'Introduction' to Leviathan. I want to begin by briefly outlining the aims of Hobbes's political writings and the place of self-examination in his philosophic system. Furthermore, I want to examine those aspects of the 'Introduction' to Leviathan which pertain to self-knowledge - particularly Hobbes's professed method of 'reading' the self as a way to political knowledge. This idea is important because it introduces the special role of language in Hobbes's theory of knowledge. Hobbes rejects Descartes's 'idealism' of separate substances and suggests that, in a monistic Universe of matter in motion, speech and language are at the very heart of our capacity for self-knowledge, reasoning, and mutual conscience - which, for Hobbes, are all crucial elements in the genesis and maintenance of political order.

Like Descartes, Hobbes also sought new 'foundations' in his field. In the Epistle Dedicatory to his first major political work, The Elements of Law: Natural and Politic, Hobbes claims that the explication of these new foundations could be of great practical service to peace and government. He even goes so far as to say that until the completion of his book, 'mutual fear' has been the only other foundation of political order:

But for the doctrine, it is not slightly proved; and the conclusions thereof are of such nature, as, for want of them, government and peace have been nothing else to this day, but mutual fear. And it would be an incomparable benefit to commonwealth, if every man held the opinions concerning law and policy here delivered.¹

Hobbes believes that his writings are a revolution in political thought, such that knowledge, and not simply fear, could now be the basis of political order and obligation. This is a very bold assertion by Hobbes -- not only that he has developed a novel science of politics, but that this doctrine could redefine the historical relationship between citizens and State. Hobbes writes that previously politics has been treated as a subject 'dogmatical'; that is, one which originates in the human passions.² These studies have been characterized by endless controversies and contradictions because they "compareth men, and meddleth with their profit and right; in which as oft as reason be against a man, so oft will that man be against reason". Dogmatical studies he distinguishes from the mathematical studies, which are based on the rational part of human nature and can produce clear and certain results not subject to dispute. Hobbes writes in the Elements that his intention

¹ Thomas Hobbes, The Elements of Law: Natural & Politic, p. xviii. (Hereafter Elements).

² Elements, p. xvii. See also Thomas Hobbes, Leviathan, p. 149. According to the chart, previously politics had been pursued via 'Ethiques' or from the consequences of human passions. Hobbes's revolution is to create a 'Science of Just and Unjust' or one which proceeds from human speech.

is

to reduce this doctrine (i.e. politics) to the rules and infallibility of reason" - rules that will not be mistrusted and will bring an end to such controversies as previously dominated the study of things political; for, the generation of such principles he says is "the true and only foundation of such science."³

Hobbes wants to ground political thought on new foundations of indisputable postulates and sound reasoning (in the manner of Euclidean geometry). To this end Hobbes must create a science which does not compare men according to the passions, such that they would be against the reasoning of the doctrine. Instead, he had to find axioms or postulates that are subject to a kind of mathematical treatment, upon which he could construct his whole system of science. Towards this end, Hobbes's political project begins with a search for universal and unconditional postulates of human nature (such that no man might distrust them) and then proceeds to show how civil society and government ought to be organized such that not fear, but knowledge or opinion might be the basis of civil order.⁴ In the 'Review and Conclusion' to his Leviathan Hobbes writes of how such a science of human nature is connected to political doctrine:

³ Elements, p. xvii.

⁴ Leo Strauss, The Political Philosophy of Hobbes: Its Basis and Its Genesis, p. 151. Strauss says the Hobbes's idea of an 'exact' treatment of politics (as opposed to Plato's) is one which begins with postulates of unconditional or universal applicability.

For I ground the Civil Right of Sovereigns, and both the Duty and Liberty of Subjects, upon the known natural Inclinations of Mankind, and upon the Articles of the Law of Nature; of which no man, that pretends but reason enough to govern his private family, ought to be ignorant.*

From this we can see that it is by demonstrating perspicuously (i.e. so they are not subject to dispute) the 'natural inclinations of Mankind' or human nature that Hobbes believes he can redefine the rights of the Sovereign and the duties and liberties of subjects. From this we can also see that Hobbes's concern is not simply with detached contemplation, but with practical applications and effective conclusions that can transform the nature of political relations and activity.† One can see this concern with practice in his general definition of philosophy given in Leviathan.

(sic) By Philosophy, is understood the Knowledge acquired by Reasoning, from the Manner of the Generation of any thing, to the Properties; or from the Properties, to some possible way of Generation of the same; to the end to bee able to produce, as far as matter, and humane force permit, such Effects, as humane life requireth.‡

For Hobbes, Philosophy or Science is knowledge of the

* Leviathan, p. 725.

† Strauss, p. 130.

‡ Leviathan, p. 682. (all quotations from Leviathan are 'sic' - thus quoted as written). This is consistent with the definition of philosophy he later gives in De Corpore (see Thomas Hobbes, Body, Man, and Citizen - hereafter Body, p. 145.). Hobbes's emphasis on the effective or practical results of philosophy are like those of Francis Bacon, i.e. the proper goal of philosophy is the 'benefit' of Mankind.

causes and properties of things. The goal of philosophy is utile knowledge of causal relations such that one can produce those effects "as humane life requireth".⁸ The pursuit of philosophy is an art of generating effective knowledge of causal relations for the general benefit of human life. Therefore, Hobbes's political philosophy must be a study of the causes of political behaviour, order, and obligation, and the subsequent properties of political associations. Hobbes states in Leviathan that it is the civil disorder in his country which occasioned the writing of the book, and that his purpose is to advance the Civil power.⁹ The goal of political philosophy would be effective knowledge, which focuses on 'know-how' in politics - how to be a sovereign (how to govern a Body Politique), and how to be a citizen (i.e. how to obey). It is significant that such an approach seems to assume that the question the end or goal of political order is a settled one. For Hobbes, the goal of political order is not a 'summum bonum' but the advancement of peace and the civil power in the State for promotion of the physical well-being of citizens.¹⁰

⁸ Body, pp. 27-29. Hobbes provides a long list of the benefits or 'utility' of philosophy to Mankind.

⁹ Leviathan, p. 728, and p. 75.

¹⁰ Leviathan, p. 81: That the purpose of the State is protection. And pgs. 160-161: That Hobbes does not believe in a 'summum bonum' as the end of political order. See also Strauss, p. 152: "The aim of the State is for him (Hobbes) as a matter of course peace, i.e. peace at any price. The underlying presupposition is that (violent) death is the first and greatest

Hobbes describes two distinct kinds of philosophy in the definition given above; one that proceeds from observation of properties to "some possible way of Generation", and a second that begins with the manner of generation and then proceeds to the properties. The former is appropriate to the study of nature or 'Physics' because one may observe the things of nature and speculate, hypothetically, upon possible ways of generation, but cannot know with certainty the absolute Truth of God's creations.¹¹ The second kind of philosophy is appropriate for those things which are 'artificial' or created by humans. As the creators, humans may have complete knowledge of the manner of generation and can then speculate what properties 'ought' to pertain given the manner of generation. In De Homine Hobbes gives the example of Geometry is a science wherein we generate the objects (i.e. lines and figures) and then speculate upon what properties should pertain to these lines and figures.¹² Political or Civil Philosophy is also of the latter kind - philosophy of artificial bodies and proceeds from the generation of the -----
 and supreme evil. This presupposition does not seem to him to require criticism, debate, or discussion."

¹¹ Body, p. 145.

¹² Man and Citizen, pp. 41-42.

Body Politic to what ought to be its the properties.¹²

However, while political philosophy is in-itself about an artificial body, it is rooted in knowledge of human nature for Hobbes (as the quotation above demonstrates). Such knowledge of human nature, unlike Civil Philosophy, is a subsection of natural philosophy or Physics because Man is a product of God's Nature. Human nature is prior to human artifice, and is not simply eradicated when Man recreates himself as the constituent matter of the Commonwealth. The foundations of political knowledge lie in a hypothetical knowledge of human nature (i.e. a-posteriori' physics) and only then proceed to an explanation of the genesis and structure of political order from such knowledge. Only with knowledge of human nature and the natural conditions of men can one speculate upon the conditions which must pertain in order for a Body Politique to come into being and upon what are its properties in its most perfect form (one must speculate since we cannot actually observe a Body Politique coming into existence in the same manner as a geometric figure; for we are born into a world of men who are already educated and made fit for society. i.e. a world of men who are both artificial as well as natural). A treatise dealing exclusively with civil order could simply begin with assumed

¹² Man and Citizen, pp. 42-43. Hobbes says 'politics and ethics' can be demonstrated 'a-priori' like the science of geometry. See also Leviathan, p. 261. "The skill of making, and maintaining Common-wealths, consisteth in certain Rules, as doth Arithmetique and Geometry."

axioms or general observations about human nature and natural conditions; however, a complete philosophy of politics must account for the verity of these postulates of the natural properties and conditions of humans.¹⁴ While it is not a necessary part of civil philosophy, the addition of an analysis of human nature in the first section of Hobbes's Leviathan allows him to offer a more profound and systematic treatment of politics by showing how political order and obligation arise from human nature and natural conditions.

Such is the procedure which Hobbes follows in his Leviathan. In the opening lines of the Introduction, Hobbes says that Man is himself a product of God's artwork of nature, but that the state is something artificial - an Artificial Man created in imitation of God's natural Man:

Nature (the Art whereby God hath made and governes the World) is by the Art of man, as in many other things, so in this also imitated, that it can make an Artificial Animal.... Art goes yet further, imitating that Rationall and most excellent worke of Nature, Man. For by Art is created that great LEVIATHAN called a COMMON-WEALTH, or STATE, (in latine CIVITAS) which is but an Artificial Man;...¹⁵

The implication of this statement is that men must first come to understand themselves in order to create the

¹⁴ That Civil Philosophy can begin without a philosophic account of human nature see Body, p. 78. Hobbes says 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...". Thus, Hobbes was able to publish De Cive years before completing De Homine.

¹⁵ Leviathan, p. 81.

State. For, Man is at once the substance of political order, who's nature must be considered in so far as he is a building block of the state; and, at the same time, Man is the artisan who creates the state by first understanding and then manipulating these building blocks (i.e. himself). As Hobbes says of the Commonwealth in Leviathan, Man is both "the Matter thereof, and the Artificer".¹⁶ Like all artisans, the men who construct the State must understand their material - they must know its nature, its characteristics, and how it reacts to manipulation. Men are not 'born fit' for social intercourse and political order: instead, they must make themselves fit for society by artifice and self-education.¹⁷

Hobbes directly addresses the importance of self-knowledge and his method of attaining such knowledge in the Introduction to Leviathan by discussing 'two popular sayings'.¹⁸ The first saying, one "much usurped of late", is that wisdom is gained by reading men, not books. The second, an imperative "not of late understood, by which they might truly learn to read one another", is the ancient Delphic adage - "Read thy self" (as Hobbes translates the Latin 'Nosce Teipsum' which in its original Greek is 'gnausthe seautoi'; in English it is properly, 'know thyself').

¹⁶ Leviathan, p. 82.

¹⁷ Man and Citizen, p. 110. (footnote).

¹⁸ Leviathan, p. 82.

Hobbes's translation as "Read thy self" is both idiosyncratic and, I believe, provocative). Hobbes implies that self-examination provides the evidence necessary to achieve a universal knowledge of human nature. Of his reference to the Delphic inscription - 'Read thy self'- Hobbes writes that it was made:

... to teach us, that for the similitude of the thoughts, and Passions of one man, to the thoughts, and Passions of another, whosoever looketh into himself, and considereth what he doth, when he does think, opine, reason, hope, feare, &c, and upon what grounds; he shall thereby read and know, what are the thoughts, and Passions of all other men, upon the like occasions.¹⁹

Hobbes believes that the search for knowledge of the self and human nature leads to an exploration of the grounds or causes of thought and the passions. Therefore, in exploring the self and its thoughts and passions, Hobbes says it is not the objects of thoughts and the passions which are important.²⁰ This was part of the traditional error of 'dogmatical' studies of politics. The objects of contemplation and desire are not always universal, for men will desire and contemplate different objects according to their particular constitutions, experiences, education, etc. Moreover, one cannot know men by their actions, for this will serve us only with men's 'acquaintance'. Instead, it is "what" men do when they think, opine, etc., and "upon what

¹⁹ Leviathan, p. 82.

²⁰ Leviathan, pp. 82-83.

grounds" that is significant for Hobbes. The key is to distinguish the various circumstances which surround men's actions and opinions, and discover the necessary grounds which must underlie the thoughts, passions, and actions of all men. This is accomplished by an act of self-examination, which Hobbes compares to learning a language or a science, and an extrapolation from what is found in one's own heart to knowledge of what must be found in the heart's of all men.²¹ It is this universal and unconditional identity, which should emerge from proper self-examination, that will form the basis of Hobbes's theoretical best State that is taken up in the second section of Leviathan.

A central theme which emerges from the Introduction with regards to the question of self-knowledge centres around the many references to 'reading' the self. The most striking is Hobbes's curious and idiosyncratic rendering of Apollo's maxim as 'Read thy self', rather than the more literal 'Know thy self'. Moreover, Hobbes also writes in the Introduction that knowledge of the "characters" of Man's heart is "legible only to him that searcheth hearts", and that the attempt to know men merely through observations without comparison to the self is "to decipher without a -----

²¹ Learning a language is a process of learning the meaning of words and proper grammar. Learning a science is a process of learning the proper definitions of words and the propositions pertinent to them. Thus, self-examination, I hope to demonstrate in the conclusion of this paper, is also about learning certain definitions of Man, and propositions that are based on the posited truth of these definitions.

key".²² What is 'it' within the self that Hobbes feels is 'legible' or exists in 'characters', such that it can be read like letters and words? Galileo said that the truth of Universe must be 'read' by a knowledge of the mathematical language.²³ If Hobbes's argument is similar to Galileo's, then what is the language we must learn to know things human and political? It is clear from the Introduction that a comprehensive explanation of the role of language in Hobbes's solution to the question of science and self-knowledge must be a central focal point of this paper: because of the nominal character of reason he indicates in the 'Objections' and its role in the pursuit of self-knowledge.

Aristotle also noted in his Politics that speech (logos) was at the very heart of political unity and activity.²⁴ What most clearly distinguishes his ideas on speech from those of Hobbes is the broader context within which they perceive the use of speech. Aristotle believed the 'polis' was a natural association and that speech was a faculty appropriate to the ends of a political animal (i.e.

²² Leviathan, p. 83.

²³ Especially in light of Hobbes's great admiration for Galileo.

²⁴ Aristotle, p. 60. We should notice in this comparison that Aristotle's term 'logos' has a broader meaning than Hobbes's 'speech'. 'Logos' refers not only to the physical act of speaking and the words used, but also to the underlying thread of reason or latent truth which many Greeks believed was the natural foundation of human communication (i.e. 'The Logos').

according to his theory of 'teleology'). Speech gives humans the physical capacity to communicate and so to debate questions of what is good and what evil, which constitutes the highest form of human activity and is an indispensable condition of complete human happiness.²² Conversely, Hobbes believes that both speech and the Commonwealth are essentially artificial and not natural in any teleological manner. Language is a man-made art or a tool which gives Man the capacity for the kind of knowledge necessary to know himself, imitate himself, and so create the Commonwealth. Thus, Man makes himself fit for society by first creating the conceptual tools and techniques (e.g. speech and Reason) needed for social intercourse (though not according to any teleological cause). Speech is more creative and instrumental in Hobbes's artificial Body Politique than in Aristotle's 'polis'. By equating the realm of reason and with that of speech, Hobbes denies that men are inherently rational and shows that the kind of knowledge and mutual understanding necessary for the generation of the Commonwealth are also artificial, like the Commonwealth itself.

²² According to Aristotle, full human development is inseparable from contemplating and debating the nature of what is good, evil, and useful.

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Natural Mind

In this section I want to analyze Hobbes's vision of human mind before it is introduced to words, speech, and artificial intellectual instruments. For Hobbes, natural mind is phenomenal in its matter and articulative in its procedure. It begins with images gathered from sensation and proceeds by connecting these images into a picture of the world according to identity, difference, and consequence. Hobbes claims that everything in the Universe is body, and that everything words according to motion, and so he attempts to explain natural mind as a variety of motions in the organs of the body. While many people have called this a kind of 'psychology', it is inappropriate to do so because Hobbes is specifically trying to forge a theory of human thought and knowledge which does not depend on a doctrine of the substantive soul. Rather, Hobbes attempts to account for 'mind' as that aspect of our bodies which allows us to be cognizant. This is specifically at odds with a dualistic doctrine of the soul which separates our intellect from our bodies.

Sensation and Imagination

In the first chapter of Leviathan, Hobbes proposes that sensation and the images of sense-perception are the origin and basis of all thought:

The Originall of them all, is that which we call Sense; (For there is no conception in a mans mind, which hath not at first, totally, or by parts, been begotten upon the organs of Sense.) The rest are derived from that originall.¹

Hobbes rejects Scholastic-Aristotelian explanations of sensation and imagination as consequences of a 'visible species' or 'intelligible species' emanating from external objects.² Sense images are not an unmediated picture of the world captured by our sense organs. Hobbes's explanation of sense-perception ascribes an active role to the sense organs themselves in articulating the character and constitution of the objects we observe. While he says the causes of all our sense-impressions are the various motions of bodies around us, it is the internal motions of our sense organs consequent to those external motions that provide the images and accidents we perceive as objects and their properties. Hobbes writes that the motions of external bodies are actions "strong, though unobserved" through our sense organs.³ We do not observe the actual motions of external

¹ Leviathan, p. 85., also, on p. 99. Hobbes writes: "... whatsoever (as I said before,) we conceive, has been perceived first by sense, either all at once, or by parts; a man can have no thought, representing any thing, not subject to sense."

² Leviathan, p. 86-87.

³ Leviathan, p. 86.

objects in sensation. Instead, through the medium of our sense organs and their natural motions, we receive a mediated impression of the world and its objects.⁴

Hobbes depicts a mechanical transition from external to internal motions, whereby the motion of external objects makes actual, physical contact with our sense organs, creating an ensuing internal motion. This contact may come about either immediately and directly (as in taste and touch), or indirectly through the medium of the air or 'aether' (as in sight, hearing, and smell). In this second, mediated form of contact, the various motions of bodies external first disturb the air in between, which in turn presses the organs of sense and so produces the internal motions. After the external motion of objects makes its initial contact with the sense organs, there is a subsequent motion through the passages of the nerves, continuing into the brain and especially the heart.⁵ In the heart, the inward motion produces a counter-motion outwards. Hobbes writes that the pressure of the external motion upon our various sense organs encounters resistance and an "endeavour

⁴ Body, p. 148. Hobbes writes: "Sense is a phantasm, made by the reaction and endeavor outwards in the organ of sense, caused by an endeavor inwards from the object, remaining for some time more or less."

⁵ Body, p. 149. Hobbes writes that the heart is the central organ or "fountain" of all sensation.

of the heart" to deliver itself from this pressing motion.⁶ The heart resists the incoming motion and so causes a tension or clash of these two motions in the nerves and other organs of sense which creates the colours, figures, odours, sounds, etc. associated with external objects (thus, Hobbes says we may rub our eye and so produce the appearance of external lights and colours).⁷ Since the motion outwards produced by the heart follows the motion inward, we 'project' the accidents and qualities of the internal tension back onto the world and so perceive them actually to be in or of the external objects.⁸ Hobbes sums up the active and participatory role of the sense organs in human perception in his Elements:

And from thence also it followeth, that whatsoever accidents or qualities our senses make us think there be in the world, they are not there, but are seemings and apparitions only. The things that really are in the world without us, are those motions by which seemings are caused.

⁶ Leviathan, p. 85. Hobbes uses the term 'Endeavour' to describe internal motions of the body in several key passages on natural mind (see also pp. 119, and 121.). In De Corpore (See Body p. 132.), he writes "I define 'Endeavor' to be motion made in less space and time than can be given; that is, less than can be determined or assigned by exposition or number." Beyond this, he offers little other evidence about the nature of this motion of 'Endeavour'.

⁷ Leviathan, p. 85. Hobbes offers several other empirical examples in his various books, predominantly concerning optics and the sense of sight, in which he tries to demonstrate empirically the theory that the character of our perception of the world lies more directly in the internal motions of the sense organs than in the motions of objects external. See in particular his Elements pp. 2-6.

⁸ Leviathan, pp. 85-86.

And this is the great deception of sense, which also is by sense to be corrected. For as sense telleth me, when I see directly, that the colour seemeth to be in the object; so also sense telleth me, when I see by reflection, that colour is not in the object.*

By their God-given, natural constitution the organs of sense convert the "strong though unobserved motions" of external bodies into those static and lasting qualities that are the fabric of our ideas and conceptions of objects.¹⁰ The wide variety of qualities and accidents in sense-perception are attributable both to the variety of external motions and the various organs of sense that are impressed by them.¹¹ Through this natural articulation of external motion as accidents, we come to know and understand bodies as qualitative objects (and not just a chaotic mass of motions). In this way sensation is like the art of geometry which allows us to measure and so understand incessant motion by an artificial imposition of static lines and points. The phantasms and objects of our natural fancy allow us to understand the motions of the external world more effectively as a group of accidents that we call an object. Accidents are the atomic, constituent parts or building

* Elements, p. 6.

¹⁰ Leviathan, p. 85. "Concerning the Thoughts of man... Singly, they are every one a 'Representation' or 'Appearance', of some quality, or other Accident of a body without us; which is commonly called an 'Object'." See also Body, pp. 101-103. Here Hobbes defines an 'accident' as "the manner of our conception of a body".

¹¹ Leviathan, p. 85.

✓

blocks by which we are able to conceptualize bodies and their motions as objects.¹² Hence, Hobbes writes that any object we perceive must be 'divisible' into phantasms or accidents; either in terms of the accident of extension (i.e. division of places), or motion (i.e. division of time), or in terms of the various accidents which added together make up the object in our sense-perception.¹³ Accidents allow us to understand a certain 'whatness' with regards to an object, which then allows us to discriminate between it and other objects (i.e. recognize difference), or equate it with other objects (i.e. recognize identity).¹⁴

Certain accidents, like those of time and space, are inseparable from our conception of objects. We must conceive any external body in some place and endued with magnitude. Any motions of such a body must be conceived occurring over time. In De Corpore, Hobbes defines a 'body' as "that, which having no dependence upon our thought, is coincident or coextended with some part of space."¹⁵ Hobbes distinguishes

¹² Body p. 148: "The object (of sense) is the thing received; and it is more accurately said 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 sentients." Accidents are to objects as phonemes are to words - constituent parts only recognized through rational reflection.

¹³ Leviathan p. 99. One of the conditions of conception is that any thing must be conceived in such a way that it can be divided into parts.

¹⁴ Body, p. 26.

¹⁵ Body, p. 101.

'real space' and bodies (which are external and actual) from the imaginary space and objects which exists in our minds as accidents (i.e. which are internal and phenomenal). Hobbes writes of phenomenal space in De Corpore:

'Space' is the phantasm of a thing existing without the mind simply; that is to say, that phantasm, in which we consider no other accident, but only that it appears without us.¹⁶

Imaginary space is the accident of perception in which the object perceived is distinguished from the perceiver as an other (which is a necessary condition of perceiving something as an 'object'). We can hypothetically deduce by reason that all the objects we perceive must actually possess the primary accidents of extension and motion, but this remains hypothetical and not certain because what is 'actual' is part of God's Nature and only subject to speculation by humans.

Not only space as we perceive it is a 'phantasm' of our mind, but time as well:

As a body leaves a phantasm of its magnitude in the mind, so also a moved body leaves a phantasm of its motion, namely, an idea of that body passing out of space into another by continual succession. And this idea, or phantasm, is that, which (without receding much from the common opinion, or from Aristotle's definition) I call 'Time'.¹⁷

Time is a phantasm of the object 'before and after', that is left in the mind by the motion of the object.

¹⁶ Body, p. 95.

¹⁷ Body, p. 95.

Nature, Hobbes says, is an eternal present and time only exists as a condition of our conceptualizing motion.¹⁰ These distinctions between real and imaginary space, and motion and time are important aspects of Hobbes's attempted solution to the problem of primary and secondary qualities. All qualities that are deemed 'secondary' are simply those of phenomenal perception, including imaginary space and time. The 'primary' qualities of objects (extension and motion) are hypothetical qualities, deduced from properties perceived, and posited as real through rational deduction about God's Nature and the conditions which must pertain in order for us to perceive objects in the manner we do. While we posit real 'extension' or 'magnitude' as the primary reality of external bodies, we cannot be certain of their actual and absolute 'truth', since they are parts of God's artwork. Hobbes believes that Physics is always a pursuit of hypothetical or conditional truth and that humans are incapable of achieving Cartesian certainty with regards to the Truth of the Universe.

From our perception of objects through sensation (and its retention in memory) we achieve factual knowledge of the world.¹¹ This is knowledge of 'what is', according to the

¹⁰ Leviathan, p. 97. See also Burtt, p. 124. Burtt writes of Hobbes's conception of the accident of time: "In nature there is motion but no time; time is a phantasm of the before-and-afterness of memory and anticipation."

¹¹ Leviathan, p. 147.

images and qualities we receive via sense-perception. Hobbes says that this knowledge is 'absolute': not because it is embrative and certain, but because it is the origin and foundation of all human knowledge. In its first instance, our thought is always of some 'thing' which has definitive qualities and existence derived from our sensual experiences.

Imagination

While sensation is a predominantly spatial representation of what is present in the act of perception, there is also a kind of retention of phantasms over time in the mind Hobbes calls 'imagination' (the accident of time arises from our sense that a present image is related to a past image - hence we perceive some aspect of the image to endure over time). In Leviathan Hobbes defines imagination as "decaying sense".²⁰ Mind has a natural capacity to preserve the images and objects of sense-perception for future reference. Hobbes says that this power of imagination is consequent to the natural continuity of motion or rest over time for any object, which may also be described as 'Galileo's law of motion':

When a body is once in motion, it moveth (unless something els hinder it) eternally; and whatsoever hindreth it, cannot in an instant, but in time, and by degrees quite extinguish it: ... so also it happeneth in that motion, which is made

²⁰ Leviathan, p. 88.

in the internall parts of a man, then, when he Sees, Dreams, &c. For after the object is removed, or the eye shut, wee still retain an image of the thing seen, though more obscure than when we see it.²¹

Hobbes says that the power of imagination is an ability to retain those same inner motions which provide us with sensation, likening the continuity of the motions in the sense organs to the motions of a disturbed surface of water.²² Even after we turn our attention elsewhere, or the object we observe is out of the ken of our perception, impressions of it will remain in our minds. Moreover, Hobbes writes that the gradual decay of sense images over time is not simply a waning of the internal motion itself but a gradual obscuration of old representations by the quantity and immediate vivacity of new motions in sensation (hence when we are senseless in sleep, older memories may return with renewed vigor). The objects of imagination are also dimmed over time by the continual change of the body itself and the organs within which these internal motions find continuity. Thus, the effects of length of time for the imagination are like those of distance of space for perception - an increase for either results in a greater dimming of the image or object in its clarity and details.²³ Conversely, the more brilliant the impression or

²¹ Leviathan, p. 88. See also Body, p. 111.

²² Leviathan, p. 88.

²³ Leviathan, p. 89. See also Elements, Ch. 3.7: pp. 8-9.

object, the greater the length (of time) or distance (in space) in which it will retain its full details: hence, some very vivid impressions may dim only slightly over great periods of time.

Not only are images obscured over time, but Hobbes writes that the many objects and impressions past may be recalled as a whole, in the manner in which they were first perceived as facts (which Hobbes calls 'Simple Imagination'), or in parts combined in ways not entirely of any one act of sense perception (which he calls 'Compounded Imagination').²⁴ Using both the wholes and the parts of images as building blocks, we are capable of re-membering them in combinations that do not directly correspond to any one, original conception.²⁵ For example, a 'centaur' is a fabricated animal, created by compounded imagination from certain qualities pertinent to the body of a horse and those of a man. Such compound imaginations are the basis of the creative or 'fictive' capacity of mind which is of great importance to the human capacity for poetry, religion, and arts and even sciences. However, this potential for fabrication that is important to higher forms of human art and knowledge can also lead to certain dangers or

²⁴ Leviathan, p. 89.

²⁵ Leviathan, p. 669. "And whereas a Man can fancy Shapes he never saw..."

'Darknesse' in thought.²²

At an involuntary level, the fictive capacity of imagination can result in the problems associated with 'creative memories', that is those in which one adds (or subtracts) certain impressions to others which constituted a whole event past (e.g. you remember some person being at your tenth birthday party whom you did not meet until you were in your teens). The capacity to 'mix and match' the wholes and parts of our imagination also contribute to the bizarre characteristics of some dreams. Hobbes thinks that our dreams are often vivacious and clear because in sleep past impressions are again roused by internal motions in the body. Without the obscuration of our more vivacious, waking sense-impressions these images return in our dreams with virtually the same clarity they first had in original sensation. Moreover, in dreams the fictive creatures of our compounded imaginations may stand alongside those of our simple imaginations with apparently equal reality. Thus, a centaur in our dreams may seem just as real and tangible as the man and the horse from which it was fabricated.

The danger of this is that we do not have any natural criterion by which we can easily judge the difference between our memory of original and factual impressions, and

²² The fourth section of Leviathan deals with 'The Kingdome of Darknesse'. The term 'Darknesse' refers both the ignorance and to death.

the fictive images of compounded imagination and dreams.²⁷ Since they are cut from the same cloth, the possibility arises of imagining apparitions and visions which we cannot distinguish from those of original perception, especially when, like Marcus Brutus in his tent, "we observe not that we have slept".²⁸ This fictive capacity of our imagination holds both great promise for our ability to imagine future uses of present objects (which is very important to human arts) and to imagine future or hypothetical, but it also holds dangers because there is no natural criterion by which we can distinguish the real from the fictive once they are in the realm of our fancy. Hobbes believes that the potential for 'Darknesse' is especially acute for those who do not understand the nature of mind and its motions. Such people do not perceive that the nature of the objects in their minds exist there as inner motions which may seem to be, but are not identical to the bodies in the world around them. Thus, someone might see a man on the back of a horse, dream that the two are one, and the next day come to believe in the existence of 'centaurs' since he cannot image what could be the cause of that idea except the actual existence of centaurs. Such ignorance is the origin of belief in all kinds of ghosts, goblins, and fairies.²⁹ People can imagine

²⁷ Elements, p. 10., and Leviathan, pg. 90. (Although there is no specific criterion, Hobbes does offer some ways one might discern certain waking thoughts from dreams).

²⁸ Leviathan, p. 91.

²⁹ Elements, p. 43.

that the dead person of whom they dream is not actually dead but yet alive in the form of a spirit or soul simply because he or she still appears in their dreams.²⁰ Hobbes says that the danger of such ignorance is that it can be exploited by other persons. In the second chapter of Leviathan, Hobbes speaks of the danger for those who are ignorant of the nature of dreams and imagination in so far as they can become subject to the control of those who would manipulate their fear and curiosity by claiming special knowledge of and concord with 'bogeys' of all sorts:

... for even they that be perfectly awake, if they be timourous, and superstitious, possessed with fearful tales, and alone in the dark, are subject to the like fancies, and believe they see spirits and dead mens Ghosts walking in Churchyards; whereas it is either their Fancy onely, or els the knavery of such persons, as make use of such superstitious feare, to passe disguised in the night, to places they would not be known to haunt.²¹

It is the fictive power of imagination which allows persons to create 'bogeys' and therefore which leads to superstition and idolatry of all sorts in religious practices. Hobbes writes that the seeds of religion, which exist in humans only, lie in the natural curiosity of humans and their desire to understand the consequential or causal

²⁰ Leviathan, pp. 658-659. I have no further evidence, but I wonder if Hobbes's emphasis of this point is not meant to ridicule Descartes's use of the principle of conservation to prove the existence of God.

²¹ Leviathan, p. 92.

relations of all things.³² If they cannot know such things through experience or science, they will yet suppose a cause through their own fancy, or take it on authority from one whom they believe to be wiser than they.³³ Hobbes says that ignorance disposes such people to a dangerous credulity. This credulity, especially when coupled with fear and anxiety of future time, can become a powerful tool in the government of behavior by other persons who pretend to have knowledge of what they too may be equally ignorant. Hobbes writes that it was just such ignorance, in concert with the craft of the Heathen poets, that were the main conditions for the Ancient religions of the Gentiles.³⁴

With regards to the natural power of memory, Hobbes believes that it is not an independent faculty 'per se', but a name for the older and more dim impressions of imagination that are yet retained in the inner motions of the sense organs.³⁵ By this extended retention of images over time we have the capacity for 'experience', which Hobbes says is a name for "much memory, or memory of many things".³⁶ This

³² Leviathan, p. 172. Hobbes list four natural seeds of religion: 'Opinion of ghosts, Ignorance of second causes, Devotion towards what men fear, and Taking of things Causal for Prognostiques'.

³³ Leviathan, p. 169.

³⁴ Leviathan, pp. 168-169. See also Chapter 45. Here Hobbes says that 'idolatry' of all sorts is rooted in a misconception of the nature of sensation and imagination.

³⁵ Leviathan, p. 89.

³⁶ Leviathan, p. 89.

ability to retain images past in imagination and memory is important for our ability to think at all, for our thought processes are acts of comparison and relation:

For by sense, we commonly understand the judgement we make of objects by their phantasms; namely, by comparing and distinguishing those phantasms; which we could 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.²⁷

The utility of perceived qualities depends upon this temporal retention of past images because it is only through the comparison of past and present impressions that they are meaningful and significant for a sentient being. If one had the power of sensation but no capacity for memory, objects could hold no significance; for, no quality or object is significant in itself, but only by its relation to some other images. Thus Hobbes writes in Chapter Eight of Leviathan:

And whereas in this succession of mens thoughts, there is nothing to observe in the things they think on, but either in what they be 'like one another', or in what they be 'unlike', or 'what they serve for', or 'how they serve to such a purpose'....²⁸

The significance and meaning of qualities and objects arises by comparison with qualities and objects encountered

²⁷ Body, p. 149.

²⁸ Leviathan, p. 135.

in the past. By such a comparison we are able to make judgements of identity, difference, and consequence. By this inter-comparison of the many qualities and concepts associated with the objects in our memory, the potential arises for developing a degree of foresight of the consequential relations of objects and motions in the world, or becoming 'prudent' concerning the regularity of the motions of different bodies in the world. Thus, the significance of an object depends both upon natural powers of perception and the temporal-comparative powers of memory; together they form the basis of the power of 'mental discourse' (to be distinguished from verbal discourse.⁹⁹). In the act of discursion we take the static qualities of sensation and compare and relate them with thoughts past in order to reach certain resolutions about future time and actions (e.g. what will come next? and what should I do?). For example, I may notice a creature approaching, but can only make a judgement about the significance of its approach by referring to past images relative to my present perception (what happened last time I encountered such a creature?). This capacity for mental discursion is common to all sentient creatures, though it also forms the foundation of the unique human capacity for discursion upon words (i.e. verbal discourse), which in turn is the basis of the exclusively human capacities for reason and science.

⁹⁹ Leviathan, p. 94.

Mental Discursion

In the third chapter of Leviathan, Hobbes describes mental discourse or thought as the process whereby one thought or image succeeds another in a sequential train.¹ As our perception of objects is a collection of accidents in space, so mental discursion is a coupling of these images in temporal and consequential sequence.² Hobbes says that such a succession of images may be consciously guided by some particular end or it may be unguided and wandering; however, he also says that all discursion is governed by the desire for knowledge.³ While some trains of thought may be said to wander idly, Hobbes says no succession of images in thought is without coherence, and that no train of thoughts is possible that was not previously present in sensation or imagination:

All Fancies are Motions within us, reliques of those made in the Sense: And those motions that immediately succeeded one another in the sense, continue also together after Sense: In so much as the former coming again to take place, and be praedominant, the later followeth, by coherence of the matter moved, in such manner, as water upon a plain Table is drawn which way any one part of it is guided by the finger.⁴

While one image invariably follows upon another in

¹ Leviathan, p. 94.

² It is important to remember that it is accidents and images upon which we ratiocinate in mental discursion, and not the actual bodies in the world.

³ Leviathan, p. 130.

⁴ Leviathan, p. 94.

thought as it did previously in memory, because of the great multitude of images in our memory (in whole and in parts), there is often various ways in the way one thought may give way to another. While our waking thoughts supply most past sequences, we may also dream of a fantastical train of images, the order of which will then become material for later discursion (since one could then remember the order of those images from the memory of the dream). Hobbes indicates in the Elements that our train of impressions may also follow from a combination of words and sensual images, as they do in the example of the thought of the name of St. Andrew leading to the name of St. Peter, then to the image of a rock.^a While dreams and idle imagination are called unguided or wandering because they are a succession of images without some conscious goal guiding them, the examples of Marcus Brutus in his tent and that of the 'Roman Penny' each show how the fictive imagination may unconsciously be governed and made coherent by passions of which we are not immediately aware (i.e. the lingering doubt and guilt of Marcus Brutus causes him to dream of Julius Caesar: The Roman Penny evokes anger about perceived treachery in the English Civil War).^b Thus, while a wide and even fantastic variety of consequent impressions may follow from any one impression, still the number of these

^a Elements, p. 10.

^b Leviathan, pp. 91-92, and 95.

impressions is not infinite but limited and relative to the experience and imagination of the individual.

The images, both simple and compounded, involved in mental discourse can be brought under direct guidance by an orienting appetite or passion which evokes an inner, willful endeavor to find in our memory a particular train of images relative to attaining or avoiding the object which provokes the desire or passion:

For the thought or phantasm of the desired end brings in all the phantasms, that are means conducing to that end, and that in order backwards from the last to the first, and again forwards from the beginning to the end.⁷

The desired end or goal focuses the succession of individual thoughts into a 'means-end' or 'cause-effect' chain, extending between the desired thing at one end and some means within our power at the other (each new effect in the chain becomes a cause of the next effect, etc.). A passion or appetite evokes thoughts relative to the task of achieving the end desired. For example, I am hungry and desire food, so I imagine, for example, a banana, since bananas in the past have satisfied my hunger. My thoughts do not wander from the image of a banana to a monkey, a yellow hat, then the zoo, etc. Instead, past images which I believe are actual means to the end of possessing a banana, based on my experiences of coming to possess a banana in the past, arise in my mind. I think fruit store, then money,

⁷ Body, p. 153:

then the distance and obstacles between myself and the fruit store, etc. Should my thoughts begin to wander to the monkey and the yellow hat, my hunger focuses them again and so guides the succession of images.

'Mental discourse' describes the ongoing attempt of a sentient creature to foresee and predict events by calculations upon present perceptions and the images of experience. This is accomplished by imaginatively fabricating a consequential train of images from past experience which is put forward as a prediction of future time, based on the assumption (and experience) of continuity or regularity between the order of images in the past and those in the future.⁹ Therefore, the highest achievement of mental discursion is the power to successfully fabricate and so predict future time from past experience. The term 'prudence', often used to describe a human virtue, denotes this mental capacity or power to anticipate future events based on past experience and so successfully govern present actions:

When the thoughts of a man, that has a designe in hand, running over a multitude of things, observes how they conduce to that designe; or what designe they might conduce unto; if his observations be such as are not easie, or usual, This wit of his is called 'Prudence'; and dependeth on much Experience and Memory of the like things, and their consequences heretofore.¹⁰

⁹ Body, p. 35. Hobbes says we use the name 'future' to signify the capacity of our minds to "knit together things past with those that are present...".

¹⁰ Leviathan, pp. 137-138.

Because prudence arises with memory and experience, it is a virtue most often found in the elderly (i.e. much experience equals much prudence). As the material of prudence is experience, so the test of it is experience as well: did past predictions later come true? The more experience a person has, the more different trains of images can be imagined, or the more steady and likely one particular train of images past will be: therefore, the more prudent he or she tends to be. This activity of imaginatively constructing possible future events through the ratiocination of mental discourse is the result of the capacity to transform images of memory into 'signifiers' of events that are (more or less) likely to follow from present facts. Hobbes says an image comes to be considered a 'sign' of the future from the frequency with which a similar image gave way to another in the past. Thus, the 'significance' of an image results from the comparison of past and present images (as we shall see in the next section, it also results from the normative assessment of the good or bad, pleasure or pain associated with the image or object). From the perceived frequency of the consequence of one thing to another comes a certain confidence that such a sequence will recur in future time (e.g. A red sky at night comes to be understood as a sign of a fair morn). In the same manner in which we make predictions of future time, so Hobbes says we can make a 'conjecture' of time past from the conversion

of experience into signs (e.g. we see a dog and a tattered slipper together and make a conjecture of 'what happened here' based upon experiences of canine nature).¹⁰

The resolution of mental discourse is a final judgement or prediction that some event will or has occurred. No discourse ends in absolute knowledge, but only an opinion that something will be (or not), or has been (or not).¹¹ Failure to successfully predict future events through mental discursion Hobbes describes as 'Error'.¹² However, since there is no necessity, but only probability involved in our predictions and conjectures, even for the most prudent, Hobbes says they indistinct from learned presumption:

... the 'Future' being but a fiction of the mind, applying the sequels of actions Past, to the actions that are Present; which with most certainty is done by him that has most Experience; but not with certainty enough. And though it be called Prudence, when the event answereth our Expectation; yet in its own nature, it is but Presumption.¹³

Hobbes writes at another point that "Experience concludeth nothing universally"; meaning that we cannot be certain the future we fabricate will correspond to the past

¹⁰ Leviathan, p. 98.

¹¹ Leviathan, pp. 130-131. While sense and memory are 'absolute' and knowledge of fact (p. 149), the resolution of discursion based upon these facts is not absolute.

¹² Leviathan, p. 105. 'Error' is distinct from 'Falsehood', which Hobbes says is only possible in the milieu of verbal discourse (conversely, 'truth' is only possible there as well).

¹³ Leviathan, p. 97.

we remember.¹⁴ The anticipation of future time and conjecture of past time that results in mental discourse can never achieve certainty for several reasons. Presumption and conjecture are always subject to aberrant calculations because of the vast array of variables involved in what could follow, or may have preceded, something present. In our attempts to articulate future time, we are like men guessing at the weather: we may or may not guess correctly, but there is no necessity that our prediction will come to pass because the limits of the realm of calculable variables are not within the ken of our knowledge. Moreover, Hobbes writes that true foresight of things to come, and hence wisdom, is dependent upon knowledge of the 'will' of him (or her) who commands the way the future things are to arise.¹⁵ As long as God's will is solely responsible for future time (i.e. as long as Man remains in the state of nature), then predictions of future events in nature will be subject to doubt and fallacious calculations. For even the most prudent creature, nature remains a realm of chance and fortune, or fundamentally fortuitous and lawless, because there is no necessity that the way one image or object follows another in our minds will so follow in Nature.¹⁶

¹⁴ Elements, p. 12.

¹⁵ Leviathan, p. 97.

¹⁶ The term 'chance' properly refers to our ignorance and not fortuitousness in the way events proceed, for Hobbes believes everything happens according to mechanical necessity.

In general, the various kinds of mental discourse are all forms of "Seeking, or the faculty of Invention" as Hobbes describes it.¹⁷ Our thoughts are employed to find ways and means to the objects of our desire: hence, Hobbes draws a parallel between mental discourse and the work of Spaniels attempting to pick up a scent.¹⁸ This analogy emphasizes the natural, 'worldly' grounds of mental discourse in mundane, animal activities like the search for prey in hunting. Such an analogy is a bold and novel one; for, traditionally, philosophers often emphasized the super-worldly or even divine character of thought and mind (e.g. Plato's Socrates says giving birth to ideas is something 'daemonic', and Shakespeare's scholarly Hamlet compares Man's apprehension to that of a god).

The analogy of thought to the work of dogs alludes to the fact that, although the immediate goal of mental discourse is knowledge, it is performed in the service of a master other than wisdom (like the dog who pursues prey in the service of a hunter). In Leviathan, Hobbes makes another important analogy, saying that our thoughts are as "Scouts and Spies" to our passions and appetites.¹⁹ Here he likens

¹⁷ Leviathan, p. 96. Notice that the meaning of 'invention' is closer to the Latin meaning of discovery, rather than the more recent meaning of creation.

¹⁸ Leviathan, p. 97. The likening of mental discourse to hunting is also made in the Elements, Pt. 1., Chs. 4.3, 4.4 and 5.1: pp. 11 and 13-14 respectively.

¹⁹ Leviathan, p. 139.

our thoughts to the servants of military commanders; for, scouts and spies are subordinates who are most needed in a state of war (which Hobbes later says is Man's condition in the state of nature.²⁰). Our thoughts, Hobbes implies, are by nature the tools and servants of our appetites and passions. Scouts and spies prepare an army for future actions by seeking out (or avoiding) the enemy, anticipating his movements, as well as finding places to encamp and securing supplies. Contrary to much of the Western philosophic tradition until his time, Hobbes portrays thought and ideas as subordinate to the mundane, bodily desires. Plato had stressed that, in a well-ordered soul, the intellect would rule the passions.²¹ However, Hobbes states quite the opposite, that it is part of the natural order that the passions, appetites, and desires of a man should guide and govern the direction of his thoughts. As we shall see, this has important consequences in Hobbes's theories of the origins and purposes of political order.

²⁰ Leviathan, pp. 185-186.

²¹ See Plato, Republic (441e-442d).

The Passions and Deliberation

A brief discussion of the passions is important in a consideration of natural mind for two reasons. First, because of their intimate connection with the ends and purposes of mental discursion. As shown in the previous section, thoughts are governed or guided by the passions: the passions determine which objects in sense and imagination are sought and which avoided. Hence, the passions help us choose the goals of our voluntary motions, to which thoughts find the way.¹ While sensation provides information about 'what is', and mental discursion 'what will (not) be' or 'what has (not) been', it is the passions which inform us about 'how' we should react to these objects and their motions. The second reason is that the passions, more directly and immediately than thought, lead us to a consideration of the cause or natural grounds of our thought and passions - which is what Hobbes said in the Introduction to Leviathan must be considered in self-reading.² The passions provide a key link between our thoughts and those motions of the body that are the essence of sentient, animate existence: the 'natural will', innate in all

¹ Elements, p. xv. Hobbes describes the passions as part of the 'motive' faculties because they provide the immediate impetus for our voluntary motions.

² Leviathan, p. 82. "... whosoever looketh into himself, and considereth what he doth, when he does think, opine, reason, hope, and fear, &c, and upon what grounds; he shall thereby read and know, what are the thoughts, and Passions of all other men, upon the like occasions."

sentient and animate creatures, including Man, to avoid death and preserve the vital motions of life.

For Hobbes 'passion' is a name for certain internal motions consequent to the motions of sensation and opinion (i.e. as the end of discursion). These ensuing motions provide a second kind of perception or understanding of things as either 'good' or 'bad'. When the sensual images of external bodies or the resolutions of discursion arise, they produce further motions in our organs which we experience as feelings either of attraction towards, or repulsion from our images and opinions. These feelings we generally call the 'passions':

As, in Sense, that which is really within us, is (as I have sayd before) onely Motion, caused by the action of externall objects, but in appearance; to the Sight, 'light and Colour; to the Ear, Sound; to the Nostrill, Odour, &c: so, when the action of the same object is continued from the Eyes, Eares, and other organs to the Heart; the reall effect there is nothing but Motion, or Endeavour; which consisteth in Appetite, or Aversion, to, or from the object moving. But the apparence, or sense of that motion, is what wee either call DELIGHT, or TROUBLE OF MIND.³

The feelings of appetite and aversion towards objects are identical with that motion in the heart Hobbes calls 'Endeavour'.⁴ The passions are an immediate, normative reaction to the presence or anticipation of some object or

³ Leviathan, p. 121. See also Elements, pp. 21-22.

⁴ Note that this is the same word Hobbes used for the motions in the heart at the origin of sense images. See Leviathan, pp. 85-86.

event in the mind. We feel that the object is either good and so a delight to the mind or pleasurable, or it is bad and so troublesome to the mind or painful.⁵ The names 'good and bad' or 'pain and pleasure' each refer to different aspects of the feelings of attraction or repulsion which arise from sense and opinion. Hobbes says that the names for our other passions (e.g. 'fear' and 'hope') are derived from the various ways one can describe the diverse considerations and circumstances in which we experience the motions of appetite and aversion. These names may depend on such things as whether we conceive the objects to be present or anticipated, or whether we believe that we can attain or avoid the object of desire or aversion (e.g. Hobbes writes "'Appetite' with an opinion of attaining, is called 'Hope'. The same, without such opinion, 'Despaire'.").⁶

Appetites and aversions to objects also give rise to a second kind of mental discourse which Hobbes calls 'deliberation'.⁷ In this process, the foreseeable consequences of various possible courses of action we imagine are assessed and weighed in terms of their apparent good or evil.⁸ Each imagined train of consequences

⁵ Body, p. 159. Here Hobbes describes 'pain and pleasure' as a second kind of sense about objects.

⁶ Leviathan, pp. 122-123. In De Homine Hobbes writes that "There would be an almost infinite number of passions, if we gave different names to all of them, however insignificant the differences between them." See Man and Citizen, p. 62.

⁷ Leviathan, p. 127.

⁸ Leviathan, p. 129.

proceeding from a potential action is assigned a value and then calculations are made about which option would be best. Hobbes writes that this form of discourse is called 'deliberation' because "it is a putting an end to the 'Liberty' we had of doing, or omitting, according to our own Appetite, or Aversion."⁹ In the act of deliberating, we discriminate amongst those various actions that we believe we are at liberty to follow and are capable of pursuing (if it is not within our power, we are not properly 'free' to deliberate about it.¹⁰), and choose that course of action that seems to be the most advantageous.¹¹ The process of deliberation concludes with the final appetite or aversion directly preceding action. This opinion of the best course of action in voluntary motion is what Hobbes calls 'the Will'.¹² Hobbes says that what 'Judgement' or 'Opinion' is to the resolution of mental discourse, so 'The Will' is to the resolution of deliberation.¹³

⁹ Leviathan, p. 127.

¹⁰ Body, p. 270. ("Of Liberty and Necessity - A Letter") Hobbes writes "'Liberty' is the absence of all the impediments to action that are not contained in the nature and intrinsic quality of the agent". Thus, Hobbes says that water is not said to be at liberty to flow uphill, though nothing physically impedes it (Hobbes's tactile vision of efficient causation would leave no room for a consideration of such forces as gravity or magnetism).

¹¹ Since the key question in deliberation is how we 'ought' to act, the deliberative process is usually expressed in speech via the subjunctive mood. See Leviathan, p. 128.

¹² Leviathan, p. 127.

¹³ Leviathan, pp. 130-131.

As a particular appetite or aversion at the end of deliberation, Hobbes's vision of 'will' is not one of a free and spontaneous faculty, as many writers had (and have since) portrayed it to be. Although it is associated with freedom and voluntary motion (i.e. deliberation is 'putting an end to our liberty. .'), this will of deliberation is determined by the motions of sensation and opinion, and the passions consequent to them. However, a second important factor in determining the will of deliberation is the primary distinction of what objects are considered 'good' and hence those of appetite, and what are the 'bad' objects of aversion. Hobbes says that no object is inherently good or good in itself; for, in relation to objects, 'good' is always used in relation to some person, place, and time.¹⁴ The good and bad of particular objects arises from our experience of the pain and pleasure that these objects bring us.¹⁵

However, one can invent general criteria, arising from the nature of humans, by which a group of things or a concept of things may be considered universally 'good' (i.e. even though things are not absolutely but relatively good to the person; it is yet universally good for all persons). Thus, Hobbes writes that the natural criterion by which the objects of appetite are distinguished from those of aversion

¹⁴ Leviathan, p. 120. See also Man and Citizen, p. 47.

¹⁵ Man and Citizen, p. 46.

is their help or hinderance to the 'vital motions' of the body.¹⁶ These vital motions, inseparable from our life or existence, include those of breathing, the course of blood through the veins and arteries, and the 'concoction' of aetherial spirits in the body.¹⁷ One could also include the motions of sensation, memory, discursion, the passions, and deliberation because Hobbes says that these too are inseparable from the life of the animate creature.¹⁸ If the external object is perceived to help the vital motions of the body, then it will be an object of desire and will be pleasurable or cause delight of the mind. Conversely, if the object hinders the vital motions, it is an object of aversion, pain, and trouble of the mind.¹⁹

Therefore, some general appetites can be termed 'necessary' because there are no circumstances in which they can be called anything but good (e.g. the general appetite for food: though a particular person may only desire certain food-objects at certain times.²⁰). The most significant of

¹⁶ Leviathan, pp. 121-122. See also Body, pp. 159-160.

¹⁷ Leviathan, p. 118.

¹⁸ Leviathan, p. 130.

¹⁹ Micheal Oakeshott, Hobbes on Civil Association, p. 80: "Thus, pleasure and pain are our own introspective awareness of being alive; and we prefer pleasure to pain because we prefer life to death. Further, what we prefer we endeavour to bring about. We endeavour to experience those contacts which promote our vital movements and avoid those which hinder them..."

²⁰ Leviathan, p. 120.

these necessary desires is the desire for life:

And forasmuch as 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; it is not against reason that a man doth all he can to preserve his own body and limbs, both from death and pain.²¹

Our desires for particular objects are manifestations of a more seminal and sovereign desire, innate in animate creatures, to preserve the vital motions or life of the body. As part of God's artwork of nature, this sovereign desire governs the motions of both the intellectual and motive faculties of the body; for, it is these latter motions and their consequent actions which preserve (or destroy) the cohesion of the body and prolong (or shorten) its particular, vital motions (i.e. by causing voluntary motions). The living, animate creature has a kind of instinct or 'natural will' to maintain its life, and this makes certain categories of objects, without conscious consideration, seem to be good to a sentient creature. While the will that is the end of deliberation precedes our voluntary motions, this natural will is even prior to the arousal of the passions and guides the primary distinction

²¹ Elements, pp. 54-55. In Man and Citizen, p. 48., Hobbes writes "Moreover, the greatest of goods for each is his own preservation. For nature is so arranged that all desire good for themselves. Insofar as it is within their capacities, it is necessary to desire life, health, and further, insofar as it can be done, security of future time." See also Leviathan, pp. 189-190.

of good and bad objects (i.e. the 'natural will' is the assessor of good and evil by being the origin of the feelings of pleasure\delight and pain\trouble of mind through. It is an faculty of judgement of what is the most appropriate and favourable reaction for the continuity of vital motions).

The idea of an innate faculty of judgement of 'natural will' is not explicit but latent in the writing of Hobbes. Though Hobbes does not directly discuss this motion of 'natural will' in the body, other statements he makes leads one to believe that he recognized such a thing in animate bodies.²² Hobbes describes in several places in Leviathan an inner motion of the body he calls 'Endeavour', which is the origin of both sensation and the passions.²³ This motion he says arises as a counter-motion to external motions, but does not say anything else about it.²⁴ The term 'endeavour' refers to a motion towards something and is synonymous with the term 'will'. This seems to strengthen the hypothesis that Hobbes believed that God's animate creatures had an

²² Strauss, p. 15. Strauss calls it "the principle of self-preservation", and says that Hobbes deduces both natural right and natural law from it. However, according to Hobbes's self-imposed criteria, this 'principle' must be wrested from something corporeal and in motion. For this reason I believe it must be related to something in the human body and give it the name 'natural will'.

²³ Leviathan, pp. 85; 119, and 121.

²⁴ Though, in De Corpore, Hobbes defines 'endeavour' as "motion made in less space and time than can be given". See Body, p. 132.

inner will or endeavour to continue those motions begun in generation that were inseparable from life by the use of their intellectual and motive 'faculties'. Moreover, where Hobbes discusses 'Galileo's Law of Motion' as the cause of the continuity of the motions of sensation as imagination, it is not hard to imagine that the vital motions of inanimate objects, including the inner endeavour of animate creatures to continue the vital motions through thought and action, are covered by this law as well.²⁶

It is because of the existence of such an inner will to survive, governing both our thoughts and passions, that Hobbes believes our deliberative will and actions arise according to natural necessity. In his work 'Of Liberty and Necessity - A Letter' (addressed to the Lord Marquis of Newcastle - found in Body, Man, and Citizen), Hobbes writes that our actions, at all times, are the result of mechanical causality, and that there is not truly any such thing as free or spontaneous will, as some of his contemporaries claimed:

Now when I say the action was 'necessary', I do not say it was done 'against' the will of the doer, but 'with' his will, and 'necessarily', because man's will, that is every volition or act of the will and purpose of man had a 'sufficient', and therefore a 'necessary' cause, and consequently every 'voluntary' action was

²⁶ Leviathan, pp. 87-88.

'necessitated'.²⁶

Hobbes's theory of causality leads him to assign a particular cause for every effect - ultimately leading back to God and the fixed order of mechanical nature. As they are motions consequent to other factors, one is never free to have or not have passions or thoughts; for, they are the natural products of mechanical motion in an animate creature. Moreover, one is not free to act in any which way upon the thoughts and passions, but is constrained by natural will to act in the best way, as dictated by the pleasures and pains of vital motion.²⁷ Therefore, Hobbes believed that our thoughts and actions were never spontaneous or fortuitous, but determined according to necessity and potentially subject to exact calculations. As natural creatures who are sentient and animate, we must have certain feelings, thoughts, and so 'will' our actions according to the external conditions of nature and our inner human nature. Particularly, Hobbes believes we must, according to nature, have a will to avoid death, because life is the very 'conditio sine qua non' of experiencing thought and passions.

²⁶ Body, p. 260. On p. 261., he also says "free from necessitation, I say, no man can be..." And on p. 273. that "there is no such thing as freedom from necessity..."

²⁷ Hobbes makes this statement most clearly in De Homine, where he writes: "When desiring, one can, in truth, be free to act; one cannot, however, be free to desire...". Man and Citizen, p. 46.

Based on his understanding of the nature of natural mind and the necessity of natural will, Hobbes hypothetically speculates that all men feel certain passions in certain situations because it is necessary that these passions arise in certain situations (although we may react differently because of different constitutions, experiences, and education at a higher level). For example, in anticipation of an object that, by experience or opinion, is associated with bodily harm, it is a necessary consequence of God-given human nature that a man feels 'fear'.²⁸ This is what Hobbes means in the Introduction to Leviathan when he says that by reading what a man does when he thinks and opines and upon what grounds he does it, we can know, universally and unconditionally, all men.²⁹ It is also this natural will which causes the 'restlessness' of Man's incessant pursuit of 'power after power'.³⁰ By discovering this natural will and the necessary condition of human deliberation and discursion that follow from it, Hobbes believes he can arrive at universal rules or theorms about human nature and the natural conditions of humans.

²⁸ This is the basis of Hobbes's belief, exhibited in the Introduction to Leviathan, that reading the self is an adequate way of reading others; for, he assumes that we share the formal motions of our bodies and certain necessary desires (especially, the fear of violent death) according to God's artwork.

²⁹ Leviathan, p. 82. This is from a key passage of the Introduction concerning the goal of self-reading.

³⁰ Leviathan, p. 161.

Therefore, it is upon these postulates of human nature and conditions that he will speculate about the necessary conditions of the creation of the Commonwealth, and theoretically construct the best kind of State.

As God's natural will manifests itself in the passions or desires, the universal happiness or good or 'felicity' of an animate creature is the attainment of the objects of desire; for, they are those things deemed necessary for the continuity of the vital motions of the body:

Continuall successe in obtaining those things which a man from time to time desireth, that is to say continuall prospering, is that men call FELICITY; I mean the Felicity of this life For there is no such thing as perpetuall Tranquility of mind, while we live here; because Life is but Motion, and can never be without Desire, no more than without Sense.²¹

The happiness of any sentient creature depends upon the fulfillment of the desires because what are good and pleasure are determined in their first instance by the vital motions of the body and the natural will which God places in us at generation. Death is the 'summum malum' for Hobbes because these vital motions of the body are inseparable from the very essence of our being or existence.²² This postulate of natural will and the 'summum malum' is a key to Hobbes's political thought because they animate all human thought and -----

²¹ Leviathan, pp. 129-130.

²² It is because Socrates does not consider the vital motions of the corporeal body to be identical with his true self that Socrates does not believe death is the 'summum malum'. See Plato, Apology (26-30).

action, including political opinion and behaviour. In so far as we can all 'read' this natural will within ourselves, we can recognize the necessity of all humans acting according to its dictates. As we turn to a consideration of 'artificial mind' in the next section we should keep in mind that, while artifice may respond to nature and even imitate God's artwork, it cannot transcend the necessity of the motions of nature. The natural will to live is a constant animator of human action and governs all our thoughts and actions, even in the artificial conditions of political organization.

Artificial Mind

After describing the form and matter of 'natural mind' in the first three chapters of Leviathan Hobbes turns his attention to the way in which humans are able to meliorate their intellectual faculties by the use of verbal discourse. 'Artificial mind' refers to a form of understanding which employs words, as opposed to images, as its subject matter. By imitating the processes of natural mind, but substituting words for images, humans are able to 'reason' upon universal and abstract terms. This allows them to think about and to understand the world in a manner which is more effective, leading directly to the creation of human arts and sciences. The use of verbal discursion and the milieu of artificial mind is also a key to the potential for human self-knowledge; for, it is only through the use of objective words that our subjective 'self' becomes an object of contemplation and consideration.

The Origins of Speech

In Leviathan Hobbes likens the development of reason and meliorated forms of discursion to the cultivation of corn and vines, for both processes begin with something natural and nurture it into something more useful and fruitful for humans.¹ Though speech, and subsequently reason and science, are a great boon to human intellectual capabilities, verbal discourse is firmly rooted in natural, mental discourse. In the first chapter of Leviathan, Hobbes says that sensation is the origin of all our thoughts.² The images which arise from external motion and inner endeavour provide the basic, raw material of all conceivable ideas and conceptions. At the end of the third chapter of Leviathan, Hobbes also says that sensation, imagination, and mental discourse constitute the full range of the mind's natural motions.³ The artificial faculties of mind discussed in this section - those arising from the use of language - are not distinct motions of the mind, but are a human elaboration or melioration of natural faculties. The use of words and speech transfers mental discursion upon images (which is common to all sentient creatures), into a uniquely human, discourse upon words.

¹ Leviathan, p. 683. See also De Corpore, in Body, p. 23.

² Leviathan, p. 85.

³ Leviathan, pp. 85 and 99. The natural motions of the 'passions' are not considered 'mental' motions here.

Those other Faculties, of which I shall speak by and by, and which seem proper to man onely, are acquired, and encreased by study and industry; and of most men learned by instruction, and discipline; and proceed all from the invention of Words, and Speech. For besides Sense, and Thoughts, and the Trayne of thoughts, the mind of man has no other motion; though by the help of Speech, and Method, the same Facultyes may be improved to such a height, as to distinguished men from all other living Creatures.⁴

The transformation from mental to verbal discourse is accomplished by a process of representing particular images and trains of thoughts by words in the milieu of speech.⁵ This process is a parallel one to that whereby natural mind registers images of external bodies (sensation) and then relates these images according to criteria of identity, difference, and consequence (i.e. in imagination or mental discourse). Indeed, verbal discourse seems to be another instance of Man imitating God's art.⁶ As primary extension and motion are subjected to the phantasms of sensation and imagination, so our natural ideas and conceptions are subjected to words and speech.⁷ The cultivation of our capacities for discourse through the use of language does not transform the essential manner and goals of discursion.

⁴ Leviathan, pp. 98-99.

⁵ Leviathan, p. 101. Hobbes writes: "The generall use of Speech, is to transference our Mentall Discourse, into Verbal; or the Trayne of Thoughts, into a Trayne of Words;..."

⁶ Leviathan, p. 81. Hobbes says that we imitate God's artwork in many things, besides creating the artificial Body Politic.

⁷ Man and Citizen, p. 37.

In both its natural and its artificial form (i.e. mental or verbal), discourse is still a relating of items according to identity, difference, and consequence. Moreover, verbal discourse is still governed by the passions and the motions of our instincts. The difference between mental and verbal discourse is predominantly a change in the content or nature of the items which are related and calculated upon (this change in items is the subject of the next section). Thus, verbal discourse may cultivate but does not change the essence of discursion. Though, as we shall see, it is the content of this artificial, objective realm of language which provides the necessary conditions for the generation of the artificial Body Politique.

Concerning the origins of speech and language, there is a certain ambivalence in Hobbes's political works. He cites Biblical references to language being a gift from God to Adam and to its subsequent loss at Babel; implying that, like sensation and mental discourse, speech has divine origins.* Yet, Hobbes says in the same paragraph of Leviathan that speech was something invented, and that it has been developed by human industry according to our needs and desires.* The story of God's gift of language indicates that, while the motions of sensation and imagination are an

* Leviathan, p. 100: "The first author of Speech was God himself...". He also alludes to this in De Homine. See Man and Citizen, p. 38. As well as De Corpore, in Body, p. 34.

* Leviathan, p. 100.

integral part the corporeal, human constitution, speech is somehow distinct from these natural motions of mind - a gift from God received after the six days of Creation. It is ambiguous whether Hobbes believes that speech is a natural or an artificial capacity. On the one hand, in his several political works, Hobbes describes various natural characteristics that are idiosyncratically human and are inseparable from the development of speech and language. On the other hand, Hobbes expressly says that language and reason are artificial capacities that evolve over time through human industry.¹⁰ Hobbes may mean that, while the potential for speech is consequent to certain natural characteristics that are peculiar to humans (symbolized by the Genesis myth of the gift), the actual invention and development of historical languages was a human achievement (as symbolized by the loss and subsequent recovery of language after Babel).¹¹ Certain textual evidence supports such a hypothesis.

Perhaps the most important natural characteristic of humans which could explain the unique capacity for language is the vehemence of certain human passions.¹² Humans have a very strong, natural desire for knowledge, and in the sixth

¹⁰ Leviathan, p. 101. See also p. 683.

¹¹ Man and Citizen, p. 39. Thus, after loss of original language at Babel, men still had the capacity to invent new languages

¹² Elements, p. 17. Passions are the origin of speech.

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chapter of Leviathan Hobbes says that humans are naturally distinct from all other animals but by the strength of their 'curiosity':

Desire, to know why, and how, 'Curiosity; such as in no living creature but Man; so that Man is distinguished, not onely by his Reason; but also by this singular Passion from other 'Animals'; in whom the appetite of food, and other pleasures of Sense, by preadominance, take away the care of knowing causes; which is a Lust of the mind, that by a perseverance of delight in the continuall and indefatigable generation of Knowledge, exceedeth the short vehemence of any carnall Pleasure.'¹³

More than any other creature, humans have a natural 'lust of the mind' to pursue knowledge of causal relations even beyond the demands of their immediate appetites. Humans will even seek out new experiences as a way of acquiring knowledge (i.e. humans will 'experiment'). Hobbes says that this desire to learn about causal relations and so generate knowledge is virtually without limits or is "continuall and indefatigable" in humans. We alone amongst God's creatures delight in mental pleasures, as we alone suffer from anxiety with regards to the prospect of future time.¹⁴ In De Homine, Hobbes writes that humans are driven by 'future hunger' like no other animal:

... for just as swords and guns, the weapons of men, surpass the weapons of brute animals (horns, teeth, and stings), so man surpasses in rapacity and cruelty the wolves, bears, and snakes that are not rapacious unless hungry and not cruel

¹³ Leviathan, p. 124.

¹⁴ Leviathan, p. 169.

unless provoked, whereas man is famished even by future hunger.^{1*}

The desire to know of future time is virtually insatiable for humans because there is a limitless realm of possibilities and permutations with regard to it (this is what makes the future a realm of fortune or chance for us). Even when our present and immediate needs are satisfied, we are yet driven to action by a gnawing foresight arising from our natural curiosity. It is the extent of this uncertainty, consequent to the extension of our thoughts into future time, which makes us 'famished' by future hunger; for, we must prepare in the present for a virtually limitless potential hunger in future time.^{1*} This 'famish of future hunger' and vehement curiosity about causal relations are key elements in human attempts to forge the special tools and techniques of artificial discourse, such as words and speech. These tools are used for the generation of more effective resolutions for discursion (i.e. science), and for creating ways of more effectively fulfilling our desires (i.e. by creating 'arts'). It is an imperative of human nature that we try to understand the motions of nature, and speech is an important tool in helping us to generate the kind of hypothetical knowledge of nature and natural causes

^{1*} Man and Citizen, p. 40.

^{1*} Leviathan, p. 161. The pursuit of power is "perpetuall and restlesse" for humans because of our endless uncertainty concerning the future satisfaction of our desires.

that is needed to govern effectively our actions and so improve our conditions.¹⁷

In his Elements of Law, Hobbes defines curiosity as "appetite of knowledge" and says that it is the emotion behind the uniquely human imagination of future applications, as well as the invention of names:

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. And from this passion of admiration and curiosity, have arisen not only the invention of names, but also the supposition of such causes of all things as they thought might produce them. And from this beginning is derived all philosophy:....¹⁸

In so far as curiosity is a natural characteristic, then part of the bare potential for speech is a providential gift from God, as the Genesis myth suggests. Moreover, there are other natural characteristics of humans that are also inseparable from our ability to employ verbal discourse. In the third chapter of Leviathan (on mental discourse), Hobbes describes a peculiarly human form of discursion in which we

¹⁷ Leviathan, p. 167: Hobbes writes that "Anxiety for the future time, disposeth men to enquire into the causes of things: because the knowledge of them, maketh men the better able to order the present to their best advantage."

¹⁸ Elements, p. 35.

attempt to project or imagine all the potential applications or effects of some object:

The Trayn of regulated Thoughts is of two kinds; One, when of an effect imagined, wee seek the causes, or means that produce it; and this is common to Man and Beast. The other is, when imagining any thing whatsoever, wee seek all the possible effects, that can by it be produced; that is to say, we imagine what we can do with it, when wee have it. Of which I have not at any time seen any signe, but in man onely; for this is a curiosity hardly incident to the nature of any living creature that has no other Passion but sensuall, such as are hunger, thirst, lust, and anger.¹⁹

While mental discourse is a characteristic of all sentient beings, Hobbes discriminates between 'means to an end' mental discourse and a second form of discourse unique to humans because we have passions other than sensual ones.²⁰ This ability to imagine future uses, coupled with the natural curiosity is important with regards to the capacity for speech because Hobbes says in the Elements of Law that it is by imagining the use of vocal sounds as markers for our thoughts that the potential for the use of words. Hobbes offers some insight into the genesis of this process when he says that humans, unlike the other animals, can recognize that the gradual obscuration of memory by

¹⁹ Leviathan, p. 96.

²⁰ This brings to my mind the opening scene of the film "2001: A Space Odyssey" in which a primitive hominid begins to imagine such a future use for a bone and so gains control of the local water-hole. After his triumph, the scene changes to a human space flight between the Earth and Moon. The film's makers also imply that the capacity to imagine 'future use' by the fictive imagination is at the origin of our use of tools and techniques.

ongoing sense-perception, and the fixed character of our trains of mental discourse, as shortcomings:

Seeing the succession of conceptions in the mind are caused (as hath been said before) by the succession they had one to another when they were produced by the senses; and that there is no conception that hath not been produced immediately before or after innumerable others, by the innumerable acts of sense; it must needs follow, that one conception followeth not another, according to our election, and the need we have of them, but as it chanceth us to hear or see such things as shall bring them to our minds.²¹

Humans alone can foresee that the future satisfaction of their desires depend upon the ability to recall particular sequences of images at specific times in the future. Hobbes gives the example of an animal which forgets the place where it hides the remains of its meat and so loses the benefits of it.²² When its hunger returns in future time, it is a question of chance whether a certain image or object will come to the animal's mind that can lead it into one of those particular trains of images by which it might remember the place where the food was left. Since the number of trains of images depends on experience and memory alone, the discoveries of natural experience are always in danger of being lost through sensual obscuration or memory loss. However, by actively imagining future time and their future desires, humans learn to preserve particular trains of images past by selectively positing corporeal objects as

²¹ Elements, p. 13.

²² Elements, pp. 13-14.

markers in their environment. The use of 'marks' give us a capacity to artificially induce the recollection of specific trains of thought. Hobbes continues in the same paragraph as the previous quotation:

But man, who in this point beginneth to advance himself above the nature of beasts, hath observed and remembered the cause of this defect, and to amend the same, hath imagined and devised to set up a visible or other sensible mark, the which when he seeth again, may bring to his mind the thought he had when he set it up. A 'MARK' therefore is a sensible object which a man erecteth voluntarily to himself, to the end to remember thereby somewhat past, when the same is objected to his sense again.²³

By creating actual, corporeal objects and placing them selectively in their environment, future memory becomes less subject to fortuitous decay. A 'mark' helps one to recall the train of images represented by it. Thus, a cairn of stones set up by the tree in which the meat was hidden may at a later time aid the predator's recall of the remains of its kill (i.e. the sensual image of a cairn of stones is associated with images of the meat). Hobbes says that words themselves are such corporeal markers. Like the cairn of stones, words are sensible, verbal markers which can register our past conceptions.²⁴ Images otherwise vulnerable

²³ Elements, p. 13. See also Leviathan, p. 101.

²⁴ Leviathan, p. 101. The first of two commodities of verbal discourse is "the Registering of the Consequences of our Thoughts; which being apt to slip out of memory, and put us to a new labour, may again be recalled, by such words as they were marked by." Notice that one must still be able to recall the words themselves. However, Hobbes implies that their recall is easier than remembering the images which lead to the particular

to the gradual obscuration of memory by sensation can be more effectively preserved by the use of verbal representation.

Once again, there seems to be a certain, latent idea of providence in Hobbes's theory of the origin of speech. While Hobbes says that the capacity for speech is not natural (like the motions of sensation, imagination, and mental discourse), only humans are said to possess the natural capacity for the imagination of future use, and only humans possess the capacity for self-reflection which enables us to recognize the shortcomings or disadvantages of memory loss. We can see at least three 'providential' elements in Hobbes's descriptions of the origins of language: first, the explicit reference to God's gift; second, natural curiosity and the ability to imagine 'future uses' which leads to the desire to create markers; and third, the natural ability for self-reflection which lets the human animal recognize shortcomings in its natural capacity for memory. These providential elements show that Hobbes's conception of Nature is not strictly mechanical and material - not strictly borrowed from Galileo and Descartes.²⁵

Although there is explicit textual evidence that the

 trains needed (though he does not explicitly say how this is so).

²⁵ Strauss, p. 167. Strauss says that the second conception of nature in Hobbes's writings is gradually covered over by his materialism. This seems to be consistent with the fact that most of the providential evidence is in Hobbes's earliest political work, The Elements of Law.

capacity for speech is not natural but a product of human industry or 'will', Hobbes seems reluctant to portray speech as a capacity that is created by human will or created 'ex nihilo' by human industry. The capacity for speech, which is the foundation of 'artificial mind', seems to be a sort of middle ground or bridge between what is natural and God-given, and what is artificial and Man-made in human mind and intellectual faculties. Like a child is reasonable 'in potential' because of its potential ability to use language, humans have the potential for language by nature, but do not possess the capacities of artificial mind (like reason, science, and arts) before actually developing that potential by their own industry.²⁶ This view not only helps to explain the contradictions of Hobbes's portrayal of the genesis of speech and artificial mind, it also helps to explain the manner in which Hobbes can generate the artificial standards by which he can judge the good of his hypothetical Commonwealth (more on this in the conclusion of this paper).

Hobbes writes that, not only are we able to mark and register our own thoughts, but we are also able to "declare them one to another for mutual utility and conversation".²⁷ The same words used as markers to improve memory are also

²⁶ Leviathan, p. 116.

²⁷ Leviathan, p. 101. The word 'conversation' originally meant both 'familiar verbal intercourse' and 'common manners and behaviour'. The latter definition emphasizes the benefit of the "conjunction of mankind" that is consequent to language.

used as 'signifiers' for communicating our thoughts and passions to other humans.

So that the first use of names, is to serve for 'Markes', or 'Notes' of remembrance. Another is, when many use the same words, to signifie (by their connexion and order,) one to another, what they conceive, or think of each matter; and also what they desire, feare, or have any other passion for. And for this use they are called 'Signs'.²⁰

When private markers become common terms which two or more understand to represent the similar objects or relations, then marks become more aptly called signs or signifiers. The particular images and experiences of sensation and mental discourse are represented by various words and forms of speech, and so made suitable for communication. While our capacity for intercourse is rooted in our common physiology and nature, it is our thoughts and feelings as they are represented by words, and not as unmediated, internal motions, which are the cause of our mutual understanding (in the same way that it is not external bodies but the internal images of bodies upon which are the materials of mental discursion). For each of us, words represent certain private images in our own minds which we, in turn, associate with the words spoken to us. We may or may not perceive a dog or feel anger in exactly the same fashion (we cannot know since we do not have immediate insight into each other's thoughts through universal ideas). However, in so far as we can each use the word 'dog' or

²⁰ Leviathan, p. 101.

'anger' to represent a private image or feeling, then there is an objective and actual identity between them. When I use the word 'dog', I conjure up a specific image or set of images, as do you. When you use the word 'dog', I conjure up the same images again and so do you. What is most important is that it is not the image but the word which is identical in each act of communication. It is the artificial and objective word itself that is the common element of communication between us and not the image or feeling; though, we may believe that our images are fundamentally the same and base our attempts to communicate on this belief.

The word is also a more concrete and durable item of thought than the fleeting image of private mental discourse, especially as part of the vocabulary of a language. Speech allows humans to communicate their thoughts, wills, feelings, and knowledge to each other such one is not confined to the limits of particular experiences, but is able to benefit from the accumulated experiences of others (e.g. through histories) and from the ratiocinations of others as well (e.g. through Science or Philosophy).²⁹ This capacity is generally described by Hobbes as the capacity for "Counsell", which he lists as the second general use of speech.³⁰ From this use of common signifiers to communicate our experiences to each other arises a common understanding

²⁹ Leviathan, p. 147-148.

³⁰ Leviathan, p. 102.

of the world and each other. This, in turn, provides the potential for a common normative understanding of the good and evil of things and actions. In Chapter Seven of Leviathan, Hobbes introduces the notion of a common human conscience arising from verbal discourse with the following statement:

When two, or more men, know of one and the same fact, they are said to be CONSCIOUS of it one to another; which is as much as to know it together. And because such are fittest witnesses of the facts of one another, or of a third; it was, and ever will be reputed a very Evill act, for any man to speak against his 'Conscience'.²¹

It is not by having the same thoughts (for thoughts are private and idiosyncratic) but by using the same words to articulate our private experiences that we are able to create the identity of mutual consciousness. Thus, in one sense, we can see why Hobbes writes in De Cive that Man is not 'born fit' for society: though men may desire conversation and be in need of each other, they have no natural means to recognize their common nature and conditions, nor the advantages of mutual cooperation.²² Only by the artifice of verbal discourse can humans communicate, reason upon universal items, and make contracts - all of which are necessary elements in forging the actual bonds of civil society.

²¹ Leviathan, pp. 131-132. This statement directly follows Hobbes's discussion of 'Science' and 'Opinion' as the resolutions of verbal discourse.

²² Man and Citizen, p. 110 (footnote).

A special point of interest is how the notion of 'conscience' leads directly to the notion of 'good and evil' for Hobbes. For natural mind, what is 'good' is identical with pleasure, delight, and the objects of desire; and 'evil' with pain, trouble of mind, and the objects of aversion.²² With the development of a mutual conscience in the milieu of verbal discursion, there also emerges a potential for creating universal or standard judgments about what is Good and Evil. Such a singular form of good or right could govern the actions of more than one person and so create an artificial standard of how men 'ought' to act (notice that 'ought' or the subjunctive-optative mood of speech is a product of wresting words into a communicable form). 'Right', we might say, is what one man would not deny another in good conscience.

And forasmuch as 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; it is not against reason that a man doth all he can to preserve his own body and limbs, both from death and pain. And that which is not against reason, men can RIGHT, or 'jus', or blameless liberty of using our own natural power and ability. It is therefore a 'right of nature': that every man may preserve his own life and limbs, with all the power he hath.²⁴

One might trace the development of 'right' back to the

²² Leviathan, p. 120.

²⁴ Elements, pp. 54-55. See also Leviathan, pp. 109-190.

desire of humans to have knowledge of future time. Before the use of speech, other human beings were objects of our natural experience of nature, essentially like other bodies. We could observe their actions and form expectations about what they might do next, but our presumptions of their actions would be, 'a-priori', no better than those formed with regards to other bodies. With the ability to recognize a human identity or nature, one can more successfully predict human actions. The experience of self becomes evidence by which one can judge the probable actions of others. Recognizing that all humans react to similar stimuli, humans can also actively impose artificial, future conditions which can regulate the actions of other humans (i.e. create laws). Through reasoning, a person might come to expect another not to harm his fellow citizens (this is a Natural Law); however, by communicating artificial prohibitions and sanctions against such an action, one increases the certainty that another will not do so (though one cannot completely guard against irrational behaviour because men are made fit for society or rational only by artificial education). Knowledge that all humans must fear death by instinct - knowledge gotten by self-examination and the universal items of reason - can be used as a tool of social order: indeed, it is the most important single tool of social order for Hobbes. Certain kinds of action deemed good for human life give rise to expectations and eventually

obligations with regards to human actions. Hence, predictable behaviour becomes identical with good and right behaviour through the artificial imposition of laws and sanctions. 'Right', therefore, now describes not only a consciousness of what is good (e.g. 'the right answer'), but also a legal or moral correctness in the eyes of others (e.g. 'do the right thing').

From all this it is clear that the question of speech, whether it is or is not a wholly artificial capacity is a clouded one in Hobbes's works. There is textual evidence to support a theory that speech is a natural faculty in many ways because it is dependent upon several natural faculties of humans. On the contrary, there is direct evidence that Hobbes sees speech as the architectonic art of all human arts and sciences. These two strains can only be reconciled by stating, as Leo Strauss does, that there is a latent dualism in Hobbes's view of nature which is disguised by his professed, singular materialism; or that what is artificial about speech is specific and not encompassing the whole range of speech itself. We can see that the desire for knowledge itself is not artificial, nor is the imagination of future uses which leads to use of markers and signifiers. In so far as these are key elements in the origin of speech, this is not artificial. So, this leaves us with the question - what is specifically artificial about speech?

How Words and Speech Meliorate Discursion

By the use of verbal discourse, humans are not only able to improve their memories and communicate their conceptions and feelings, they are also able to meliorate and amplify their ability to ratiocinate and reckon—achieving by the industry of speech what is impossible for the unaided, natural faculties of mind. Words and speech amplify the capacity of discursion to reach effective conclusions about the existence and relations of things. Indeed, the very potential for arts and sciences, Hobbes says are directly consequent to the registration of phantasms and fancy as words in the artificial milieu of speech and language. Verbal discourse liberates our contemplation of things from certain limitations inherent in natural discursion by providing ways of hypothetical conceptualization and consideration which are impossible at the level of mental discourse. When the concepts of our imagination are translated into words and speech, we need not represent and order them in trains of words that directly correspond to the trains of images in mental discourse. Using words instead of images in discursion, we can more freely allow our perceived 'needs and election' to guide us in the way we speak, and so think, about the world.¹ Moreover, words and speech give us the special

¹ Recalling that Hobbes says in The Elements of Law that the use of 'marks' first arises from recognizing that our thoughts "followeth not another, according to our election, and the need

capacity to reason upon abstract ideas and relations that are not otherwise subject to experience and consideration, except through the milieu of verbal discourse.

Language allows us to represent accidents, relations, processes, and other abstract things as words, and then treat them as though they were actual things, just like the images of mental discourse. This ability to 'feign' the existence in abstract entities in speech amplifies the capacity of discursion beyond the confines of simply relating the images of personal experience according to rubrics of identity and difference, and temporal-consequential relations.

But seeing every name has some relation to that which is named, though that which we name be not always a thing that has a being in nature, yet it is lawful for doctrine's sake to apply the word 'thing' to whatsoever we name; as if it were all one whether that thing be truly existent, or be only feigned.²

At the level of imagination we saw how a fabricated or 'compounded imagination' (such as a centaur) could be represented in the mind on an equal footing with actual creatures of waking experience (such as a cow). In the milieu of language a similar kind of fabrication is

we have of them..." Elements, p. 13.

² Body, p. 35. In Leviathan Hobbes writes: "And this is all the variety of Names 'positive'; which are put to mark somewhat which is in Nature, or may be feigned by the mind of man, as Bodies that are, or may be conceived to be; or of bodies, the Properties that are, or may be feigned to be; or Words and Speech". Leviathan, pp. 107-108.

possible. Words that do not directly represent any particular object in the world may be used in speech on an equal footing with those that directly correspond to actual objects. Indeed, whole hypothetical categories of things--things that cannot otherwise be said to exist except in the milieu of speech -- may be subjected to discursion and deliberation. Such words and categories of words are given a formal kind of existence or reality within verbal discourse, although nothing subject to sensual or imaginative experience may directly correspond to these terms.

The best examples of using feigned or abstract words to create an artificial category of conceptualization are those of numbers and universal terms.³ Hobbes says in Leviathan that it is by creating and learning the order of abstract numbers that men learned to calculate upon qualitative relations, and to create an artificial registration of time.⁴ Numbers are not extended bodies or motions which we first know as images and then represent by words. Rather, they are abstract terms of speech which are used to register

³ Concerning numbers see Leviathan, p. 104. Note also in De Homine (p. 39 of Man and Citizen) that Hobbes lists the power of numeral words as the first of the pre-eminent advantages of language. Concerning the use of universals see Leviathan, pp. 102-103.

⁴ Leviathan, p. 104. Only by knowing the order of numbers could someone tell time by the clock. In Man and Citizen, p. 39. Hobbes stresses the importance of numbers for the use of such arts as astronomy (link to time), geometry, architecture, and engineering. In the section on mental discourse we saw how time was truly a measure of motion.

and signify certain kinds of relations between two or more objects. Numbers are artificial units of representation that are arranged in sequential, symmetrical relations (i.e. each number is a one and equidistant on the numberline from the next number - hence what one is to two, so two is to three, etc...) which signify at once both an identity and a difference of the things they are used to represent (i.e. the things represented by numbers are identical in so far as each is represented by a unit of number, but different in so far as each one is represented by a different number.*). By the use of numbers and numerical relations, humans can make exact, 'a-priori' calculations concerning quantity, regardless of any experience of the objects which numbers are used to represent.* By registering a series of numbers in memory (i.e. memorizing our "1, 2, 3's") we are able to create an artificial capacity for ratiocinations which involve quantity. Thus, it is only through the experience and understanding of artificial words in the milieu verbal discourse (rather than bodies in the milieu of mental discourse) that we could come to understand and employ reasoning upon numbers in our arts and sciences (e.g. in

* Numbers convey what Hegel would call 'the identity of identity and non-identity'.

* Man and Citizen, p. 41-42. Mathematics (including arithmetic and geometry), as knowledge of abstract numbers, figures, etc, does not depend on any experience of natural images (i.e. sensation and imagination). Rather, it depends on the experience and understanding of the milieu of the items and relations of the mathematical language.

geometry and astronomy).

The use of 'universals' or those indefinite terms we apply to an artificially defined series of particulars is also a product of verbal discourse. Hobbes says that there is nothing existent in the world that is itself universal except the names we create to represent equally this and that particular image (though it be neither this nor that particular).⁷ Thus, 'cattle' is an abstract term we create for use in speech to represent our perception of the 'cowness' of many particular bodies. The term does not correspond to any particular body from sensation and imagination; however, you and I may conjure up various images of particular cows and know that the word 'cattle' is equally applicable to them. The universal word does not correspond to any one particular image (i.e. it is not a proper name.⁸), but is with equal effectiveness an abstract 'place-holder' in verbal discourse for a whole series of mental images. The universal word allows us to categorize a group of bodies according to one or several accidents pertinent to all instances (which is the definition of the word), so and create an abstract, universal instance for use in speech and reason. Universal words first give us the capacity to abstract from specific conditions pertaining to time and place, and to make universal rules of knowledge

⁷ Leviathan, pp. 102-103.

⁸ Leviathan, p. 102.

that are indifferent to the time or place of the specific image to which it is applicable (e.g. 'cows' - this cow, that cow, any cow - lie down when it is about to rain). This ability to understand aspects of the world through the use of artificial, universal instances and rules in verbal discourse, allows human to know about things in a way that is not confined by the limits of our personal experience of images (as was prudence). In Leviathan, Hobbes offers the example of observing a particular triangle, saying that we may perceive by sense that the interior angles of this particular triangle add up to two right angles; but, universal words and theorems allow us to assert that for all triangles everywhere the sum of the interior angles is and must be always equal to two right angles (thus, the law developed from this theorem is 'If it be a triangle - any triangle at any time in any place - then do its interior angles equal two right angles').⁹

As the images of our natural sensation are the basis of all our possible thoughts, all abstract or feigned terms must first be wrested from our natural imagination (e.g. the universal 'cattle' must first be abstracted from the particular image of a cow). Hobbes says images are subjected to the various categories of speech according to their very potential to be considered and calculated upon in verbal discourse:

⁹ Leviathan, pp. 103-104.

'Subject to Names', is whatsoever can enter into, or be considered in an account; and be added one to another to make a summe; or subtracted one from another, and leave a remainder.... And because the same things enter into account for divers accidents; their names are (to shew that diversity) diversely wrested, and diversified.'¹⁰

Translating mental into verbal discourse, we 'wrest' words from images according to the perceived potential to enter those words into the 'accounts' of verbal discourse and ratiocination. Not only can we abstract certain words from images of bodies (e.g. universals), but we can also create distinct categories of words which have only a calculable meaning within the milieu of verbal discourse (e.g. names of names like 'affirmation'). Thus, words which can be made into speech-functional, effective 'placeholders' for our private and idiosyncratic ideas, can also be diversely wrested and re-wrested again into words which can exist only as items in the ledger-accounting of rational speech. While, the first or original reality of the objects of speech and knowledge lies in the natural motions of our natural thoughts imagination, by our capacity to feign the existence of abstract terms and wrest hypothetical word-categories in the milieu of speech, we can more effectively contemplate and deliberate about bodies and their motions. Indeed, Hobbes intimates in both De Homine and his Elements of Law that verbal discourse can become a realm of understanding that is virtually independent of the

¹⁰ Leviathan, pp. 106-107.

employment of natural imagination and experience.¹¹

In Leviathan, Hobbes describes four different categories of concepts that are "subject to names".¹² These are basic divisions describing various forms into which words might be wrested for the purposes of meliorating ratiocination. First, he describes words that can be used to represent those sensual qualities which lead to our perceptions of bodies in the world. For example, the word 'living' itself does not signify a particular body or thing itself (hence it is not 'real' according to Hobbes's criterion of page 689 of Leviathan). Rather, 'living' is a word which represents one of those qualities or accidents by which we recognize, identify, and distinguish one body from another in imagination, and then relate these images in consequential trains in mental discourse. These qualities, which are indistinct from bodies in imagination, can be wrested from those bodies and considered independently in the realm of speech. Such words are important tools in discursion because they allow us to consider accidents

¹¹ Man and Citizen, p. 41: "The man who truly doth not think, speaks; and what he says he believes to be true." See also Elements, p. 17: " (men)... have by that means (i.e. the invention of language) transferred all that discursion of their minds... into discourse of words; and 'ratio', now, is but 'oratio', for the most part, wherein custom hath so great a power, that the mind suggesteth only the first word, the rest follow habitually, and are not followed by the mind." Men can think upon words as they think upon images, simply by following how one tends to follow another in experience (i.e. this is 'oratio').

¹² Leviathan, p. 107.

independently of bodies in verbal discourse (which we are unable to do in mental discourse).

Hobbes says we may further wrest and transform such a word by re-representing this accident or quality of bodies as a universal concept that is independent of the consideration of bodies. This universal accident we enter into the account of verbal discourse as a concept representing equally all the instances of some accident or quality. For example, one may enter the universal term 'life' into an account to represent all instances of the accident 'living' (which was itself originally wrested out our fancy of external objects and their motions). Hobbes describes these names of accidents as 'names abstract' in Leviathan, because they are created by the separation or abstraction of qualities from the consideration of the bodies from which the accidents were first recognized. In De Corpore, Hobbes says that these universal accidents or abstract names are employed in speech to denote general causal relations amongst names.¹² These abstract terms are crucial components of verbal discourse because only by their use are we able to create a calculative, propositional form

¹² Body, pp. 46. Hobbes writes that "abstract is that which in any subject denotes the cause of the concrete name." A good example of designating abstract names as causal agents is saying that it is 'heat' which causes the illusion of water or waves over pavement on hot days. While it seems more appropriate to say the hot air above the pavement causes this phenomena, we use the term 'heat' to indicate the general cause of the name 'hot' being applied to the air (i.e. what is the cause of the air being 'hot').

of reasoning about the properties of bodies, and therefore are we able to enjoy the full benefits of reason.¹⁴ Moreover, it is from such a category of terms that the concept of 'self' must first arise; for, the self describes the abstract, universal cause of our thoughts and actions.

A third category are those words entered into speech-accounts for properties of our own bodies by virtue of which we are able to make identifications and distinctions of accidents and qualities. Examples of such words are 'sight', 'sound', and 'idea'. Closely related to this category of words are those we use to describe our appetites and passions (for these too are properties of our bodies). These are not qualities of the bodies in the world around us, but are words for the faculties of our bodies by which we are able to perceive qualities and accidents in bodies. 'Sound' is not something in or of the object which causes it, but is a word for the kind of perception of that object which results from the inner motions of our hearing organs consequent to motion in the air. With the invention of such names we begin to reflect upon and 'Read' ourselves, in so far as only with such a category of names do these internal accidents of our 'selves' gain concrete existence (for I do not perceive my own 'sight', nor do I have an idea of my

¹⁴ Body, pp. 45-47. Hobbes writes "Now in all matters that concern this life, but chiefly in philosophy, there is both great use and abuse of 'abstract names'; and the use consists in this, that without them we cannot, for the most part, either reason, or compute the properties of bodies...".

ideas, except in so far as I first make them into objects in the milieu of speech where I can observe them and their properties as 'things' and speculate upon the manner of their generation).

The fourth and final category of is the of names of names themselves. Hobbes says that these may come to be mistaken for existent things in the same way that universal words could be considered something actual in the universe (e.g. 'species' is a name of a name and not something actual). Other such names of names are 'affirmation', 'general', and 'adjective' (indeed, 'universal' is itself such a name). These are neither names for bodies nor the qualities of bodies, but simply names by which we distinguish and categorize kinds of words and phrases, and by which we organize the syntax of our speech. Though Hobbes does not list them with the other four, there are other important categories of terms in verbal discursion. Negatives, such as 'infinite' and 'impossible', also come to exist in speech on equal footing with other word-objects, though there be no such thing outside the realm of speech. Relative names, including the copula 'is' and all its cognates, or names which refer to some way in which things or accidents are perceived to be related to each other, such as 'father', 'subject', and 'cause'.

In light of what Hobbes says here, we can see that most of the key terms and concepts of philosophy emerge from this

process of diversely wresting words from images and other words. The 'primary accidents' of extention and motion themselves are products of wresting words from other words (i.e. 'motion' is wrested from 'moving body', and 'extention' from 'extended body' - both fall into the second category above of 'names abstract'). Moreover, key terms in Hobbesian political thought - like power, right, and sovereignty - are terms that have meaning only within the milieu of verbal discourse and the common human conscience which arises from the use of language. Not only do these terms themselves exist only in the milieu of speech, but the very potential for truth and rational demonstration are dependent upon the nature of verbal discourse and the capacities for definition, proposition, and syllogism which arise within it.

From the ability to wrest words from images arise several important, uniquely human capacities. The first general use of speech Hobbes lists is the ability to register consequential relations (perceived or merely hypothetical) in words and speech and so acquire the capacity for 'arts'. This is an essential faculty which distinguishes humans from other creatures - for it is speech that gives humans the capacity for 'artifice' of all kinds, including artificial forms of discursion like reason and science. Hobbes writes in Leviathan that human arts are consequent to our imagination of future applications and the

employment of words and speech to register these imaginings:

Speciall uses of Speech are these; First, to Register, what by cogitation, wee find to be the cause of any thing, present or past; and what we find things present or past may produce, or effect: which in summe, is acquiring of Arts.¹⁵

Although the development of language is paradoxically a product of human artifice, Hobbes says that this ability to register perceived consequential relations in words is the basis of humans acquiring the use of 'arts'.¹⁶ By 'registering' or recording in words our understanding of the relations of present images, humans are able to reproduce certain effects according to their need and election at other times and in other places. For example, by registration in words of the experience of a flint producing sparks a universal, the art of fire-making might

¹⁵ Leviathan, pp. 101-102. Hobbes lists three other special advantages of the use of speech: the capacities for counsel and communication, and the ability to "please and delight ourselves and others" by the use of words. Hobbes also offers three key advantages of the use of speech in De Homine (See Man and Citizen, pp. 39-40.) in which he lists first, the power of numeral words and measure; second, the capacity for council; and finally, the capacity for command and understanding (which he says is the greatest benefit of speech).

¹⁶ Here again is the paradox of verbal discourse in Hobbes' philosophy. Speech is at once a necessary condition of art but itself a product of artifice. Thus, there is ambiguity about the origins of language, for God cannot be said to be the author of what is artificial. However, without some divine assistance how can Man make the qualitative transition from natural to artificial discourse? Again, it seems to me that the potential for speech is natural in humans, though the actual achievement of language is a human one for Hobbes.

have come into existence.¹⁷ Through speech the particular and private experience of one person becomes a general process, with a series of articulated stages, that can be conveyed to and understood by other persons. Thus, it is the ability to make our particular and private experiences into general knowledge of words, and then to preserve this as knowledge of a standard process (i.e. as a series of stages) that are the essential ingredients in the acquisition of human arts.¹⁸

Closely related to the arts is the human capacity for 'science'. Notice how similar Hobbes' definition of science is to that of art:

'Science' is the knowledge of Consequences, and dependence of one fact upon another; by which, out of that we can presently do, we know how to do something else when we will, or the like, another time: Because when we see how any thing comes about, upon what causes, and by what manner; when the like causes come into our power, we see how to make it produce the like effects.¹⁹

¹⁷ A particular experience and prudence of fire-making may be passed from one human observing the actions of another, but this is not 'art' according to Hobbes' definition. Perhaps because it is yet subject to the vicissitudes of natural memory and accidents of experience.

¹⁸ Body, p. 32. "For unless he communicate his notes with others, his science will perish with him. But if the same notes be made common to many, and so one man's inventions be taught to others, sciences will thereby be increased to the general good of all mankind." Though Hobbes uses the word 'science' here, one could substitute the word 'art' or 'philosophy' and the statements would have the same meaning; for, all three words have a similar meaning for Hobbes.

¹⁹ Leviathan, p. 115. See also p. 106. "So that in the right Definition of Names, lyes the first use of Speech; which is the Acquisition of Science."

Both art and science depend upon the perception of consequential relations that are registered in speech, and both aim for effectiveness in activity that is oriented to future time. Indeed, it is hard to find a clear distinction between the two in Hobbes's writings. The difference would seem to be that 'art' refers more broadly to the general capacity to use speech for registering consequential relations as processes, and so increasing the ability of humans to think and act 'artificially'. Science, on the other hand, seems to refer more specifically to the register of consequential relations itself as an accumulated corpus of knowledge.²⁰ Science's hypothetical character is stressed several times by Hobbes in Leviathan and we might assume that it is the more theoretical and 'art' the more practical side of what is truly the same process of registering consequential relations in verbal discourse. Hobbes's definition of science emphasizes its rootedness in mundane and practical considerations – those related to the satisfaction of our appetites and passions.

Both art and science result in the ability to formulate general or universal 'laws' concerning the consequential relations of things in the milieu of speech. This capacity to create theorems and laws through the use of language is central to the utility or effectiveness of using words and

²⁰ Leviathan, p. 147. Science is "Knowledge of the Consequence of one Affirmation to another."

speech in our discursion.²¹ The embrative rules or 'theorems' that can be equally applied to any particular instance are at the very heart of human arts and sciences, and the capacity to improve our natural conditions through artifice. Hobbes says this unique human capacity to create theorems and laws is directly related to human curiosity and our natural ability to imagine future uses in mental discursion:

I have said before, (in the second chapter,) that a Man did excell all other Animals in this faculty, that when he conceived any thing whatsoever, he was apt to enquire the consequences of it, and what effects he could do with it. And now I adde this other degree of the same excellence, that he can by words reduce the consequences he findes to generall Rules, called 'Theoremes', or 'Aphorismes'; that is, he can Reason, or reckon, not only in number; but in all other things, whereof one may be added unto, or subtracted from another.²²

In the milieu of verbal discourse, humans are not only able to reckon upon numbers, but upon words as well. Hobbes believes that the kind of certainty which Descartes sought through mathematics is available (with certain qualifications.²³) in the field of verbal discourse. By calculating upon words we can arrive at certain conclusions or aphorisms about the relations of things in speech that

²¹ Leviathan, pp. 216-217. For Hobbes, the 'Laws of Nature' themselves are properly theorems of human reason.

²² Leviathan, p. 113.

²³ One main qualification is that all verbal reckoning is hypothetical, and based on the relations of words - not the things they are to represent in speech.'

are unequivocally true and beyond reasonable doubt. These conclusions are the great achievement of human reason and science and are the ultimate achievement of human discursion.

Reason and Science

That science or philosophy is a product of reason, I think virtually all would agree. What is subject to dispute is the nature of reason itself.¹ In his "Objections" to Descartes's Meditations, Hobbes proposes that reason may not be a distinct faculty of the natural mind, but "the uniting and stringing together of names or designations by the word is".² Hobbes's conception of reason is important to us for two reasons. First, because of the direct correlation between the power of reasoning and the potential for science, including a science of politics. Second, because Hobbes, like Descartes, believes that it is through the faculty of reason that knowledge of the self is possible. The question of reason is at the very core of the epistemological question and so connected to the question of self-conception.

In the "Objections" Hobbes intimated that the essential characteristic of the faculty of reason was that it was a

¹ Eric Vogelin's essay "Reason, The Classical Experience" provides an important contrast between the 'instrumental' definitions of reason presented by Hobbes and Descartes and the experience of reason as 'nous' by Greek philosophers like Plato and Aristotle. Vogelin claims that 'nous' symbolized an ordering force in the soul which lead to the experience of wonder and the erotic desire for wisdom which characterized philosophy, as well as symbolizing the existential reality of a soul oriented towards the divine ground of existence. It was the experience of this force in the soul which lead to the recognition of ignorance in the soul and disorder in society and hence to the quest for philosophic self-knowledge of the soul.

² Descartes, Vol. 2., p. 65.

product of verbal discursion. In his Leviathan Hobbes says of reason:

For Reason, in this sense, is nothing but 'Reckoning' (that is, Adding and Subtracting) of the Consequences of generall names agreed upon, for the 'marking' and 'signifying' of our thoughts; I say 'marking' them, when we reckon by our selves; and 'signifying', when we demonstrate, or approve our reckonings to other men.³

Unlike Cartesian reasoning upon 'ideas', Hobbes says reasoning is nominative or concerned with the relations of marks and signifiers. All sentient animals are able to think or discourse mentally by adding or subtracting (identifying or distinguishing) and correlating the images of sensation and imagination.⁴ Like our mental consideration of objects, reasoning is also an act of identifying 'this' and 'that', distinguishing 'that' from 'this', and connecting things in causal relations. Moreover, reason, as a product of verbal discourse, is rooted in and imitative of the faculty of mental discourse. The words which are the raw material of reasoning must first be wrested from the images and accidents of our senses and imagination and then added, subtracted, and correlated together in speech (i.e. like images in mental discourse).⁵ Therefore, the qualitative difference between reasoning and mental discourse is a direct result of the way in which we are able to diversely

³ Leviathan, p. 111.

⁴ Leviathan, p. 112. See also Body, pp. 25-26.

⁵ Man and Citizen, pp. 37.

wrest words from images: for example, the universal terms of verbal discourse transform discursion by allowing us calculate upon universal instances (recalling the example of measuring the angles of a triangle which Hobbes gives in Chapter Four of Leviathan).⁶ For Hobbes, the capacity for reason is not something natural or an innate faculty of the mind, nor is it accumulated through experience in the same manner as prudence.⁷ Instead, reasoning is an artificial capacity, attained by human industry and invention in the milieu of verbal discursion.

It is the capacity for reasoning which distinguishes humans from other creatures, and Hobbes says that Man's nature is that of a rational animal.⁸ This is problematic in so far as Hobbes indicates that men once existed without language, and so they were once irrational like the other creatures: how can this be reconciled with Man's rational nature?⁹ Either irrational (pre-linguistic) humans must still have been reasonable in a way that other creatures are not; or, Man's essence must be wholly artificial. Given what

⁶ Elements, p. 20. Hobbes reflects the origin of reasoning in sense-perception when he writes: "The first principle of knowledge therefore 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 a manner, as to make true propositions..."

⁷ Leviathan, p. 115.

⁸ Elements, p. 1.; Leviathan, p. 103.; Body, p. 112.

⁹ Strauss, pp. 104-107. That Hobbes's hypothetical history must have real historical implications.

was learnt in the previous chapters, I must favour the former alternative. Hobbes claims in Leviathan that children are not actually 'reasonable' until they attain the use of speech and language; yet, they are reasonable in potential because they are potentially capable of speech - the actual achievement of rationality being coincident with the achievement of verbal discursion.

Children therefore are not endued with Reason at all, till they have attained the use of Speech: but are called Reasonable Creatures, for the possibility apparent of having the use of Reason in time to come.¹⁰

'Reason' may be deemed part of Man's nature or essence because the potential for Reason is consequent to those natural qualities which first allow humans to invent and develop language (i.e. a natural potential for speech because of vehement curiosity, the imagination of 'future use', and the recognition of shortcomings in mental discourse). Thus, Hobbes can say Man is by nature a rational animal, even though he may once have been irrational, because of Man's natural potential for verbal discourse and hence reason (i.e. Pre-rational Man was like the child who is reasonable in potential). Conversely, reasonableness is often associated with maturity, particularly paternal maturity in Leviathan.¹¹ Moreover, in Chapter 46 of

¹⁰ Leviathan, p. 116.

¹¹ Leviathan, p. 112. And especially p. 725. Hobbes says that it is the reason of the master of a household which could best grasp the truth of his analysis of human nature and its

Leviathan, Hobbes says that the evolution of human reason is a correlate of the evolution of language, and likens the cultivation of our rational faculties to the domestication of wild vines and corn:

The faculty of Reasoning being consequent to the use of Speech, it was not possible, but that there should have been some generall Truths found out by Reasoning, as ancient almost as Language it selfe.... For as there were Plants of Corn and Wine in small quantity dispersed in the Fields and Woods, before men knew their vertue, or made use of them for their nourishment, or planted them apart in Fields, and Vineyards; in which time they fed on Akorns, and drank Water: so also there have been divers true, generall, and profitable Speculations from the beginning; as being the naturall plants of humane Reason.¹²

By the invention of language the potentially rational Man becomes actually rational and begins to cultivate the faculty of reason, resulting in the accumulation of history and science. With regards to the invention and industry of reason, Hobbes writes in Leviathan that reasoning is attained by three main steps. First, by an "apt imposing of Names"; second, by connecting these names methodically in propositional and syllogistic forms of discourse; and third, by gathering these propositions into a body of knowledge or achieving 'Science'.¹³ The 'apt' imposing of names or the creation of clear and exact word definitions, is an especially important step in reasoning because it is this -----
political implications..

¹² Leviathan, p. 683.

¹³ Leviathan, p. 115.

act which transforms natural, mental images into the artificial words which are the subject matter and essential pre-condition of reason and science.¹⁴ While the imposition of names must be rooted in sense-experience (or risk using 'senseless' words), they must also be wrested into forms that make them suitable to use in the accounts of verbal discourse (i.e. we often need to feign the existence of things in speech 'for doctrine's sake'). The manner in which images are wrested into words, or what constitutes an 'apt' imposition of names is not dictated by natural necessity and imagination, but is a special realm of human choice and freedom (though the demands of nature do shape our choices about how names are imposed).¹⁵ It is how we choose to impose names upon thoughts or how we choose to articulate sense-evidence in words which distinguishes verbal discourse that ends in Science from that which ends in mere opinion.¹⁶ For Hobbes, all men naturally reason in a similar fashion: so it is how men first choose to define and employ the terms of language which allows us to grade or calibrate the ends of discourses (i.e. distinguish what is mere opinion and

¹⁴ Leviathan, p. 106. Hobbes writes "So that in the right Definitions of Names, lyes the first use of Speech; which is the Acquisition of Science:....".

¹⁵ Man and Citizen, p. 39. Names not imposed according to nature of things but according to the will of Man.

¹⁶ Leviathan, p. 131. Notice that 'opinion' is opposed to 'Science', and not to 'truth' for Hobbes. This is significant for Hobbes's whole theory of knowledge and mind.

what is mere science).¹⁷

In De Corpore Hobbes defines a definition as "a proposition, whose predicate resolves the subject, when it may; and when it may not, it exemplifies the same".¹⁸ Definitions are equations of terms which resolve a subject-word into constituent parts or equates it with some other term(s). Like the accidents of perception, a definition can break down a whole word into parts and so convey the meaning of that word (i.e. as we knew whole objects by a gathering of accidents in perception, so we know the meaning of words by gathering related words in a definition). The definition of a word equates it with other words that have an overlapping meaning, and so give it a context or web of meaning relative to the definitions of those other words. Specifically, definitions of words are an adding and subtracting of those words which represent the properties and accidents by means of which we know objects at the level of sensation. Thus, saying 'Man is a rational animal' could be written as the equation 'Man = that which is something rational + something animate'. The cross-reference of the universal accidents 'rational' and 'animal' can be said to comprehend the term 'Man' and so they are appropriate to its definition. In so far as 'animal' and 'rational' apply to

¹⁷ Leviathan, p. 115: "For all men by nature reason alike, and well, when they have good principles."

¹⁸ Body, p. 85.

no other universal term than 'Man', the definition can be said to be exhaustive. This overlapping meaning is only possible for those words which do not represent something particular (e.g. 'this thing' cannot be defined unless it is represented by some universal term.¹⁹). Universal terms have larger and smaller boundaries of signification, and these boundaries overlap with regards to the things they represent in verbal discourse - providing the potential for a definitive equation of terms. Hobbes writes of word definitions:

And of Names Universall, some are of more, and some of lesse extent; the larger comprehending the lesse large; and some again of equall extent, comprehending each other reciprocally. As for example, the Name 'Body' is of larger signification than the word 'Man', and comprehendeth it; and the names 'Man' and 'Rationall', are of equall extent, comprehending mutually one another.²⁰

By defining a universal term with fixed and finite boundaries of meaning, it is possible to make exact calculations concerning the relation of that word. The definition of a word provides a finite number of consequential relations within the milieu of verbal discourse, and this finitude allows the user to make comprehensive equations or copulations. The limits of a

¹⁹ Hegel demonstrates this in the first section of his Phenomenology of Mind ('Sense-Certainty') by showing that the 'here' and 'now', while they are the most specific and particular terms are at once the most universal and un-explicit terms.

²⁰ Leviathan, p. 103.

word's definition and its fixed relations make exhaustive knowledge of that word's relation to other words possible. In mental discursion the number of consequential relations an image had in our minds was limited with regards to one's past experiences. However, the limits of experience and the limitlessness of future possibilities (because future time in nature does not unfold according to our will) makes the potential relations of mental images limitless (hence prudence was always essentially presumptuous and uncertain).²¹ Conversely, in the artificial milieu of verbal discourse one can impose a fixed and unchanging number of relations upon a word by precise definitions (even though the evidence of our senses or reason itself may force us to change the definition of a word, we change it according to our will. Once a definition is reestablished one can again calculate exhaustively upon the word). Definition imposes a 'stasis' upon the object of Reason, fixes it in a specific contexture of other terms, and does not allow it to change during the act of reasoning - creating the potential for exhaustive knowledge of that word and its relations to other words (just as number in the language of mathematics).

These definitions of words are the first principles or grounds upon which the calculations of reasoning begin (in the same manner axiomatic definitions were the basis of Euclidean geometry). Hobbes says that the definition of key

²¹ Leviathan, p. 97.

terms is a 'prima philosophia' of Science which ought to be clearly established before philosophic investigation can begin.

There is a certain 'Philosophia prima', on which all other Philosophy ought to depend; and consisteth principally, in right limiting of the significations of such Appellations, or Names, as are of all others the most Universal.²²

Only by first clearly defining terms can reasoning proceed successfully and end in Science. However, this presents a certain logical difficulty: specifically, a problem of regression. One would first have to possess knowledge in order to properly define terms, such that one could then attain knowledge through reasoning. While one can begin with the evidence of the senses and prudence, this evidence must be articulated as words to be an object of reason. Moreover, there are certain truths which defy the evidence of the senses and must be gotten from reasoning alone (e.g. Copernicus's heliocentric Universe defies the evidence of the senses and is based on a certain 'a-priori' assumption about the mathematical harmony of the Universe.²³) Hobbes himself begins with specific 'a-priori' definitions upon which much of his system is apparently construed (i.e. the monistic and materialistic definitions of

²² Leviathan, p. 688. These most universal names include Body, Essence, Subject, Substance, Accident, Power, Motion, etc. Hobbes's work De Corpore is invaluable for an understanding Hobbes's philosophy because it is almost entirely occupied with just such a 'prima philosophia'.

²³ Burtt, pp. 39-40.

'Body', 'motion', and 'cause') The definitions which Hobbes gives for these terms are not demonstrated in Leviathan but simply posited and put forward as facts of natural philosophy. It is not clear from the text how Hobbes believes certainty can be achieved in this field, such that one could know that the Universe is entirely body and nothing else, or that all causal relations can be explained by mechanical motion. Without a guiding standard of Truth, knowledge would seem to be without foundations, and knowledge or science seems indistinguishable from opinion. Indeed, this question - how can one distinguish between definitions which lead to true knowledge and those which lead to opinion - is not answered directly by Hobbes.

The ability to define words clearly and exhaustively is closely linked to the use of the propositional form in reason.²⁴ Definitions are themselves propositions or assertions: in fact, 'definition' primarily refers to the content and 'proposition' to the form of what is the same thing - an equation of words in the milieu of verbal discourse.²⁵ The methodical organization of verbal discourse as definitions and strings of propositions gives reasoning logical or 'accountive' character (i.e. "'Subject to

²⁴ Body, p. 44. Hobbes writes: "In philosophy, there is but one kind of speech useful... most men call it 'proposition', and is the speech of those that affirm or deny, and expresseth truth or falsity."

²⁵ Body, p. 44. Note the similarity between the definition of proposition and the previous definition of a definition.

Names', is whatsoever can enter into, or be considered in an account...").²⁶ The propositional form provides the formal, mathematical structure of reasoning by means of which words can be readily equated (in the same manner that accounting columns provide their items with a visible cross-reference such that the meaning of those items becomes readily evident). The proposition is a methodological ordering of terms in discourse which places terms in specific relations to other terms such that their unity and difference is expressed at once, like numbers in mathematics. The very word 'proposition' bespeaks the fact that it positions words in the contextual, calculative accounts of verbal discourse.

Hobbes writes further that there is a direct correlation between the use of the propositional form in philosophic thought, and the ways in which we wrest our words from images. As stated earlier, how we define a word is not essentially determined by the nature of the object whence the word was first wrested. Rather, what constitutes an 'apt' imposition of names is often dictated by the demands of discursion itself. Thus, in the kind of rational discursion which leads to science, one must define the terms or items of propositions by their capacity to represent causal relations or agency.

The end of science is the demonstration of

²⁶ Leviathan, p. 106.

the causes and generations of things; which if they be not in the definitions, they cannot be found in the conclusion of the first syllogisms, 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...²⁷

How we define a word for use in scientific propositions is determined not only by our perception of the body from which the word was wrested, but 'a-priori' by the governing or guiding goals of science as well. Scientific discourse is engendered in its first instance by the demand for knowledge of consequential relations amongst objects. Hobbes says in De Corpore that it is only by subjecting the accidents of perception - those aspects of sensation and imagination by which we know bodies - to abstract names that universal propositions can be formed.²⁸ The propositional form compliments the use of universal abstract names because it detaches the accident, by which we understand causal relations, from its subject matter such that broad equations about universal causal agency can be made. The abstract names of accidents are key ingredients in reasoning because they can be used as 'place-holders' or representatives of causal agency in speech, though they are but feigned words:

Now in all matters that concern this life,

²⁷ Body, p. 34.

²⁸ Body, p. 46. "... for these (abstract names) could have no being till there were propositions, from whose copula they proceed."

but chiefly in philosophy, there is both great use and abuse of 'abstract names'; and the use of consists in this, that without them we cannot, for the most part, either reason, or compute the properties of bodies; for when we would multiply, divide, add, or subtract heat, light, or motion, if we should double or add them together by concrete names, saying (for example) hot is double to hot, light double to light, or moved double to moved, we should not double the properties, but the bodies themselves that are hot, light, moved, &c which we would not do.²⁹

For Hobbes, philosophic knowledge is concerned with causal relations and so it is through calculations upon words which represent those 'powers of affection' known as accidents that we come to understand causal agency apart from particular objects. When we calculate upon words on philosophic propositions, it is the 'feigned' or abstracted names or universal accidents that are the central items of our accounts, for they provide us with that kind of knowledge of bodies that can be understood as universal factors of causation. By first abstracting from objects and representing the accidents of sensation in universal terms of verbal discourse, humans can exercise a certain degree of control over the nature and direction of discursion about causal relations and so guide it according to our 'need and election' (i.e. the natural need we have of understanding causation). The concrete accident 'hot' cannot be calculated upon as a causal factor because it cannot be abstracted from some body or matter. On the other hand, the abstract

²⁹ Body, p. 47.

accident 'heat' can be used a universal causal agent in the milieu of verbal discourse (i.e. one might say that the cause of waves over the highway is 'heat'.²⁰). Therefore, in terms of science, what makes the definitions of words 'apt' is the consequential ability of the thinker to apply those terms to propositions and syllogisms which explicate our understanding of causal relations and agency. Thus, again, one must begin with some form of 'a-priori' knowledge of what is a causal factor in order to define a term properly. For Hobbes, the 'a-priori' character of all causes and effects is 'motion' (for all cause involves change and change is motion), while the universal character of all causal agency is 'power'.²¹ Part of the reason that Hobbes describes human actions as a pursuit of power is because the term 'power' can universally represent the causal relation between all words; for power is the calculable, abstract name which broadly represents the causal factors or means that produce some result or end.

Whole strings of propositions can be conjoined to form what are called 'syllogisms'. A syllogism is formed by the conjunction of two propositions which share a common term that allows one to form a third and concluding

²⁰ We could say 'in fact' it is the hot air over the highway which causes the waves. However, in science it is 'heat' which causes the waves. The reason we use the abstract name in science, even though it departs from the fact of the case, is because it is calculable in a way that the concrete name 'hot' is not.

²¹ Body, p. 121.

proposition.²² This conjunction of propositions allows us to think 'synthetically' in philosophy, proceeding from things known to things unknown; hence, learning things through the use of verbal discourse that we do not or even cannot know through experience.²³ However, Hobbes says that our power of reasoning upon words is cultivated not just for creating simple propositions and syllogisms, but to generate exhaustive accounts of "all the Consequences of names appertaining to the subject in hand" - which Hobbes calls science.²⁴

For Hobbes, it is only through the application of definitions and the propositional form does the potential for 'truth' in discursion arise. The finite character of clearly defined words wrested into propositional allow us to subject word equations to standard tests of truth and falsehood (i.e. like the equations of mathematics). As

²² e.g. 1. All men are mortal. 2. Socrates is a man. 3. Socrates is mortal. The first and second proposition share the common term 'man', which is equated to another term in each proposition. This allows us to make a third proposition in which we equate the two other terms of the first two propositions in a third. Thus, the form is 1. $x=y$. 2. $z=x$. 3. therefore, $z=y$. See Body, p. 57.

²³ Body, p. 82. Hobbes says of any demonstration that it is synthetical, leading the listener from the known into the unknown and demonstrating their equality. Thus, a synthetic demonstration is like a metaphor which equates what we do know with something yet unknown, hence providing us with a word or image to stand in the place of the unknown. e.g. "The moon was a ghostly galleon..." - we equate the image of a 'ghostly galleon' (something known) with the moon on that particular night, in that particular place (something unknown).

²⁴ Leviathan, p. 115.

Hobbes writes:

Now these words 'true', 'truth', and 'true proposition', are equivalent to one another; for truth consists in speech, and not in the things spoken of; and though 'true' be sometimes opposed to 'apparent' or 'feigned', yet it is always to be referred to the truth of proposition ... And therefore truth or verity is not any affection of the thing, but of the proposition concerning it.²²

This is a very important statement for Hobbes's theory of mind and knowledge. Truth does not arise at the level of natural mind, for sense and memory are phenomenal and leave us only with factual evidence that something 'is', while mental discourse leads to presumption about the future or conjecture about the past (which are opinions). Only amongst the relations of words in the artificial milieu of verbal discourse can we have knowledge of the verity or truth of something; namely, the truth of word equations. Propositions and syllogisms place words in formal of equations which can be judged as true or false according to definitions of their composite words (in a fashion similar to mathematical equations). However, it is essential to notice that this 'truth' is hypothetical or conditional truth. What is conditional about truth is twofold. First, it is conditional because verbal discourse is rooted in the phenomenal facts of sense and memory. While we may assert 'x is y' and believe it is true, it is more appropriate to assert 'if x, then y'

²² Body, p. 48. Hobbes also says the same in Leviathan, p. 105: "For 'True' and 'False' are attributes of Speech, not of Things. And where Speech is not, there is neither 'Truth' nor 'Falsehood'."

(we do not know 'x' but perceive or believe it). Second, because truth is always about the relations of words and not the actual things or images which we represent by words (thus, it is twice removed from reality: first by images and then by words). Hobbes explains:

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 Consequence, which I have said before is called Science, it is not Absolute, but Conditionall. No man can know by Discourse, that this, or that, is, has been, or will be; which is to know absolutely: but onely, 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.²⁶

Reasoning cannot lead us to Absolute knowledge of Truth, or knowledge of the substance or essence of Being. The nature of God's Creation remains something elusive and mysterious to Man. Our natural knowledge of fact, gained by sensation and retained through memory, is not absolute but phenomenal. Our knowledge of causal relations amongst images is presumptive or conjective. Finally, our rational or scientific knowledge does not address the substance of absolute Being, but the relations of words in the artificial milieu of discourse which are wrested from the perceived relations of images at the level of fact. It is for this reason that it is not Truth but 'mind' and its capacity for

²⁶ Leviathan, p. 131.

knowledge or science is of central importance for Hobbes: it is the concrete question of how humans actually formulate what they believe to be knowledge or science, and what kinds of knowledge are enlightening and which lead to darkness. However, as we shall see, this 'standardless' search for knowledge without a vision of Truth necessitates a reconsideration of just what the term knowledge or science actually means.

For Hobbes, 'science' refers to the conditional knowledge we gather from reasoning upon consequential relations amongst clearly defined names in verbal discourse.²⁷ By reasoning upon universal terms one can produce universal theorems and aphorisms (or laws) about the relations of terms used in verbal discourse, and in turn achieve effective knowledge about the world - the kind of knowledge needed for human arts (including laws about the art of living well). Several factors characterize science as knowledge: first, it is a product of verbal discourse and its truths concern the relations of words, not the things whence the words were wrested; second, the truth of its constitutive propositions and syllogisms is demonstrable (i.e. in equative forms of speech they are subject to tests of truth and falsehood); and third, there is an exhaustive quality of its relations amongst words. With regards to this third point, Hobbes says in Leviathan:

²⁷ Elements, p. 19.

As, much Experience, is 'Prudence'; so, is much Science, 'Sapience'. For though wee usually have one name of Wisdome for them both; yet the Latines did always distinguish between 'Prudentia' and 'Sapientia'; ascribing the former to Experience, the later to Science. But to make their difference appeare more clearly, let us suppose one man endued with an excellent natural use, and dexterity in handling his armes; and another to have added to that dexterity, an acquired Science, of where he can offend, or be offended by his adversarie, in every possible posture or guard: The ability of the former, would be to the ability of the later, as Prudence to Sapience; both useful; but the later infallible.³⁹

Science can achieve a complete or perfected form of knowledge with regards to the relations of words in the milieu of verbal discourse because it is conditional and limited in its aims. Science or philosophy does not seek Truth of absolute reality and so can achieve a limited, human form of sapience.³⁹ Hobbes divides science into two main branches according to our capacity to understand the generation or causes of the subject matter.⁴⁰ One branch—physics—is science of causes in God's nature and proceeds from the properties or accidents we perceive, seeking possible ways of generation through our general knowledge of causal relations. Hobbes says in De Homine that this is always a kind of 'mixed mathematics' because we must utilize 'a-priori' principles about causal relations to articulate

³⁹ Leviathan, p. 117.

³⁹ That 'philosophy' and 'science' are identical see Leviathan, p. 149. (first item in chart).

⁴⁰ Leviathan, p. 149. See also p. 682.

our hypotheses of causal relations in nature (e.g. we must use our self-generated, mathematical knowledge of motion and space to understand real motion and space in nature).⁴¹ The second form of science is that which deals with things created by humans and proceeds from the manner of generation to what 'ought' to be the properties of the thing in its perfected form.

According to Hobbes, politics and ethics, like geometry and mathematics, are also created by human artifice and not by nature, and so are of the latter kind of science.⁴² It is knowledge of the manner in which political order and ethical behaviour are generated that is important for Hobbes, because it is this knowledge which leads to effective knowledge of government and obedience in their most perfect or complete form. Because we are not each and all present at the actual generation of the commonwealths in which we live, such knowledge requires an imaginative exploration of what are the necessary conditions for first creating and then maintaining political bonds amongst humans, based upon an 'a-priori' knowledge of human nature.⁴³ This need to

⁴¹ Man and Citizen, p. 42.

⁴² Man and Citizen, pp. 42-43. See also p. 110: Man is made fit, not born fit for society.

⁴³ Again, this reinforces the idea that humans are 'rational' by nature because of their natural potential for discourse. If human nature were artificial, then Hobbes's imaginative recreation of the origins of society could not be based on his understanding of human nature (which must originate in his experience of social or artificial Man).

imaginatively recreate the origins of society leads Hobbes back into the hypothetical realm of physics, because it is knowledge of the 'nature' of humans which dictates what must be the origin and character of the actual bonds of society. Thus, the need to know the self is linked directly to the fact that Man is the agent who creates the Commonwealth (i.e. Man is the 'matter and artificer').

Therefore, the question of self-knowledge is a key to political science because it is the self which provides the evidence for knowledge of human nature, which in turn is reflected in the very nature of social organization and obligation. As Hobbes says, the artificial body politique is an artificial man created in imitation of the natural man: the former is based on an image of the latter. In turn, the political scientist must be able to articulate that which motivates humans: he must be able to imitate natural mind through an artificial mind (i.e. according to reason and science). Not just what motivates the particular self, but all selves - regardless of particular circumstances of time and space as well. However, how one can achieve self-knowledge is still unanswered in two respects. First, how one can come to have knowledge of the 'self' as something which is not subject to the evidence of sensual experience. From what images must we wrest those words which can describe the self? Second, how one can first define the self, such that reasoning about the self can proceed, is

also unanswered. As we shall see, the choices Hobbes makes with regard to the language of self-knowledge have important political consequences; for, how we choose to define our selves and human nature will be reflected in the body politique we create.

The Potential for 'Darknesse' in Verbal Discourse

Besides the way speech can meliorate and improve discursion, Hobbes also outlines several ways in which it can retard and mislead discursion. In the section on natural mind we saw how 'error' can be the resolution of mental discourse (i.e. failure to predict accurately 'what comes next' in mental discursion is 'error'). Moreover, the fictive or compounded imagination, coupled with an ignorance of the phenomenal nature of sensation and imagination, can create conditions of 'Darknesse', especially with regards to belief in the existence of ghosts and other sorts of bogeys (this was the main subject matter of Chapter 45 in Leviathan). By the use of words and speech, one can meliorate the capacities of discursion; but, at the same time, one also risks the loss of the natural prudence which we have through experience of images alone. Verbal discourse compels men, for better or for worse, to reconsider how they employ the evidence of the senses. Hobbes says "words are wise mens counters" but they are also "the mony of fooles" if not employed properly.¹ In De Corpore, Hobbes also writes the following concerning the benefits and dangers of verbal discursion:

Wherefore, as men owe all their true ratiocination to the right understanding of speech; so also they owe their errors to the misunderstanding of the same; and as all the ornaments of philosophy proceed only from man, so

¹ Leviathan, p. 106.

from man is derived the ugly absurdity of false opinions.²

Speech increases the potential of discursion to achieve effective knowledge as well as the potential to fall into false opinion and 'ugly absurdity'. In light of these two extreme resolutions of verbal discursion, Hobbes says that ignorance of words and speech (or natural mind) is a mean between the advantages of speech and the dangers of absurdity.³ With the use of words we can reach the greater heights of reason and science; yet, words can also lead us into absurd and false conclusions to which mental discursion is not subject. The danger proceeds from ignorance of the nature of language and reason, just as 'idolatry' begins with ignorance of the nature of sensation and imagination.⁴ Hobbes believes that many false political doctrines result from the 'ugly opinions' of philosophers - those derived from misunderstanding of the nature of speech and the role of words in artificial discourse.

Hobbes writes of several ways in which deception and falseness may ensue from incorrect use of words and language. He outlines four abuses of speech on page 102,

² Body, p. 49. (Note that the term 'error', as it is used here, is inconsistent with the manner Hobbes uses it in Leviathan, where it refers to the failure of mental discursion to properly predict 'what comes next' from experience.) On the question of absurdity in verbal discursion see also Leviathan, pp. 106, 113, 116.

³ Leviathan, p. 106.

⁴ Leviathan, p. 658.

corresponding to the four special uses of speech listed on pages 101-102. These abuses include 'inconstancy of signification', the abuse of metaphoric terms, declaring as one's will what is not so, and using words to 'grieve' one another. While the latter two are intentional abuses, the first two relate to a failure to properly apply definitions and result in the problem of equivocation. If words are not clearly defined or metaphoric definitions are employed, then speaker and listener can variously interpret the meaning of words and sentences, and thus do not understand one another (i.e. the speech is equivocal). At another point in Leviathan Hobbes describes a problem of names with inherently 'inconstant' signification - meaning those we use to name what is virtuous and what vicious.⁸ Such terms are inconstant in their signification because they proceed directly from our passionate responses to things which affect different persons differently, and even the same person differently at different times. Thus, what one man calls virtue may be another man's vice, and may even be virtue one day and vice another for the same man. Such names cannot be the basis of solid reasoning because the actual things or actions represented as virtues or vices are always changing or inconstant from person to person and day to day (while we may say that virtue is 'what men perceive to be good', all men cannot agree, for the most part, about what

⁸ Leviathan, p. 109.

these things are). It is for this reason that 'ethics' or 'moral philosophy' cannot be the basis of true political science.⁶ Instead of the objects of the passions, it is the 'science of just and unjust' - which is consequent to the use of speech and contract - that is the foundation of true political science for Hobbes.⁷ It is only by discovering the abstract causes of the passions in speech, those agents which lead us to deem some things virtue and some vice, that Hobbes believes we can come to the kind of political knowledge needed to establish the best commonwealth.⁸

Besides the abuses of speech and inconstancy of the names of virtues and vices, Hobbes describes another problem of verbal discourse which he calls the use of 'insignificant' words and absurdity in speech. Insignificant words are those which are undefinable.⁹ This may be because there was no original sensation and image from which the word is wrested (i.e. the words are literally 'senseless'). Without an original image there can be no evidence of the

⁶ Leviathan, p. 149. See also the Epistle Dedicatory to the Elements.

⁷ Leviathan, p. 149.

⁸ Leviathan, p. 82. This is the explicit meaning of 'Read Thyself'. See also p. 216.

⁹ Hobbes discusses the problem of definitions on p. 105. of Leviathan, likening the problem of errors in our definitions to the multiplying problems of a bird amongst limesticks. If our axiomatic definitions are not proper then our reasoning, though it may be methodologically sound, may lead us to even greater absurdities.

word in the minds of listeners, and so no real possibility of being understood. A second way terms are insignificant are when two terms conjoined in speech are inherently contradictory, like the phrase 'free subject'.¹⁰ Free subjectivity cannot be properly defined in the milieu of speech because the meaning of 'freedom' and that of 'subjection' do not overlap. Instead, they are mutually exclusive and even contradictory in meaning such that their conjunction presents a logical impossibility. While we may be lead to think that we understand such words and phrases by custom or repetitive use, there are no original facts or images from which words could arise and so no potential for mutual understanding. Such insignificant words cannot be used effectively in rational propositions because propositions are dependent upon the potential of a conditional equation (i.e. in an 'if x, then y'). If there is no potential for the fact-ness or actuality of the term 'x', then the proposition cannot meet the necessary conditions to complete the equation (i.e. because the first condition is simply impossible). Without clear and evident definitions, terms cannot lead to exhaustive equations, but must remain inherently equivocal (both for the speaker and listener).

Hobbes's main culprits for the abuse of insignificant words are the Ancient and Scholastic philosophers who

¹⁰ Leviathan, p. 108.

wrested words seemingly out of nothing to fill their philosophic books. Hobbes complains of their use of such terms as 'Entity' and 'Quiddity', implying that they retard rather than benefit philosophy.¹¹ A word such as 'entity' is deemed insignificant by Hobbes because it is not wrested from some original images of experience. Instead, it is wrested from a word of conjunction (i.e. 'entity' is wrested from the Latin verb 'to be'). The verb 'to be' is a speech-functional signifier which denotes the equation, identity, or consequential relation between words in propositions (i.e. it acts like the '=' sign in a mathematical equation). However, it is truly insignificant and does not correspond to, or is not wrested from, any sensible image we might have.¹² If we try to wrest words from the conjunctive verb 'to be' then there is no evidence or sense to which it can be attached or reduced in our minds, and so can have no signification between listener and speaker (though we may each arbitrarily assign images to it).

Philosophers who construe logic from insignificant words and unsound definitions are subject to a correspondent danger - that of 'absurdity' in speech. This danger in verbal discursion is parallel to the problem of error in

¹¹ Leviathan, pp. 101, 108, 146 - Here Hobbes describes the writings of the School-men as a kind of madness.

¹² Leviathan, p. 691. "They are therefore no Names of Things; but Signs, by which wee make known, that wee conceive the Consequence of one name or Attribute to another:". See also Body, pp. 45-47.

mental discursion. Hobbes writes:

But when we Reason in Words of generall signification, and fall upon a generall inference which is false; though it be commonly called 'Error', it is indeed an 'Absurdity', or senseless Speech. For Error is but a deception, in presuming that somewhat is past, or to come; of which, though it were not past, or not to come; yet there was no impossibility discoverable. But when we make a generall assertion, unlesse it be a true one, the possibility of it is unconceivable. And words whereby we conceive nothing but the sound, are those we call 'Absurd', 'Insignificant', and 'Non-sense'.¹³

Hobbes lists seven causes of absurdity in Leviathan (directly following the quotation above), but the main causes he ascribes to want of method and especially to want of clear and proper definitions. Absurdity is especially problematic for philosophers or scientists who deal with abstract terms denoting agents of causation.¹⁴ For a causal agent to be acceptable, Hobbes believes one must be able to ultimately connect it with some concrete image or quality of sensation. Without such evident definitions, words remain limitlessly equivocal and we cannot have true ratiocinations (as the man who cannot count cannot know what time it actually is)

Without strict definition it is only custom and the experience of language which gives words their meaning.¹⁵ In

¹³ Leviathan, pp. 112-113.

¹⁴ Leviathan, pp. 113-114. Hobbes says that those most prone to absurdity are Philosophers.

¹⁵ Leviathan, p. 690.

the artificial milieu of verbal discourse, men can experience language in the same fashion in which one can experience bodies and motion at the level of natural mind. Like the images of sensation and natural discursion, we can become prudent about the way in which one word tends to follow another, and substitute this prudence for actual understanding of the meaning of words and sentences. Hobbes refers to this in the Elements as 'oratio':

And men desiring to shew others the knowledge, opinions, conceptions, and passions which are within themselves, and to that end having invented language, have by that means transferred all that discursion of their mind mentioned in the former chapter, by the motion of their tongues, into discourse of words; and 'ratio', now, is but 'oratio', for the most part, wherein custom hath so great a power, that the mind suggesteth only the first word, the rest follow habitually, and are not followed by the mind. As it is with beggars, when they say their 'paternoster', putting together such words, and in such manner, as in their education they have learned from their nurses, from their companions, or from their teachers, having no image of conceptions in their minds answering to the words they speak. And as they have learned themselves, so they teach posterity.¹⁶

In the milieu of language we can come to think exclusively in terms of our experience of language. We use words as the objects of our thoughts and not ideas or images, and make the customary use of words we hear and read in our everyday life the order of our thoughts, not our perception of the consequential relations of natural bodies

¹⁶ Elements, pp. 17-18.

and motions.¹⁷ This can be a problem in so far as errors, insignificant terms, and absurdities can become ingrained into the very fabric of language. These errors cannot be rooted out except by reference to a 'prima philosophia' of universal definitions and an examination of all definitions with reference to these primary definitions. It is for this reason that Hobbes says a true scientist or philosopher must be wary of authority, and must carefully examine the definitions which any author employs in his ratiocinations.¹⁸ Since reason is not an innate faculty, but one dependent upon the use of language, errors that are ingrained in the use of common language cannot be rooted out of the reasoning process except by a return to the definitions which give rise to those errors.

¹⁷ Man and Citizen, p. 41. "Finally, on account of the ease of speech, the man who truly doth not think, speaks; and what he says, he believes to be true, and he can deceive himself; a beast cannot deceive itself. Therefore by speech man is not made better, but only given greater possibilities."

¹⁸ Leviathan, p. 106.

Hobbes's Science of The Self

This thesis began with a discussion of the 'self' as the central object of the social sciences. It is the self which is the cause of society and the sciences by which we have knowledge of all that is social and political. However, despite its central place, Alan Bloom says that certain knowledge of the self eludes the grasp of social scientists.¹ There is a certain problem which arises from the nature of the Modern self that makes it a difficult object to understand. In so far as the self is body, it can be grasped by the medical arts and natural science. However, that part which is not clearly corporeal body -- the thinking, reasoning, feeling, knowing part of Man often referred to as 'mind' -- remains essentially mysterious and undiscernible for empirical sciences. This presents a critical problem because, if we do not know the nature of mind, then we cannot know its limits and capacities and therefore cannot easily discern between knowledge and mere opinion. This is the problem of 'epistemology' which often seems an unsolvable puzzle. In order to make a claim to knowledge or Science, one must be able to distinguish between what is and what is not science (i.e. one must know what it takes to be a 'scientist'). However, in order to recognize knowledge or science, it seems that one must first actually possess knowledge or Science.

¹ Bloom, pp. 356-357.

In his work The Metaphysical Foundations of Modern Physical Science, E. A. Burtt claims that the Modern preoccupation with epistemology is a consequence of a pre-conception of Man which underscores all Modern thought. This pre-conception began with men like Copernicus and Galileo who claimed that mathematical categories of conception provided a more accurate picture of the Truth of the Universe than the immediate categories of understanding which arose from sense-perception. Their achievements in natural philosophy were taken as testimony to the verity of their concepts, and Modern Physical Science has built upon this assumption 'of a mathematically expressible universe. According to Burtt, the 'mathematization' of the Universe devalued Man's place in the Cosmos, and has made him into an unprivileged spectator to nature and the ultimate Truth of the Universe. A mathematical nature implies that human knowledge, including self-knowledge, must always be mediated by method or technique. Moreover, the 'being' or essence of Man, in so far as it is clearly not something mathematical (particularly 'mind') is separated from the primary reality of the Universe and made into something somehow secondary. The Modern question of mind then arises in the form of a question of application - how can Man know Truth in a mathematical Universe? and what kind of Man must he be, given the nature of his knowledge?

Descartes's Meditations were an attempt to answer the

question of 'mind' and to establish firm epistemological and ontological foundations for Modern natural philosophy. His dualism of thinking and corporeal substances, united by the providence of God, allowed him to assure the truth of mathematical physics and simultaneously reveal what the nature of Man must be if he could know this truth. Descartes wrote that the nature of thought itself allowed it to mediate between human knowledge and the Truth of Being (i.e. 'I think, therefore I am'). However, Descartes had his objectors. Hobbes's response to Descartes's theories of the Meditations questions the verity of Descartes's dualism of substances and ideas. Hobbes questions the ability of human mind to know Truth with absolute certainty. Hobbes presents a monistic counter-argument to Descartes's dualism, claiming that all things, including Man, are bodies in motions and that human 'mind' itself could be explained in this light. Like Descartes, Hobbes was concerned with the question of knowledge, and particularly the question of self-knowledge. Hobbes believed that knowledge of the self provides essential evidence of human nature which, in turn, is the kind of knowledge needed for political science and the hypothetical consideration of the most perfect form of Commonwealth. In the 'Introduction' to Leviathan Hobbes exhorts men to follow the Apollonian maxim - Read Thy Self! - as the way to political wisdom. In the first seven chapters of Leviathan, Hobbes explores that aspect of self

we call 'mind' or our apprehensive, motive, and cognitive faculties. This exploration provides the groundwork for an explanation of the causes of human opinions, manners, and science, and how Man is able to create the artificial bonds of the Commonwealth. The analysis of Hobbes's vision of 'mind' became the focus of investigation because of the central importance of the question for a science of politics: in order to understand the political order we must try to understand its 'matter and artificer' - Man.

Hobbes's theory of natural mind is predominantly a phenomenal theory. Mechanical contact between our sense organs and external bodies results in a particular perception of the (unseen) motions and bodies in the external world (i.e. as a series of qualities and images). The images of our experiences persist over time according to 'Galileo's law of Motion' or 'inertia', and so provide the ability to compare and contrast present and past images, resulting in the natural capacity for mental discourse or thought. From these sensual images and the opinions of discursion arises a second kind of sense of things - the passions. Hobbes describes these as a normative reaction or unconscious judgement concerning whether they (the image or opinion) are good or bad with regards to the vital motions of the body, manifesting itself as feelings of pain and trouble of mind, or pleasure and delight of mind. This unconscious judgement which underlies the feelings of

delight and trouble, I termed the 'natural will' or instinct of all animate creatures to maintain the motions of the body which inseparable from existence or life. From these two reactions to objects (perception and emotion), arises the mental process of deliberation in which the will to action is formulate according to a calculation of advantage.

In the second section of the thesis, we saw that Hobbes believes that humans are able to imitate and improve upon the faculties of mental discourse by the development of language. While it alters the content of natural mental discourse, artificial verbal discourse is not a transcendence but a melioration of discursion - its natural aims and form remain essentially the same.² It is the unique human capacity for language which provides the potential for artificial discourse and human artifice in general. From certain natural capacities, particularly human curiosity, the ability to imagine future uses, and natural self-reflection, humans come to employ verbal markers and signifiers in discursion and communication. Unlike mental discourse, humans are able to control the primary definitions which underscore reasoning in the milieu of mental discourse because we need not take the materials of his artificial discourse directly from natural discourse.

² The propositional form does not change the basic form of discursion in so far as it remains a relating of items according to the criteria of identity, difference, and causation. The propositional form is a modification of the natural form (not a transcendence) made to suit its verbal content.

Instead, one can feign and fabricate words hypothetically in order to meliorate his capacity to understand what cannot be understood by particular observation and private thought. Through the use of language humans are able to ratiocinate upon universal terms, unrestrained by limitations of particular conditions and circumstances, and so create human reasoning, arts, and sciences. Though humans are potentially reasonable by nature, they are not actually rational but by artifice. Moreover, language gives men the capacities for communication, command, and contract - all of which are essential elements in forming mutual conscience amongst humans and so political association. Humans are capable, unlike any other creature, of self-enlightenment and, while this is a great boon, Hobbes warns that great 'Darknesse' and error can also follow from the use of artificial discourse. Language gives Man increased power, but he must yet decided how to employ it wisely.

It is a central thesis of Hobbes's vision of mind that there are no such thing as natural 'ideas', in either the Platonic or the Cartesian sense. The material of our thoughts is always either sensual images or words which we ultimately wrest from those images. These words give us the capacity to think in universal, in abstract, and in negative terms; yet, it is a mistake to believe that such terms correspond to anything which exists in nature. From the use of words springs the milieu of artificial mind, which is

artificial precisely because its materials are words created and given meaning by humans. In this milieu we may think upon words in the same fashion as we think upon images, simply learning to anticipate how one word tends to follow another (i.e. what Hobbes described as 'oratio'), or we may think upon words in a scientific fashion by seeing how one word can be connected to other words by virtue of its given definition. From this capacity springs human arts and our ability to physically transform our environment in a way that is distinct from all other creatures. Through the accumulation of arts and sciences in the milieu of artificial mind humans are able to progress from lower to higher stages of knowledge and technical capabilities. It is important for us to notice that it is language and artificial mind which gives us the capacity for progress alongside the static order of nature. This is important both to Hobbes's theory of mind and his vision of the human self.

Given the extensive role which Hobbes assigns to speech and language in reason, science, and the potential for self-knowledge, it seems very curious that Leo Strauss makes the following statement in his essay on Hobbes:

The antithesis between classical and modern political philosophy, more accurately between Platonic political philosophy and that of Hobbes, reduced to principle, is that the former orientates itself by speech and the latter from the outset refuses to do so.²

² Strauss, p. 163.

With regards to Plato, Strauss's statement that he orientates himself by speech is clear. The art of dialectic is associated with a belief that speech is a kind of middle ground or medium between the philosophic human soul and the eternal Truth of the Cosmos. Like 'eros', 'logos' is something 'daemonic' for Plato.⁴ Speech, and dialectic in particular, allows a group of erotic souls to reveal the veiled 'Logos' to which each soul is akin by the exploration of various opinions (deciding which of them must be closest to the Truth based on assumptions about the relationship between what is Good, Truth, Virtuous, etc.). However, does not Hobbes also say that 'truth' arises from the use of language? Is Hobbesian Man not dependent upon speech and language for knowledge and science? The answer is clearly 'yes' to both of these questions. So, how can Strauss maintain his position given the central nature of speech in Hobbes's theory of mind and knowledge? The answer is that Hobbes has a very different vision of the nature of knowledge and therefore the role that language plays in the acquisition of human knowledge.

A key difference between Plato and Hobbes is that the former seeks knowledge of eternal Truth, while the latter 'a-priori' discounts the possibility of achieving such knowledge. For Hobbes, human mind, by its very nature, produces opinions of causal relations: it does not naturally

⁴ Plato, Symposium (202d-e).

seek the Truth of Being like Plato's philosophic soul.⁶ As Strauss says, Hobbes denies the belief that reason can lead to knowledge of an absolute or natural standard by which knowledge and opinion can be distinguished.⁶ While men can take up the question of Truth or Being through reasoning, there is ultimately no bridge between the objects of verbal discourse and the Truth of the Universe: neither Cartesian 'clear and distinct ideas' nor Platonic 'logos' leads to Truth for Hobbes. The difference between Plato's 'daemonic' vision of speech and Hobbes's skepticism can be seen clearly in the latter's etymological analysis of the Greek word 'logos'.⁷ Hobbes believes that 'logos' meant both word and reason because the Greeks thought there was no reasoning without speech (which is actually his own position). Plato's position is precisely the one which Hobbes discounts - that there can be no speech or human 'logos' without being rooted in an underlying, natural Reason or 'daemonic logos'. It is because of these two disparate views of language that Strauss says that Hobbes does 'orientate' himself by language; for, language does not 'point the way' or orientate our thought by leading to underlying Truth.

⁶ Here we can see why Strauss precedes the argument about orientation by speech with the argument that 'foreign policy' is central to Hobbes, while Plato looks to internal policy alone. Foreign policy is about relations, while internal policy is about Being.

⁶ Strauss, p. 165.

⁷ Leviathan, p. 106.

Rather than being 'daemonic', Hobbes believes that speech and language are man-made tools which can help Man to create an effective, hypothetical understanding about the causal relations amongst things in the world and so better regulate his actions.⁸ Hobbes never flatly denies the existence of a primary reality or Absolute Truth of the Universe (he does not deny the existence of God or Nature). Instead, he is skeptical about the capacities of human thought to transcend the limits of phenomenal and nominal or conditional knowledge, and he believes that such Truth lies beyond the ken of human understanding. Hobbes says that Science is hypothetical and ought to be pursued with an eye to being effective, rather than being Wise.⁹ As sensation produces the accidents and images upon which we can deliberate and discourse naturally, so reasoning produces universal, 'names abstract' upon which we can calculate and deliberate artificially, leading inexorably towards activity, rather than detached contemplation and wisdom. By the use of names of abstract accidents humans are able to achieve sciences of causal agency, and from this knowledge learn to manage and meliorate natural powers.

Humans begin with phenomenal sensation and construct

⁸ I do not want this to imply that 'action' was unimportant for Plato; for, it is the question of 'how to live the best life' which underlies the pursuit of political philosophy.

⁹ For Hobbes, wisdom of sapience is not knowledge of Truth or Being, but exhaustive knowledge of word-relations. See Leviathan, p. 117. ...

knowledge from experience of the world as it is articulated in speech and language. We are with our guides or orientating signs, except in so far as we make them ourselves. Man plants the seeds of his sciences by first imposing definitions upon the words of speech and then exploring the relations which unfold in the milieu of language (i.e. by relating these words to private experience for evidence, and by relating them to other words for propositional truth). Unlike the Absolute Truth of Plato and Descartes, Hobbes portrays truth as strictly propositional - not about Being but about the relations of words in the milieu of speech. The seeds of human truth arise from observation and experience but are cultivated by the imposition of definition. The very positing of definitions is in-itself arbitrary and not taken from knowledge of Truth. From arbitrary definitions one sees if the plant comes to be a strong and healthy one or whether it withers in the darkness of absurdity. This is what Hobbes means when he says that there are moral truths virtually as old as language itself; some die quickly from the inherent contradictions of primary definition while others prove to be durable by the coherence of their implications and their effectiveness in assisting human life. With the creation of words and meaning, the particular prudence of individuals becomes part of word-definitions and the semantics of language. However, it is time which tells of the good or

evil of these definitions according to how effective they are for human understanding and activity in the world.

Without a natural standard as a guide, Hobbes asserts with finality that, not only can Man can not know the Truth of the Universe, but cannot even have true knowledge of himself:

For it is supposed, that in this naturall Kingdome of God, there is no other way to know any thing, but by naturall Reason; that is, from the Principles of naturall Science; which are so farre from teaching us any thing of God's nature, as they cannot teach us our own nature, nor the nature of the smallest creature living.¹⁰

Given the natural limitations of mind which Hobbes portrays, one can see that self-knowledge is in one sense impossible. We cannot be knowers of our selves because of a natural incognizance that is inherent in the very nature of our intellectual faculties. However, despite these (apparent) limitations, Hobbes does not believe that the project of self-knowledge is utile. Indeed, one of the most important statements of the 'Introduction' to Leviathan is his exhortation to self-knowledge - 'Read Thy Self!'. But, if Hobbes says that we cannot know the Truth of Man, what kind of self-knowledge is possible through self-examination? The answer is that the task of achieving self-knowledge for Hobbes is not about (futilely and impertinently) pursuing Absolute Knowledge of God's Creation, but about achieving a hypothetical, yet effective knowledge of human nature and

¹⁰ Leviathan, p. 404.

manners.

Through the use of verbal discourse, men are able to generate knowledge of human nature and those abstract causal factors which can be said to motivate human activity. Before the use of speech and language, other humans appear as all objects of nature - unfathomable and unpredictable except through experience and prudence. By the use of universal ratiocination and the evidence of self-examination, humans are able to understand themselves and other humans in a whole new way, such that the actions of other humans are not simply known through experience but through science as well. This is the kind of knowledge necessary for political organization and its perfection would result in the most perfect form of Commonwealth. Hence, Hobbes's exhortation of 'Read Thy Self', since knowledge of the self is the precondition of knowledge of what motivates the actions of all humans, which is the kind of knowledge needed for the real problems of governing and maintaining political order. For Hobbes, it is speech and language which are the essential intellectual tools by which humans are able to achieve self-knowledge; for, it is by the use of words that we are first able to articulate an idea of 'self' that could be an object of knowledge. Moreover, it is also only in the milieu of speech that one can come to recognize an identity between the self and other humans, such that an idea of universal human nature is possible.

While the human body is subject to perception, the 'self', as the grounds or causal agent behind our thoughts, passions, and actions, cannot be an object of experience without the use of words and speech.¹¹ Michael Oakeshott, in his book Hobbes on Civil Philosophy outlines the central role language in Hobbes's vision of the human potential for self-knowledge:

In order to surmount the limits of this sense-experience and achieve reasoned knowledge of our sensations, we require not only to have sensations, but to be conscious of having them; we require the power of introspection. But the cause of the power must lie in sense itself, if the power is to avoid being an easy 'deus ex machina'. Language satisfies both these conditions: it makes introspection possible, and springs from a power we share with animals, the physical power of making sounds. For, though language 'when disposed of in speech and pronounced to others' is the means whereby men declare their thoughts to one another, it is primarily the only means by which a man may communicate his own thoughts to himself, may become conscious of the contents of his mind. The beginning of language is giving names to after-images of sensations and thereby becoming conscious of them; the act of naming the image is the act of becoming conscious of it.¹²

Only by using words to articulate our inner thoughts and feelings in the milieu of speech do we acquire the power of introspection and the capacity for self-knowledge. Without the use of words, our feelings and thoughts are unconscious, inarticulate and undefined motions: they are

¹¹ Descartes also saw that he could have no meaningful experience of self through sensation alone. But, where he turns to a natural faculty of Reason and innate ideas to find the 'self', Hobbes looks to artificial language and words.

¹² Oakeshott, p. 22.

indistinct and inseparable from the acts of thinking and moving themselves. One cannot know images simply by other images, or know feelings by feelings except by 'objectifying' them as something that can be subjected to reflective experience, and then abstractly reasoning about them 'post-facto'. The inner experience of self can only begin with verbal articulation and definition, since this is the necessary condition of self-reflection (i.e. we must create an objective self of knowledge distinct from subjective knower, and then understand the latter by observing and analyzing the former). One must 'wrest' a self from natural experiences and the milieu of speech that can be an object of introspection and knowledge. As Hobbes might say, one must 'feign' the existence of a self 'for doctrine's sake'.

It is through the artificial experience of self alone that one has grounds for understanding the thoughts and feelings of others. Only within the milieu of speech do universal terms exist that allow one to identify private and idiosyncratic experiences with those of others. Without language, our passions and thoughts are private, inner motions and have no concrete existence as objects of knowledge or communication. Though it is also rooted in our physiology, our common understanding of the world around us is a direct consequent of artificial discursion. Hobbes says that we neither know the world through our senses according

to an ubiquitous, universal species which emanates from objects, nor know things in the world according to universal and substantive ideas. There is not an intelligible, natural ground for our common conscience of the world, and therefore, the foundations of our common knowledge of things and each other are not natural but artificial.

A concept of our human identity first arises from our use of common words and our ability to articulate our private and idiosyncratic experiences of the world in a common milieu of comprehension. As a medium of marking and signifying thoughts and feelings, verbal discourse itself is so constituted for an intersubjective and social understanding of the world and its objects. Therefore, verbal discursion encourages an articulation of thoughts, feelings, and experience in accordance with the formal demands of a public medium of understanding. We do not each create language, but are born into a world where language is already established and take it up as a tool of thought and communication. We are compelled to articulate our private thoughts and feelings according to the vocabulary, grammar, and syntax of the language(s) we share with others. The manner in which we articulate our self in speech is consciously guided by our desire that other persons should understand our thoughts, feelings, and opinions about the world. While our physiology may provide certain formal foundations for a common perception of the world at the

level of sensation and imagination, it is the concord and agreement of words and language (not sensation and images) that makes this communal understanding and imagination possible.¹²

The nub of the argument is that one cannot intuitively or immediately know the self because it is a nominal construct of human reason. For Hobbes, not only are there are no Cartesian ideas of the self, nor an orienting 'logos' by which the truth of the self could be grasped, there is no substantive self which can be concretely distinguished from the body. Only in the abstract milieu of speech does the self come into existence, and here only as a feigned name. In order for this self to be known, the evidence of observation must first be articulated or 'written' in a form that makes it a cognizable object. Instead of intuitively 'knowing' such an object, one must 'read' it in the artificial milieu of speech, and learn about it according to the criteria of reason and science. To know the self, we must employ those calculable words from which an idea of

¹² We may speculate that, based on our common physiological characteristics, we have similar thoughts and feelings, but we cannot know this to be true (i.e. physics is always hypothetical for us because we do not generate its objects or bodies). Words cannot be said to simply 'open doors' between our idiosyncratic images and experiences and allow us to see perspicuously into each other's minds: it is artificial words, more so than private experience, which establish the standards of common experience. Thus, in the Elements, p. 17. Hobbes says that natural 'ratio' has become artificial 'oratio' by the use of speech. It is custom and not nature which governs our mutual knowledge of the world and each other.

causal agency can be wrested. We must articulate the self according to the universal, abstract terms created to describe motivation (i.e. 'names abstract').

Thus, Hobbes's science of the self leads to a sort of 'behaviouralism' because the abstract terms used denote universal agency as the causes of our actions (though the true scientist recognizes this abstractness as a condition of science. Hence, science speaks of abstract causal agents like 'heat', 'motion', and 'power'; for, these are calculable terms. However, the truth of science is that all actual causes are the result of particular, bodily movements). In the Leviathan Hobbes presents a human self who is a mechanical, animate, and sentient body in motion which is endowed with a number of natural faculties (like instinct, curiosity, etc.). This self is moved to its particular actions by certain abstract forces or causal agents which exist for the self because of human nature and natural conditions. In particular, the self is moved by fear of bodily harm and hope for future time.

Yet, this particular vision of the self rests on the primary assumptions Hobbes makes about Man being a mechanical creature, possessing certain faculties, in a monistic-material Universe in which all causal factors which cannot be reduced to efficient causality are excluded. A central question which arises from Hobbes's vision of self-knowledge is that, in order to 'write' a self which can be

read, it is necessary to first answer the question of 'prima philosophia' or the primary definitions and axioms upon which reasoning can begin: How does Hobbes accomplish this in a scientific fashion? For it would seem that one must begin with knowledge in order to begin reasoning and achieve science, according to Hobbes's definitions. If reasoning must take up clear definitions in order to achieve Science, how does one first gather these definitions? For Hobbes in particular, how is he 'a-priori' convinced of the truth of his monistic, material, and mechanical definitions of 'body', 'motion', 'cause' (i.e. his 'prima philosophia')?

One might assume that Hobbes simply gathers it from the works and endeavors of Galileo. However, two key factors argue against the simplicity of such an argument. First, what Galileo lacked was precisely a philosophic ground for making the assumptions and definitions he made. It was this lack which Descartes sought to address in his Meditations. Second, the Descartes's philosophic works demonstrate that the epistemological and ontological foundations of human sciences need not be monistic in order to be in accordance with natural philosophy. Indeed, there seem to be great epistemological advantages to opting for a dualistic view of human nature. So, why does Hobbes so forcefully reject dualism? In his essay on Hobbes's political philosophy, Leo Strauss says that Hobbes's materialism may be best explained by an examination of his political doctrine.¹⁴ Strauss

¹⁴ Strauss, p. 166.

indicates that Hobbes's adoption of a monistic materialism may be a direct consequent of a political and moral doctrine held before his 'discovery' of Euclid and Galileo, and taken up as part of a solution to the pressing question of self-knowledge. The structure of Hobbes's political works, including Leviathan, lead one to assume that his theory of Man precedes or is prior to his political theory, and that the structure of the latter is dependent upon the results of the former. However, it is not necessary, and Strauss brings this out, that Hobbes's political thought evolved from his scientific thought. We know that Hobbes believes one can pursue political science before scientifically resolving questions of physical nature and the nature of Man (based on what he says in De Corpore and the fact that he published De Cive years before De Homine). Clearly the consequences of his vision of nature and human nature will have a broad effect upon his political doctrine (i.e. whether it is monistic or dualistic). In the 'Introduction' to Leviathan Hobbes claims that his theory of the state is related to his theory of Man, not only as a consequence of human nature, but as a form of 'micro-macro' argument about the nature of the state.¹⁵ Hobbes compares the creation and structure of the state or 'Artificial Man' to that of God's natural man: the state is an imitation of Man based on human self-

¹⁵ This is not a pure 'micro-macro' argument in so far as the State is not a macrocosmic analogy of Man. Rather, the imitative argument Hobbes makes is similar to such an argument.

knowledge. Therefore, the way in which Hobbes chooses to present his theory of Man in Section One of Leviathan must be mirrored in Section Two on the Commonwealth.

Strauss says that several of the key doctrines at the very genesis of Hobbes's political philosophy are consistent with the doctrine of materialism which he believes Hobbes adopted later.¹⁶ The thesis that death is the 'summum malum' and that the soul is not immortal is reinforced by materialism.¹⁷ The idea that there is no available natural order or gradation, Strauss believes, also agreed with Hobbes's political philosophy. Two other considerations of Hobbes's political doctrine which Strauss says are related (though not consequent to) monistic-materialism are the break with Ancient rationalism and establishing right over law as the primary category of political rule.¹⁸ Strauss

¹⁶ Strauss, p. 129. Strauss believes that the unifying element of all these various strands of Hobbes's thought is a 'moral attitude' which directed Hobbes's philosophy from the beginning. I remain unconvinced that this is truly the unifying element, though Strauss's argument is a powerful and insightful one. Oakeshott's contention - that the desire to be guided by Reason, more than any particular doctrine about the world, is the unifying thread of Hobbes's philosophy - seems no less worthy of consideration than Strauss's argument. See Oakeshott, p. 25.

¹⁷ Strauss, p. 167. Strauss discusses how materialistic Science could positively reinforce Hobbes's earlier political doctrines.

¹⁸ Strauss, pp. 156-160. See also p. 167. The thesis that death is the summum malum is closely connected to monism. For an alternative view, based on dualism, see Socrates speech to the Athenian court in Plato's Apology (29a-b). Socrates believes in the existence of the soul (dualistic 'prima philosophia') and so is not convinced that the death of the body is the greatest evil.

claims that the Ancient thinkers unanimously agreed that reason ought to rule in the Commonwealth (in various forms of what constituted the best expression of what is 'reasonable': e.g. Plato believed that the Philosopher-King was the best expression of reason ruling in the 'polis'). Ancient thought was lead to the idea that law - whether natural, eternal, or revealed - ought to rule in the commonwealth. Strauss believes that what is decisive for Modern politics is the break with the idea that reason and law could be the basis of power and social order in the Commonwealth. As Hobbes implies in the Epistle Dedicatory to the Elements, even if a man could recognize what is reasonable, it does not mean that he will obey it. It is for this reason that opinion, light, and recognition (which are products of mind and knowledge) and not law (which is akin to truth) must be the basis of political association. At root is a denial of the capacity of humans to know effectively what is reasonable, or even to accept it as good if it contradicts the passions.¹⁹ It is the content of common conscience, even as absurd opinion, more than truth which are the actual bonds of society. Hobbes sees that human mind and the governance of discursion by the passions and instinct makes reason problematic and so makes the question of sovereignty emerge as a central one in Modernity. If reason is not an effective answer to the

¹⁹ Elements, p. xvii.

question of who should rule, then sovereignty becomes problematic. Ancient thinkers said 'the rational should rule'. However, if reason is not innate, then who's version of reason ought to rule? Must the choice be entirely arbitrary? How will we choose the sovereign, and how can we regulate the sovereign power without leaving it powerless to enforce the artificial laws? In one sense, the answer to these questions of sovereignty and reason can be based on the effectiveness of certain visions over others. If one assumes, as Hobbes did, that peace is necessarily good because death is necessarily bad, then a definition of Man and reason which tends towards peace is best because it is the 'conditio sine qua non' of all arts and sciences and so leads to an identification of truth with pacific doctrines.²⁰

However, there seems to me to be an even more concrete reason for Hobbes choosing a monistic doctrine over a dualistic one. In the final section of Leviathan, entitled 'Of the Kingdome of Darknesse', Hobbes explores actual, historical doctrines which have distorted Western thought in the areas of scriptural interpretation, religious doctrine, philosophy, history, and law. Hobbes believes that these errors play a large role in the potential for civil war and, as such, are important factors in the kind of strife experienced in England during its Civil War. In particular,

²⁰ Leviathan, p. 233.

Hobbes focuses on what he calls the error of 'Separated Essences', and discusses the implications of this error for politics.

But to what purpose (may some man say) is such subtilty in a work of this nature, where I pretend to nothing but what is necessary to the doctrine of Government and Obedience? It is to this purpose, that men no longer suffer themselves to be abused, by them, that by this doctrine of 'Separated Essences', built upon the Vain Philosophy of Aristotle, would fright them from Obeying the Laws of their Countrey, with empty names; as men fright Birds from the Corn with an empty doublet, a hat, and a crooked stick.²¹

Hobbes thinks that this doctrine arises from a mistaken that certain words must correspond to actual existent things, without recognizing their wrested form.²² For Hobbes, the notion of 'separated essences' - an essence or form which exists independently of any particular body - is absurd. Indeed, the error of separated essences is the second of the seven absurdities listed on page 114 of Leviathan: 'essence' is an accident of a body and it is absurd to imagine it has an existence like that of a body outside the milieu of speech (i.e. one imagines the actual existence of what is truly an accident and hence inseparable from bodies and mind). Separated essences form the core of any doctrine which purports that 'ideas' are distinct from instances (e.g. Plato's so-called theory of Ideas or Forms).

²¹ Leviathan, p. 691.

²² Leviathan, p. 102. This is virtually the same as the first abuse of speech Hobbes lists.

Hobbes believes that his discourse on the error of separated essences is a necessary element in his overall theory of government and obligation because their error detracts from the desire men have to obey the laws of their countries. But, why does this doctrine fright men from obeying the laws of their country? Hobbes says that, not only does dualism lead to logical absurdities, but it also implies that there is a natural basis for a dual sovereign power, or a division between the obedience owed to the protectors and governors of our temporal, corporeal body (i.e. the Civil Sovereign), and the protectors and governors of our eternal, non-corporeal souls (i.e. the representatives of The Church). In the final chapter of Leviathan Hobbes claims that dualism of substances, ideas of the private interpretation of law, and uncertain histories all tend to the benefit of the Presbyters, Bishops, Priests, and the Papacy - those men who would challenge the legitimacy of the spiritual authority of the Civil Sovereign and claim such power for themselves.²³ A dualistic doctrine of the soul in Natural Man gives philosophic legitimacy to the claims of those who would place spiritual authority beyond the sovereign powers of the Monarch.²⁴ This is not

²³ Leviathan, p. 704

²⁴ Leviathan, p. 483. Hobbes also argues that, not only is it divisive to State, but it is even contrary to Scripture and; claiming that the idea of body and soul crept into Christianity through the influences of Heathen religions (i.e. 'old wine into the new skins of Christianity'). See also Chapter 44 in the

idle speculation on Hobbes's part, but vividly evident from the religious strife in Europe and the civil war which dominated politics in England during his lifetime. For Hobbes, monism is clearly connected with a singular sovereign power (i.e. a monarchy). Dualism contributes to both 'Darknesse' in doctrine and to division in politics

Hobbes also thinks that the 'prima philosophia' of Ancient natural philosophy has resulted in absurd, untenable conclusions.²⁵ The absurdity of Ancient natural philosophy and its doctrine of Separated Essences manifested itself in Western history, eventually leading to the problems of late Scholasticism and the religious-political strife of Early Modernity. Hobbes believed that the monistic-material doctrine represented a true advance over the natural philosophy of the Ancient and Medieval worlds. It demonstrated this advance in the field of natural philosophy by its very ability to account for phenomena which had been poorly explained by previous doctrines. In the field of politics, Hobbes's monistic doctrine could more effectively explain the potential for regression, 'Darknesse', and civil war than doctrines of Man as a political animal, or doctrines which made Man's soul akin to the highest good in the Cosmos. If Man were a political animal, then one has difficulty explaining civil war. Why would a political

section on 'Darknesse'.

²⁵ Leviathan, p. 686.

creature destroy its natural habitat and the source of its greatest happiness? If the human soul were akin to the highest good, then it is difficult to explain how can it slip into the kind of ignorance which precipitates civil war.

Yet, unlike the Ancient doctrines, Hobbes did not have the luxury of seeing his own theories unfold over time in history. Instead, Hobbes believed that he could foresee the consequences of his theories through a kind of hypothetical or 'typical' history, like that used by Aristotle in his Politics.²⁶ By calculating what must be the necessary conditions for a transition from a hypothetical 'State of Nature' to a State of civil society, Hobbes believed he could understand the actual origins and genesis of all Commonwealths. Hobbes felt that reason could effectively recreate a typical history because reasoning itself is about the consequential relations of 'names abstract', as history is about the consequential relations of events, and mental discursion is about the consequential relations of images. The former two (history and reasoning) are imitations of the latter, natural process whereby our memory allows us predict future events. Given the necessity of certain relations in the artificial milieu of reason, one can assert that 'y' must follow from 'x' (if 'x' then 'y' must follow). Hobbes posits a doctrine of mechanical-material Man, endowed with

²⁶ Strauss, pp: 104-105.

certain faculties, and then, given the nature and the natural conditions of this Man, he describes what actions must follow in order to achieve the social state. In the necessity of this process Hobbes believes he also finds the universal causal factors of all political organizations, and hence those factors which must be addressed by a successful attempt to govern a commonwealth (notice how closely Hobbes's doctrine is akin to Machiavelli's The Prince in this respect).

In both actual and typical history, Hobbes shows a faith in the capacity of humans for progress, particularly in the milieu of artificial mind. Hypothetical definitions and doctrines can improve over time because Hobbes believes that human thought is capable of an ongoing evolution (as well as lapsing from a more advanced state into 'Darknesse' and error). This is different from the statement that human nature itself which evolves and changes.²⁷ Such an idea undercuts the very foundation of Hobbes's 'typical history' because the hypothetical State of Nature and his account of the best commonwealth are dependent upon there being a static and universal human nature. Though human knowledge of nature may change, the actual nature of Man cannot. Without the premise of a fixed human nature, Hobbes would be

²⁷ Strauss, p. 8 and p. 168. Strauss says that Hobbes does express such an idea of a changing human nature, but it seems to me that Hobbes restricts the milieu of progress and regress to that of artificial mind. Nature itself remains something clearly fixed for Hobbes.

unable to create a single, universal and unconditional standard of the best Commonwealth. Hobbes wishes to maintain the idea of a fixed human nature, but still show how a process of evolution is yet possible. His solution is to let progress take place in the field of human mind, specifically the milieu of artificial mind or knowledge. It is knowledge which is the independent variable of human progress and regress. Men can learn to govern their instincts and passions only indirectly, by controlling the opinions which give rise to the passions and the deliberative will. Artificial mind cannot change human nature itself, but only our understanding of nature. It is not the form but the content of mind which progresses and regresses over time (the form of natural and artificial mind are essentially the same - a relating of items). Thus, artificial mind and the knowledge gathered from verbal discursion alone is what is subject to progress : History.

For Hobbes human mind, in so far as it is knowledge or apprehension can be meliorated through artifice, but the essential 'nature' or form of mind (i.e. God's artwork) remains fixed and unchanging. What is subject to change is precisely what is artificial in mind and not what is natural: the artificial content of verbal discourse is the central factor of the human capacity for progress. Hobbes says that it is evident that human nature remains the same from the state of nature to the state of civil society from

the fact that we still lock our doors and carry arms when we travel, even though we may live in an 'advanced' society.²⁸ Our life in civil society does not change our actual human nature, and so we must always be wary of the conditions of nature re-emerging at any time. This does not mean that our human nature is at odds with civil society. Hobbes opens the conclusion to Leviathan by citing the example of Sidney Godolphin who was a courageous soldier, but was still the most civil of men.²⁹

Hobbes tells us in De Cive that Man is not born fit for society or political order: however, it is not that men do not desire social intercourse, but that they are 'unfit' for social intercourse because they are ignorant of its benefits. What makes them unfit is not simply human nature, but the lack of a capacity to understand the benefits of cooperation and obedience.³⁰ 'Darknesse' is not a consequence of a sinful but one of ignorance. Man must understand the nature of his own knowledge - both phenomenal sensation and nominal reasoning (ignorance of the former leads to idolatry, while ignorance of the latter to a dualistic doctrine). Men must have the 'will' to come

²⁸ Leviathan, pp. 186-187.

²⁹ Leviathan, pp. 717-718.

³⁰ Leviathan, p. 718. Hobbes begins the Conclusion to Leviathan by clearly stating that there is no inconsistency between human nature and civil society which cannot be reconciled by education and discipline (i.e. melioration, not transcendence).

together by nature because social intercourse leads to participation in the greatest of human powers, the Commonwealth, and potentially to greater longevity of the vital motions. What men lack are the means to achieve this goal: they lack the capacity for self-introspection, common conscience, mutual recognition, and universal reasoning—which, as we have seen, are the essential conditions of social organization. In all of these instances Hobbes seems to consciously resist the idea the nature itself can be changed. We can govern the artificial opinions of men but we cannot change their natural passions and their instincts. Therefore, the key to successful government is to understand what opinions and beliefs stimulate which passions and will, and then try to manipulate human actions by manipulating the opinions which give rise to them. Rather than transform nature (which is impossible), humans must learn to imitate nature, creating an artificial milieu of knowledge within which we can accomplish our progression alongside the static order of nature.

Bibliography

- Aristotle, The Politics (Middlesex, England: Penguin Books Ltd., 1957). Translated by T. A. Sinclair.
- Bloom, Alan, The Closing of the American Mind (New York: Simon and Schuster Inc., 1987).
- Burtt, E. A., The Metaphysical Foundations of Modern Physical Science (New York: Harcourt, Brace & Company, Inc., 1925).
- Descartes, Rene, The Philosophic Works of Descartes Volumes 1 and 2., (Cambridge, England: Cambridge University Press, 1931). Translated by E. S. Haldane and G. R. T. Ross.
- Hobbes, Thomas, Body, Man, and Citizen (New York: Collier Books, 1962) Edited by R. S. Peters.
- Hobbes, Thomas, Leviathan (London, England: Penguin Books Ltd. 1981). Edited by C. B. Macpherson.
- Hobbes, Thomas, Man and Citizen (Gloucester, Mass.: Anchor Books, 1978) Edited by B. Gert.
- Hobbes, Thomas, The Elements of Law (Cambridge, England: Cambridge at the University Press, 1928). Edited by F. Tonnies.
- Oakeshott, Micheal, Hobbes on Civil Association (Suffolk, England: Oxford-Basil Blackwell, 1975).
- Koyre, Alexandre, From The Closed World To The Infinite Universe (Baltimore: The John Hopkins University Press,

1957).

Strauss, Leo, The Political Philosophy of Hobbes: Its Basis and Its Genesis (Chicago: The University of Chicago Press, 1936) Translated by E. M. Sinclair.

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