Transformation in Knowledge: The Aristotelian Concepts of Actuality and Potentiality and the Cartesian

Method

by

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Submitted in fulfilment of the requirements for the Degree of

Doctor of Philosophy

University of Tasmania, May 2009

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2

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ABSTRACT

Transformation in Knowledge: The Aristotelian Concepts of Actuality and
Potentiality and the Cartesian Method

In this thesis, I will discuss the Aristotelian concepts of actuality and potentiality in combination with the Cartesian method. On the one hand this will be done as an attempt to balance the traditional English language interpretation of the relationship between Aristotelian and Cartesian philosophy, which tends to characterise them as fundamentally opposed. On the other hand, it will be done in order to generate legitimate unexplored conceptual frameworks for viewing the work of both philosophers. There is an assumption central to the greater part of English language scholarship on Descartes, attaining almost the status of self-evidence, that within the philosophical canon, the appearance of the Cartesian method marks a definitive break between the ancient and the modern. Descartes signal achievement, on this assumption, was that he found a way once and for all, to break philosophy free from the shackles of Aristotelian thought. Such an idea is based upon the notion that, after Aristotle and prior to Descartes, philosophy consisted of little more than the endless repetition, or subtle modification of a hybrid Christian/Aristotelian doctrine. The subsequent trajectory of English language philosophy appears to attest to the validity of such a view, and its apparent self-evidence from the perspective of this tradition serves to cover over other legitimate approaches to interpretation and use of Aristotelian and Cartesian concepts. In this thesis, rather than performing a comparison of the philosophy of Aristotle and Descartes, the Aristotelian concepts of actuality and potentiality and the Cartesian method will be considered in light of a single task, namely, an attempt to theorise transformations in fundamental structures of knowledge. This will be accomplished by identifying latent possibilities suitable for such a task within Aristotelian and Cartesian conceptual structures, and extending them accordingly. As such, this thesis must be understood as a speculative work rather than as a work in history of philosophy.

Aristotle demonstrates the meaning and function of the concepts of actuality and potentiality by way of analogy. This form of demonstration leaves the meaning of actuality and potentiality open to further extension by analogy. As such, the concepts of actuality and potentiality can be extended to cases not originally brought under these concepts by Aristotle. In this thesis the concepts of actuality and potentiality will be extended, according to the structure of the analogy by which Aristotle originally defines them, to an explanation of transformation in structures of knowledge. At the same time, the Cartesian method will be interpreted as a detailed account of a particular transformation from one structure of knowledge to another. Whilst Descartes characterises his own project in terms of the attainment of certainty, I intend to show that Descartes' stated intention in the creation of his method is less significant in terms of his overall system that the transformation that this intent brings about.

4

ACKNOWLEDGEMENTS

I would like to acknowledge my supervisor Jeff Malpas, who somehow helped me to keep focus in spite of my natural tendency to wander off on endless tangents. I would also like to acknowledge Lenka Ucnik, without whose support, both intellectual and otherwise, I would not have been able to complete this thesis.

TABLE OF CONTENTS

INTRODUCTION

In the study of history of philosophy two broad approaches are prevalent. One is represented by scholars who enter deeply into the work of a single philosopher or a small group of related philosophers, attempting to lay out in detail the minute internal characteristics of their works. The goal of such exegetical work is the ever more accurate rendition into modern philosophical language of archaic philosophical works, achieved through a combination of scrupulous philological work and empathy.[1] The second approach is characterised by its focus on the development of individual concepts or sets of concepts. This 'developmental' approach can be divided into two further groups according to whether the development under consideration is that of philosophy as such[2] or of a given concept or set of concepts.[3] Regarding this latter approach, one might choose to follow the concept of 'knowledge' from Plato through to Descartes, noting continuities and differences of form and function along the way. In this case one would be required to trace this concept across several translations, using

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[1] Recent examples being Charlotte Witt, *Ways of Being : Potentiality and Actuality in Aristotle's Metaphysics* (Ithaca, NY: Cornell University Press, 2003). and John J. Cleary, *Aristotle on the Many Senses of Priority* (Carbondale: Southern Illinois University Press, 1988). In this thesis make significant use of these kinds of work. Of particular note are the several papers and books by George Blair, Stephen Menn and Daniel Graham on Aristotle's concepts of actuality and potentiality. Each of these authors is notable for their attention to detail and for their uncommonly sophisticated application of empathy and intellectual vigilance.

[2] E.g., Anthony Kenny, *A New History of Western Philosophy*, 4 vols. (Oxford: Oxford University Press, 2006)., Anthony Kenny, *A Brief History of Western Philosophy* (Oxford: Blackwell Publishers Ltd., 1998) pg. 201., Bertrand Russell, *History of Western Philosophy* (London: Routledge, 1996).

[3] E.g., Marjorie Greene, *The Knower and the Known* (New York: Basic Books, 1966).; Etienne Gilson, *Being and Some Philosophers* (Toronto: Pontifical Institute of Mediaeval Studies, 1952).; Etienne Gilson, *The Unity of Philosophical Experience* (San Francisco, CA: Ignatius Press, 1999). In each of these cases a particular concept is followed through the works of a range of philosophers. In these examples, these concepts are 'knowledge', 'being' and 'experience'.

etymological and other philological connections as a guide, ensuring at each step that one was in fact still considering the 'same' concept.[4] A problem arises when, between one text and another, an apparently unified concept comes to take on a fundamentally different function. It would, for example, be a mistake to consider the concept of the divine in Aristotle and the concept of God in Spinoza to be instances of the same concept, at differing stages of transformation, when the greater mass of textual evidence suggests their (the concept of the 'divine' and the concept of 'God) relative systemic functions to be radically dissimilar. One may indeed find precursors to Spinoza's concept of God in Aristotelian thought, but there is no obvious reason to direct the search for these precursors on the basis of etymology. In such a case, one might reconsider linguistic similarity or connection as a valid marker for the continuity of a concept, and attempt to find another indicator for this continuity. The question of conceptual discontinuity is of particular significance in this thesis because it is in part an attempt to demonstrate a continuity in the function of the Aristotelian concepts of actuality and potentiality (*energeia* and *dunamis*) that diverges from the continuity of the related terminology. The concepts of actuality and potentiality may be traced etymologically and genetically from Aristotle's texts through to the present day. It is a contention of this thesis that, with the Cartesian method, a *functional* continuity with the Aristotelian concepts of actuality and potentiality can be found, and that this continuity is entirely separate from the history of the concepts that have remained attached to the terminology. Neither of the aforementioned approaches to history of philosophy will be appropriate to the task of tracing such a continuity, as it will be shown to be found in the function, rather than any overt characterisation, of the Cartesian method.

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[4] This unity manifests in different ways. In the case of the works of Etienne Gilson, for example, unity is provided by utilising the work of Thomas Aquinas as a touchstone. In a similar manner, Bertrand Russell's

Rather than being unified around a philosopher, or a concept, the integration of the Aristotelian concepts of actuality and potentiality and the Cartesian method in this thesis will be made by turning both Aristotelian and Cartesian texts to a common task; namely, the construction of an account of the transformation of structures of knowledge. Further, the account of this transformation will be utilised to demonstrate the fundamental instability of 'first philosophy'; understood as a broadly Aristotelian-Cartesian amalgam. As such, this thesis cannot be considered a work in history of philosophy according to the standard forms such a work might take. Rather than taking the history of philosophy as a subject matter for analysis, history of philosophy will be utilised as material for extension and recombination. In this regard, it is more appropriately considered alongside several of the earlier works of Gilles Deleuze[5], in which canonical authors are brought to bear on questions or problems that they may never have overtly considered. In *Empiricism and Subjectivity*[6], for instance, 'subjectivity' is approached through Hume, not as an overt topic in Hume's writing, but as an underlying question, or structure, organising his work. Deleuze's goal in this case is not to provide an accurate account of authorial intent, but rather to develop an account of an enabling conceptual formation, of some concept or structural tendency that can be brought to light in interpretation, and which is presupposed, perhaps unconsciously on the part of the author, by the structure of the text being interpreted. As such, Deleuze's approach to history of philosophy has been characterised by David Neil[7] in terms of a benevolent use of anachronism. Deleuze's work on 'history of philosophy' may perhaps legitimately be said to

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History of Western Philosophy is unified by Russell's own theoretical perspective. The difference between the two, however, is that while Gilson is clear about his investments, Russell is not.

[5] In particular, Gilles Deleuze, *Empiricism and Subjectivity: An Essay on Hume's Theory of Human Nature*, trans. Constantin V. Boundas (New York: Columbia University Press, 1991). and Gilles Deleuze, *Expressionism in Philosophy: Spinoza*, trans. Martin Joughin (New York: Zone Books, 1992)..

[6] Deleuze, *Empiricism and Subjectivity: An Essay on Hume's Theory of Human Nature*.

[7] David Neil, 'The Uses of Anachronism: Deleuze's History of the Subject', *Philosophy Today*, 42/4 (1998), 418-31.

be intentionally anachronistic insofar as he tends to ask questions through the work of canonical philosophers that appear different from those questions through which the work was initially constructed. Neil describes this in more Deleuzian terms. He claims that in Deleuze's work in 'history of philosophy', "particular concepts are being raised on another plane: a plane other than that one on which they were originally constructed."[8] In producing 'anachronistic' texts on canonical philosophers, Deleuze is not simply 'playing around'. Rather, he is responding strategically to the factual situation in which he understands an interpreter necessarily finds themself. This 'factual situation' is such that the text itself is not the proper object of interpretation – a purely textual analysis, if possible, would remain on the level of 'grammar'. But nor is the intended meaning of the author the factual object of textual interpretation, as this would negate the 'plane' or 'horizon' within which the interpretation takes place. Rather, the object of textual interpretation is a formation created between the interpreter and the text, as a kind of hybrid. Deleuze's approach, which is quite baldly pragmatic, is an attempt to put interpretation to useful work, to make use of the factual situation within which interpretation begins. 'Useful work', for Deleuze, primarily involves the construction of useful concepts. This approach itself is consistent with Deleuze's own theorizing on the nature of concepts. In a short paper that provides a rough formulation of his own thought on the function of concepts, Deleuze writes,

A philosophical concept fulfils several functions, in fields of thought which are themselves defined by inside variables. There also are outside variables (states of things, moments in history), in a complex relation with the inside variables and the functions. This means that a concept does not die at will, but insofar as new functions in

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[8] Neil, 'The Uses of Anachronism: Deleuze's History of the Subject', pg. 426.

10

the field discharge it. This is also why it is never very interesting to criticise a concept: it is better to build the new functions and discover the new fields which make it useless or inadequate.[9]

This passage also neatly describes Deleuze's own relationship with Hegelian thought, which looms particularly large in Deleuze's history thanks to one of his own teachers, Jean Hippolyte. Although Deleuze is often considered 'anti-Hegelian', and has described his early relationship with Hegelian thought in negative terms, he did not in fact write any critical works on Hegel's philosophy. However, much of his work, and in particular *Difference and Repetition*, can be read as an attempt to create concepts suited to the task of displacing the Hegelian dialectic. On this point, Daniel Smith writes,

[T]he Deleuze-Hegel relation needs to be assessed less in terms of Deleuze's explicit comments 'against' Hegel than in terms of the alternate conception of dialectics he develops through his oeuvre: a dialectic in which an affirmative conception of the 'problematic' is substituted for the 'labour of the negative', and a principle of difference is substituted for the movement of opposition or contradiction.[10]

Although this thesis does not maintain a wholly Deleuzian theoretical perspective[11], the interpretation of Aristotelian and Cartesian material presented here is comparable to Deleuze's relationship with history of philosophy in two ways. Firstly, the object of the interpretation, in the first instance being the idea of the 'transformation of knowledge', is from the outset understood as a hybrid formed between text and interpretation. However, in the case of this thesis the hybrid is triple; i.e. Aristotle-Descartes-interpreter. Secondly, it is intended to demonstrate a way of thinking about Aristotle and Descartes that sidesteps their standard incorporation into the canon. Of course, Deleuze's relationship with the philosophical canon

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[9] Gilles Deleuze, 'A Philosophical Concept...', *Topoi,* 7 (1988), 111-12 pg. 111.
[10] Daniel W. Smith, 'Deleuze, Hegel and the Post-Kantian Tradition', *Philosophy Today,* 44/Suppl. (2000), 119-31 pg. 128.

situated him quite differently. From several of his comments it seems that he perhaps understood certain conceptual arrangements, deriving from Kant, Hegel and Heidegger, as so thoroughly saturating theory in France at the time he started writing, that a tacit engagement with these philosophers would be unavoidable. Indeed, perhaps, this tacit understanding was for him both unavoidable and undesirable. In *Dialogues* Deleuze notes that,

At the liberation we were still strangely stuck in the history of philosophy. We simply plunged into Hegel, Husserl and Heidegger; we threw ourselves like puppies into a scholasticism worse than that of the middle ages.[12]

and

The history of philosophy has always been the agent of power in philosophy, and even in thought. It played the repressor's role: how can you think without having read Plato, Descartes, Kant and Heidegger, and so-and-so's book about them?[13]

It is clear at least that Deleuze sought to move away from the canon as he received it, but this by no means meant that he rejected the thought of canonical thinkers. Instead he engaged with different questions, utilising the available material in different ways, making use of this material to play a different game. Rather than engaging with 'history of philosophy' in an attempt to reconstruct 'appropriate questions', ala hermeneutics, he saw the interaction between a text and the possibility of, in hermeneutical terms, 'entering the horizon of the question', as an opportunity to enter into differing forms of relationship with a text. Nonetheless, Deleuze takes his inspiration for this systematic divergence from the canonical authors themselves. On the criticism of philosophical works he writes,

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[11] Although there are some significant commonalities; one in particular being the focus on *function* as being of primary value when interpreting conceptual arrangements.
[12] Gilles Deleuze, *Dialogues/Gilles Deleuze and Claire Parnet*, trans. Barbara Habberjam (London: Athlone Press, 1987) pg. 12.
[13] Deleuze, *Dialogues/Gilles Deleuze and Claire Parnet* pg. 13.

In truth only one kind of objection is worthwhile: the objection which shows that the question raised by a philosopher is not a good question, that it does not force the nature of things enough, that it should be raised in another way, that we should raise it in a better way, or that we should raise a different question. It is in exactly this way that a great philosopher criticises another. for example…this is how Kant criticises Hume.[14]

In this thesis the object of criticism is not a philosopher or work as such, but rather a tacit agreement in the literature regarding the proper place of two canonical philosophers. As such this thesis grows out of assessment of this 'tacit agreement' that it 'does not force the nature of things enough'. Thus, it is indirectly written *against* the orthodox conception, of the relevance and value of Aristotelian and Cartesian thought, to philosophy and to thought in general.

There is an assumption central to the greater part of English language scholarship on Descartes, attaining almost the status of self-evidence, that within the philosophical canon, the appearance of the Cartesian method marks a definitive break between the ancient and the modern. Descartes signal achievement, on this assumption, was that he found a way, once and for all, to break philosophy free from the shackles of Aristotelian thought. Such an idea is based upon the notion that, after Aristotle and prior to Descartes, philosophy consisted of little more than the endless repetition, or subtle modification of a hybrid Christian/Aristotelian doctrine. Anthony Kenny, for example, writes that,

More than any other philosopher, Descartes stands out as a solitary original genius, creating from his own head a system of thought to dominate his intellectual world.[15]

and

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[14] Deleuze, *Empiricism and Subjectivity: An Essay on Hume's Theory of Human Nature* pg. 105.
[15] Kenny, *A Brief History of Western Philosophy* pg. 201.

The seventeenth century, unlike the sixteenth century, was fertile in the production of philosophers of genius. The man who is often considered the father of modern philosophy is Rene Descartes.[16]

and

Descartes was a standard-bearer for the rebellion against Aristotle. In metaphysics he rejected the notions of potentiality and actuality, and in philosophical psychology he substituted consciousness for rationality as the mark of the mental.[17]

As such the Western philosophical canon, for better or worse, is often understood in terms of two progenitors; with Aristotle as the father of Western systematic philosophy, and Descartes as the father of modern philosophy. The canon is thus divided, by the revolutionary insight of the Cartesian method, into a before and an after. This division contributes to a situation in which the few scholars writing on both Aristotle and Descartes tend, by default, to approach the relationship between the two thinkers in terms of a battle between incommensurable systems[18]; ignoring continuities in favour of the all too obvious discontinuity. Kenny, for example, writes,

If you wanted to put Descartes' main ideas on the back of a postcard you would need just two sentences: man is a thinking mind; matter is extension in motion. Everything, in Descartes system, is to be explained in terms of this dualism of mind and matter. Indeed, we owe to Descartes that we think of mind and matter as the two great, mutually exclusive and mutually exhaustive, divisions of the universe we inhabit.[19]

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[16] Anthony Kenny, *The Rise of Modern Philosophy*, 4 vols. (A New History of Western Philosophy, 3; Oxford: Oxford University Press, 2006) pg. 33.

[17] Kenny, *The Rise of Modern Philosophy* pg. xiii. One of the tasks of this thesis is in fact to demonstrate the continuing function of actuality and potentiality in Descartes thought. One ought also to note, and this will be given attention in the body of the thesis, that the Aristotelian and Cartesian notions of 'thought' are more similar than they are different.

[18] Quite literally on occasion; an example being Charles H Kahn, 'Aristotle Versus Descartes on the Concept of the Mental', in Ricardo Salles (ed.), *Metaphysics, Soul, and Ethics in Ancient Thought: Themes from the Work of Richard Sorabji* (Oxford: Clarendon Press, 2005), 193-208.

[19] Kenny, *A Brief History of Western Philosophy* pg. 191.

Kenny's perspective on Descartes is not incorrect, but it is seriously reductive. Much in the

Cartesian system aside from the resultant substance dualism is of equal or greater significance.

Further, Descartes philosophical legacy is significantly greater in scope than Kenny appears to

suggest. What Kenny describes is rather the singular trajectory of post-Cartesian thought that

has led to his own interest in Anglo-analytic philosophy of mind. There are other strands of

post-Cartesian evolution that are significant, yet show little regard for substance dualism[20].

Kenny's Anglo-analytic perspective should be understood as an interpretive prejudice, but in

the most generous possible sense. To say that Kenny holds this 'prejudice' is simply to take

note of the fact that his own engagement with philosophy has served to enable him to draw

certain forms of historical connections between ideas and philosophers, and to render other

connections unlikely.[21] However, and this has been one of the fundamental difficulties (and

also one of the motivations) for the construction of this thesis, the 'prejudice' that Kenny

demonstrates has attained near-complete orthodoxy in English language philosophy, and in

particular in philosophical pedagogy. As such, historical interpretation arising from this

tradition tends to take on the appearance of self-evidence. This is most significant with regard

to the division of the canon mentioned above – which might be considered one of the most

fundamental of English-language philosophy orthodoxies. Of course, such a division is not

'incorrect', so long as it is understood as a division based upon the projection of certain

historical interests, understood according to particular structures of knowledge, back onto the

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[20] The phenomenological tradition being a case in point.

[21] On this sense of 'prejudice' Hans-Georg Gadamer writes, "The overcoming of all prejudices, this global demand of the Enlightenment, will itself prove to be a prejudice, and removing it opens the way to an appropriate understanding of the finitude which dominates not only our humanity but also our historical consciousness. Does being situated within traditions really mean being subject to prejudices and limited in one's freedom? Is not, rather, all human existence, even the freest, limited and qualified in various ways? If this is true, the idea of an absolute reason is not a possibility for historical humanity. Reason exists for us only in concrete, historical terms – i.e., it is not its own master but remains constantly dependant on the given circumstances in which it operates." Hans-Georg Gadamer, *Truth and Method* trans. Weinsheimer and Donald G. Marshall (New York: Continuum, 2004) pg. 276.

canon. The few scholars who seem inclined towards considering the continuity of Aristotelian and Cartesian thought directly, tend to do so either as a direct critique of Descartes[22] (i.e. he *failed* to break properly with Aristotle), or as minor qualifications of what they otherwise consider to be his success making such a break.[23]

As noted, the integration of the Aristotle and Descartes material will be made by directing both toward an account of transformation in structures of knowledge, with a view to a more general interpretation of 'first philosophy'. It has already been noted that according to the nature of such a project it will require a significantly speculative approach. To begin with, neither Aristotle nor Descartes write of knowledge as something capable of 'transformation', and each would be hostile to any notion of possible transformation in knowledge of 'first philosophy'. Aristotle does utilise knowledge as an *index* of the transformation of a 'learner' into a 'knower' and uses this example on several occasions throughout his works to aid his clarification of the concepts of actuality and potentiality. In doing this, Aristotle takes the person who possesses the knowledge as the subject of the transformation, rather than the knowledge itself. It would in fact not make sense for Aristotle to take 'knowledge' as a subject for transformation. As he does not take 'knowledge' as a being, and the concepts of actuality and potentiality are devised specifically to articulate changes in or transformations of beings, it would be inconsistent for Aristotle to make knowledge the subject of such a transformation. Nonetheless, it is one of the contentions of this thesis that the greater conceptual apparatus of actuality-potentiality, understood in terms of its function within the Aristotelian system, can be

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[22] E.g. Oswald Hanfling, 'Can There Be a Method of Doubt?', *Philosophy: The Journal of the Royal Institute of Philosophy,* 59 (1984), 505-11.; Richard H. Schlagel, 'The Waning of the Light: The Eclipse of Philosophy', *Review of Metaphysics,* 57/1 (2003), 105-33.
[23] An exception is Etienne Gilson, particularly in his *The Unity of Philosophical Experience.* The approach here, however, is very broad. This is a remarkable book but, as indicated by the title, Gilson is more

consistently extended in this direction. Similarly, Descartes' overt definition of knowledge as necessarily true appears to directly contradict the possibility of a 'transformation' of knowledge. Nonetheless it is a contention of this thesis that the *uses* to which Descartes puts the concept of knowledge (and also particular instances of knowledge), and the relationship it holds with indubitability and certainty belie this apparent contradiction. Although the terms 'actuality' and 'potentiality' continue to this day to function in ordinary language, to reference a distinction between something like 'logical possibility' and concrete existence, their original use was to indicate a structure that explained the 'coming-to-be' of entities in such a way as to avoid their 'coming-to-be' from nothing. Aristotle thus used actuality and potentiality as a means to sidestep the problem structure set up by Parmenides. However, this wasn't achieved simply in virtue of his devising a pair of concepts. The integration of these concepts into Aristotle's thinking occurred at a foundational level, profoundly affecting the function and status of other concepts central to his thought. The concepts of actuality and potentiality have a determinate function in Aristotle's thinking, but this function is not isolated; it cannot be captured simply by describing the meaning of actuality and potentiality. The Aristotelian concepts of actuality and potentiality interact fundamentally with Aristotle's conceptualisation of the categories, with his four causes, with the concepts of continuity, infinity and number, and with his hylomorphic physics. This set of concepts formed a particular kind of structure suited to a set of tasks related to the problem of 'coming to be', or of 'change' in its broadest sense. It is in terms of this larger structure formed around the concepts of actuality and potentiality, and their function within that structure, that actuality and potentiality can be recognised as a pattern of function that might be discovered within another system – in the case of this thesis, in the Cartesian method and as part of the Cartesian system as a whole.

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interested in demonstrating the unity of *all* philosophical experience and, given his own predilections,

There is precedent, in Aristotle's own use of the concepts of actuality and potentiality, for an expansion of their scope by means of analogy. From the outset Aristotle develops the meaning of these concepts through their application to a range of concrete problems. Their meaning is developed by the analogy formed according to the range of these uses. Indeed Aristotle makes the direct claim that actuality and potentiality can *only* be demonstrated analogically. As a result, the complete set of possible applications for the pair of concepts remains open, allowing for the possibility of their extension by analogy to cases beyond those considered by Aristotle.

In this thesis, the concepts of actuality and potentiality, and the Cartesian method, will be brought into proximity according to the opportunity afforded by the openness of the analogical structure Aristotle produces in his attempts to define actuality and potentiality. Functioning as they do in Aristotle's work to provide a theoretical framework for considering the 'movement' from not-*x* to *x*, actuality and potentiality will be extended by analogy to a consideration of the 'movement' or transformation from one structure of knowledge to another. The idea of such a transformation of knowledge will be rendered more concrete, from the perspective of the knower as such, through consideration of the process and function of the Cartesian method. Whatever the motivation for Descartes' construction of his method, whether it be the achievement of a 'certain' foundation of the sciences, turning the faithless to faith, as an answer to the scepticism of his time, or some other more covert motivation, what he ultimately produced was a singular description of a transformation of one particular structure of knowledge into another. This transformation was described ostensibly from a perspective internal to thought, that is, 'subjectively'. Whilst acknowledging Descartes' profound contribution to philosophy with regard to the 'internal' aspect of thought, it is not

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unifying the idea of such experience into a form broadly compatible with the thought of Thomas Aquinas.

necessary that one only consider this 'internal' aspect when considering the 'transformation' of knowledge that Descartes describes. The structure of this change can also be considered in abstraction as a transformation or 'movement'[24] from one state to another, where each 'state' is understood as the totality of concepts functioning, in thought, to determine the world as being one way or another. It is this transformation, from one 'state' of knowledge to another, that will be considered in terms of Aristotle's concepts of actuality and potentiality.

This thesis is constructed neither as an attempt to establish an author's intent behind the text, nor as a critique of the authors or of the concepts associated with their names. Rather, it is an attempt to think about the work of two canonical philosophers in a useful way – to think about them in terms of the unity of interpretive possibility born in part from their presence in the philosophical canon. That is, it is an attempt to take account of the co-existence of Aristotelian and Cartesian patterns of thinking in the inherited philosophical tradition, and to work from the perspective of this simultaneity rather than the traditionally imagined disunity of the Cartesian and Aristotelian systems. Traditional interpretations of Aristotle's and Descartes' work, at least in English language publications, tend to oppose them either implicitly or explicitly, along several axes. Rather than beginning from the perspective of such a division, this thesis begins from the perspective of the unity of the problem or question through which they are to be viewed – a question the idea of which is arguably derived in part from the interplay of sets of ideas usually associated with these two philosophers. The 'text' that is central to this thesis is less Aristotelian or Cartesian and more a facet of inherited tradition. It is an engagement with an aspect of philosophical pedagogy insofar as this has shaped certain possible engagements with and between Aristotle and Descartes and closed off

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[24] The term 'movement' is appropriate as, when considering the problem of coming-to-be, both Plato and Aristotle formulated this problem in terms of the movement (*kinesis*) from not-being to being.

others. It is not an engagement in the sense of a direct critique, but rather in the sense that this thesis is created largely for the sake of articulating another possibility, not so much to displace altogether, but to displace the necessity of, the 'tacit agreement' on the functional and historical relevance of Aristotelian and Cartesian thought.

Nonetheless, the Aristotelian and Cartesian texts are not considered merely as tools in the service of an indirectly related argument. There would be little sense in turning to historical texts if one was unwilling to submit to the limitations and potentialities that this would entail. However, it must be remembered that, although the authors in question were writing two millennia apart, they are always received and understood within one human lifetime. One does not carry the differences in the historical development of the knife and the fork to the dinner table. Similarly when one begins to think, for example, in terms of actuality, potentiality and the thinking subject, one does not carry the idea of their relative development. Rather, one thinks according to the potential of the situation within which one thinks. The unity of the projection that originates in this situation must nonetheless be shaped by the detail of the texts under interpretation. In all, the aim is to provide an alternate – but more to the point useful – account of several Aristotelian and Cartesian conceptual structures, unified around a single question. In service of this aim, in chapter two I will focus upon the development and function of the concepts of actuality and potentiality (*energeia* and *dunamis*) within Aristotle's thought. I will begin with a broad discussion of origin, structure and function of the concepts and will finish by suggesting a possible direction for the extension of the concepts of actuality and potentiality to consideration of transformations in structures of knowledge. In the application of Aristotelian notions of actuality and potentiality to transformations in structures of knowledge, cues will be taken from the sorts of analogies through which actuality and

20

potentiality are demonstrated in various Aristotelian texts. The material is extended beyond its Aristotelian application, but in directions already left open by the text. Similarly in chapter three, in expanding the notion of *pros hen* structure as a form of non-generic unity, every attempt has been made to remain within the confines of the analogies by which Aristotle demonstrates such a structure. Aristotle utilises this structure at several points in various works to create a unity that is not formed by subsuming the several terms under a genus. In particular he suggests in *Metaphysics* iv that the study of being *qua* being is organised according to a *pros hen* structure. I will suggest that *pros hen* structure can be understood as a latent possibility, within the Aristotelian system, for theorising the fine detail of transformations in structures of knowledge. Further, I will argue that the *pros hen* structure of Aristotelian first philosophy (*prote philosophia*) allows it to be integrated into the greater causal milieu, and that this integration opens up the possibility of a fundamental transformation of the subject matter of first philosophy. This chapter will form a bridge between the interpretation of Aristotle's uses of the actuality and potentiality concepts, as given in chapter two, and the examination of the Cartesian method in chapter four. In chapter four, the Cartesian method will be considered as an account of the movement from one knowledge-state to another, by way of the at least notional inclusion of a 'phenomenal' element. It will be argued that this phenomenal element is fundamentally disconnected from the greater Cartesian theory about the structure of thought, and that the two are nonetheless conflated in his method. This will be argued with a view to a demonstration of the possibility for fundamental creative reordering that resides within the structure of first philosophy. In chapters two and three, material pertaining to Aristotelian actuality and potentiality is discussed in anticipation of the engagement with Cartesian method. Similarly, in chapters four and five, the Cartesian material is discussed with the Aristotelian material still in mind. In fact, it should be understood that

21

the Aristotelian and the Cartesian material is read together. The Aristotle component turns the eye towards matters of transformation, whilst the Descartes material turns this eye for transformation towards transformations of structures of knowledge and associated phenomena. Through chapters four and five, Cartesian method is first characterised in term of modifications of structures of knowledge more generally; and then finally it is considered more specifically in terms of the modifications enacted within the Cartesian system.

The greater purpose of these particular analyses will be to demonstrate, from various angles, the possibility for creative reordering inherent within any totalising system. The Cartesian and Aristotelian material will be used as evidence for this claim. Whilst the Aristotelian and Cartesian systems have formed a blueprint for a wide array of totalising metaphysical systems, Aristotelian and Cartesian first philosophy, taken together, do not exhaust either their possibility or their existence in fact. As such, the larger argument of this thesis, even if successful, should be understood as provisional upon further study.

ACTUALITY-POTENTIALITY

1. Introduction

In 1960, Herbert Spiegelberg responded to Martin Heidegger's oft quoted claim that, 'the essence (*Wesen*) of human being lies in its existence', with the following: 'One might well wonder whether this is not an overstatement, since even possibility presupposes at least some actualisation at its base'[25]. The absolute certainty with which Spiegelberg appears to use the concept of 'actualization' is striking – particularly in the context of fundamental ontology. How is it that such a retort as his can be made – that the priority of actuality, or 'actualisation', can be so evident, so certain, and so fundamental? Further, how is one to understand which historical derivation of 'actuality' is in fact meant, particularly as Heidegger himself had philosophical roots in the works of both Aquinas and Aristotle? Of course, it is also a case here perhaps of a mundane misinterpretation on the part of Herbert Spiegelberg. Heidegger was not involved in a minor squabble over the relative values of a pair of essential philosophical terms, but was rather involved in an exploration of that place in which such concepts come to be. Nonetheless, Spiegelberg's comment has real value, as it demonstrates a great difficulty that is inherent in any discussion of actuality-potentiality; these concepts are so thoroughly built into the structure of philosophical thinking that they can be taken as purified phenomena. They can assume, even in a critical context, a privileged place within the

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[25] Herbert Spiegelberg, *The Phenomenological Movement: A Historical Introduction*, 2 vols. (1; The Hague: Martinus Nijhoff, 1960) pg. 327.

philosophical milieu. Even as they are critically evaluated, it is only with respect to the other

half of the dyad, and then only with respect to their relative value.[26] In any case, Spiegelberg's

use or misuse of the actuality-potentiality dyad is not among the topics of this chapter. It is

mentioned only to highlight the inherent complication of actuality-potentially and to draw

attention to the ease with which one can run astray if one fails to use these concepts with the

greatest care. The subject matter of this chapter is Aristotelian actuality-potentiality in its

development, function and possibility. The first two of these require substantial direct

engagement with Aristotle's (and to a lesser extent Plato's) texts, whilst the latter is necessarily

'projective'. In order to project latent possibilities of Aristotelian actuality-potentiality one

must move beyond attempts to 'save' Aristotle, or the provision of lists of Aristotelian

concepts. One must try, however impossible, to think in an Aristotelian way. To this end the

objects of investigation will be, in the first instance, the situation that necessitated the

development of actuality-potentiality, and in the second, its function[27]. An assessment of

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[26] Several assumptions are contained within Spiegelberg's short statement. Firstly, the identity of existence and possibility is supposed; secondly, existence-possibility are assumed to operate, against actualisation, as one half of a dichotomy; thirdly, that 'actualisation' is the prior term, the 'foundation' of possibility. Taken together, these suppositions place Spiegelberg's comment within quite a specific stage of the development of the concept dyad, actuality-potentiality. The clues are several. The use of 'possibility' rather than the broader 'potentiality' suggests, at least, that the sense of potential/possible-actual that Spiegelberg is referencing is something other than Aristotelian. 'Actual-possible' relates to Aristotelian 'actual-potential' in a way analogous to that between species and genus. The first pair does not suggest the ontological sense of the actuality-potentiality dyad. Spiegelberg's supposing a relation of identity between existence and possibility suggests similarly. 'Existence' and 'being' had not been separated from one another as concepts until long after Aristotle. Etienne Gilson in his *Being and Some Philosophers*, argues that that which came to be called 'existence' could not be encountered as a problem before the idea of divine creation had occasioned its necessity; that only after Avicenna had existence come to refer to a separate concept. In Aristotle actuality-potentiality serves to explain continuity and stasis in their mutual possibility. By the time of Avicenna, this explanation is no longer necessary, as the most basic ontological functions have been taken over by God. As such, actuality-potentiality comes to take on the reduced meaning of 'that which is' (the actual) and 'that which could be' (the possible). The possible retains its connection to the actual by means of the concept of essence. The 'actual' refers to a 'possible' essence that has its existence superadded by God.
[27] A central and fundamental interest in the *function* of concepts, rather than their historical derivation or the latent meanings of the terms used to indicate them, is another point of similarity between the approach demonstrated in this thesis and that of Gilles Deleuze. In *Negotiations*, for example, he makes his (and in this case Felix Guattari's) dedication to function quite clear – "We're strict functionalists: what we're

function will also include the concrete characteristics of its systemic manifestation, e.g. the senses in which actuality and potentiality are prior in turn and together, the modification of their applicability through analogy, and so on. The goal is to understand the conditions under which actuality-potentiality becomes a necessary concept, and to explore what is added and lost by its appearance, such that it may be recognised as a function rather than merely a name. In this way the function of actuality-potentiality might be recognised in other domains, in this case that of the metaphysics of Descartes, where the term 'actuality-potentially' no longer refers to a recognisably related concept.

2. *Actuality and* Energeia/Entelecheia

The relationship between the Greek terms *energeia/entelecheia* and the English word 'actuality', which is most often used as a translation of these Greek terms in Aristotle's work, is not simple. There are several differing accounts of Aristotle's mature actuality-potentiality concept. The most common are founded upon a reduction of activity to a special case of actuality. Along with this reduction is included a reduction of the sense of potentiality that opposes activity, to a special case of that sense which opposes actuality. Some of the difficulties surrounding interpretation and subsequent translation of *energeia* and *entelecheia* are philological in nature. Others are both philological and philosophical, stemming from the variety of Aristotle's applications of the two terms and his apparent reticence to giving them complete definition. The issue of translation and the issue of the function of the terms are intertwined; although, of course, one does not completely determine the other. Perhaps the most obvious complication is that, whilst there are *two* Greek terms, they are often replaced by *one* English term. *Energeia* is for the most part translated as 'actuality' – though, dependent on

interested in is how something works." Gilles Deleuze, *Negotiations, 1972-1990*, trans. Martin Joughin

context, it may be translated as 'activity'. In most translations *entelecheia* is translated as actuality exclusively, though it may also be rendered as 'full-' or 'complete-' reality. Most commentators appear to agree that, minimally, the translation of both *energeia* and *entelecheia* into actuality is problematic. Even those who accept that 'actuality' is likely the best option for translating these terms tend to expend great amounts of energy modifying its sense to fit the Aristotelian context[28]; suggesting that the translation of these terms into 'actuality' is considered at most a 'best fit'. This complication is rendered more serious by the fact that both of the Greek terms appear to be Aristotelian neologisms. One might wonder why Aristotle would coin two new terms if one would have sufficed. Indeed, although Aristotle did appear on occasion to use the two terms interchangeably[29], on other occasions he clearly contrasts them. Furthermore, although in the *Metaphysics* Aristotle eventually reduces the two terms to one (*energeia*), it would be reasonable to assume the reduction of two fundamental terms to be of significant philosophical import, thus necessitating an independent translation and interpretation of both terms.[30] If Aristotle made a point of bringing *entelecheia* under the concept of *energeia*, one ought to assume that an understanding of their difference would be necessary, or at least useful, for developing an appreciation of the nuances of the final sense of *energeia*. In this chapter, the

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(New York: Columbia University Press, 1995) pg. 21.

[28] For example: L.A. Kosman, 'Aristotle's Definition of Motion', *Phronesis*, 14 (1969), 40-62., L.A. Kosman, 'Being Properly Affected: Virtues and Feelings in Aristotle's Ethics', in Rorty & Amelie (ed.), *Essays on Aristotle's Ethics* (Berkeley: University of California Press, 1984), 101-16. and Ronald Polansky, 'Energeia in Aristotle's Metaphysics Ix', *Ancient Philosophy*, 3 (1983), 160-70.

[29] Indeed Aristotle, in explicating the different senses of 'being' [*Metaphysics* 1017a35-1018b10 – all references to the works of Aristotle are to Aristotle, 'The Complete Works of Aristotle', in Jonathan Barnes (ed.), (1 & 2; Oxford: Princeton University Press, 1984).] uses the same examples to form an analogical 'definition' of *entelecheia* as he used in book ix 6 to outline *energeia*.

[30] On this matter opinion is divided. George Blair (George A. Blair, 'Unfortunately, It's a Bit More Complex: Reflections on *Energeia*', *Ancient Philosophy*, 15 (1995), 565-80.) considers it fundamental while, for different reasons, Stephen Menn (Stephen Menn, 'Origins of Aristotle's Concept of *Energeia*: Energeia and *Dunamis*', *Ancient Philosophy*, 14 (1994), 73-114.) and Daniel Graham (Daniel Graham, 'The Development of Aristotle's Concept of Actuality: Comments on a Reconstruction by Stephen Menn', *Ancient Philosophy*, 15 (1995), 551-64.) consider it evidence of Aristotle's occasional sloppiness. I tend to agree with Blair. Accusing Aristotle of sloppiness in order to render one's interpretation coherent seems philosophically lazy. More on this later.

final, reduced, sense of *energeia* will be considered most relevant, as it is the sense developed in the context of *prote philosophia*. Nonetheless, an appreciation of the watershed elements flowing into mainstem *energeia* will allow for the formation of a sufficiently nuanced interpretation.

'Energeia' appears in most extant works attributed to Aristotle; from the fragments of the *Protrepticus*, regarded as belonging to one of Aristotle's earliest works[31], to the *Metaphysics*, of which parts, at least, are considered to represent some of his later work. However, the precise meaning of *energeia* and its derivatives is not identical across all of its instances. For example, on occasion Aristotle will draw a distinction between *energeia* and *kinesis*[32], whilst on others he will bring them together[33] or use one to aid a definition of the other; in the *Protrepticus*, *energeia* appears to signify something as prosaic as 'activity' or 'use', defined in opposition to mere 'possession', whereas in the *Metaphysics*, *energeia-dunamis* reaches such heights of abstraction that it is considered one of the four fundamental senses of 'being'. Commentators have developed differing approaches to dealing with such variety. In a 1956 paper, Chung-Hwan Chen sets out a list of ten separate meanings of *energeia*, dividing them further into two groups of quasi-modal and non-modal meanings[34]. Whilst not being entirely without merit, such a list on its own does little to aid in appreciating *energeia* as a unified concept. At best, assuming its accuracy, such a list can serve as data for a more coherent interpretation. Such an interpretation would need to account for the possibility of the transformation of *energeia* according to the different stages of Aristotle's career, as well as for the differing uses

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[31] And most likely the earliest known use, perhaps along with the *Eudemian Ethics*, of the term *energeia*.
[32] Aristotle, *Nicomachean Ethics* 1173a31-b4, 1174a19-29, 14-16; *Physics* 201b31-32, 257b 8-9; *Metaphysics* 1066a20-21, 1048b21-30; *On the Soul.* 417a16-17.
[33] Aristotle, *Metaphysics* 1065b16.
[34] As quasi-modal is listed, "1. actuality[,] 2. being actualised[,] or 3. being perfect[,] 4. in application to form [,]5. in application to soul[.]" The non-modal senses are given as "1. actualisation[,] 2. in application to sensation[,] 3. in application to intellectual knowledge[,] 4. contemplative activity of human intellect[,] 5. pure activity[.]" Chung-Hwan Chen, 'Different Meanings of the Term *Energeia* in the Philosophy of Aristotle', *Philosophy and Phenomenological Research* 17 (1956), 56-65 pg. 65.

contemporaneous with one another. It would need to account for the particular and the abstract, for the final incorporation of *entelecheia* into *energeia*, and for the relationship between each of these iterations with its counterpart, *dunamis*. To this end, the conversation-in-print between George Blair[35] and Daniel Graham[36], by way of Stephen Menn[37], on the topic of the etymology and interpretation of *energeia* and *entelecheia*, will be used as a touchstone for this chapter. Each of these three take a broadly 'developmentalist' approach to Aristotle scholarship, and as such each projects a temporal axis along which the various Aristotelian texts and related concepts might be placed. All three demonstrate an impressive range of scholarship on the topic of *energeia* and *entelecheia*. Nonetheless each, whilst agreeing on many major interpretive points, takes a position that differs quite significantly from the others.

Daniel Graham's position is on the surface the most conservative of the three. Regarding *entelecheia*, Graham upholds the long dominant etymology that understands *entelecheia* as being derived from the phrase, "*(to) enteles echein*" (or "have completeness"). As Graham notes, the major elements of this account extend back at least to the fifteenth century[38]. However, the proximate source of Graham's etymology of *entelecheia* is philologist Hermann Diels[39], who is perhaps the first scholar to make a strong case for the traditional account, rather than just to incorporate it as an assumption. Graham recognises the Diels account as one of two

[35] George A. Blair, 'The Meaning of *Energeia* and *Entelecheia* in Aristotle', *International Philosophical Quarterly*, 7 (1967), 101-17., George A. Blair, 'Aristotle on *Entelecheia*: A Reply to Daniel Graham', *American Journal of Philology*, 114 (1993), 91-97., and Blair, 'Unfortunately, It's a Bit More Complex: Reflections on *Energeia*'.
[36] Daniel Graham, *Aristotle's Two Systems* (Oxford: Clarendon Press, 1987)., Daniel Graham, 'The Etymology of *Entelecheia*', *American Journal of Philology* 110 (1989). and Graham, 'The Development of Aristotle's Concept of Actuality: Comments on a Reconstruction by Stephen Menn'.
[37] Graham, 'The Development of Aristotle's Concept of Actuality: Comments on a Reconstruction by Stephen Menn'.
[38] As Graham notes, "[t]his analysis was already assumed by the fifteenth-century Venetian humanist and Aristotle scholar Ermolao Barbaro, who translated the Greek term into the inelegant but unambiguous *perfectihabia*." Graham, 'The Etymology of *Entelecheia*', pg. 74.
[39] Hermann Diels, '*Entelecheia* Zeitschrift Für Vergleichende Sprachforschung', *Etymologica*, 3 (1916).

significant traditions, the other being that of Kurt von Fritz[40], and accordingly structures his

polemic as a defence of the Diels account against the von Fritz account. Graham attacks the

von Fritz account on three fronts. The weakest criticism, that the von Fritz account would

leave Aristotle creating neologisms in such a manner as to fail to adhere to the rules of

linguistic formation[41] is positively Procrustean; especially where Aristotle himself appears

himself to defend an account that fails in this regard. There is every possibility that in forming

entelecheia Aristotle did a 'bad' job of word construction. With a little effort it is not difficult to

form a word that 'means' in some way, yet fails to accord with the "strict (if not deterministic)

rules" of word formation that Graham notes Aristotle falling short of (George Blair gives the

real example of 'photograph', the meaning of which would be more accurately expressed by

'photogram'; 'photograph' more accurately referring to the camera[42]). Von Fritz derives

entelecheia from the phrase '*en (heauto) telos echein*', meaning 'have an end in itself'. This

interpretation has the advantage of cohering with Aristotle's own proto-etymological account

of the relationship between *energeia* and *entelecheia* in *Metaphysics* ix. Here Aristotle explicitly

connects both *energeia* and *entelecheia* with *telos*, a connection that appears to oppose the Diels

account:

For the *ergon* is the *telos*, and the *energeia* is the *ergon*. And so even the word '*energeia*' is derived from '*ergon*', and
'merges toward' [Blair's translation – which is more literal] *entelecheia*.[43]

Although it is not entirely clear, Aristotle appears to be suggesting an etymological, as well as a

conceptual link between *ergon*, *energeia* and *entelecheia*. In text prior and subsequent to the above

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[40] Kurt Von Fritz, *Philosophie Und Sprachlicher Ausdruck Bei Demokrit, Platon Und Aristoteles* (New York: G.E. Stechert, 1938).
[41] Graham, 'The Development of Aristotle's Concept of Actuality: Comments on a Reconstruction by Stephen Menn', pg. 556.
[42] See: Blair, 'Aristotle on *Entelecheia*: A Reply to Daniel Graham'.
[43] Aristotle, *Metaphysics* 1050a21-23.

quote, Aristotle appears to be using *ergon* and *telos* to demonstrate sense of *energeia* most similar to *entelecheia*, and to distinguish this sense from the earlier sense of *energeia*, strongly associated with *kinesis* (i.e. he is attempting to highlight the 'actuality' as opposed to the 'activity' sense of *energeia*). Graham rescues the Diels account by denying the accuracy of Aristotle's account of the origin of his own neologism. Graham writes,

The ability to coin words in one's own native language is a competence based on the internalisation of complex transformation rules. But the ability to explain those neologisms depends upon a capacity to reason abstractly about a pre-logical skill.[44]

What Graham fails to realise is that Aristotle's *conceptual* integration of *telos* into *entelecheia*, whether etymologically correct or not, argues against Graham's founding interpretive assumption, that regarding the word *entelecheia*, "we are fortunate to know [...] the philosophical concept which it expressed."[45] Graham actually modifies the Diels etymology, deriving *entelecheia* from *entelos echein*, on the grounds that it more truly suggests the state of being complete. Graham is thus committed to a philosophical interpretation of *entelecheia*, in spite of his siding with the philologists 'against' the philosophers, who he considers as prone to the production of 'folk etymologies' (he divides philosophers and philologists: "A very different etymology – one often endorsed by philosophers, though not by philologists, who follow Diels – is given by Kurt von Fritz."[46]). He is able to maintain a purely philological concern precisely because, like 'the philologists', he does not see reason to question the traditional interpretation of the meaning of *entelecheia*. Yet it is its *meaning* that is primarily affected by its proximity to *telos*, regardless of etymology. But Graham is committed, without

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[44] Graham, 'The Etymology of *Entelecheia*', pg. 77.
[45] Graham, 'The Etymology of *Entelecheia*', pg. 73.
[46] Graham, 'The Etymology of *Entelecheia*', pg. 75.

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argument, *axiomatically*, to an interpretation of *entelecheia* that sidelines *telos*.[47] He structures his account of the etymology of *entelecheia* accordingly, ultimately using its results to confirm this un-argued assumption. By a separate argument Graham writes off the von Fritz account. He considers the von Fritz argument 'indefensible' on the grounds that its structure renders the *'en'* of *'en telos echein'* tautological: "In order to make the word roots come out with the right signification, we must suppose that in the original phrase from which *entelecheia* is allegedly derived, *telos* is not the object of *en*, on pain of rendering the verb *echein* meaningless."[48] Although he admits a precedent for the compound formed of the first two elements of the phrase (i.e. *entelos*) given that other compounds of *en-* can be found (he cites *enaimos* and *entheos*, meaning 'having blood within' and 'having a god within' respectively), he argues that the addition of *echein* merely restates the meaning that would already be implicit in *entelos* (i.e. 'having the end within' would become 'having having the end within'. George Blair[49], in his reply to Graham's paper, notes that the reason for this particular construction is determined by the philosophical role the term takes. According to Blair, the distinction made by *entelecheia* is not so much between having and not having the *telos* but between having and not having the end *inside*. Thus the *en-* serves its rudimentary function of indicating internality, given that 'having' is already indicated by *echein*. Defending Stephen Menn's account of the etymology of *entelecheia*, Blair writes that "Menn is right in saying that the *en* means 'inside' and Graham's pooh-poohing it is simply silly. If you 'have a mind', there's nowhere else to have it but inside; but if you 'have an end' you may or may not 'have it' within."[50] It would seem that Graham, having founded his account on the sidelining of *telos*, thus failed to consider the interpretive

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[47] "For *entelecheia* turns out to be a neutral and rather abstract term that does not point to an increasing role for the *telos* in Aristotelian metaphysics or science." Graham, 'The Etymology of *Entelecheia*', pg. 80.
[48] Graham, 'The Etymology of *Entelecheia*', pg. 78.
[49] Blair, 'Unfortunately, It's a Bit More Complex: Reflections on *Energeia*'
[50] Blair, 'Unfortunately, It's a Bit More Complex: Reflections on *Energeia*', pg. 567.

possibilities proper to it. In any case, it seems that Graham's critique of the von Fritz

etymology is not as damning as he assumed and precisely because, in placing philology before

philosophy, he was not given cause to consider the potentially questionable nature of his

assumptions regarding the philosophical use of the term under consideration. The von Fritz

etymology is outside of Graham's purview from the outset, due to its central use of *telos*.

On the other hand, the interpretations of *entelecheia* given by Stephen Menn and George Blair

demonstrate the divergent possibilities inherent in the von Fritz etymology. Menn's position,

once deprived of its genetic narrative, is that *energeia* most properly corresponds to 'activity' and

entelecheia to 'actuality'; that Aristotle's usage of *energeia* in the sense of *entelecheia* in the

Metaphysics was "somewhat improper: the description of *entelecheia* as *energeia* is an analogical

extension of the term *energeia* beyond its strict meaning."[51] Menn gives a highly detailed

description of the development of *energeia* in Aristotle's work. His account of the conceptual

origins of *energeia* in Plato's work[52], in particular the *Theaetetus* and *Euthydemus*, is undisputed by

both Graham and Blair and is indeed highly compelling. In fact, Graham chides Menn on this

matter for *stating the obvious* (notwithstanding the fact that the alternative sources Graham cites

for the 'same' narrative are not only obscure, but tend only to make passing reference to

arguments that are made thematic in Menn's paper[53]). He finds that the earlier development of

energeia was such as to develop a concept roughly equivalent to 'activity', and that *entelecheia* was

developed out of a different problem situation and is quite appropriately translated as

'actuality'. For Menn, *entelecheia* is well translated by 'actuality' as it specifically opposes the

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[51] Graham, 'The Development of Aristotle's Concept of Actuality: Comments on a Reconstruction by Stephen Menn', pg. 105.
[52] This will be dealt with further on in this chapter.
[53] Werner Jaeger makes passing reference to the Platonic origin of the *energeia* concept in Werner Jeager, 'Review of P. Gohlke', *Varia Gnomon* 4(1928). John Rist makes passing reference to the Jeager article and

sense of *dunamis* as possibility-for-being (that Menn calls 'existing-in-the-power-of-the-cause'), rather than the capacity-for-action sense of *dunamis* that opposes *energeia*. Thus, the close relationship between *energeia* and *entelecheia* that Aristotle posits, from the *Metaphysics* on, is rendered quite mysterious. Menn does understand that *energeia* and *entelecheia* are genetically related, each term representing the counterpart to a different sense of *dunamis*. Whilst allowing that the term '*energeia*' was first used by Aristotle, Menn considers its conceptual content to be Platonic in nature. On the other hand, he sees *entelecheia* as a novel concept, an Aristotelian innovation. Menn demonstrates his sense of the positive difference between *energeia* and *entelecheia* with reference to *De Anima* ii.1, where Aristotle describes the nature of the 'soul' (*psuche*) in terms of a distinction between two senses of *entelecheia*. Aristotle writes:

Hence the soul must be a substance in the sense of the form of a natural body having life potentially within it. But substance is actuality, and thus soul is the actuality of a body as above characterised. Now the word actuality has two senses corresponding respectively to the possession of knowledge and the actual exercise of knowledge It is obvious that the soul is actuality in the first sense, viz. that of knowledge possessed, for both sleeping and waking presuppose the existence of soul, and of these waking corresponds to actual knowing, sleeping to knowledge possessed but not employed, and, in the history of the individual, knowledge comes before its employment or exercise. This is why the soul is the first grade of actuality of a natural body having life potentially in it.[54]

Menn takes it that the division Aristotle is making is between the *entelecheia* and *energeia* sense of *psuche*. In classifying the soul as 'the first grade of actuality' (*entelecheia he prote*) Aristotle is not suggesting the existence of a 'second *entelecheia*'. Rather he is showing that this *entelecheia* can be said in two ways, as analogous to the possession and use of knowledge. The acorn, for example, is ensouled in the sense that Aristotle understands. It is what it is precisely by being

the Platonic origin of *energeia* mentioned therein in John M. Rist, *The Mind of Aristotle: A Study in Philosophical Growth* (Toronto: University of Toronto Press, 1989).
[54] Aristotle, *On the Soul* 412a20-28.

in possession of a certain form of life. However, this life need not yet have been activated in the fullest sense in order to be considered *entelecheia*; the sense analogous to the *use* of knowledge. The structure is complex. What Menn proposes is that the first sense, the 'possession' sense, is the one most appropriately understood as *entelecheia* and that the 'use' sense indicates the *energeia of* the *entelecheia*. Both senses thus technically can be considered *entelecheia*, and not as two kinds, but rather as two senses of the one. *Entelecheia* primarily indicates the 'weak' sense of 'ensouled', as it is the minimal condition according to which a body can be said to *be* ensouled as such. On the other hand, the *energeia* is to be understood as the full expression of this *entelecheia*. As, according to Menn, *entelecheia* is opposed to the sense of *dunamis* as 'existing-in-the-power-of-the-cause', it is to be positively understood as referring to the state in which an entity can be said to be freed from its causal origins qua what-it-is. Menn writes, "When Aristotle says in *De Anima* ii 1 that the soul is the *entelecheia* of the body having life *dunamei*, he means that the state of possessing soul is the state of having been generated from the appropriate active and passive powers."[55] The *dunameis* relating to the *entelecheia* that is the soul refer precisely to those 'active and passive powers'. 'Existing-in-the-power-of-the-cause' allows for the coming-to-be of an entity such that its 'movement' from not-being to being is not from absolute not-being. Rather, the not-being from which it comes to be is simply its privation. The origin of an Aristotelian entity is in fact entirely positive on this account, as it already 'existed' in the power of the cause – though only as an *entelecheia* does this power become an agent of a certain kind, as a player in the causal milieu of a certain kind with certain active and passive powers. Daniel Graham questions Menn's interpretation of *entelecheia* by suggesting that it may conflict with Aristotle's definition of *kinesis* (motion, change, process) in *Physics* iii 1, as "the *entelecheia* of what exists potentially, in so far as it exists

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[55] Menn, 'Origins of Aristotle's Concept of *Energeia*: *Energeia* and *Dunamis*', pg. 104-05.

potentially."[56] Graham points out that although some scholars like to understand the use of

entelecheia rather than *energeia* in this passage as indicating Aristotle's choosing to emphasise the

'product' aspect of the *kinesis* (i.e. the effect arising out of a causal milieu) over the 'process'

aspect for reasons of demonstrative efficacy[57], this interpretation requires a 'weak' sense of

product. He argues that Menn "seems to require the actual physical result of a creative process

in which matter is given a new form."[58] Graham suggests that Mary Gill's identification of

entelecheia with 'state'[59] is more appropriate. However, it seems that Graham, in correctly

identifying Menn's notion of *entelecheia* with 'product', has failed to note the subtlety with which

Menn draws this notion; Menn's understanding of *entelecheia* is not in conflict with, and is in

fact far broader than, the notion of a 'state'. In full, Aristotle's definition of motion in *Physics* iii

1 runs as follows:

The entelecheia *of what exists potentially, in so far as it exists potentially, is* kinesis – namely, of what is alterable *qua*

alterable, *alteration*: of what can be increased and its opposite what can be decreased (there is no common name),

increase and *decrease*: of what can come to be and can pass away, *coming to be* and *passing away*: of what can be carried

along, *locomotion*.[60]

In the case of each of these, the *dunamis* related to the *entelecheia* can be considered as 'existing-

in-the-power-of-the-cause'. The confusion is that the 'powers' in which the products exist are

largely passive. For example, the alterable has the power to be altered, the moveable the

power to be moved. There is no reason, under Menn's interpretation, that *entelecheia* cannot be

extended to *kinesis*. It does require, however, understanding that 'power' as a concept extends

equally to passion as to action. It also requires an appreciation that 'product' is only

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[56] Aristotle, *Physics* 201a10-11.
[57] i.e. avoiding defining one sense of 'process' (*kinesis*) in terms of another (*energeia*).
[58] Graham, 'The Development of Aristotle's Concept of Actuality: Comments on a Reconstruction by Stephen Menn', pg. 558.

interpretable as an 'actual physical result', if it is a product under the category of *ousia* (substance). Under any other category, a 'product' will necessarily differ in kind. Menn writes:

> We can best interpret Aristotle's analogy between *kinesis* and *ousia* if we recognise that *kinesis*, like *ousia*, is the name of a *category*: although it is not on the canonical list of categories in the *Categories*, Aristotle clearly refers to a category of *kinesis* at *Metaphysics* 1029b22-25, 1054a4-6, 1069a21-22 and 1071a1-2: this is what elsewhere is divided into the categories of *poiein* and *paschein*.[61]

Aristotle on several occasions refers to the strictly identical nature of active and passive powers[62], so it ought not to be surprising that they be reduced to the one category. Although he doesn't follow the idea through, Menn clearly recognises that one of the reasons for the wide array of analogical content by which *dunamis*, *energeia* and *entelecheia* are derived is the splayed nature of the categories. *Of course* an *entelecheia* in the category of *kinesis* (or *poiein* and *paschein*) would manifest differently to an *entelecheia* in the category of substance (more on the categories later). What is significant, and what Aristotle draws attention to time and time again, is that in spite of the differences of manifestation there is a unity of structure that can only be borne out through analogy. His injunction to 'survey the analogy' rather than searching for a definition[63] ought to be read in this way. Perhaps the most intriguing element of Menn's paper regarding this present chapter is the sense in which he shows *entelecheia* as necessarily referring back to the process of production. That is, that it refers to the sense in which a being has been *freed* from this process. It is a term that indicates an effect, but one that has ceased to be externally caused to be *what it is*. The entity characterised as an *entelecheia* is understood as an effect, but insofar as it is an *entelecheia* it is an effect that has presently

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[59] Mary Louise Gill, 'Aristotle's Theory of Causal Action in Physics Iii.3', *Phronesis*, 25 (1980), 129-47.
[60] Aristotle, *Physics* 201a10-14.
[61] Menn, 'Origins of Aristotle's Concept of *Energeia*: *Energeia* and *Dunamis*', pg. 107.

36

disengaged from the process of its production (insofar as this process itself is not in fact what the being *is*). It has ceased to be produced insofar as 'being produced' refers to the set of causes that operated to produce precisely this effect. Such a being is freed to enter into causal relations as *that which it is*.

The position George Blair takes is quite different precisely because he takes the failure to incorporate the unity of *energeia* and *entelecheia* into a reading of these concepts as a key indicator that a given interpretation has fallen short. His account appears primarily to be the result of an attempt to reconcile these two concepts. The effect is that his account is on the one hand compelling, but on the other significantly speculative. Whilst agreeing with Menn on many key points, Blair argues that both Menn and Graham sacrifice the integrity of Aristotle's thought in order to keep their interpretation correct. He gives a list of sixteen difficulties that an account of *energeia/entelecheia* must account for if it is to be adequate. One, in particular, can facilitate a demonstration of the major difference between Blair, Graham and Menn. Blair points out that Aristotle quite explicitly describes *kinesis* as an incomplete *entelecheia*. Aristotle writes that "motion [*kinesis*] is an incomplete [*ateles*] actuality [*entelecheia*] of the movable."[64] Blair wonders how, if *entelecheia* is supposed to mean 'being at an end', could *kinesis* be described as an *in*complete *entelecheia*. He notes that it "makes absolutely no sense to say that there is such a thing as 'being at the end' that is not at the end."[65] This on its own seems to weigh heavily against the traditional account. However, Blair's own interpretation is difficult to defend; not because it is clearly incorrect, but rather because it is so thoroughly speculative. He posits a quasi-physical (or at least quasi-spatial) sense of 'internal' as being the reason for the '*en*' of

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[62] For example, in *Physics* 224b22-26, Aristotle points out that the mover and the moved together constitute the 'movable in activity'.
[63] Aristotle, *Metaphysics* 1048a36-1048b10.
[64] Aristotle, *Physics* 257b6-9.

both *energeia* and *entelecheia*. Having already developed his interpretation of *energeia* as 'internal activity'[66] and *entelecheia* as 'having the end within', Blair writes on the unity of the two,

Actually, the solution to the problems is very simple. Aristotle discovered in the course of his investigations that even apparently static things like rocks had an internal dynamism to them; and therefore for something to *be* a certain kind of thing, its matter (the elements it was made of) had to be *doing* a certain kind of act – interacting or intermingling, if you will, in a certain way. Hence every *entelecheia* is in fact an *energeia*[67]

The 'intermingling' is considered to be *inside*. What is strange about this explanation is that Aristotle would have been perfectly capable of giving it himself rather than relying on analogy. Blair understands *entelecheia* to be derived from *energeia*, albeit in a roundabout fashion. He understands *entelecheia* as being constructed as an opposing concept for his expanding awareness of *dunamis*. Blair states correctly that, rather than relating to the question of change, the early sense of *energeia-dunamis* was used to structure an answer to the question of something's simultaneous being and not-being *x*. This rested upon a notion of *dunamis* as the ability to *do* something. Blair understands the application of this particular notion as being restricted to living beings, as it is only they that are able to either do or not-do, having 'energy in reserve' as Blair puts it, thus providing the circumstances in which the problem arises. Indeed it is to human capacities that *energeia-dunamis* is applied in its earliest usages. From here, he suggests that it was a simple matter for Aristotle to recognise that *dunamis* as 'ability' had two senses; the ability to *do*, and also the ability to *be*. Accordingly, Blair suggests that *entelecheia* was coined to contrast with the sense of *dunamis* that suggested a power to *be*, as there was no

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[65] Blair, 'Unfortunately, It's a Bit More Complex: Reflections on *Energeia*', pg. 569.
[66] He derives it thus: *ergazesthai* means 'to do'. From this is formed the verb *ergein*. Strictly the verb does not exist as such, but there are precedents, prior to Aristotle, for its being used in compound words, i.e. *sunergein, periergein*. The *en-* prefix indicates the internality of the activity.
[67] Blair, 'Unfortunately, It's a Bit More Complex: Reflections on *Energeia*', pg. 569.

equivalent word, and *energeia* was already used to oppose the other sense of *dunamis* as ability.[68]

As the *energeia-dunamis* pair spawned an analogous *entelecheia-dunamis* pair, *dunamis* also appeared

to be opposable to a notion that was not strictly associated with activity. Blair writes:

What is meant when something is 'able to be' something? Obviously it has to be something else at the moment, which is capable of *becoming* the thing in question. But if the object is an A, and is capable of being a B because it can turn into it, then 'being B' is the end of the transition; and hence, whatever makes B a B is what A is now 'deprived of' as its end. Its end is not within it. And so Aristotle invented the awkward term 'internal-end-having' (*en* [by analogy with *energeia*] *tel[os] echeia* [by analogy with *ergeia* in relation to *ergein*]) Thus the two correlatives to potency were etymologically related, and *entelecheia* was formed because again there was no ordinary word that would express exactly what Aristotle wanted.[69]

Thus Blair understands Aristotle as having coined two concepts as correlates for *dunamis*. One

sense, the original sense, *energeia*, is used primarily with reference to structures pertaining

primarily to living beings. The other, derivative, sense is used as the more abstract correlate.

Blair explains the encroachment of *entelecheia* on the *energeia* concept in terms of the gradual

broadening of Aristotle's metaphysical sensibilities. *Entelecheia* begins to cover more ground as

Aristotle recognises that the 'ability to be' sense of *dunamis* incorporates the 'ability to do'

sense. Finally, Blair makes his quasi-physical explanation in order to explain Aristotle's

eventual switch to *energeia* as the broader term; that each 'internal end having' is at essence

'internal activity'.

For the purposes of this chapter, it is not especially important *which* of the two 'actuality' terms

comes to dominate. What is important is that their several meanings are either united under

one term or not, thus either legitimating or failing to legitimate the ongoing discussion of a

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[68] Blair, 'Unfortunately, It's a Bit More Complex: Reflections on *Energeia*', pg. 570.
[69] Blair, 'Unfortunately, It's a Bit More Complex: Reflections on *Energeia*', pg. 571.

'unified' Aristotelian concept dyad; be it translated as 'actuality-potentiality' or anything else. Multiple kinds of capacities are brought together under *dunamis*, and are opposed to an 'actuality' concept that has a correspondingly broad sweep of meaning. These multiple kinds can be considered as falling into two basic categories according to the kinds of powers (*dunamei*) and the relationship between their actualisation and the work (*ergon*) produced. On the one hand there are those where the 'work' and the 'actuality' are identical, i.e. with seeing, seeing is both the activity and the product. On the other hand there are those kinds of powers, such as the knowledge of house-building, where the work is separate from the actuality; i.e. the direct correlate of the power to build is the act of building, but the work itself exists finally as a house. The trouble with these two kinds of actuality is that Aristotle on occasion draws a distinction between them (where some consider that *energeia* seems to mean something like 'activity' and *entelecheia* 'actuality') and on others draws them together. There clearly is a difference in these two senses on a very practical level, e.g. from the perspective of actual house-building praxis, but at the level of abstraction that Aristotle attains in the *Metaphysics* there are good reasons for them to be considered identical. More on this later. In any case, on Menn's account, Aristotle improperly draws the 'activity' and 'actuality' senses of the *dunamis* correlate together. On Graham's account, *entelecheia* names a concept that is completely novel, and appears at roughly the same time that Aristotle comes to use *energeia* in the metaphysical 'actuality' sense rather than the 'activity' sense of the value theory suggested in the *Protrepticus*. Of the crossover between the two terms Graham writes,

He may have even intended *entelecheia* to replace *energeia* in the sense of 'actuality'. That he did not maintain the semantic distinction between his new term and his old is just one of many indications of a lack of terminological discipline.[70]

Thus, although disagreeing on the etymology of both terms, Graham and Menn are very close in their interpretation of the greater meaning and value of *energeia* and *entelecheia*. Unfortunately, their positions require that Aristotle was either unaware of, or lazy with, the finer details of two of his most significant concepts. Blair at least takes it as given that Aristotle was a competent user of his own terminology; but he introduces a structure into Aristotelian philosophy that for the most part has only neatness and a tenuous etymology to recommend it. It would seem strange for Aristotle to make *entelecheia* redundant for such a *particular* reason without explaining it. Blair's explanation is not so subtle as to be inexplicable according to an Aristotelian conceptual schema. Aristotle did admit difficulty on several occasions when attempting to define actuality-potentiality. Furthermore he appears to have suggested that it may be *undefinable* in the ordinary sense. Indeed this difficulty of definition may be a significant indicator of the kind of concept actuality-potentiality is. There are in fact very good Aristotelian philosophical-structural reasons for understanding the most abstract sense of actuality-potentiality as fundamentally undefinable. This will be revisited later in this chapter; for the moment it will be useful to develop an appreciation of the analogical process by which 'actuality' (assuming a united *energeia/entelecheia* and utilising the traditional English translation) comes to have meaning.

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[70] Graham, 'The Etymology of *Entelecheia*', pg. 80.

3. From Being and Not-being to Actuality and Potentiality

Aristotle uses 'actuality' (*energeia/entelecheia*) and 'potentiality' (*dunamis*) in several different ways throughout his many works. Although it is the most abstract sense, as described in the *Metaphysics*, which is of most relevance to the current chapter, the earlier and more particular uses of actuality-potentiality are also not without relevance. This is true for several reasons. Not the least of these being that an appreciation of the genesis of the later actuality-potentiality concept might lend a dose of contingency to actuality-potentiality. This concept pair has seen so much use in divergent works of philosophy, that it is only occasionally considered otherwise than necessary. An appreciation of a possible genesis can allow the placement of actuality-potentiality into a larger causal context, in which diverging causal elements can be seen to converge about the point at which actuality-potentiality appears. Perhaps more significantly, as the actuality-potentiality dyad develops primarily by way of analogy, an exploration of its development ought to aid an appreciation of the role of analogy in the development of foundational concepts. Finally, in surveying the analogical relations by which actuality-potentiality transforms, one gets a sense not only of its development, but of its changing function. Actuality-potentiality accumulates meaning in such a manner as to render it increasingly abstract. In the *Protrepticus*, in which it is generally agreed that *energeia* makes its first appearance, *energeia* is used as a tool in the service of a very particular argument. It is brought in as an ancillary concept that is used to highlight an existing relation. At the other extreme, in the form found in the *Metaphysics*, actuality-potentiality achieves such a level of abstraction that Aristotle considers it one of four irreducible aspects of being as such.

The transformation that *energeia-dunamis* undergoes is cumulative rather than destructive. The later notions do not contradict the earlier. This is most significant, as many commentators

expend a great deal of energy attempting to provide an array of contextual definitions. Whilst there may be some sense to this if one restricts the focus of investigation to the earlier, apparently more concrete uses of *energeia-dunamis*, such an approach becomes less useful as one approaches the abstraction of the *Metaphysics*. Indeed, the Aristotle of the *Metaphysics* does not appear so much *reticent* to concretely define these terms, but rather completely and happily unable to do so. The reasons for this will be explored further in this chapter. For now it will be useful to explore the background of the *energeia-dunamis* concept pair. The origin of the actuality-potentiality concept as it ultimately develops is found at the intersection of several recognisable forces. Of clear importance is Aristotle's known philosophical heritage, which includes an array of Platonic and other constructions.[71] Regarding Plato, one can most clearly recognise the *Euthydemus* and the *Theaetetus* as relating to the earlier use of *energeia-dunamis* in the *Protrepticus*.[72] Further, there are echoes of the method described in the *Phaedrus* in the structure of argumentation in some relevant parts of the *Protrepticus*. In this dialogue, the character of Socrates asks,

Ought we not to consider first whether that which we wish to learn and to teach is a simple or a multiform thing, and if simple, then to enquire what power it has of acting or being acted upon in relation to other things, and if multiple, then to number the forms; and see first in the case of one of them, and then in the case of all of them, what is the power of acting or being acted upon which makes each and all of them to be what they are?[73]

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[71] George Blair in his "Energeia *and* Entelecheia: 'Act' in Aristotle," makes much of Aristotle's father's profession as shaping a certain approach to thinking in Aristotle. This can never be any more than an interesting biographical aside, but nonetheless it is worth remembering that the sources of philosophical concepts need not be entirely philosophical.

[72] This Platonic connection is mentioned by Stephen Menn (in Menn, 'Origins of Aristotle's Concept of *Energeia*: Energeia and *Dunamis*'.), and also by David Bradshaw in the first chapter of his book, "*Aristotle East and West: Metaphysics and the Division of Christendom*," (David Bradshaw, *East and West: Metaphysics and the Division of Christendom* (Cambridge University Press, 2004).)

[73] Plato, *Phaedrus* 270c-d [Note : All Plato references are to Plato, 'The Dialogues of Plato', (4th edn.; Clarendon: Oxford University Press, 1953).]

If such a connection seems tangential to the development of actuality-potentiality, one ought to consider the later development of the dyad and its integration into the theory of the four causes, and further the relation that this integrated structure had with ideas of unity and multiplicity more generally. The significance of this passage in relation to the *Protrepticus* is simply that, as Aristotle mirrored the structure of the method presented in the *Phaedrus*, whilst negotiating a conceptual space for *energeia*, he brought into proximity concepts that later became fundamentally tied together. In the *Euthydemus*, Plato structures a dialogue on the obtaining of 'good things' in terms of an opposition between possession (*ktesis*) and use (*chresis*):

And would they profit us, if we only possessed them and did not use them? For example, if we possessed great deal of food and did not eat, or a great deal of drink and did not drink, should we be profited?
Certainly not, he said.
[…]
Then, I said, a man who would be happy must not only possess the good things, but he must also use them; there is no advantage to merely possessing them?
True.[74]

Thus Plato lends value to 'use' (*chresis*) over possession (*ktesis*), a hierarchical ordering that will be carried over into the *Protrepticus*. However, the material of the *Protrepticus*, the ideas about which its hortatory[75] operates, and the structure of the subsequent development of actuality-potentiality relate more directly to parts of the *Theaetetus*. The relevant passage in the *Theaetetus*

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[74] Plato, *Euthydemus* 280b-e.
[75] The *Protrepticus* is a 'protreptic' or 'hortatory' piece – an exhortation to a life of active contemplation.

concerns the difference between possessing and having knowledge, and opposes possessing (*ktesis*) and having[76] (*hexis*). The dialogue is between Socrates and Theaetetus:

Soc. Well, may not a man 'possess' and not 'have' knowledge in the sense of which I am speaking? As you may suppose a man to have caught wild birds – doves or any other birds – and to be keeping them in an aviary which he has constructed at home; we may say of him in one sense that he always has them because he possesses them, might we not?

Theaet. Yes.

Soc. And yet, in another sense, he has none of them; but he has gained a power (*dunamis*) over them, and he has got them under his hand in an enclosure of his own, and can take and have them whenever he likes, and let the bird go again, and he may do so as often as he pleases.

[...]

Soc. May we not pursue the image of doves, and say that the chase after knowledge is of two kinds? One kind is prior to possession and for the sake of possession, and the other for the sake of taking and holding in the hands that which is possessed already. And thus, when a man has learned and known something long ago, he may resume and get hold of the knowledge which he has long possessed, but has not at hand in his mind.[77]

Aristotle combines the structures of these two Platonic elements in the *Protrepticus*. He takes as his major topic the same material as in the excerpt of the *Theaetetus*, the relation between possessing and using knowledge in particular, or a capacity in general. Analogously to the passage from the *Euthydemus*, he gives this relation a definite hierarchy, which he uses to make a case for living a certain kind of life; namely one of active philosophical contemplation. However, in the course of this argument, Aristotle includes amongst the terms for possession, having and use, the terms that will come to mean potentiality and actuality (*dunamis* and *energeia*).

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[76] 'Having' in this case meaning 'having in hand'. Part of the function of this part of the *Theaetetus* is to distinguish between two senses of having. Of course one can also 'have at ones disposal'. This ambiguity continues into the *Protrepticus*, as Aristotle uses the same term in the opposite sense to Plato. In any case, though the details of the semantics surrounding the Greek equivalents of 'possession and 'use' may be interesting, they are only tangentially related to the aims of this chapter.

[77] Plato, *Theaetetus* 197a-199b.

From this pool of terms several analogies are drawn. Most significantly, the neologism *energeia* is used interchangeably with *chresis*, thus opposing it also to *dunamis*, which had already been mentioned in passing by Plato in the *Theaetetus*[78], in connection with *ktesis*. Both possession/having and capability or power (*dunamis*) are contrasted with both use (*chresis*) and activity/actuality (*energeia*), forming a clear set of analogical relationships that will provide the groundwork for further development of *energeia* in terms of *dunamis* and vice versa[79].

Although the first use of *energeia* is found in the *Protrepticus*, there was already a precedent for the philosophical use of *dunamis* at the time of its writing. Plato uses *dunamis* in the sense of a 'capability' or 'power', and this sense is taken up by Aristotle. In the *Protrepticus*, Aristotle contrasts possession (*echein*) with both exercise (*chresis*) and *energeia*. *Energeia* is used interchangeably with *chresis* in this text, though its pairing with capability (*dunamis*) suggests a higher level of generality for *energeia*. The two terms are clearly paired even at this early stage, i.e. their relationship is not accidental, as they are both unique amongst the collection of opposed terms in their being transformed into a quasi-modal form by the addition of the preposition *kata* (in accordance with). In the *Protrepticus* possession (*echein*) is consistently contrasted with exercise (*chresis*) or activity (*energeia*), and the mere possession is characterised as being-capable (*dunasthai*). Possession (*echein*) is already considered as a kind of *dunamis*, and mere possession is considered the antonym of exercise (*chresis*). As such, a space is left for a term that operates at the same level of generality as *dunamis*, and that opposes it in the same manner that *chresis* opposes *echein*. Thus *energeia* appears originally as an outgrowth of *dunamis*. Before Aristotle, it appears there may have been no functioning notion of the opposition

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[78] Plato, *Theaetetus* 197c4-8.
[79] In the introduction to *Aristotle East and West*, David Bradshaw also points out that *energeia* and *chresis* continue to be used interchangeably in several of Aristotle's subsequent works. In particular, *Physics* 247b7-9, *Rhetoric* 1361a23-24, *Magna Moralia* 1184b10-17 and 1208a35-b2.

between *energeia* and *dunamis*. *Energeia* may not have made its first appearance merely as a novel term, roughly equivalent to 'exercise', but perhaps as a reference to a novel concept – that of the opposite of *dunamis*, a term which perhaps previously had no direct antonym. Nonetheless *chresis* and *energeia* appear as near synonyms in the *Protrepticus* as a result of the context. The focus is upon the more particular concepts. The central opposition in the *Protrepticus* is between knowledge merely possessed and knowledge presently in use. *Echein* and *dunamis* attach to one side of this antinomy, and *chresis* and *energeia* to the other. A certain state of affairs (e.g. a philosopher philosophising) can be characterised correctly in terms of both *chresis* and *energeia* because one of the concepts (*energeia*) subsumes the other (*chresis*); not because they are synonyms. Although not the focus of the *Protrepticus*, the functioning of this additional level of generality is necessary for its moral argument. It is by its being subsumed under *energeia* that *chresis* can take structural priority over *echein*. For example, considering possession and exercise; possession is possession of a particular knowledge, and exercise is exercise of a particular knowledge. Both possession and exercise refer directly to the knowledge, the element the have in common. As modes of a form of knowledge, neither term is favoured necessarily. That is, neither term is at a *structural* advantage, given that both refer directly to that knowledge of which they are modes. On the other hand if one considers this same knowledge in terms of being-capable and activity, a structure develops in which one of these terms becomes the reference for the other. A particular person might be capable or active according to a particular form of knowledge. However, only the active state refers directly to the knowledge in question. The state of being-capable in this context is not a being-capable of a particular knowledge, but rather of the active state relating to that knowledge. Considered synchronically *dunamis* is the dependant term, although considered diachronically it is genetically prior. There are two significant outcomes, for the future development of the

47

actuality-potentiality dyad, that extend from the characterisation of *echein* as a kind of *dunamis* and *chresis* as a kind of *energeia*. Firstly, it means that *energeia* and *dunamis* are already understood as being the more abstract concepts. Thus, they are rendered capable of subsuming other concepts under them by way of analogy. That is, understood as analogous with another pair of concepts, the *energeia-dunamis* pair is at least minimally capable of deforming to incorporate them. Secondly, the manner in which the *energeia-dunamis* pair structurally favours the *energeia* as the bearer of their meaning, is readily able to be passed on to those antinomies subsumed under them. Thus the emergence of *energeia-dunamis* should be understood as both the emergence of a new pair of abstract concepts and also, in a way, as the emergence of a new valuing technology – that is, a new means by which value may be distributed across relatively inert terms.

Towards the beginning of Plato's *Parmenides*, the character of Socrates, in conversation with the character of Zeno, complains:

If a person shows that such things as wood, stones and the like, being many are also one, we admit that he shows the coexistence of the one and the many, but he does not show that the many are one or the one many; he is uttering not a paradox but a truism.[80]

This passage demonstrates a precedent for the characterisation of the Parmenidean problem of the possibility of coming-to-be in terms of the relationship between particulars and universals, or between sensible and intelligible substances. Socrates is not immediately struck by Zeno's demonstrations of the impossibility of the multiple as they appear to rest upon a fundamental confusion between things and ideas. In *Metaphysics* iv, at the beginning of chapter four, Aristotle considers the results of the previous chapter and announces that,

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[80] Plato, *Parmenides* 129d.

48

we have now posited that it is impossible for anything at the same time to be and not to be, and by this means have shown that this is the most indisputable of all principles.—Some indeed demand that even this shall be demonstrated, but this they do through want of education, for not to know of what things one should demand demonstration, and of what one should not, argues want of education [81]

He asserts the law of non-contradiction to be both foundational and indemonstrable. Nonetheless, later he identifies an ambiguity in its application, which leads certain thinkers into taking up the untenable position of both affirming and denying the same thing in the same sense. In the next chapter, Aristotle goes on to identify Protagoras with the same errors directly, and to suggest an origin for this particular confusion, namely, the failure to distinguish between sensible and intelligible substance. Of those who sincerely grapple with problems extending from this confusion (as opposed to those who merely enjoy argument) Aristotle writes,

They think that contradictories or contraries are true at the same time, because they see contraries coming into existence out of the same thing. If, then, that which is not cannot come to be, the thing must have existed before as both contraries alike, as Anaxagoras says all is mixed in all, and Democritus too; for he says the void and the full exist alike in every part, and yet one of these is being, and the other non-being. To those, then, whose belief rests on these grounds, we shall say that in a sense they speak rightly and in a sense they err.[82]

Hence the ambiguity in the application of the law of non-contradiction. Most intriguingly, Aristotle identifies the doctrines of Anaxagoras and Democritus as extending from the same confusion as those of Protagoras. He recognises that the same basic error has provided the foundation for these differing manifestations of the relationship between being and not-being. Furthermore, he notes that the 'error' itself is born from the partial recognition of a truth. Aristotle continues,

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[81] Aristotle, *Metaphysics* 1006a2-10.

49

For 'that which is' has two meanings, so that in some sense a thing can come to be out of that which is not, while in some sense it cannot, and the same thing can at the same time be in being and not in being – but not in the same respect. For the same thing can be potentially at the same time two contraries, but it cannot actually.[83]

Here Aristotle uses the actuality-potentiality dyad in a heightened sense – as modalities of being as such. In the *Physics* (book 1 chapter 8), Aristotle provided his solution to the Parmenidean problem. The solution in question is of course the hylomorphic explanation of change or motion which, in this case, is described in terms of the modal attribution of being. The fundamental notion upon which Aristotle's explanation rests, is that the determination of a particular being as such and such a being is always qualified by an 'insofar as' (rendered in translation by *qua*) that saves any determination from being absolute. For example, Aristotle writes,

A doctor builds a house, not *qua* doctor, but *qua* housebuilder, and turns grey, not *qua* doctor, but *qua* dark-haired. On the other hand he doctors or fails to doctor *qua* doctor. But we are using words most appropriately when we say that a doctor does something or undergoes something, or becomes something from being a doctor, if he does, undergoes, or becomes *qua* doctor. Clearly then also to come to be so-and-so from what is not means '*qua* what is not'.[84]

As such, the problem of coming-to-be from not-being could only be a problem if a being was assumed to come-to-be from not-being *qua* not-being. Aristotle is in agreement with the young Socrates character of the *Parmenides* on this point. Socrates says,

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[82] Aristotle, *Metaphysics* 1009a23-31.
[83] Aristotle, *Metaphysics* 1009a31-36.
[84] Aristotle, *Physics* 191b1-10.

Now if a person could prove the absolute like to become unlike, or the absolute unlike to become like, that, in my opinion, would indeed be a wonder; but there is nothing extraordinary, Zeno, in showing that the things which only partake of likeness and unlikeness experience both.[85]

Similarly Aristotle writes,

But if anything is to become an animal, *not* in a qualified sense, it will not be from animal: and if being, not from being – nor from not-being either, for it has been explained that by 'from not-being' we mean from not-being *qua* not-being.

However, in spite of the similar manner in which Plato and Aristotle orient themselves toward the Parmenidean problem, the divergence of their respective responses is fundamental. Both Plato and Aristotle recognised that the problem itself arose from confusing the universal and the particular. Plato approached physical change by explaining the coming-to-be of any particular being in terms of its 'suitability' for being. In the use of this 'suitability', Plato had come remarkably close to a fully modal hylomorphism; being restrained primarily, at least apparently in Aristotle's view, by an overly simplistic understanding of matter. In the *Timaeus* Plato writes of matter (or rather of something matter-like) as unintelligible and unchanging:

[T]he same argument applies to the universal nature which receives all bodies – that must always be called the same; for, while receiving all things, she never departs at all from her own nature[.][86]

Plato's formless matter cannot truly have being before receiving the form, as its intelligibility derives from its being formed. It is of a different nature to the 'matter' of Aristotle, which is always in some way formed, even if only as a 'heap'. Of this difference Aristotle writes,

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[85] Plato, *Parmenides* 129a-b.
[86] Plato, *Timaeus* 50.

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Others, indeed, have apprehended the nature in question, but not adequately. In the first place they allow that a thing may come to be without qualification from not-being, accepting on this point the statement from Parmenides. Secondly, they think that if the substratum is one numerically, it must have also only a single potentiality – which is a very different thing.

Now we distinguish matter and privation, and hold that one of these, namely the matter, is not-being only in virtue of an attribute which it has, while the privation in its own nature is not-being; and that the matter is nearly, in a sense *is*, substance, while the privation in no sense is.[87]

Aristotle, in isolating 'privation' and 'matter', created circumstances compatible with a causal explanation of change, by allowing form and substratum to be modally applied. Rather than the universal 'not-being', privation for Aristotle is always not-*x*. Broadly speaking, Plato's characterisation of the movement from not-being to being offers very little in the way of an explanation of the nature of its possibility. Beings move from not-being to being, but only if they are in some way suitable for such a movement. The suitability for being is an intrinsic property of the essence. What is lacking in such a 'solution' is a more or less precise explanation of what such 'suitability' might mean. 'Suitability', or rather, the sense of possibility that renders the *dunaton* as not necessarily impossible, merely reconfigures the naming convention of the problematic space in which the relationship between not-being and being become strained. It does not clarify the nature of this space or render it any less problematic. In response to the Eleatic problem Plato made two significant moves; he located the problem as arising from a confusion born of the difference between the particular and the universal and he announced that, somehow, beings of an essence suitable for being are able to come-to-be from not-being. It is significant in itself that the notion central to the Eleatic problem is *movement*. The consideration of 'movement' tends to lend itself to *how* questions and their related answers, questions appropriate to an interrogation of *process*. However, the

Platonic solution continues to function in terms of *what* questions, the answers to which take the form of static determinations of *states*, even though these determinations are themselves nominally related to change as a possibility. Plato allows that a being can come to be from not-being if it possesses the kind of essence that is suitable for being. However, the sense in which something might be suitable for being, 'suitability' as such, does not receive analysis; it is the mere idea of a constitutive difference between those beings that come-to-be and those that do not. Plato's account of the movement from not-being to being does not include a description of the structure of movement as such. He recognises that not-being is not absolute; that one must recognise the difference between the not-being that moves to being, and the not-being that remains as such. Nonetheless, Plato's account continues to characterise movement entirely in terms of stasis. That is, the explanation of change is given entirely in terms of the determination of a general state, that of being essentially suitable, that is projected into not-being as the explanation for the present state of being. The continuity of the phenomenal manifestation of change, which Plato recognises as the source of Eleatic confusion, is given entirely in terms of the discrete. On the other hand, Aristotle's mature development of actuality-potentiality is an attempt to establish the manner in which this coming-to-be operates.

From a stock of concepts the antecedents of which can be found in the *Euthydemus* and *Theaetetus*, Aristotle early on forms a set of analogical relations that will later allow the more abstract sense of actuality-potentiality to have meaning. However, the later structure of actuality-potentiality develops out of a rather different problem situation. The later sense of actuality-potentiality grows to encompass a response to the Parmenidean denial of the possibility of coming-to-be from not-being; of the 'movement' between being and not-being.

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[87] Aristotle, *Physics* 191b35-192a5.

In developing actuality-potentiality as an abstract concept, Aristotle unites several ostensibly unrelated Platonic structures. The problem-structure of the *Parmenides* and the *Sophist* is continuous with the problem-structure within which the later actuality-potentiality concept develops as its ostensive solution. However, the solution itself develops from a set of tangentially related concepts that are given attention in the *Euthydemus* and the *Theaetetus*, that Aristotle develops in the *Protrepticus*. From Plato, Aristotle inherits both problem concepts and tool concepts. Having themselves developed within the contexts of particular problems, the tool concepts appeared originally not as tools, but rather as solutions, or descriptions of problems, or elements of both. These tool-structures are effects arising out of a causal structure nominally disconnected from the causal manifold out of which potentiality-actuality arises as an effect.[88] The role of these structures differs in their function in Plato's work as compared to Aristotle's. In Aristotle's work they take on the role of cause as well as effect, forming the basic structure for other elements as well as being themselves determined by other interacting concepts and structures. In the *Protrepticus*, and continuing back into the *Euthydemus* and *Theaetetus*, the fundamental distinction in play is one between possession and use. In the *Euthydemus* this distinction is understood quite broadly, whilst in the *Theaetetus* and *Protrepticus* the same basic structure is brought to bear on the topic of human faculties generally, and knowledge more specifically. The difference between considering these structures as problem-structures or tool-structures is dependent upon the situation into which they are immersed and to what end. For example, one might consider 'having' as presented in the *Theaetetus*. In this context, the concept of 'having' itself is recognised to constitute a problem. In the *Theaetetus* the possibility of interpreting 'having' in two ways is recognised as the source of the confusion

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[88] Note that such a situation resembles Deleuze's use of 'anachronism' as mentioned in chapter one. As such, one can understand Deleuze's interaction with history of philosophy less as a 'radical' approach to

surrounding the possibility of coming to know something. The division of 'having' into two related senses is the situation within which the problem of the *Theaetetus* plays out. However, when the distinctions formulated according to this problem are utilised by Aristotle in the *Protrepticus*, they no longer constitute a problem as such, but rather allow for the creation of a structure according to which the problem at hand can be discussed effectively. The problem-structures are able to become tool-structures once they are extricated from their original context. The problem-structures and tool-structures are transformed subtly according to their use. By way of analogy, a particular concept formation may form the foundation for the development of another, only to be itself modified in return by the concept formation it has had a hand in causing, once the latter's meaning has been further refined. For example, although *energeia* develops out of an analogy within which *dunamis* is already present, as *energeia* develops as a concept it comes to transform the meaning of its partner, *dunamis*. According to the context, one half of the *energeia-dunamis* dyad may be more readily intelligible, and thus more useful as a pinion against which the other half might be described. Ultimately the *energeia-dunamis* of the *Protrepticus*, having developed in accordance with the analogous relationship it was shown to have with use-possession, comes to be modified in such a fashion as to be meaningfully applied to the problem-situation characterised by the difficult relationship between being and not-being. However, the factual change in these concepts, or the structure of the analogy according to which they change, is not adequately explained by their 'appropriateness' or by the bare fact of their being in proximity to one another. That is, it is not enough to show that Aristotle's mature actuality-potentiality had several tangentially related Platonic precursors. The simple interaction of concepts and associated structures may be a necessary, but not sufficient condition for a modification of these same concepts. Rather,

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history, and more as the recognition and utilisation of an already functioning system according to which

the modification ought to be understood to grow out from a complex environment featuring the interactions of concepts, sets of relations, and the particular context within which the nature of the problem to which they are applied is formed.

Stephen Menn, in his paper on the origins of *energeia*[89], notes Aristotle's suggestion, implicit in the passage quoted above, that Plato did not in any real sense have at his disposal the concept of being *dunamei*. In the *Sophist*, Plato allows, against Parmenides, that being can come to be from not-being – according to Menn, Aristotle agrees, although, "Plato has not explained the kind of not-being from which X can come-to-be: X must come-to-be, not from absolute not-being, but from some Y that exists not as X but as X potentially."[90] This is entirely compatible with Bradshaw's noting that the *Protrepticus* marks the first appearance of *dunamis* modified by an 'insofar as'. Menn goes on to say that, in having developed his new concept of being *dunamei*, Aristotle has the means to produce a new solution to the Parmenidean problem. Aristotle phrases it this way:

Therefore not only can a thing come-to-be, incidentally, out of that which is not, but also all things come to be out of that which is, but is potentially (*dunamei*), and is not actually (*energeia*).[91]

Though it may be unlikely that Aristotle developed this modal sense of *dunamis* for this particular reason (the solution of the problem of coming-to-be), it does appear to have provided favourable circumstances. Indeed, though Plato uses *dunamis* in several places, it refers to the 'power' to affect or be affected[92]. It as yet had no modal aspect. This is

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concepts are produced.
[89] Menn, 'Origins of Aristotle's Concept of *Energeia*: *Energeia* and *Dunamis*', pg. 74.
[90] Menn, 'Origins of Aristotle's Concept of *Energeia*: *Energeia* and *Dunamis*', pg. 74.
[91] Aristotle, *Metaphysics* 1069b19-20.
[92] Plato, *Sophist* 247d8-e1, "Anything which possesses any sort of power (*dunamis*) to affect another, or to be affected by another, if only for a single moment, however trifling the cause and however slight the effect, has real existence; and I hold that the definition of being is simply power."

considered by Aristotle as well to be the strictest sense of *dunamis*.[93] This is not, however, the

sense most applicable to the modal rendering of actuality-potentiality. On this Aristotle writes'

And first let us explain potency in the strictest sense, which is, however, not the most *useful* for our present

purpose For potency and actuality extend beyond the cases that involve a reference to motion. But when we

have spoken of this first kind, we shall in our discussions of actuality explain the other kinds of potency as well.

The notion of actuality-potentiality as a fundamental division of being is to a large degree born

out of the modal rendering of *dunamis*, and the new interpretations this comes to demand of its

counterpart, and then, in reverse, the demand *these* interpretations come to make on *dunamis*.

The analysis of motion or change provides the opportunity for several analogies to be drawn;

in particular between matter/form and actuality/potentiality.

The inadequacy that necessitates the modification of the theory of the movement from not-

being to being arises from the apparent failure of the Platonic conceptual schema to account

for the phenomenal continuity of change. As such, the inadequacy of Plato's account of this

movement lies in its inability to negotiate continuous phenomena in such a manner as to

render continuity as such intelligible. One of the external causes of the movement from the

Platonic to the Aristotelian causal schema is the apparently intractable difference between

phenomena and theory. This may not be such an issue for the question of the movement

from not-being to being, except that Plato had already located the origin of the problem in the

space between idea and phenomena. Locating the problem in this space brings the question of

the integration of phenomena and idea to the fore. The confusion out of which the

Parmenidean problem grows is shown to originate in the equivocations that form in this space.

As such, the front line of the problem is shifted from the movement between not-being and

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[93] Aristotle, *Metaphysics* 1045b35-1046a2.

being, to the interaction between particular and universal. In this way, the phenomena can be understood to function as an inspiration for the modification of concepts; as a trigger for the shift from Aristotle's inheritance to his development of concepts. However, the manifestation and function of the phenomena is not simple. For example in *Physics* vi, Aristotle approaches the continuity of motion phenomena via a geometrical analogy. This is possible only because the notion of geometrical 'continuity', and so a notion of 'the continuous', had already been substantially rendered within the geometrical context. The geometrical context already contained relational structures directly comparable with the structure of change conceived as a movement from one discrete state to another; in particular the relation between the point and the line, between the line and the plane, and between the plane and the solid object. The continuity of change is thus conceptualised as occupying the temporal axis of an existent geometrical continuity-concept. The theorisation of continuous phenomena is thus instituted by transferring a notion from the geometrical context into the study of motion – by way of analogy. The analogy is facilitated by the structural similarity of the relations under comparison. In this way, 'continuity' is introduced as a 'tool concept'. Its introduction both enables and restricts the interpretation of non-discrete phenomena. It enables such interpretation by rendering non-discrete phenomena intelligible within the structure of the existing conceptual framework. That is, it forms non-discreteness under a positive concept. On the other hand, it restricts the interpretation by limiting it to precisely that form of intelligibility; determining (perhaps over-determining) undifferentiated phenomena in terms of a particular conceptual structure.

Aristotle's solution to the Parmenidean problem is in part enabled by the inherent structural similarities between it, and those structures enabling the content of Plato's *Euthydemus* and

Theaetetus. These structures form the analogical material from which the early senses of the *energeia-dunamis* dyad grow; senses according to which *energeia-dunamis* is most plausibly translated as activity-capability. In the *Euthydemus, Theaetetus* and Aristotle's *Protrepticus*, the possession of a capacity is contrasted with its exercise. The Aristotelian actuality-potentiality concept thus has its structural origins in activity-capability; in the distinction between possession and use of a capacity. Plato had already characterised possession (in the weak sense, i.e. as 'having' without 'holding') as a kind of *dunamis*, where *dunamis* is conceived as a power to affect or be affected. Thus was enabled the ready transition of *dunamis* across to the *Protrepticus* as a concept parasitic on the more relevant (to Aristotle's protreptic argument) 'possession'. Though Plato had already connected possession and *dunamis*, with *dunamis* considered the broader concept, and contrasted possession with use, he did not contrast *dunamis* itself with another state, as Aristotle came to do.

In the *Physics* Aristotle merges the actuality-potentiality concept with the unity and continuity concept pair in order to bring the apparent continuity of change-phenomena to conceptual order. The sense of continuity that Aristotle uses is derived from an existing geometrical sense, and merged with a quasi-phenomenal temporal sense. Aristotle gives detailed description of the relationship between the infinite and the continuous, thus drawing the idea of the infinite into the pool of ideas influencing the shape of actuality-potentiality. The structure of actuality-potentiality was already such as to render it a natural fit within the manifold of concepts and phenomenal content relating to change in sensible beings. George Blair holds that Aristotle did *not* create actuality and potentiality in order to explain change; arguing against the usual view. He writes,

What he is after is a distinction, not how one gets from one condition into the other; in fact, on line 17 [of the *Protrepticus*] he says that a being which "has the power" is able to change *into* the "process (*kinesis*, 'movement') by which we call him awake " Presumably, then, the "process" is not the transition itself. No, Aristotle's question is much more that of, "Why is a non-A called an A?" and the answer is "When it can do what A is doing."[94]

Blair actually mashes together two separate arguments here. On the one hand he is making an argument concerning the basic use of the actuality-potentiality dyad; on the other, he is making a claim about Aristotle's use of *kinesis* and its relationship with actuality-potentiality. On the matter of the basic use of actuality-potentiality, Blair is right in thinking that Aristotle is after a distinction rather than an explanation. Actuality-potentiality does not explain change in the way that modern physical theories attempt to explain facts about the physical world. That is, actuality-potentiality does not serve as a discrete causal explanatory element in a particular explanation of a particular change or kind of change. Rather, actuality-potentiality reconfigures the basic relationship between being and not-being so that both change and stasis are simultaneously possible. Thus it does not explain change as such, but rather forms an explanation of a basic ontological structure that integrates the Heraclitean and the Parmenidean. Although this application of actuality-potentiality reaches its highest point in the *Physics* and *Metaphysics*, it is no doubt fundamental even in the *Protrepticus*. On the matter of the relationship between *kinesis* and actuality, Blair's interpretation appears somewhat narrow. The *problem* for which actuality-potentiality supplies at least an attempt at a solution relates to the contradictions that arise from transitions or movements from one being-state to another. These transitions or 'movements' need not be movements of a sensible kind. The same basic problem structures arise whether one considers the transition or change from one sensible being to another, the relationship between whole and part, the transition from learner to

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[94] George A. Blair, *Energeia and Entelecheia: Act in Aristotle* (Ottawa: University of Ottawa Press, 1992)

knower, or the status of a builder when not building or a thinker when not thinking. It is true that Aristotle at times refers to *kineseis* as *energeiai*, to motions or processes as actualities, and that at other times he appears to associate *energeia* with a state of completion. At times he appears to bring the meaning of *kinesis* and *energeia* together, and at others oppose them to one another. Neither of these should be taken in the manner of a definition. Firstly, Aristotle's use of *kinesis* is sufficiently broad to allow for both; he uses it to describe both 'motions' and 'transitions'. Secondly, depending on the context, *energeia* may relate more strongly to either the 'moving' or 'resting' half of a given dichotomy. It depends primarily upon which of the two is to be taken as defining the pair. This will usually, but not always, be the part that is taken as being in the present tense (a continuous movement will still count as 'present'). For example, regarding Blair's example, the 'movement' of waking and its attendant active thinking is that by which a sleeping person might be called a thinker. Likewise it is with reference to the tree that the seed or sapling might be called an oak. Regardless of whether the actuality refers to a motion or a concrete being or a state, actuality-potentiality integrates that being with its privation in a non-destructive manner. It allows a nominal present tense (nominal as it may in fact be projected into the future as a prediction) to take the same precedence as it had done in Plato's and his predecessors' thinking, without the attendant contradictions. Blair is entirely aware of the complicated relationship between *kineseis* and *energeiai*. He writes,

Aristotle here precisely distinguishes the *"metaballein"* ("change," "transition") toward (*eis*) this *kinesis* from the kinesis itself. And later, of course, he explicitly says that things like seeing, knowing, and such should not be called *kineseis* but *energeiai*. And so, though *kinesis* clarifies *energeia* in that it emphasises the active nature of what Aristotle

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pg. 25.

is talking about, it cannot be used as a substitute for it. It is, therefore, only if you use "process" in a loose sense (as we do in English when we refer to constant acts such as "watching" as "processes") that this term will fit.[95]

Blair is tied up by his primary task; to convince the reader that *energeia* is most properly translated as 'internal activity', and that this terminology literally describes the concept. For this reason he makes significant use of the *kinesis-energeia* of the *Protrepticus* as evidence of the general 'activity-ness' of *energeia*. However, this 'activity-ness' can just as easily be attributed to context. In the *Protrepticus*, the work itself, the *ergon*, is active – seeing, knowing, waking, thinking, etc. This is a result of the nature of the *moral* argument he is making. It functions along the difference between 'able to act' and 'presently acting'. However, when the topic is different, and in particular where the 'work' is an object rather than an act, the *kinesis* can be taken as both *energeia* and *dunamis*; indeed, qua the 'work' itself, the *kinesis* is most significantly a *dunamis*. *Energeia* is not fundamentally 'active' except perhaps in the nominal sense of an 'active account', that is, presently engaged in a certain way, even if that engagement is entirely static *in fact*. Daniel Graham is somewhat close to appreciating this distinction (between active as 'moving' and active as 'engaged')[96]. He understands Aristotle as referring to *states* of activity and capacity; terminology which, though perhaps imprecise, at least forces the possibility of differentiating between a motion as such, and the status of its present operation. Blair brushes Graham's 'stative' interpretation aside without any significant argument. He writes, "If I were to spend a half hour pushing against a refrigerator which wouldn't budge, I will grant you that I *could* say that I was in an "active state," but I certainly wouldn't want to imply that I wasn't really doing something during that time."[97] Such a comment suggests an astoundingly literal-minded approach to a significantly abstract subject. Actuality-potentiality cannot be

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[95] Blair, *Energeia and Entelecheia: Act in Aristotle* pg. 27.
[96] See Daniel Graham, 'States and Performances: Aristotle's Test', *Philosophical Quarterly*, 30 (1980), 117-30.

considered in isolation. Its presence as a concept pair is necessitated by the overall structure of Aristotelian thought. Of particular significance is the fourfold structure of Aristotelian being and the place of categorial being within that structure. More on this later.

The focus of the *Physics*, insofar as it deals with actuality-potentiality, is upon the relationship between continuity and discreteness within change phenomena. As has been discussed already, the actuality-potentiality concept functions to provide a conceptual framework according to which change and stasis are compossible ontological facts. The *Physics* restricts its focus to sensible change, yet remains highly abstract. It does not function as an explanation of physical change but, once again, serves to provide conceptual grounding for its very possibility. Consider for a moment Socrates recognition, in the *Parmenides*, that Zeno's puzzles grew from confusion between the sensible and the formal. The *Physics* is in part an attempt to integrate the sensible and the formal into discourse so as to immunise philosophy against such confusions. The relationship between discreteness and continuity is a recurring theme in Aristotle's work. In the *Categories*, regarding discreteness and continuity in the category of 'quantity', Aristotle writes,

Of quantities some are discrete, others continuous; and some are composed of parts which have position in relation to one another, others are not composed of parts which have position. Discrete are number and language; continuous are lines, surfaces, bodies, and also, besides these, time and place.[98]

In the *Physics*, Aristotle initially classes motion, considered generally (that is, not as *this* or *that* motion), among those things that are thought to be continuous. This, it seems, relates to the indefinite nature of both time and matter; the two axes of change against which being and its

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[97] Blair, *Energeia and Entelecheia: Act in Aristotle* pg. 30.
[98] Aristotle, *Categories* 4b20-25.

63

privation are able to form the problem of the structure of motion. Thus Aristotle writes in the *Physics*,

Now motion is supposed to belong to the class of things which are continuous; and the infinite presents itself first in the continuous – that is how it comes about that the account of the infinite is often used in definitions of the continuous; for what is infinitely divisible is continuous [99]

Note that here Aristotle is giving an explanation for the appearance of certain problems. He is demonstrating a genetic relationship between the concept of the infinite and sensible experience in order to keep infinitude in its proper context. It is significant also that he recognises several aspects of the infinite. In particular, he describes infinite division and infinite multiplication, defining the former in terms of continuity. Aristotle clearly recognises the differing origins of the awareness of infinitude, whether logical, mathematical, geometrical or phenomenal. Further, and significantly, he nonetheless behaves as though each origin leads toward a similar concept. In the *Physics* he writes,

Belief in the existence of the infinite comes mainly from five considerations: From the nature of time – for it is infinite; From the division of magnitudes – for the mathematicians also use the infinite, again, if coming to be and passing away do not give out, it is only because that from which things come to be is infinite; again, because the limited always finds its limit in something, so that there must be no limit, if everything is always limited by something different from itself.[100]

So the consideration of the infinite comes about as result of the exercise of mathematical knowledge, but space is already made for the concept by the fact of temporal phenomena. The question remains open as to whether the idea of the infinite is projected from one of these onto the other, or whether they both appear spontaneously. The next two examples refer to

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[99] Aristotle, *Physics* 200b15-20.

the infinitude of matter, on the one hand, and of composite substances on the other. The former relates to infinite division and the second relates to infinite multiplication. Continuity, or indefiniteness, the particular infinitude of matter, is associated by Aristotle with potentiality, whilst discreteness is associated with actuality. This is why Aristotle is able to classify movement as the 'actuality of the potential as such'; it is the actuality of the potential of matter as 'moveable'. As 'matter' itself is classified as a kind of potential, its movement can thus be described as the 'actuality' of 'potential'. However, the integration of *kinesis* into the actuality-potentiality structure is problematic. *Kinesis* is, in a way, both continuous and discrete. Insofar as it works within time, upon matter, *kinesis* is indefinite or continuous. However, that which is said to change, the subject of the action or passion, is discrete insofar as it is formed. But further, the *kinesis* itself is also discrete, insofar as it is *this* movement or change, and insofar as this movement is brought into categorial being. Categorial being is that aspect of Aristotelian being that represents the interface between language and being as such. It describes being insofar as it is representable and thus discrete. On the matter of the difficult relationship between *kinesis* and the structure of actuality-potentiality Aristotle writes,

The reason why motion is thought to be indefinite is that it cannot be classed as a potentiality or as an actuality – a thing that is merely *capable* of having a certain size is not necessarily undergoing change, nor yet a certain thing that is *actually* of a certain size, and motion is thought to be a sort of *actuality*, but incomplete, the reason for this view being that the potential whose actuality it is incomplete. This is why it is hard to grasp what motion is. It is necessary to class it with privation or with potentiality or with simple actuality, yet none of these seems possible. There remains then the suggested mode of definition, namely that it is a sort of actuality, or actuality of the kind described, hard to grasp, but not incapable of existing [101]

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[100] Aristotle, *Physics* 203b15-25.
[101] Aristotle, *Physics* 201b25-202a4.

As Aristotle points out, if a thing is *capable* of being modified in a certain way, this in no way determines the modification or motion as occurring; thus *kinesis* cannot be rendered simply in terms of potentiality. For a change to happen requires the correct alignment of passive and active powers, the elements of which may be determined in a variety of ways as actual or potential[102]. Though not determinable as potential, Aristotle notes that motion is also only determinable as actual in a qualified sense. On the one hand it is clearly different to an actuality conceived as an entity that is a product of a particular confluence of active and passive capacities; on this model, *kinesis* is a movement from one determinate entity to another. On the other hand, insofar as the 'moveable' is precisely that which has 'movement' as one of its capacities, *kinesis* must be considered actual – as the actuality of the moveable qua moveable. In any case, it is clear that, insofar as 'actuality' is to be considered a concept whose meaning is associated with 'stasis', this stasis must be something other than material stasis.

Aristotle's theory of the four causes integrates fundamentally with actuality-potentiality, understood as a theory about being insofar as it is taken as both continuous and discrete. The final and formal causes function on the side of discreteness. The efficient cause describes the continuous in terms of the discrete, as it serves to describe *kinesis*, strictly continuous, in terms of the discrete subjects of active and passive powers. The material cause is continuous absolutely, and indeed insofar as the infinite can be considered a cause it is considered to be a cause in the sense of material. On this Aristotle writes,

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[102] See Aristotle, *Physics* 255a34-b2, "whenever the *poietiikon* and the *pathetikon* are together, what is *dunaton* comes to be *energeia*, as the learner, from being *dunamei*, comes to be *dunamei* in another way."

In the four-fold scheme of causes, it is plain that the infinite is a cause in the sense of matter, and that its essence is privation, the subject as such being what is continuous and sensible.[103]

Aristotle associates matter, potentiality and infinitude (which itself is associated with indefiniteness and continuity). He writes positively of an interpretation of infinity he ascribes to Parmenides, against that of Melissus, and which is entirely in keeping with his own thought:

For to connect the infinite with the universe and the whole is not like joining two pieces of string: for it is from this that they get the dignity they [followers of Melissus] ascribe to the infinite – its containing all things and holding the universe in itself – from its having a certain similarity to the whole. It is in fact the matter of the completeness which belongs to size, and what is potentially a whole, though not in fulfilment. It is divisible both in the direction of reduction and of the inverse addition. It is a whole and limited; not, however, in virtue of its own nature, but in virtue of something else. It does not contain, but, in so far as it is infinite, is contained. Consequently, also, it is unknowable, *qua* infinite; for the matter has no form.[104]

In this passage Aristotle highlights the association of matter and infinitude, and also appears to associate the formed whole with a certain priority. However, notice that the passage is largely negative. He is arguing against the possibility of the infinite, unknowable and indeterminate as powers of finitude, determination and containment. Against this possibility, he is not overtly suggesting the necessity of a 'whole' or a 'greatest set'. That is, whilst he argues against the possibility of the infinite standing towards beings in a relation of 'containment', he does not argue against the infinite or indeterminate *exceeding* such beings according to a relation that is not one of containment.

The 'infinite is a cause in the sense of matter' for the reason that 'matter' is the name given to a substrate that is named but entirely inaccessible to definition. The notion of efficient causality

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[103] Aristotle, *Physics* 207a16-25.
[104] Aristotle, *Physics* 207b35-208a5.

is thus required as an intermediary between the material and formal causes. It explains the continuous transformation of the substrate in terms of its determinate manifestations. Thus the interactions of determinate entities can be used to explain specific 'comings-to-be', whilst the material cause forms an ontological substructure that serves to mitigate the kinds of contradictions associated with Parmenides and Heraclitus. The formal and final causes are of course significant, but the basic mechanics according to which change is rendered ontologically possible within the Aristotelian system are set up by the interaction between the material and efficient cause. The formal and final causes supervene upon this structure; it gives the form a space in which to be and the final cause a structure according to which it can function. Although the efficient cause is of course already operating between formed entities, its true significance lies in its proximity to the material cause; as its categorial interpretation.

The four Aristotelian causes, in tandem with actuality-potentiality, serve to integrate the continuous and the discrete into a cohesive system in two basic ways; the first being related primarily to the structure of efficient causality and the second to the material cause. Firstly, all causes can be considered in both a potential and an actual sense; this accounts for the possibility of presently inactive causes having being in spite of their inactivity. Thus Aristotle notes that the cause of a house being built can be considered as either a 'house-builder' (potential cause) or a 'house-builder building' (actual cause).[105] Aristotle writes of the difference between actual and potential causes that,

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[105] Aristotle, *Physics* 195b2-5.

causes that are actually at work and particular exist and cease to exist simultaneously with their effect, e.g. this healing person with this being-healed person and that house-building man with that being-built house; but this is not always true of potential causes – the house and the housebuilder do not pass away simultaneously.[106]

The integration of four-fold causality and actuality in this first sense takes the form of an 'insofar as'. That is, it allows for a certain subject to be described in several different ways depending on particular details of the causal milieu under scrutiny. Thus, although 'man is begotten by man and by the sun as well'[107], his provenance can be reduced to a set of proximate causes without doing damage to the notion of an extended and interconnected causal structure. Aristotle writes, on the question of the location of motion,

"The solution of the difficulty is plain: motion is in the movable. It is the fulfilment of this potentiality by the action of that which has the power of causing motion; and the actuality of that which has the power of causing motion is not other than the actuality of the movable; for it must be the fulfilment of *both*. A thing is capable of causing motion because it *can* do this, it is a mover because it actually *does* it. But it is on the movable that it is capable of acting. Hence there is a single actuality of both alike, just as one to two and two to one are the same interval, and the steep ascent and the steep descent are one – for these are one and the same, although their definitions are not one. So it is with the mover and the moved."[108]

In this example, it is in the integration of the active power of the agent of change and the passive power of the 'moveable' (matter) that their shared actuality is produced (Aristotle, incidentally, recognises only a nominal difference between active and passive powers). This conceptualisation of causal interaction integrates several potentialities into a single actuality, thus creating a basic framework according to which macro- and micro-causal structures can be analysed without contradiction. So, whilst 'man is begotten by man and by the sun as well',

[106] Aristotle, *Physics* 195b16-21.
[107] Aristotle, *Physics* 194b13-14.
[108] Aristotle, *Physics* 202a11-20.

and whilst threads of causal power are integrated about nodes of actuality, it is nonetheless possible to de-integrate this continuous causal structure back into definitional components. Thus Aristotle can write,

To generalize, teaching is not the same as learning, or agency as patiency, in the full sense, though they belong to the same subject, the motion; for the actualization of this in that and the actualization of that through the action of this differ in definition.[109]

The first sense in which the interaction between actuality-potentiality and four-fold causality integrates the continuous and the discrete is in allowing the organisation of a definitional structure that is flexible enough to allow for *kinesis* without encountering obvious contradiction. Whilst this first sense thus serves to integrate continuous change into categorial being, a second sense serves to make a place for continuity at least notionally aside from categorial being. This is primarily through the conceptual integration of matter and potentiality. These concepts are necessary for the system's coherence, yet are ineffable according to the structure of definition that the system provides. For this reason they are approached only through analogy. The function of analogy in the definition of actuality-potentiality is drawn more clearly in the *Metaphysics*, as the focus is turned towards actuality-potentiality as a structure of being rather than as a tool in the service of a particular problem.

In the *Protrepticus*, the subject that is to be modified according to *energeia-dunamis* is the possessor of knowledge; the person who has gained the knowledge. Aristotle takes the possessor of a particular, currently inactive knowledge as possessing the capacity for the exercise of that knowledge. The attribution of a capacity in this precise manner compares directly to Plato's *Theaetetus*, where the correlative structure arises from questions relating to the

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[109] Aristotle, *Physics* 202b18-22.

sense in which an inactive person is nonetheless a thinker, i.e. *In what sense is this person, who is not thinking, a thinker?* By the time of the *Protrepticus*, Aristotle could answer that this person is a thinker *kata dunamin*. However, the same case considered in light of the actuality-potentiality of the *Metaphysics* would take on a different structure. In this case the subject of the question would not be the possessor of the knowledge, but rather the being of that knowledge as such. The subject is no longer the status of the possessor, but rather the being of the possessed[110]. Thus the more relevant question for inactive knowledge in the *Metaphysics* would be: *In what sense can this inactive knowledge be said to be?* – to which the reply would still be, *kata dunamin*. In the *Physics* and in the *Metaphysics*[111] the notion of the 'movement' from not-being to being advocated by Plato is modified. The change is more than terminological. Superficially, the description of coming-to-be is given in terms of actuality-potentiality rather than being and not-being. With the change of terminology comes a shift in focus from the naming of states to analysis of process. Whilst Plato allowed that a being can come-to-be from not-being provided that it was inherently suitable for being, Aristotle includes both the 'movement' and the 'suitability' as subjects of analysis. The subject of Aristotle's explanation includes the *movement* from 'suitability' for being to being as such. Plato alluded to a beginning state, an origin, for a given coming-to-be, thus bringing not-being under a positive concept. Aristotle took the movement itself as a possible subject of investigation, extending the concept of 'suitability' to encompass the causal matrix as a whole. Aristotle's account of the movement between potentiality and actuality is given in terms of passive and active causes. These causal powers, given the ontologically identical nature of passivity and activity, form a continuous

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[110] Menn writes, "[H]ow then will he derive the concept of to on dunamei? An active or passive power is a principle that is able to do or suffer something; and we might suppose that Aristotle, by reflecting on dunamis as the ability to do or suffer, isolates the more fundamental notion of ability-in-general, and extends dunamis and the dunaton by analogy, from the ability (or what is able) to do or suffer, to the ability (or what is able) to be." Menn, 'Origins of Aristotle's Concept of *Energeia*: *Energeia* and *Dunamis*'.

connection between elements contained within the causal process at large. In this manner the causal explanation is the theoretical manifestation of the temporal/phenomenal non-discreteness of change. Further, the unity of the passive and active causal powers, in fact if not in *logos*, allows for the continuity of causal relations beyond particular moments or entities. Aristotle produces an explanatory framework that keeps in sight both the fluidity of the phenomena associated with motion, and the static nature of beings under the prevailing being-concept. It is this juggling between the fluid and the determinate that serves as the Aristotelian answer to the question of coming-to-be.

4. Analogy, the Categories, and Actuality-Potentiality

Thomas Aquinas writes in his *Commentary on the Metaphysics* that,

simple notions cannot be defined, since an infinite regress in definitions is impossible. But actuality is one of those first simple notions. Hence it cannot be defined.

Similarly Franz Brentano[112] notes, in commenting on a passage in the *Metaphysics*[113] in which Aristotle demonstrates the meaning of actuality analogically, that the analogical form of demonstration is possible only because the concept of actuality itself is basic and obvious. This is all very well, and perhaps quite correct, but one might still wonder in what *sense* actuality is 'first and simple' or how it is that it is 'basic and obvious'. In fact, the analogical demonstration of actuality is rendered necessary by metaphysical circumstances tangential to its development. Rather than being rendered possible by the simplicity of actuality, analogical demonstration is rendered necessary by its particular relationship with intelligibility. The

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[111] Aristotle, *Physics* v.1 and *Metaphysics* ix.3
[112] Franz Clemens Brentano, *On the Several Senses of Being in Aristotle*, trans. Rolf George (Berkeley: University of California Press, 1975) pg. 29.
[113] Aristotle, *Metaphysics* 1048a35.

necessity of an analogical demonstration of the concept of actuality-potentiality is created by Aristotle's division of being into four basic modalities, as outlined in book Delta of the *Metaphysics*. The quadripartite division of being does not form a framework for the classification of beings in the manner of the categories. Rather, it describes the basic modalities according to which all beings represented by the categories are to be understood. It is a division of being rather than a classification of beings. Categorial being, only one of the four basic modalities of being as such, is being insofar as it is intelligible; being insofar as it is compatible with *logos*. The categories are not merely tables of predicative possibility. They represent the interface of *logos* and being as such. That is, they are an attempt at a tabulation of being insofar as it is exhausted by *logos*. Thus the function of the categories is primarily ontological; the predicative possibilities that the categories demonstrate supervene upon their fundamental ontological sense[114]. In some way (presumably each in a different way), the other senses of being must be understood as being strictly incompatible with being as it is given according to the categories. This does not mean that being is exhausted on any occasion by one of these four modalities, to the exclusion of another, but rather that one modality cannot completely determine the other – thus the fundamental division. Nonetheless, given that the categories are the representation of being insofar as it is intelligible, categorial being is required in order to *express* the sense of any of the other four modalities. That is, although *a*-categorial, the three other senses of being can only be expressed categorially. This is because the categories are in fact a tabulation of the expressible. As it is necessarily *a*-categorial, what actuality-potentiality means is not properly determined in terms of motion or activity or any other such category-compatible notion. It is partly defined by its being a-categorial. This is why Aristotle needs to utilise analogy to draw out a sense of what actuality-potentiality might

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[114] For further detail on this matter see J. E. Malpas, '*Kategoriai* and the Unity of Being', *The Journal of*

mean. That is, as the process of Aristotelian definition functions strictly according to being insofar as it is represented categorially, the definition of a non categorial sense of being proves problematic. As each demonstration relating to actuality-potentiality is necessarily filtered through the structure of categorial being, it must begin from the perspective of the determined or determinable. This necessitates the use of analogy for the building of the fundamentally *a*-categorial concepts of actuality and potentiality. In terms of the relationship between actuality-potentiality and the categories, actuality is a model of the form that any manifestation must take if that which manifests is to be 'categorisable', i.e. adequately described by the categories. So there is a crossover between actuality-potentiality and the categories insofar as 'actual' being and 'categorial' being can be identified. Minimally, one can understand the priority of actuality and the priority of the categories as being similarly derived from their pre-eminent relationship with intelligibility. This is further tied to the structure of Aristotelian causality which, aside from the material cause, and in spite of the centrality of the *how* question to causal explanation, moves fundamentally along the axis of the *what* question. As Aristotle writes in the *Physics*,

It is clear then that there are causes, and that the number of them is what we have stated. The number is the same as that of the things comprehended under the question 'why'. The 'why' is referred ultimately either, in things which do not involve motion, e.g. in mathematics, to the 'what' (to the definition of straight line or commensurable or the like); or to what initiated the motion, e.g. 'why did they go to war? – because there had been a raid'; or we are inquiring 'for the sake of what?' – 'that they may rule'; or in the case of things that come into being, we are looking for the matter.[115]

However, 'actual' being has meaning only with respect to 'potential' being, which is strictly *a*-categorial. Although dyadic, actuality-potentiality forms a unified concept; they have meaning only together. The actuality-potentiality concept integrates this *a*-categorial unity into the

categories through analogy. Although the categories can be understood as a tabulation of 'actual' being, this in no way clarifies the interaction between the categories and 'potential' being. Considered in isolation from potentiality, the 'being' of the categories remains functionally identical to the being concept from which the Eleatic challenge is derived. In this way it can be seen that potentiality is necessary as an explanation of the Parmenidean sense of being; actuality-potentiality represents a modification of an existing being concept rather than a radical shift. If the notion of 'actuality' can be said to correspond to the earlier meaning of 'being', then the role of 'potentiality' is to provide the possibility to think positively (rather than always referring back to 'non-being') about the transition between 'actual' beings.

The structure of actuality-potentiality is demonstrated analogically, until a point is reached at which it can be appreciated as an abstraction. Once this occurs its facility becomes evident. Aristotle uses analogy quite self-consciously – it does not demonstrate a deficiency in his understanding of this central concept dyad. This will be covered further in this chapter, but for now it is sufficient to note that, as actuality-potentiality denotes a sense of being that is (although contemporaneous with categorial being) resolutely *a*-categorial, a means must be found to bring it to light that does not reduce its meaning to something categorially expressible. For Aristotle, analogy serves as the means to this end. Chung-Hwan Chen, in a 1956 article[116] on the various meanings of *energeia*, sets out a list of its various contextual meanings as found within the Aristotelian corpus. The paper's conclusion takes the form of a list – as though each sense of *energeia* could be taken in isolation. Chen complains that in the *Metaphysics*, "there is even no chapter in which its [referring to *energeia*] different meanings are explained, while, as a matter of fact, such an explanation is more needed because this term is employed in a still

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[115] Aristotle, *Physics* 198a14-21.
[116] Chen, 'Different Meanings of the Term *Energeia* in the Philosophy of Aristotle'.

greater variety than the term *dunamis*."[117] Chen is disturbed by Aristotle's failure to define this foundational term. It is true that Aristotle does not provide particular *or* general definitions for actuality, and that he does not give a complete set of definitions for potentiality. However, what he does in fact offer in the way of an overt explanation of actuality and potentiality is far more philosophically significant that a mere definition. Regarding a definition of actuality Aristotle writes:

Our meaning can be seen in the particular cases by induction, and we must not seek a definition of everything but be content to grasp the analogy, – that as that which is building is to that which is capable of building, so is the waking to the sleeping, and that which is seeing to that which has its eyes shut but has sight, and that which is shaped out of the matter to the matter, and that which has been wrought to the unwrought. Let actuality be defined by one member of this antithesis, and the potential by the other. But all things are not said in the *same sense* to exist actually, but only by analogy – as *A* is in *B* or to *B*, *C* is in *D* or to *D*; for some are as movement to potentiality, and the others as substance to some sort of matter.[118]

In this passage Aristotle explicitly warns against seeking a definition of actuality. Nonetheless, he supplies adequate information, both in terms of data and an interpretive structure, to develop a sense of its meaning. Given Aristotle's characterisation of actuality-potentiality as an irreducible sense of being, such tangential definitional schema ought not to be surprising. If actuality-potentiality is understood as describing a separate sense of being from categorial being, it would be inappropriate to expect to determine one in terms of the other. Aristotle's 'failure' to provide a definition of actuality ought to be understood as a natural outcome of his broader metaphysics and, generously, as an instance of intellectual honesty.

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[117] Chen, 'Different Meanings of the Term *Energeia* in the Philosophy of Aristotle', pg. 56.
[118] Aristotle, *Metaphysics* 1048a35-1048b9.

76

George Blair makes use of Aristotle's references to analogy in the *Metaphysics* in order to further his argument for a translation of *energeia* along the lines of 'activity'. His argument is fundamentally flawed, but thankfully in such a manner as to enable the drawing of a helpful distinction. Blair uses the structure of analogy to replace particular terms under comparison, whereas Aristotle uses analogy in the *Metaphysics* to clarify a relation. Blair provides a passage from the *Poetics* to back up his claim:

That from analogy is possible whenever there are four terms so related that the second is to the first, as the fourth is to the third; for one may then put the fourth in place of the second, and the second in place of the fourth.[119]

On the back of this passage Blair writes,

Therefore, from the sentence between the two lists, we get the proportion, 'as motion is to power, so *ousia* is to some matter,' from which, by the analogy, we can say either that 'motion is the *ousia* of what can move' or '*ousia* is a motion of some matter'. Or, if you want to suppress the other term, then Aristotle is claiming that motion is a kind of *ousia*, and *ousia* is a kind of motion.[120]

Blair's use of this passage from the *Poetics* is actually quite sneaky as, in the passage he quotes, Aristotle is not attempting to provide a definition of analogy. Rather, he is explaining the way that the structure of analogy can be used to create metaphor. In the context of creating metaphor it is perfectly acceptable to replace one term with another; indeed this is what metaphor *is* in part. Analogy is not the same as metaphor. Aristotle is aware of this, using analogy merely to *explain* metaphor. Blair makes use of this confusion to make his argument. He also translates the passage in a way that makes it appear to be a definition of analogy rather than a description of a form of metaphor. After the above quoted passage from the *Poetics*, Aristotle actually goes on to write, "Now and then, too, they qualify the metaphor by adding

77

on to it that to which the word it supplants is relative. Thus a cup is in relation to Dionysus what a shield is to Ares. The cup accordingly will be described as the 'shield of Dionysus' and the shield as the 'cup of Ares'."[121] In this way Aristotle demonstrates that the analogical structure can be brought to poetic use. Aristotle actually explains analogy as he provides his analogical 'definition' of actuality, so one might wonder why Blair doesn't use *this* definition, given that it may be closer to what Aristotle had in mind at the time. As it turns out, this definition doesn't support Blair's particular cause. Aristotle describes analogy as, "like this in this or toward this, and that in that or toward that." This definition emphasises the relation rather than the ability of terms to replace one another. It lends coherence to Aristotle's request to 'survey the analogy' rather than seeking definition, but it fails to support Blair's argument for the direct and literal replacement of terms.

The structure of an analogical 'demonstration' or 'definition' is usually such that two or three of the four terms involved can be understood in some way through either context or prior knowledge or definition. The function of such a demonstration is to bring to light either a fourth term, or a salient relation obtaining between the third and fourth. In both of these cases this is facilitated by comparing the relation obtaining between two of the original terms to a relation projected to obtain between the third term and the fourth term. In the case of actuality-potentiality, both of these forms of 'definition' are utilised. The undetermined fourth term could refer either to a variety of actuality or a variety of potentiality. It is largely context that determines which half of the dyad is to be determined by analogy. Depending on the context, one half may already hold a meaning or else be described simply, whilst in another context this could apply to the other. In the *Metaphysics*, as they are both reaching a higher

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[119] Aristotle, *Poetics* 1457b16-19.
[120] Blair, *Energeia and Entelecheia: Act in Aristotle* pg. 42.

level of abstraction and already have been used in many ways, both of the terms are formed purely through analogy. That is, they are formed as the thread of meaning joining several other dyads analogically. For example, in the *Protrepticus* it is *energeia* that gains its determination through analogy (as 'possession' is to *dunamis*, so 'use' is to *energeia.*). As *dunamis* and related terms were already in use, and with a roughly similar meaning to that apparently intended by Aristotle in this text, it is used as a solid foundation, from which its opposite can be projected according to the structure of the analogy. On the other hand, in the *Metaphysics dunamis* is modified analogically by the incorporation of *entelecheia* into *energeia*. Although *dunamis* had two related meanings, one as correlate to *entelecheia* and one as correlate to *energeia*, they are rendered as aspects of the same by the inclusion of their partner concepts into one another. Pinioned against potentiality or actuality in turn, and also measured as a dyad against other dyadic structures, actuality-potentiality develops meaning. This process is rendered possible precisely by the dyadic nature of the concept. The fact that it functions as a pair allows that, within a given context, the less intelligible half be rendered more intelligible by the relatively static relation between the two. Further, it allows the integration of material into the forming concept that would not be easily integrated through definition (e.g. a 'geometrical' sense of continuity is fundamentally integrated into actuality-potentiality, although most manifestations of actuality-potentiality are not related to geometry). The accumulation of meaning does not simply 'enlarge' actuality-potentiality; i.e. it does not provide it with *more* meanings. Rather, the sense of actuality-potentiality is further and further abstracted. It is enlarged in the sense that it is relevant to a wider array of topics; its applicability is enlarged as its universality is suggested through repetition. However, it is 'reduced' in its precise meaning, in the idea of its structure, by the cancelling effect of the accumulation of analogy. As each analogical 'demonstration' is

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[121] Aristotle, *Poetics* 1457b19-22.

made, the set of previous such demonstrations loses a degree of the specificity it held in its relation to actuality-potentiality. This is because, if each pair of concepts is considered to be related to actuality-potentiality in the same way, the sense in which one pair differs from other pairs cannot be considered as essential to the meaning of the actuality-potentiality concept. It is what unites them that is called actuality-potentiality, and this becomes more abstract with each differing use. While the applicability of actuality-potentiality increases, its meaning becomes more abstract, finally resolving to its status as a basic structure of being. Failing to conform to the structure of categorial being, unable to be a being or an attribute of a being, and yet being fundamental to beings in some sense, it becomes another *sense* of being.

Actuality-potentiality becomes, over the course of its analogical development, somewhat 'freed' (in a manner reminiscent of the above discussion of *entelecheia*) from the conditions of its origin. One way of understanding the most abstract sense of actuality is as a representation of the structure of being insofar as it is considered in terms of discreteness and continuity. However, this can be misleading. Discreteness and continuity are themselves only analogous to actuality-potentiality, and derive from geometrical concepts. Nonetheless, these concepts are useful, as their post-Aristotelian development has seen them take on a highly abstract sense. Their use must, in any case, be tempered by a sober insistence upon the central importance of the structure of the problem situation out of which actuality-potentiality grew. The primary question addressed by actuality-potentiality is: *how can something both be and not-be* X? When X becomes Y, X and Y are both the same and different. They are a unity that differs within itself. Whilst their difference is categorial in nature, the sense in which they remain one is necessarily *a*-categorial. That is, it cannot be demonstrated as falling under a definition.

The most fundamental worldly aspect affecting this problem-situation, and thus the most fundamental notion to be kept on hand for the rendering of discreteness and continuity as a useful pair of concepts for the interpretation of actuality-potentiality, is time. The sense of something's being *one* thing is disrupted by time. All of the uses of actuality-potentiality attest to this. In the case of the early use in the *Protrepticus*, and of its precursors in Plato, time intrudes as that in which a given being will alternately display or fail to display an aspect of their being. Of course, as it is activity or exercise that is characterised in terms of *energeia*, the 'stasis' or 'discreteness' of the *energeia* aspect is not to be understood in the sense of 'unmoving' or 'unchanging'. Actively thinking can certainly be understood as a kind of process or *kinesis*, a point which Aristotle makes on several occasions. Rather the sense of 'static' ought to be something more akin to 'in the present'. The temporal 'present' can be understood as a space in which both activities and things can be determined. To show that Aristotle on occasion describes certain processes as actual is not to refute a static interpretation of actuality.

The centrality of the categories and the priority of actuality are integrated with the priority of the *what* question in Aristotle's thought; an aspect that is clearly continuous with Plato's thought. It is according to the prioritisation of the *what* question that time is rendered problematic, as it is time that shows up the contingency of any determination of a being as such and such a being. *What* type questions call for static answers, regardless of the subject matter. Thus, even a motion can be determined to be such and such a motion, and so present the same difficulty as a thing determined to be such and such a thing. The formation of actuality-potentiality, and its characterisation as one of the four meanings of being, reconfigures the sense of this static answer while leaving the answer itself still intact. For, with the addition of potentiality, categorial being is given a more nuanced significance. The

categories are a table of all that can be defined, with the proviso that this exhaustive table cannot account for dynamism of the world that is the source of the beings under definition. Considered in terms of a visual metaphor, categorial being takes the form of an afterimage – as a static image remaining in spite of the interminable motion that is its material origin. The 'afterimages' that are the reference for a tabulation of the intelligible are always *almost* precisely correct. Nonetheless, they are always after the fact, always describing a circumstance that was 'just a moment' ago. The confrontation between the stasis of the necessarily formal answer to the *what* question, and the continuity of the *kinesis*-phenomena, provides the theoretical-phenomenal background out of which the actuality-potentiality dyad gains its function.

Actuality-potentiality is often said to derive from the structure of change (*kinesis*). This is true only in a qualified sense. It is true in the sense that change phenomena, or more properly the temporal space in which they appear, in tandem with the pre-eminence of the *what* question, form the basic structure of the problem for which actuality-potentiality constitutes an attempt at a solution. It is a common feature of commentary on actuality-potentiality that the relationship between actuality-potentiality and *kinesis* is understood to be one that is not immediately and simply clear. In the *Physics*, Aristotle briefly approaches the difficulty in application of the actuality-potentiality model to *kinesis* proper. This passage was already quoted above, but a reminder may be useful:

This is why it is hard to grasp what *kinesis* is. It is necessary to class it with privation or with potentiality or with sheer actuality, yet none of these seems possible. There remains then the suggested mode of definition, namely, that it is a sort of actuality, or actuality of the kind described, hard to grasp, but not incapable of existing.[122]

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[122] Aristotle, *Physics* 201b33.

Aristotle refers to *kinesis* as the actuality of potentiality as such. The exact sense of what this might mean is very difficult to apprehend, as evidenced by vigorous scholarly argument around its interpretation. However, one aspect that is rather clear is the sense in which *kinesis* reveals potentiality in fact. It is in *kinesis* that potentiality is evidenced in the present as a concept that relates to a worldly manifestation in some way. *Kinesis* renders potentiality as quasi-intelligible; as not entirely unavailable to intellectual apprehension. As such it is that through which potentiality is rendered as, or rather *as though*, actual. Motion is the 'evidence' for potentiality; and 'actuality' is the name given to the form of evidence as such. Still, *kinesis* is not easily explained using these concepts. Aristotle's response to the Eleatic challenge as a problem involving sensible beings is given in the *Physics*, in the form of his hylomorphic theory of change. Some commentators[123] have sought to distance the hylomorphic physics from the theory of actuality-potentiality, preferring to understand actuality-potentiality as being more restricted to formal or logical matters. However, it is clear that Aristotle intends, at least by the time of *Metaphysics* ix, to include the hylomorphic theory under actuality-potentiality as one of its modes. Indeed, physical change is one of the components of his analogical definition of actuality. If one is to exclude any one of these analogical elements on the grounds that it doesn't seem to fit easily with the others, *morphe-hule* (form-matter) would not be the last to go. It is precisely through the differences between the examples that actuality-potentiality is refined to such a point as it is. In any case, change in sensible objects is a good place to begin to consider the manner in which actuality modifies the inherited problem of coming-to-be. For Aristotle a particular being is, given the right circumstances (i.e. the right alignment of passive and active causes), potentially many other beings. However, it is not presently any of these other beings and thus the general context can be understood in terms of a 'privation' of one

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[123] Graham in particular.

potentially existing being or another. However, this privation is specific, unlike the not-being of Parmenides – there is no privation as such, no absolute not-being to render coming-to-be aporetic in the Eleatic manner. Qualified privation displaces absolute not-being. Privation, potentiality and actuality fall into one another about *kinesis*. They each grow in some manner from an interaction with change phenomena and take their place as concepts on the basis of this.

Nonetheless, it is important to recall that one of the primary sources of the Parmenidean problem (and also its Heraclitean counterpart) and its Platonic equivalents, is still present in Aristotle; namely the primacy of the *what* question. Actuality-potentiality does not get to the root of the problem – but it does demonstrate it in far greater detail. Actuality-potentiality allows motion phenomena greater discursive manageability; it incorporates the continuity of *kinesis* into a structure according to which this continuity can be rendered in terms of stasis. Continuity is not completely absorbed into the structure of actuality-potentiality, but is dissected rather more precisely; at least in such a fashion as to remove any question about its having being or not. It is also important to remember that *kinesis* itself has categorial representation, divided into a set of 'accidents of intermediacy' (*metaxu on*). Thus, one must draw a distinction between the *kinesis* phenomena that forms the circumstance in which the problem of coming-to-be comes to light, and the categorial sense of *kinesis*, by which a given motion or change can be determined as this or that motion. In other words, where the name of a motion can be given in answer to a *what* question. As a determinate X, a given motion faces the same problems, from the perspective of the categories, as does a given substance; i.e. a change in motion is structurally identical to a change in substance (*ousia*) insofar as both are understood as they are tabulated in the categories. Categorial being thus applies in two ways to

continuous things. On the one hand, a being in motion can be determined as X or Y at a given time. On the other hand, more significantly perhaps, a continuous thing can be taken categorially. With motion, for example, it is *this* motion, or *a* motion, that is continuous. If it is not a particular motion that is under investigation, it may be a motion of a particular kind, or motion as such, categorially identifiable in spite of the inherent phenomenal indeterminacy of the object. Motion is thus considered in terms of the unity that is required for intelligibility. Though phenomenally continuous, motion is categorial and thus actual. Nonetheless, from the perspective of the categories, the phenomenal aspect of *kinesis*, a basic element of the problem situation for which actuality-potentiality is constructed, remains enigmatic. It is by the integration of the theory of the four causes, the structure of actuality-potentiality and the structure of the categories that the phenomenal continuity of *kinesis* in all of its forms is rendered intelligible. Although this 'continuity' gains intelligibility by this inclusion, it gains it at great expense. The continuity of the *kinesis* phenomena remains predictably at odds with the consummate intelligibility of the categories. It also remains at odds with the actuality-potentiality concept that serves to render *kinesis* intelligible. The actuality-potentiality concept in this regard serves to fundamentally divide being as such and being as known. Aristotle acknowledges the primacy of potentiality *qua* being, whilst holding actuality to be prior qua intelligibility. In this way, Aristotle's integration of the continuous into the categorial structure of being (by way of constructing actuality-potentiality as a fundamental sense of being), continues a fundamental structural schism whilst obscuring it through the formation of finer distinctions.

5. Conclusion: From the Movement of Beings to the Movement of Structures of Knowledge

The centrality of analogy in the determination of the actuality-potentiality concept leaves the final determination of its specific applicability open. The applicability of actuality-potentiality is determined by the total set of beings determined as such (that is, determined as beings). This is because, as a structure of being as such rather than a determination of particular beings, actuality-potentiality must apply to all beings in some manner. As discussed earlier in this chapter, 'actuality-potentiality' names a relational structure, the function of which is to render it possible to account for an array of *aporiai* that arise from the schismatic relationship between a particular historical being-concept and the temporal-phenomenal situation in which it appears. This 'being-concept' itself 'moves', or is transformed, from one finite, nominally temporal moment to another[124]. The present chapter has been in part a description of one aspect of such conceptual-structural transformation, in particular of the transformation of the structure of the problem of 'change'[125] from a Platonic to an Aristotelian one. The notion of a 'Platonic' or 'Aristotelian' being-concept is, in one sense, only nominal, though in another sense it has real meaning. Whilst a transformation of a concept structure[126] might not be reducible to an interaction between proper names, any set of actions attributed to such proper names, or even to an exhaustive set of propositions and their modifications, can in fact refer to a meaningful whole. Whilst the subject matter differs (the transformation in question is a transformation of the way in which thought is directed towards the world), the structure itself is no different from that which Aristotle posits to explain physical change. Consider the following passage from the *Physics*:

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[124] Such moments which might be associated with a person, a book, an action, etc.

[125] 'Change' here ought to be taken in its broadest possible sense, as described earlier in this chapter.

[126] By a 'concept-structure' is meant a structure of relationships obtaining between a given concept and the conceptual manifold in which it holds meaning.

Again, does it follow that what is, if one, is motionless? Why should it not move, the whole of it within itself, as parts of it do which are unities, e.g. this water? Again, why is qualitative change impossible? But, further, what is cannot be one in form, though it may be in what it is made of.[127]

Aristotle's 'insofar as' is also applicable to structures of meaning, if only such structures are taken as beings in some determinate sense. If they are, then they are readily incorporated into the set of material from which the analogical demonstration of actuality-potentiality is built. The structure of actuality-potentiality is open to such additions precisely in virtue of its a-categorial nature and the analogical demonstration this necessitates. Insofar as one posits a nominally determinate concept-structure that is 'Platonic' and a nominally determinate concept-structure that is 'Aristotelian'[128], and as long as one recognises a residual 'identity' between the concepts (as well as a difference), the relation between these two being-concepts can be understood as one of transformation or change. Insofar as this is the case, the transformation of such structures is not outside the realm of the relation at the heart of the analogical demonstration of actuality-potentiality. Of course, the elements that participate causally are different in the case of changes in conceptual structures. Perhaps, indeed, the interplay of causal mechanisms might be too complex, or the nature of these mechanisms too obscure, to render an account of concrete transformation possible. Once again however, the structure of actuality-potentiality does not function to explain concrete transformations, but rather to account for the possibility of transformation as such. So, the possibly ineffable nature of concept transformation is no impediment to its analysis in terms of actuality-potentiality. Another way to imagine the transformation of a concept-structure is through the

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[127] Aristotle, *Physics* 186b16-20.
[128] Not that these particular proper names are only chosen for their being discussed in this chapter. It would be irrelevant to complain that there is no determinate 'Platonic' or 'Aristotelian' concept-structure, as these names are only chosen to illustrate a point. If one takes issue with their use, the determinate concept structure used as a reference could be refined to 'early Plato' or 'the Plato of Socratic dialogue *X*.'

paradigm of knowledge acquisition as it manifests in Aristotle's writing. One might begin with Aristotle in the *Protrepticus* noting that a philosopher remains a philosopher when sleeping or distracted. The student, a 'learner', potentially a 'knower' actualises this potential and becomes a knower. However, the knower is still both potentially and actually a knower. The axis upon which potentiality and actuality functions has changed with respect to the particular knowledge gained. The first sense relates to an account of the transformation of a learner into a knower. The second relates to the transformation of one who is not actively engaged with a given knowledge into one who is. The knowledge as such, that which is transmitted from knower to learner, can also be considered on its own. In this regard, rather than questioning the being of the knower when thinking or sleeping or learning, one might ask about the being of the knowledge as such; in this sense, the knowledge itself has potential being when the knower is sleeping or distracted, actual being when the knower is thinking. Further, now that knowledge is understood in a quasi-determinate sense, one might ask about the relationship between several transmissions of such knowledge; that is, one may ask about the transformation of knowledge as such.

Aristotle analyses localised instances of transformations relating to knowledge. However, these transformations are not of structures of knowledge as such, but rather relate to the transformation entailed by the gaining and transmission of a particular knowledge. In the *Protrepticus* the focus is upon the way in which using or failing to use knowledge modifies the value of a person as a knower. In *De Anima* he analyses the transmission of knowledge in terms of the transformation of a student into a knower. These structures are, of course, independent of the nature of the knowledge in question. There is good reason for this. The Categories taken as whole represent a tabulation of *logos*. What is transformed when a form of

discourse 'moves' into another is, in part, *logos* itself. In order for a discourse to be categorisable in the Aristotelian sense, it must be determined in some sense and brought under a relevant category. The recursive nature of the possibility of a transformation of *logos* as such would likely be unfavourably viewed by one committed to the centrality of the Categories as Aristotle is. Further disturbing might be the idea that, if *logos* were understood to transform in some manner compatible with the analogy out of which actuality-potentiality formed, the Categories themselves would be at risk of being rendered contingent. The categories themselves, along with the entire structure of Aristotelian thought will be subject to the continuous/discrete dichotomy at the heart of Aristotelian thought. Even while 'actual'[129], i.e., having formed at the point of intersection of an array of passive and active powers, the structure could still be understood only as a snapshot of a continuous transformation of structure; as a representation in *logos* of a determinate moment of *logos* already passed. Having passed, such actualities of structure are merely nominal, except insofar as they causally interact with such transformation as mere objects. So, for example, one might refer to a proper name, or to a piece of literature, a book, or to any point at which a given structure could be said to engage as a cause in its own right. Although such objects serve, in one sense, as mere indices of transformations past, they also engage with such transformation qua object. Such a structure is naturally recursive and, although not immediately obvious, analogous recursive structures are themselves central to the structure of Aristotelian thought. This will be the topic of the next chapter, on *pros hen* equivocation.

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[129] The concrete sense of what an 'actualised' discursive structure might be is beyond the scope of this

chapter.

PROS HEN STRUCTURE AND NON-GENERIC UNITY

1. Introduction.

In *Metaphysics* Gamma Aristotle establishes the possibility of a study of being *qua* being. The manner in which the possibility of this study is established integrates fundamentally with Aristotelian thought as a whole. In particular, the grounds for the possibility of a study of being *qua* being are integrated with Aristotle's notion of categorial being, with his quadripartite division of being, and with the multivocal sense of being he defends against Platonic univocity. In order to unify the subject matter of the study of being *qua* being whilst leaving its multivocity intact, Aristotle forms an analogy between the study of 'being' and several previously established subject matter, which themselves are individually unified in spite of their objects being shared among several genera. The very establishment of an *episteme* (or, loosely, 'subject matter') according to this form of unity establishes it as a subject matter of a certain kind. That is, the demonstration of the possibility of the study of being *qua* being establishes 'being' as a particular kind of subject matter. Although Aristotle does not directly consider it, the kind of structure that he uses to form this unity allows for the integration of the *episteme* it describes into the greater causal milieu. As such, an *episteme* of this kind has potential, not only to effect change in another, but to be the subject of change itself. The notion of actuality-potentiality is developed analogically, and as such remains open to further analogical extension. For this reason, and in consideration of the manner in which Aristotle unifies inter-categorial

subject matter, it is not inappropriate to attempt to extend actuality-potentiality to the matter

of the transformation of a particular *episteme*. However, this becomes more difficult when the

notion of the transformation of an *episteme* is brought to bear upon the *episteme* that studies

being *qua* being; one may expect Aristotle to want to exclude the possibility of transformation

in virtue of the kind of study that it is. Nonetheless, the possibility of the transformation of

the study of being *qua* being can be drawn from its analogical instantiation, and can be

theorised roughly according to actuality-potentiality. Whilst such an idea cannot be attributed

to Aristotle, it can nonetheless be established by an imaginative extension of analogies

fundamental to the construction of several major Aristotelian concepts.

2. Pros Hen *Structure as an Alternate Form of Unity.*

In several treatises of his *Organon*, Aristotle appears to argue against the possibility of a

universal study of being[130]. However, in *Metaphysics* gamma he appears to make the case for

the possibility of the very same study. In the secondary literature, several texts are often

referred to in order to make this apparent contradiction clear. In *Topics*[131] Aristotle points out

that demonstration begins from a small set of primitive principles. In the *Posterior Analytics* he

writes that,

arithmetical demonstrations always include the genus about which the demonstration is, and so also do the others;

hence it is necessary for the genus to be the same, either *simpliciter* or in some respect, if the demonstration is going

to cross. That it is impossible otherwise is clear; for it is necessary for the extreme and the middle terms to come

from the same genus[132]

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[130] By the same arguments he also argued that there was no unified study of the good (Aristotle, *Nic. Eth.* 1096a19; *Eud. Eth* 1217b25).
[131] Aristotle, *Topics* 100a30-b21
[132] Aristotle, *Posterior Analytics* 75b7-16.

From this it has often been surmised that Aristotle in fact intends to show that any *episteme* (often problematically translated as 'science') must be restricted to a single genus. However, these arguments of Aristotle's are supposed to relate only to the *episteme* that results from demonstration (*apodeixis*). This single-genus notion of apodeictic knowledge is transferred to other senses of *episteme* and of acts of contemplation (*theoriai*) with the help of a blanket translation of *episteme*, and occasionally *theoria* (or *theoresai*), as 'science'. This can be rather misleading, particularly as Aristotle on occasion appears to be drawing fine distinctions between related notions surrounding the various aspects of study and knowledge. In this way the 'single genus' notion of *episteme* can be combined with passages from the *Eudemian* and *Nicomachean Ethics*, in which 'being' and the 'good' are shown not to be exhausted by a single kind of study, to create the impression that Aristotle has either contradicted himself or modified his position. Whilst either of these might be true[133], one would be wise to take a moment before rushing to judgement. In the *Eudemian Ethics* Aristotle writes:

Next, however much there are Ideas and in particular the Idea of good, they are perhaps useless with a view to a good life and to action. For the good has many senses, as numerous as those of being For being, as we have divided it in other works, signifies now what a thing is, now quality, now quantity, now time, and again some of it consists in being changed and in changing; and the good is found in each of these modes, in substance as mind and God, in quality as justice, in quantity as moderation, in time as opportunity, while as examples of it in change, we have that which teaches and that which is being taught. As then being is not one in all that we have just mentioned, so neither is good; nor is there one science (*episteme*) either of being or of the good; not even things named as good in the same category are the objects of a single science (*theoresai*), e.g. opportunity or moderation; but one kind studies one kind of opportunity or moderation, and another: e.g. opportunity and moderation in regard to food are studied by medicine and gymnastics, in military matters by the art of strategy, and similarly with

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[133] It is not important to the goals of this chapter one way or the other. However, a brief investigation of the grounds (or lack thereof) of such a judgement will help to create a sense of the complexity of the subject matter.

other sorts of action, so that it can hardly be the province of one science (*theoresai*) to study (*scholei*) the good *per se*.[134]

The use of 'science' as a term is problematic, given that its meaning has been largely determined by events occurring two millennia after Aristotle lived. But further, the translation of both *episteme* and *theoresai* as 'science' creates a confusion between the contemplative act and its content. An act of contemplation must face a different test of unity than would be faced by a form of knowledge (itself an imperfect translation of *episteme*, but nonetheless broader than 'science'). Nonetheless, two such measures of unity may be related. Consider Aristotle's claim that there is not 'one *episteme* either of being or of the good' and that 'not even things named as good in the same category are the objects of a single *theoresai*.' The first is a claim relating to something that can be taught and developed as a particular structure or approach to the world. Aristotle is saying that there can be no one form of knowledge that can exhaust 'being' or the 'good'. On the other hand, the second claim relates to an act; that even where the usual grounds for demonstrative knowledge were met, the 'good' (and also being) is such that even in a categorially restricted sense, it will still exceed a given contemplative act. One ought to note that Aristotle is not claiming that there is no sense in which the 'good' or 'being' is united, but rather that neither can be unilaterally applied. Further, he does not argue that *episteme* is necessarily confined to a single category; rather that apodeictic knowledge is strictly categorial. He does not shut down the possibility of knowledge that extends beyond a single category. Indeed, in the above quote the examples of subject matter Aristotle provides (medicine, strategy, and gymnastics) extend across several categories. It is not clear from the above quote that Aristotle considers any of these as *episteme*, but neither is it clear that he doesn't. Aristotle's argument does not require such a positive statement. He is making the negative

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[134] Aristotle, *Eud. Eth.* 1217b25-1218a1.

94

argument that there is not one form of knowledge of either 'being' or of the 'good' insofar as such a knowledge is considered as applying to a unified object. This intersects precisely with Aristotle's general disavowal of univocal being. The above passage presents one of Aristotle's angles of attack upon this notion; in this case considered from the perspective of the interaction between categories of being and realms of study and action (subject matter). Aristotle makes a nearly identical argument in the *Nicomachean Ethics*[135], with greater emphasis on the irreducibility of the particular senses of 'good' as it applies to a given subject matter. These passages in Aristotle's ethical treatises function broadly as arguments against univocal being. However, as the focus is upon practical matters, the arguments are derived from practical concerns. A more technical argument against univocal being is given in *Metaphysics* book iii.[136]

The arguments given in *Metaphysics* iii are based upon the manner in which Aristotle understands definition to function according to the structure of categorial being. For Aristotle, 'definition' is only possible within a single category, precisely because definition is a function of the relationship between genus, species and differentia[137]. The species brings a collection of particulars under a common idea. Further, a collection of species may be united under a common, higher level species, or finally a genus, the latter indicating the highest level of generality. So, for example, all particular dogs, in spite of their particularity, are united under the species 'dog', and further all appropriate species are united under the species 'animal', and finally under the genus *ousia*. In the other direction, genus and subordinate species are divided according to differentiae. So, for example, the species 'animal' might be divided according to several differentiae, but the differentia most relevant to the definition of the 'human' animal

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[135] Aristotle, *Nic. Eth.* 1096a19.
[136] Aristotle, *Metaphysics* 992b22 - 998b26

95

would be (according to Aristotle), *rational*. That is, in predicating rationality of the species 'animal', one defines an animal such that it *could not be anything else* than human. Without differentia, it would still be possible to unite particulars and species under species and genera. However, without differentiae, definition would be impossible in the Aristotelian sense. The relationship between differentiae and the genera that they render particular is not, for Aristotle, one of containment. The differentiae do not hold the same relationship with the genera as do the species and particulars. For one thing, and most significantly, the genus is not predicable of the differentia. Aristotle writes in the *Topics*,

It seems that the genus is predicated, not of the differentia, but of the objects of which the differentia is predicated. Animal (e.g.) is predicated of man and ox and other terrestrial animals, but not of the differentia itself, which we predicate of the species'. [138]

The genus cannot be predicated of the differentia (i.e. 'rational is an animal') for two reasons, as Aristotle continues:

For if animal is to be predicated of each of its differentiae, then many animals (*polla zoia*) will be predicated of the species; for the differentiae are predicated of the species. Moreover, the differentiae will be all either species or individuals, if they are animals; for every animal is either a species or an individual.

What Aristotle most likely means is that, if 'animal' is predicated of its differentiae, those differentiae ('two footed', 'rational', and so on) will join the list of things called animals. Thus many non-existent animals will be produced, each of them – if functioning in the manner of differentiae – predicated of the species 'animal'. This differentia would then need to be either a species or an individual. As a species or individual, the differentiae could no longer be differentiae as such. So, aside from the absurd result that a 'rational' would be called an

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[137] Aristotle, *Topics* 139a28-31.

animal, the differentiae would not function, thus rendering definition impossible. The categories would only function to organise beings according to commonalities and would lose the function of dividing according to difference. One could still claim 'human' as animal and 'horse' as animal, but one could no longer differentiate between human and horse.

It is on the basis of this account of categorial function and structure that Aristotle argues against the possibility of being as a genus (univocal being). On several occasions in the *Metaphysics* Aristotle claims that, rather than univocal, being is in fact 'said in many ways'[139]. In *Metaphysics* Nu[140] he compares the approach to the study of being considered as univocal to his own approach. The great benefit of Aristotle's approach, he seems to claim, is that it serves to avoid tackling Parmenides head on. He argues that, in order to demonstrate the possibility of the many, those who take being as univocal are unable to avoid denying the truth of Parmenides', *'For never will this be proved, that things that are not are'*. In arguing for the univocity of being, one is left with two options, each absurd if left unqualified: either the denial of the many, or the assertion of the existence of the non-existent. In *Metaphysics* iii 3 Aristotle makes a more forceful argument against the possibility of the univocity of being. He argues that, "it is not possible for either One or Being to be a genus of things"[141] because, "it is necessary both for the differences of each genus to be and for each of them to be one"[142], and "it is impossible either for the species of the genus to be predicated of their own differences or for the genus to be predicated apart from its own species."[143] This obviously connects with the discussion in the *Topics*, where Aristotle discusses the impossibility of predicating a genus of its

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[138] Aristotle, *Topics* 144a32-b3.
[139] Aristotle, *Metaphysics* 1003a33; 1028a5; 1028a10.
[140] In particular at *Metaphysics* 1089a7.
[141] Aristotle, *Metaphysics* 992b22.
[142] Aristotle, *Metaphysics* 998b23-24.
[143] Aristotle, *Metaphysics* 998b24-26.

differentiae. In the case of 'being' and 'one', they must, in fact, be applied to the differences as well as to the species and particulars, in order that it be said that they 'are' or that they are determinate (i.e. differentia *x* or differentia *y*, 'two footed' or 'rational'). As the genus cannot be predicated of the differentiae, yet the differentiae must be and be one, 'being' cannot be a genus and neither can 'one'.

So when, at the very beginning of *Metaphysics* iv, Aristotle states that 'there is a science (*episteme*) that studies being *qua* being', certain restrictions must be considered to be already in place with regard to the nature of this particular *episteme*. The two relevant factors are (1) that demonstration is only possible intra-categorially and (2) that being is not a genus. As such, for the sake of consistency, the study of being *qua* being cannot be an *episteme* in the apodeictic sense. Jiyuan Yu[144] argues against G.E.L. Owen's position[145] that Aristotle's notion of being changed from the 'earlier' sense of the *Organon* to the sense implied in *Metaphysics* iv. Yu argues that Aristotle's notion of being did not have to change from the *Organon* to the *Metaphysics* in order to allow the study of being *qua* being. Rather, his notion of what counted as a subject matter for study (in the highest sense) expanded. That is, his notion of *episteme*[146] expanded beyond the demonstrative. Yu sees the development of Aristotle's notion of *episteme* as expanding to include that which in the *Organon* had been the stronger sense of 'dialectic'[147]. Thus, Yu understands that the strong or 'good' sense of dialectic, as presented in various texts of the *Organon*, is continuous in several ways with Aristotle's later unification of certain inter-categorial forms of *episteme* using *pros hen* structure. Aristotle does appear to want to argue for

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[144] Jiyuan Yu, 'What Is the Focal Meaning of Being in Aristotle?', *Apeiron: A Journal for Ancient Philosophy and Science*, 34/3 (2001), 205-31.

[145] As presented in G. E. L. Owen, 'Logic and Metaphysics in Some Earlier Works of Aristotle', in I. During and G.E.L. Owen (ed.), *Aristotle and Plato in the Mid-Fourth Century* (Göteborg: Almquist and Wiksell, 1960).

[146] Yu uses 'science' as a translation, but this will be avoided here.

the inclusion of the study of being under the notion of a unified study. In the *Metaphysics* he contrasts the obvious case of intra-categorial unification with another sense in which a study can be said to be unified:

For not only in the case of things which have one common notion does the investigation belong to one science (*episteme*), but also in the case of things which are said of one nature.[148]

Jiyuan Yu may be correct in assuming that such a statement reflects an expansion of the notion of *episteme*, but far more significantly, it may represent an expanded notion of unification. Whilst in the *Organon* Aristotle does note that there are both good and bad forms of dialectic, this difference does not correspond precisely with the difference between dialectic structured *pros hen* and dialectic structured other than *pros hen*. In the *Organon* the difference between demonstration and dialectic is tied to the difference between intra- and inter-categorial study. Dialectic, functioning inter-categorially, is uniformly defined according to its object's lacking unity under a genus, and further, in the *Sophistical Refutations*, defined against sophistry according to the motivation of the practitioner. *Pros hen* structure is thus not so much continuous with dialectic, but is rather a structure according to which it can be unified and thus determined as either *other than* dialectic, or as a peculiar form of unified dialectic. Jiyuan Yu finds dialectic to possess a continuity with *pros hen* structured study by the fact that Aristotle's "description of dialectic sounds very similar to that of the science of being in *Metaphysics* iv 2."[149] However, these descriptions may only sound similar because both define their objects negatively as not being restricted to one genus. Their continuity may thus only reside in the fact that neither is a form of categorial demonstration. If *pros hen* is related to

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[147] On dialectic see Aristotle, *Posterior Analytics* 77a26-33; *Sophistical Refutations* 172a11-15; *Topics* 101a36-b4; also *Rhetoric* 1355b8; *Metaphysics* 1004b19-22.
[148] Aristotle, *Metaphysics* 1003b12-14.
[149] Yu, 'What Is the Focal Meaning of Being in Aristotle?', pg. 228.

dialectic in any way it is only as a structure that dialectic might take up. However, this structure itself, as shown analogically at several junctures in Aristotle's work, is quite particular and more than just 'not demonstrative'. So, while Yu may be quite correct in stating that "[I]t could not be completely wrong to suggest a continuity from the positive dialectic in the *Organon* to the science of being in the *Metaphysics*,"[150] this statement itself does not throw much light on the notion of *pros hen* structure itself.

In *Metaphysics* iv Aristotle writes on the study of being *qua* being,

There is a science which investigates being as being and the attributes which belong to this in virtue of its own nature. Now this is not the same as any of the so-called special sciences; for none of these others deals generally with being as being. They cut off a part of being and investigate the attributes of this part.[151]

Discussing this, Jiyuan Yu counters the standard interpretation that reads Aristotle as contrasting the universal metaphysics with the particular sciences. He understands Aristotle as primarily concerned with contrasting the 'single genus' notion of 'science' with the 'said of one nature' notion.[152] He backs this up with evidence from *Metaphysics* iii where Aristotle characterises the study he is undertaking in terms of 'the science which we are seeking'.[153] However, it is not clear from this passage whether Aristotle is seeking a *notion* of 'science'[154] or a 'science' in particular. It could still be the case that he is seeking the study of being *qua* being. Further, in developing the notion of a study of being *qua* being in *Metaphysics* iv, Aristotle draws an analogy with 'health' and 'medical'. It may be possible to consider the universality of the study of 'being' as contrasting with the study of 'health' and the study of 'medical'. None

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[150] Yu, 'What Is the Focal Meaning of Being in Aristotle?', pg. 229.
[151] Aristotle, *Metaphysics* 1003a20-5.
[152] Yu, 'What Is the Focal Meaning of Being in Aristotle?', pg. 226.
[153] Aristotle, *Metaphysics* 995a24.

of these would fall under the 'single genus' notion of 'science', yet still the subject matter of 'being' might still be considered as, in relation to that of 'medical' and 'health', universal. The 'universality' in question would be the universal relevance of all beings to its field; this would be opposed to the absolute universality of the object of study if the study of being were taken as the study of a highest genus. 'Being' may be a universal subject matter without being a universal object. In any case, Yu is mostly correct when he notes that,

When Aristotle claims that the study of being can also be called 'science' according to the focal meaning notion, he not only no longer insists on the requirement that a science must be about a genus, but also no longer demands that a science has to be demonstrative. The study of being is called 'science', but is not demonstrative.[155]

This is because, whilst demonstration remains intra-categorial, the study of being must function intra-, inter- and extra-categorially. As beings are not adequately described by a single genus, or even indeed as being is not exhausted by categorial being taken as a whole, the study of being cannot be demonstrative according to Aristotle's sense of demonstration. Yu's basic argument is that the expansion of Aristotle's notion of a subject matter for study moves from a sense held in the *Prior Analytics* and the *Topics*, which is modelled on mathematics and geometry, to one which incorporates the 'better' elements of dialectic, such that the subject matter might be understood to expand beyond the boundary of a single genus. The first sense is axiomatic.[156] The second expanded[157] Yu understands the divergence of these two passages as a development of Aristotle's notion of *episteme*. However, it may be possible that Aristotle is merely showing that *demonstration* is only possible intra-categorially; a position that Aristotle

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[154] Note: I only use the term 'science' in order to cohere with the standard translation and avoid multiplication of terms. The use of this term in this context ought to imply no more than that.

[155] Yu, 'What Is the Focal Meaning of Being in Aristotle?', pg. 226.

[156] "Nor can the theorem of any one science be demonstrated by means of another science, unless these theorems are related as subordinate to superior" (Aristotle, *Posterior Analytics* 75b8-16; see also 76a2; *Sophistical Refutations* 172a36-8).

would still hold in the *Metaphysics*. The examples given in the ethical treatises do not state that

there can be no study of being *qua* being, but rather that there can be no *one* study of being.

Aristotle doesn't appear to contradict such a notion at any point. In any case, it is true that

having rejected the notion of being as the 'highest genus', Aristotle finds another way to unify

the study of being *qua* being. He needs to determine the nature of his object of study in some

sense, if he is to successfully circumscribe the subject matter. This unification takes the form

of a *pros hen* ('in relation to one') structure. In *Metaphysics* iv, this structure is introduced as a

foundational element of the study of being *qua* being, *philosophia prote*.

The expansion of the notion of a unified subject matter to include inter- and extra-categorially

related material is enabled by Aristotle's usage of a structure of unification that differs from the

containment model of the categories. As a result of this expansion beyond the categories, and

similarly to the case of actuality-potentiality, the structure of the study of being *qua* being is

revealed only analogically[158]; largely through a comparison with 'health' and 'medical'. The

resulting structure is indicated in Aristotle's work by two phrases; namely, *pros hen* (with regard

to one), and *pollachos legetai* (said in many ways). Aristotle never provides a direct explanation of

pros hen. Rather he demonstrates *pros hen* as relating to various subject matter by drawing

analogies with other subject matter, the status of which he apparently takes as being clear

already. The subject matter he continually returns to in this manner are 'health' and

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[157] "For not only in the case of things which have one common notion does the investigation belong to one science, but also in the case of things which are said of one nature" (*Metaphysics* 1003b12-14).

[158] It is important to note at this point that, in the context of this chapter, 'analogy' is meant in its most usual sense; as the relation characterised by Aristotle as, "as *a* is to *b*, so *c* is to *d*". *Pros hen* structure is not itself related to analogy understood in this way; it is merely demonstrated analogically. Although Thomas Aquinas characterises '*pros hen*' in terms of analogy, his characterisation has absolutely no relevance to the context of this chapter. One ought not to be confused by this terminological accident. In this chapter, '*pros hen*' will be used to describe the relation of several to one, and 'analogy' will be reserved for the ratio "as *a* is to *b*, so *c* is to *d*".

'medical'[159]. Neither 'health' nor 'medical' can be reduced to a single category, under a single genus, or considered a genus itself. Nonetheless, each represents a single subject matter that, in some way, is intelligible as a realm of study. As subject matter, 'health' and 'medical' are 'particular' in the sense that only certain entities will appear as relevant to the field of each. This particularity does not suggest a static or completable act or idea – more that there will always be an array of beings not immediately relevant to the subject matter. It is this form of particularity that is opposable to the sense of 'universality' that Aristotle gives to the study of being *qua* being. The subject matter of the study of 'being *qua* being' is not universal in the sense that its object takes the form of a 'highest genus'. Rather it is universal because all beings must be relevant to its field of enquiry.

Aristotle writes in *Metaphysics* iv:

There are many senses in which a thing may be said to 'be', but they are related to one central point (*pros hen*), one definite kind of thing, and are not homonymous. Everything that is healthy is related to health, one thing in the sense that it preserves health, another in the sense that it produces it, another in the sense that it is a symptom of health, another because it is capable of it. And that which is medical is relative to the medical art, one thing in the sense that it possesses it, another in the sense that it is naturally adapted to it, another in the sense that it is a function of the medical art. And we shall find other words used similarly to these. So, too, there are many senses in which a thing is said to be, but all refer to one starting-point; some things are said to be because they are substances, others because they are affections of substance, others because they are a process towards substance, or destructions or privations or qualities of substance, or productive or generative of substance, or of things which are relative to substance, or negations of some of these things or of substance itself.[160]

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[159] Aristotle describes the structures of 'health' and 'medical' in some detail in Categories 5 and *Metaphysics* vii.1. These two chapters thus serve as an elucidation of *pros hen*, even though the term itself does not appear in either chapter.
[160] Aristotle, *Metaphysics* 1003a32-b10.

The overt function of this passage is to demonstrate the possibility of a study of being *qua* being that does not take being in the manner of a genus. As such, it functions to provide an account of a sense of unity that does not derive from a relation of containment. As already indicated, although this *pros hen* structure is fundamental to Aristotle's *philosophia prote*, he did not take the structure itself as an object of study in any of his extant works. *Pros hen* remains, in a way, merely descriptive; Aristotle uses '*pros hen*' as a description of a relation of several to one. However, *pros hen* is given a more precise structure through the use of analogy. Although Aristotle does not take up *pros hen* structure as a theme, he does use the term (along with 'said in many ways') in a consistent way, allowing the formation of a sense of its meaning by observing its several analogous uses – in particular those of 'medical' and 'health'. As such, in *Metaphysics* iv, 'medical' and 'health' are treated as material for the creation of an analogy. The goal of this analogy is to produce an understanding of a possible study of being *qua* being that is united in a manner that does not render being univocal. What is called *pros hen* structure is the residual 'same' that unites the analogically related material of 'health', 'medical' and 'being'. 'Health' and 'medical' are useful because each is an example of a subject matter that extends beyond the confines of a single genus. Consider 'health' for example; many things are said to be healthy in different ways. Walking is said to be healthy because it helps to bring about health, a ruddy complexion is said to be healthy or unhealthy as a *sign* of health or otherwise, a body is said to be healthy if it functions in a certain way. Each of these is related to health in some way and could be included under a study of the subject matter 'health', but neither exhausts or encapsulates the notion of health as such. Similarly with 'medical'; medical art, a scalpel, a hospital, a given practice, or a doctor all relate to 'medical' in some way without exhausting it as a subject matter. Further, another thing that both of these examples have in common is that they appear to have a central, or 'primary', sense about which the other senses

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gather. So, for example, 'health' primarily refers to the healthy body, for the reason that without it, the other senses serve no function. Medical art takes on the same role with regard to 'medical', as all other instances of the medical persist in accordance with their relationship with medical art. 'Health' and 'medical' can be characterised as relational structures featuring a central element as well as a set of secondary elements. Each of the secondary elements is united under an overarching subject matter ('health' or 'medical') through a relationship with a central 'object' or 'primary instance'. It is due to this arrangement, whereby a primary instance stands in relation to several secondary instances, that *pros hen* (in relation to one) gets its name. Note, however, that even the primary instance of the set does not exhaust the subject matter. Aristotle makes clear that the priority of the primary instance does not confer universality whilst discussing friendship in the *Eudemian Ethics*:

There must, then, be three kinds of friendship, not all being so named for one thing or as species of one genus, nor yet having the same name quite by mere accident For all the senses are related to one which is the primary, just as in the case with the word 'medical'; for we speak of a medical soul, body, instrument, or act, but properly the name belongs to that primarily so called [161]

He continues,

Everywhere, then, we seek for the primary. But because the universal is a primary, they also take the primary to be a universal, and this is an error. And so they are not able to do justice to all the phenomena of friendship; for since one definition will not suit all, they think there are no other friendships; but the others are friendships, only not similarly so.[162]

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[161] Aristotle, *Eudemian Ethics* 1236a15-20.
[162] Aristotle, *Eudemian Ethics* 1236a23-26.

The primary instance is the main object of study under the particular subject matter, and without which the subject matter would not be,[163] but it does not coincide with or exhaust the subject matter. This fact forms a fundamental difference (one often missed, particularly by those taking their Aristotle from Thomas Aquinas) between the approach to the study of being undertaken by Plato and Aristotle. But more on this later. In general then, the *pros hen* structure refers to the arrangement of a set of related beings, where each instance of the set receives its determination as belonging to the set, under the subject matter, and in relation to the primary object towards which a study of the subject matter would be directed. Regarding this arrangement, three points are clear; (i) that the *hen* of the set is not something external to the other elements of the set, but is rather one of their number; (ii) that the distinguishing feature of the *hen* is its priority over the other elements of the set, and (iii) that the subject matter of the set is not reducible to any of the members of the set, including the *hen*. Of further relevance to each of these, is the consideration that 'priority' itself is structured *pros hen*. For this reason, 'priority' ought not to be taken to have an obvious meaning with regard to the *hen*. This will be dealt with in more detail later in this chapter. For now it ought to be noted that the *pros hen* structure of 'priority' renders any determination of the nature of the priority obtaining in any particular *pros hen* set as less than obvious and thus, minimally, requiring some form of justification. So, for example, it is not obvious that the relationship between 'primary *ousia*' and the secondary instances of *ousia* (many commentators consider *ousia* itself to be structured *pros hen*) is one of emulation – an assumption that is made by several commentators

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[163] See Aristotle, *Metaphysics* 1070a22, 'it is when the man is healthy that health exists'.

who, following Father Joseph Owens[164], utilise *pros hen* structure as evidence for the validity of a particular theologically inspired reading of Aristotle.

The examples of 'health' and 'medical' provide a pinion against which a reversed analogy can be made with 'being'. The analogy is 'reversed' because, with 'health' and 'medical' it is the members of the set that are in question. This is because the subject matter is understood already. Aristotle uses 'health' and 'medical' as examples because their meaning is already apprehended in some way. In thinking through this pre-apprehended meaning, one is able to develop an understanding of the manner in which its field of relevant entities is related; the entities are understood insofar as they are determined according to these established forms of interrogation or study. However, with the subject matter of 'being', the situation is reversed. In setting up an enquiry into being qua being, as Aristotle does in book gamma, it is the subject matter itself that is in question. There is no need to define membership to the set because, as the subject matter is 'being', the relevant entities will be all 'things that are'. As membership of the set is not in question at this stage, it is the structure of the relations between members and the concomitant structure of the subject matter that is determined by the analogy with 'health' and 'medical'. As such, the central element, the primary instance of the *pros hen* set named being, is *ousia*. In keeping with the analogy, as 'health' is not reducible to a state of bodily health and 'medical' is not reducible to medical art, 'being' is not reducible to *ousia*. In general, in a *pros hen* set, the *hen* is not what the set is said to *be*. It holds a certain structural priority, but does not itself determine the meaning of the subject matter. It is that member of the set which is said to be prior to the others, but this priority does not establish

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[164] In particular his book on the concept of 'being' in Aristotle's *Metaphysics*: Joseph Owens, *The Doctrine of Being in the Aristotelian Metaphysics: A Study in the Greek Background of Mediaeval Thought* (Toronto: Pontifical Institute of Mediaeval Studies, 1951).

grounds for the reduction of the subject matter to its primary object[165]. The primary instance has priority over the secondary instances according to one of Aristotle's characterisations of priority in *Metaphysics* v – priority by non-reciprocal responsibility. This means that the primary instance is that element of the set without which the other elements could not be. The primary instance serves as a necessary, but not a sufficient, condition for the secondary instances. The primary instance is not more 'in being', *qua* the subject matter, than the subject matter; nor does it carry the meaning of the set. In the case of 'being', *ousia* is the one central element, prior by non-reciprocal responsibility, about which all other being gathers, and without which it could not be. Although it shares a relation of some kind with all being/s, it does not name the sense of commonality, which is reserved for the name of the subject matter, 'being'. *Ousia* can not name the sense of the set – for if it did, all relevant objects, both primary and secondary instances, would be *ousiai*. *Ousia* would thus correspond with 'being', considered as the highest genus. By dividing the study's subject matter from its objects, Aristotle creates an opportunity for a study of being in which being is not taken as univocal. Whilst the subject matter of the study is 'being', its primary object is *ousia*, which in turn is related in some way to all other kinds of being. The subject matter of a *pros hen* set ('health', 'medical' and '*ousia*') is not an entity or idea. It is that which is, in any relevant sense, common to its instances. The subject matter is a particular framework according to which entities are investigated and interpreted. It is, in this sense, the interface of question and answer for a given interrogative practice, or a cross-section of such a practice, cut such as to demonstrate the relationships obtaining within the interrogation. Further, the *pros hen* structure itself does not determine the kinds of relations that obtain between the secondary and primary instances of any given set. Thus there is a certain ambiguity that is basic to *pros hen* structure, whereby

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[165] Michael Ferejohn, 'Aristotle on Focal Meaning and the Unity of Science', *Phronesis,* 25 (1980), 117-28.

the subject matter itself is discovered only within its engagement with that which it determines as belonging to itself. The ambiguity is not in the logico-grammatical formation of *pros hen* structure, but rather in the manner which, in line with this formation, the subject matter and its instances come to determine one another. This ambiguity is transferred to the subject matter of 'being'. The construction of a possible structure for the study of 'being' also serves to present 'being' as a particular kind of subject matter. In this way, even if it can be said that Aristotle did not in fact produce a metaphysics, as has been argued elsewhere[166], it can be seen that his discussion of the possibility of such a study itself comes to determine the subject matter of 'being' in some way.

3. Equivocation, Paronymity and Pros Hen *Structure*

There is some disagreement over whether *pros hen* structure ought to be taken as example of (an albeit modified) equivocity, univocity, paronymity or a combination of these. In fact, none of these is appropriate, as the *pros hen* structure differs from each and is not reducible to a fact of language. Though a common term for *pros hen* structure in recent literature has been *pros hen* equivocation, this primarily appears to reflect a desire for terminological consistency. That *pros hen* structure is most often called '*pros hen* equivocation' does not necessarily indicate that anyone seriously considers *pros hen* structure to in fact be an example of equivocation or homonymy in an unqualified sense. 'Equivocation' suggests identity merely at the level of vocabulary; i.e. in the case of 'race' as a classification of a group of humans and 'race' indicating a sort of competition, the identical term 'race' indicates two unrelated notions. If *pros hen* structure is to serve the non-generic unifying function that it ought it will need to provide a unity that functions on a deeper level than mere convention. Yet there is still a

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[166] A case in point being, Jonathan Barnes, 'Metaphysics', in Jonathan Barnes (ed.), *The Cambridge*

temptation to consider *pros hen* in terms of equivocation. As Aristotle rules out the univocity of being as an option, it may be quite natural to turn towards equivocity. If neither 'being', 'health' nor 'medical' can be said to have *one* sense, then they must have *several* senses. However, the significance of *pros hen* structure lies not only in its not being univocal, although this is very important, but also in the specific arrangement by which it maintains unity in spite of this. Martha Hussain is not wholly incorrect when she claims *pros hen* structure to operate at a mid-point between the univocal and the equivocal. If one must use these terms, this is perhaps the way one ought to use them. However, the characterisation of *pros hen* structure in logico-linguistic terms is substantially misleading. Both 'univocal' and 'equivocal' refer to particular relations that might obtain between a name, that which it names, and its status with regard to other names and things – but largely from the perspective of use deriving from convention. If *pros hen* structure is to be taken seriously as a structure that renders possible the study of being, it must not be allowed to be reduced to a feature of language. *Pros hen* structure is in fact quite different to the structure of ordinary equivocation, and extends beyond the bounds of language. J.L. Austin, an early Anglo-analytic interpreter of Aristotle, understood *pros hen* structure as an instance of paronymity. This is a little closer, as paronymity describes the relationship between a group of terms that share a common element. However, paronymity fails to accurately describe the *pros hen* structure for two reasons. It is for the most part a term used to describe the relation between terms that share a common linguistic element. For example, 'psychiatrist', 'psycho', 'psychometrics', 'psyche out' and so on share the element 'psych-', and this element is not irrelevant to their meaning (unlike the equivocal terms whose linguistic similarity is not matched by a similarity of reference). Aristotle writes,

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Companion to Aristotle (Cambridge; New York: Cambridge University Press, 1995), 66-108.

Paronymity belongs to things that have different names, but derived from one of them, e.g. when the grammarian gets his name from grammar, or the brave man gets his name from bravery.[167]

Although the structure of paronymity does superficially resemble that of *pros hen*, it is dissimilar in all ways relevant to the function of *pros hen* as a non-generic account of unity. In fact, paronymity (as in the 'nuclear' account given by J.L Austin[168]) applied to an interpretation of the *pros hen* unity of being allows Aristotelian metaphysics to devolve into a highly specified Platonic account. If the 'primary nuclear sense' of being within each particular being is in fact identical, the basic structure remains one of containment. There is no functional difference between this 'nuclear' sense of paronymity and a generic account that considers the 'nucleus' as genus. In both cases the 'same' is predicated of many. Aristotle denies that this is possible with being, as noted above. The 'nuclear account' is in fact structurally identical to the overtly Platonising account of *pros hen* given by Peter J. Cataldo. More on this later.

It is generally accepted in the secondary literature that the priority of *ousia* within the *pros hen* structure of being is both logical and ontological. Further, most commentators agree that the relation between primary and secondary instances of the *pros hen* set in general must be more than logico-linguistic However, the degree to which and the manner in which the implications of this are considered vary considerably. The categories themselves are a table of being insofar as it can be tabulated, rather than simply a logico-linguistic construction. Thus, insofar as the *pros hen* structure of being can be said to describe the dependence-relationships of the categories, this structure must hold at least the ontological status of the categories.[169] In his

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[167] Aristotle, *Categories* 1a12-15.
[168] J. L. Austin, 'The Meaning of a Word', in J. O. Urmson and G. J. Warnock (ed.), *Philosophical Papers by J. L. Austin* (Oxford: Clarendon Press, 1961).
[169] I say 'at least' because the *pros hen* structure of being refers both to the structure of the structure of the categories with *ousia* as its focus, but also to the quadripartite structure of being as such. Thus, insofar as being exceeds the categories, the reference to being as 'said in many ways' also exceeds the categories.

paper, *Focal Meaning*, D.W. Hamlyn agrees that the linguistic and the ontological are united in

Aristotle and that this unity is a feature of *pros hen* structure. However he takes this linguistic-

ontological unity as a failure on Aristotle's behalf. This is not an uncommon sentiment among

Anglo-analytic interpreters.[170] For example, Bostock writes,

One only has to read a few lines of this, or any other, book of Aristotle to see that he is utterly careless of our

distinction between using a word in the normal way, to speak of whatever the word stands for, and mentioning

the word itself.[171]

Although Aristotle does draw distinctions that are relevant to a description of something like a

relationship between the 'intelligible' and the 'real', it ought to come as no surprise that these

distinctions take a different shape to those that are formed in a context temporally separated

by several thousand years. Surely, if the aim is to develop an understanding of Aristotelian

metaphysics, it would be more profitable to investigate the grounds of possibility for the unity

of being and word in Aristotle than to chide him for his lack of 20th century savvy. In any

case, D. W. Hamlyn's first move in his critique of 'focal meaning' is to artificially disengage

Aristotelian meaning and being. Hamlyn writes that for Aristotle, 'the linguistic and

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[170] Most frustrating is a commentator like Michael Ferejohn, who criticises such reductive interpretations
and then proceeds to make such reductions himself. He upbraids Owen for importing 'an alien ontology
into a philosophical system where it has no place' (Ferejohn, 'Aristotle on Focal Meaning and the Unity of
Science', pg. 118.) and accordingly limits himself to explication in terms of Aristotle's 'relatively lean
ontology containing nothing more than pieces of language and the extra-linguistic entities they signify'.
Yet he immediately goes on to interpret *pros hen* in terms of the 'pieces of language' alone (Ferejohn,
'Aristotle on Focal Meaning and the Unity of Science', pg. 120.), allowing him to render his narrow
interpretation of the *pros hen* unity of being given in book gamma as 'designed to remove but a single *a
priori* objection formulated in the *Eudemian Ethics* (1217b25-35) against constructing such a science'
(Ferejohn, 'Aristotle on Focal Meaning and the Unity of Science', pg. 126.). Such a limited interpretation
must leave one wondering why Aristotle would bother to claim that 'there is a study of being *qua* being' if
what he really meant was 'this one objection to the possibility of a study of being *qua* being can be
removed'. In any case, his interpretation leads him back to paronymity with, 'What we are looking for…is
a single phrase for each non-substantial category which (i) contains the 'name' *ousia*, and which (ii) is
interchangeable with *on* in all of its applications within that category'. (Ferejohn, 'Aristotle on Focal
Meaning and the Unity of Science', pg. 122.)
[171] David Bostock, *Aristotle's Metaphysics: Books Z and H* (New York, 1994) pg. 45.

ontological pursuits can proceed hand in hand. That, however, does not make it right.'[172] He

argues, roughly, that as Aristotle's 'realist' metaphysics is obviously wrong, any merit to be

found in *pros hen* structure will only exist on the level of meaning. He thus interprets the

primary and secondary instances of the *pros hen* structure as primary and secondary 'meanings'.

As such he is able to assert that a secondary case is only legitimately such a case if its meaning

is derivative of the primary case. This further prevents him from recognising a difference

between the subject matter 'healthy' and the instance 'health', as he refuses to recognise

'health' as the index of a concrete bodily state. Similarly he writes,

[I]t surely seems that Aristotle intends to suggest that what it means for things in the secondary categories to be is
to be explained in terms of what it is for a substance to be [173]

In fact, *ousia* does not transmit its 'meaning' to the secondary categories. It is not 'formally'

prior, i.e. it is not a genus under which the secondary categories are organised. It does,

however, 'stand under' (this being the reason for the translation of *ousia* as 'substance') the

secondary categories such that they have the opportunity to be what they are. It is a necessary,

but not sufficient, condition for their being. Further, insofar as it is understood as the focal

element of a *pros hen* set that is purely logico-linguistic in nature, *ousia* itself is reduced to form

or essence, thus fundamentally restricting its power as a concept. Between the *tode ti* (the

particular 'this'), and the genus as such, Aristotelian *ousia* moves between logical, ontological

and sensate. To reduce categorial being to a simple set of meanings is fundamentally

antagonistic to Aristotle's project. As such, any critique built upon such a reduction must be

understood either as a crude misinterpretation or the construction of a straw man. The former

is most likely in Hamlyn's case, particularly considering his unacknowledged reduction of *pros*

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[172] D. W. Hamlyn, 'Focal Meaning', *Proceedings of the Aristotelian Society,* 78 (1978), 1-18 pg. 4.

hen structure to a case of paronymity. In assessing the plausibility of the connection between

ousia ('substance') and the other categories, Hamlyn writes,

In particular the linguistic link between F-ness and F-things (the common term 'F') is lost in the case of substance, etc., and it therefore becomes obscure how the connection between substance and other beings could rest on meaning.[174]

He assumes that the relationship between 'health' and a 'healthy thing' is captured by the linguistic similarity between the two terms, and goes on to search for such a similarity between *ousia* and the other categories. Of course, the relation between *ousia* and other beings *does not* depend on meaning. Martha Hussain is right in arguing that the *tode ti* alone is capable of supporting accidental being and undergoing accidental change. This is because firstly, the matter (*hule*) of the *tode ti*, or 'composite being' (the *tode ti* being a 'composite' of matter and form) is understood by Aristotle as being entirely within the category of *ousia*. As such, all change, even accidental change, must be dependent upon *ousia* as composite. Thus, secondly, as for Aristotle neither form nor matter has being separately, only the *tode ti* fulfils all the requirements for 'standing under' accidental being ('being' according to the secondary categories). Hussain argues correctly that a legitimate defence, or critique, of Aristotle's position would have to be conducted in such a way as to maintain *pros hen* as applying to beings rather than to disembodied meanings. Hamlyn's critique lacks legitimacy because it is only as a result of his reduction of *pros hen* structure to a logico-linguistic sense, that he is unable to recognise the dependence of the secondary upon the primary instances of *pros hen* sets.

Apart from the logico-linguistic interpretation of *pros hen*, with its often implicit reduction of *ousia* to its formal aspect, the *explicit* denial of the *tode ti* as the central element of *pros hen*

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[173] Hamlyn, 'Focal Meaning', pg. 7.

structured being is the hallmark of a Platonic or a theological interpretation. A significant

representative of the sophisticated Platonising theological interpretation of the *pros hen*

structure of Aristotelian being is Joseph Owens. His commentary on Aristotle's *Metaphysics*[175]

is an extremely erudite work, and physically large enough to rival the equivalent work of

Thomas Aquinas. Owens demonstrates 'primary *ousia*', that is, 'separate' (pure form as

opposed to a 'composite' of matter and form) *ousia* as being itself the *hen* of a *pros hen* structure

called *ousia*. There is nothing, at this stage, problematic with such a conception. However, this

leads Owens to reduce the *hen* of the *pros hen* structure of being itself to separate substance.

The argument being that, if *ousia* is primary as compared to other forms of being, then *primary*

ousia must be even more prior. Owens interprets the 'priority' of the primary *ousia* in terms of

exemplarity, as a model or purest instance. Thus he understands primary *ousia* as the purest

form of *ousia*. He then allows this form of priority to determine the relationship between *ousia*

(now reduced to 'separate' *ousia*) and other forms of being; with the result that separate *ousia* is

understood as that form of being that all other forms of being strive to emulate. Naturally this

interpretation is happily concordant with the same author's doxic responsibilities. However,

for Aristotle, primacy is delivered in several ways. Indeed 'priority' itself is structured *pros hen*,

and as such comes in several variations. There is no reason to assume that primary *ousia* is

primary as an exemplar rather than some other form of priority. Indeed, the highest form of

priority Aristotle describes in book v is the kind of priority that *ousia* holds over the other

beings. In any case, such an interpretation is far from obvious and eventually runs counter to

Aristotle's own arguments. Enrico Berti offers an excellent and critical overview of the

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[174] Hamlyn, 'Focal Meaning', pg. 17.
[175] Owens, *The Doctrine of Being in the Aristotelian Metaphysics: A Study in the Greek Background of Mediaeval Thought.*

Platonising tendencies of theological Aristotelian interpretation in his paper, *Multiplicity and Unity of Being in Aristotle*. Here he writes,

If primary substance were the purest instance of being, it would be the essence of being. In other words, there should be a substance whose essence would be being itself. This is the concept of God as *Esse ipsum subsistens*, which is present in all the religious interpretations of Greek philosophy, i.e. in the Jewish theology of Philo of Alexandria, in the Muslim theology of Avicenna, and in the Christian theology of Thomas Aquinas. In general, the supporters of this conception do not pay enough attention to the fact that Aristotle not only knew this conception, but ascribed it to Plato and criticised it by arguments which are closely connected to his doctrine of the multiplicity of the meanings of being.[176]

The arguments Berti mentions are found in *Metaphysics* iii and were discussed earlier in this chapter. As Berti shows, Aristotle's criticisms of Plato in *Metaphysics* iii.4 are grounded in his argument in iii.3 against the possibility of a generic or univocal sense of being. Berti summarises Aristotle's argument:

[I]f primary substance is the essence of being, being must be understood univocally. If being has an essence, it is this essence. It cannot be many essences. But this is impossible; because we see many things, and their differences are existing and each of them is one.[177]

Enrico Berti's central concern with *pros hen* is to demonstrate its incompatibility with several notions of univocal being. His three primary targets for criticism are (1) analytic philosophy accounts that take 'being' purely in its existential sense, (2) J. L. Austin's characterisation of *pros hen* in terms of paronymity or 'nuclear meaning' and (3) the theological account of the *pros hen* structure of being that takes the primary instance of 'being' as primary substance, or God. According to Berti, each of these positions is based upon, or devolves to, a notion of being

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[176] Enrico Berti, 'Multiplicity and Unity of Being in Aristotle', *Proceedings of the Aristotelian Society*, 101 (2001), 185-207 pg. 204.

116

that Aristotle attributes to Plato and criticises. Berti agrees with G.E.L. Owen and others that

the priority of *ousia* is both logical and ontological. Furthermore, he agrees with Owen's 'focal'

account of the relationship between the primary and secondary instances, against the 'nuclear'

account (by paronymity), whereby the primary instance is essential to all other instances.

Owen's argument against an interpretation in terms of paronymity is based on the idea that

paronymity is purely an element of language, and fails to account for the ontological priority of

ousia. Berti goes further and suggests that, even if the paronymity account of *pros hen*

incorporated both the logical and the ontological, it would nonetheless be inconsistent with

Aristotle's thought. This is because, if *ousia* is considered to be 'contained as a part' in the

secondary beings, as it would be according to Austin's 'nuclear' account, *ousia* would be

functionally equivalent to a genus of being. The other meanings attaching to each 'nucleus'

would merely specify the generic sense of *ousia*. Aside from the arguments already given above

regarding *ousia*'s lack of suitability for the role of 'highest genus', such a structure would

ultimately amount to a Platonism 'from the ground up'. That is, Aristotle's notion of being

would differ from Plato's only in Aristotle's emphasis on particulars rather than genera. In any

case, Berti is correct that, by the nuclear account, the secondary meanings of *ousia* would

'specify the genus without modifying it'.[178] Regarding the common Anglo-analytic defence of

the univocity of being, Berti notes that it is usually defended by noting that in ordinary

language stating that '*x*' does not exist is effectively the same as stating that the number of '*x*'s

is zero and that the opposite claim is identical to the claim that the number of *x*'s is at least

one.[179] However, Berti notes that, as the univocity of number itself does not hold inter-

categorially, it cannot be used as a foundation for an argument for the univocity of being,

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[177] Berti, 'Multiplicity and Unity of Being in Aristotle', pg. 207.
[178] Berti, 'Multiplicity and Unity of Being in Aristotle', pg. 195.
[179] Berti, 'Multiplicity and Unity of Being in Aristotle', pg. 188.

which *must* hold inter-categorially if it is to be correct.[180] Berti notes that Aristotle appears to be well aware of this himself, as Aristotle writes of the multiple senses of 'one':

For this reason to be one is to be indivisible (being essentially a 'this' and capable of existing apart either in place or in form or in thought); or perhaps to be whole and indivisible; but it is especially to be the first measure of a kind[.][181]

and

The measure is always homogeneous with the measured; the measure of spatial magnitudes is spatial magnitude, and in particular that of length is a length, that of breadth a breadth, that of articulate sounds an articulate sound, that of weights a weight, that of units a unit.[182]

'One' is no more appropriate as a highest genus than is 'being', and for the same reasons. This is why Aristotle specifies in *Metaphysics* iii, that the differences under the genus need not only to *be* but to be *one*. In any case, it seems that Berti takes the theological stream of Platonising interpretations of Aristotle more seriously than the other Platonising accounts he offers criticism of. He shows in the first instance how they are all structurally similar before devoting significant critical attention to the Joseph Owens' interpretation in particular, and mainstream theological interpretation more generally.[183]

Father Owens' commentary on the *Metaphysics*, and in particular his interpretation of *pros hen*, has itself become doctrine of a sort for several other interpreters, who share his conclusions but fail to consider the finer details of the argument. The result may be sophisticated after its

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[180] Berti, 'Multiplicity and Unity of Being in Aristotle', pg. 192. Berti also notes that several modern analytical philosophers have endorsed this position on the matter of number, including P.T Geach, M. Dummett and C. Wright, and that each of these attribute the doctrine to Frege.
[181] Aristotle, *Metaphysics* 1052*b*16-18.
[182] Aristotle, *Metaphysics* 1053*a*24-27.

own fashion, but often loses all connection to Aristotle's texts, devolving the covert

Platonising of the interpretation of Owens into an overt statement of all out similitude

between Aristotelian and Platonic being. Peter J. Cataldo's paper, *Plato, Aristotle, and* Pros Hen

Equivocity is a case in point[184]. Aside from being an admirer of Father Owens' account of *pros*

hen structure, Cataldo argues that the *pros hen* structure originated in Plato; in particular in

Plato's *Sophist*. In support of this argument he quotes Plato:

Stranger. Dividing according to kinds, not taking the same form for a different one or a different one for the same
– is that no the business of the dialectic?

Theaetetus. Yes.

Stranger: And the man who can do that discerns clearly *one* form everywhere extended throughout many, where

each one lies apart, and *many* forms, different from one another, embraced from without by one form, and again

one form connected in a unity through many wholes, and *many* forms, entirely marked off apart. That means

knowing how to distinguish, kind by kind, in what way the several kinds can or cannot combine.[185]

Cataldo argues that Plato's phrase 'embraced from without by one' is equivalent to Aristotle's

'with reference to one' (*pros hen*)[186]. He understands the Aristotelian and Platonic accounts of

this structure to be objectively identical. He claims their difference lies only in the direction of

approach; i.e. coming from the perspective of 'the many', *pros hen* is most appropriate, from the

perspective of the 'one', 'embraced from without' is most appropriate. Plato writes from the

perspective of commonality, Aristotle from difference. His argument is fundamentally and

fatally flawed. Firstly, one might wonder what this form, 'embracing' all beings 'from without'

might be. The two candidates are *ousia* and 'being'. It cannot be *ousia* as the irreducibility of

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[183] I will not run through all of his arguments here. Needless to say perhaps, I am sympathetic to his
position and find his arguments against the sophisticated theological interpretation of *pros hen* compelling.
[184] Peter J. Cataldo, 'Plato, Aristotle, and *Proz En* Equivocity', *Modern Schoolman*, 61 (1984), 237-47.
[185] Plato, *Sophist* 253d1-e1.
[186] Cataldo, 'Plato, Aristotle, and *Proz En* Equivocity', pg. 244.

one category to another is what gives them their necessity. If all beings were 'embraced from without' by *ousia*, then all beings would be *ousiai*. Nor is being an appropriate candidate, for the somewhat obvious reason that this would render being as a genus; a Platonic notion that Aristotle rejects time and time again. Secondly, the structure of *pros hen* as brought out by Aristotle's analogies with 'health' and 'medical' is clearly devised precisely to avoid a relation of containment between the subject matter and its objects. The subject matter of 'medical', for example, brings unexpected entities into its field of objects by way of discovery – a tool devised for a non-medical purpose does not find its categorial status modified when it is discovered to have a medical use. It simply comes to be relevant to the subject matter, 'medical'. Neither the subject matter nor the primary object of 'medical' is a form, able to 'embrace' the many from without. The fact that it is something other than this is precisely what makes it useful to Aristotle as an example of unity that does not require containment. This ought to be enough to show that Cataldo's argument is flawed. The similarities between Plato and Aristotle are profound and interesting. However, in this case it is a difference rather than a similarity that is most enlightening.

4. 'Priority' as a Pros Hen *Structure*

The arrangement of *pros hen* structure is at least nominally dependent upon a concept of 'priority'. For Aristotle, 'priority' is not a univocal notion. Its various senses are laid out in *Metaphysics* v, in which he provides definitions for a range of terms. He also makes it clear that 'priority' itself is 'said in many ways'; that it is structured as a *pros hen* set. At *Eudemian Ethics* 1236a15-20 Aristotle lays out the relationship between several sorts of friendship, which he considers to be united *pros hen*. In order to describe this relationship he once again makes use of an analogy with 'medical'. Further, Aristotle utilises 'priority' to describe the relationship

between the central sense of 'medical' and its secondary senses. He does this seemingly in

order to make a description of *pros hen* structure in terms of known subject matter, such that it

might be passed on to 'friendship' by analogy. He writes:

For all the senses are related to one which is primary, just as is the case with the word 'medical'; for we speak of a

medical soul, body, instrument, or act, but properly the name belongs to that properly so called.[187]

Michael Ferejohn notes correctly that the two conclusions essential to an understanding of *pros*

hen structure to be drawn from this passage are that (1) there is one member of a *pros hen* set

that is 'prior' to the others and, (2) that this 'prior' element is one of the members of the set,

rather than being external to it[188]. However, immediately after noting this, Ferejohn calls the

exegetical value of the passage from the *Eudemian Ethics* into question, considering the *pros hen*

structure of 'priority' as a problem for an explication of *pros hen* structure itself in terms of

priority. However, he understands Aristotle to have solved this problem in the next line:

The primary is that of which the definition is contained in the definition of all.[189]

This he interprets as Aristotle specifying the kind of priority he considers to be relevant to *pros*

hen; namely a variety that Ferejohn interprets as 'logical primacy' (*to logo protos*). There are

several problems with this. Firstly, it means that 'focal meaning', as Ferejohn (following

Owen) terms *pros hen*, effectively devolves into paronymity/nuclear meaning as described by

Austin, with all of its attendant problems. Secondly, such an account of *pros hen* contradicts

Aristotle's own account of the relationship of priority obtaining between *ousia* and the other

categories. Finally, it is based upon a correction to the Greek text made by Bonitz, presumably

as it appeared to cohere more readily with contemporary interpretation. Enrico Berti notes

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[187] Aristotle, *Eudemian Ethics* 1236a15-20.
[188] Ferejohn, 'Aristotle on Focal Meaning and the Unity of Science', pg. 120.

that only with Bonitz's[190] replacement of *en hemin* with *en pasin* at 1236a20-21 is it possible to

read the sense of priority it references reductively.[191] Without the replacement, the passage

would need to be translated quite differently – Berti suggests the more literal translation to be,

The primary is that of which the notion is present in us.

He goes on to interpret the sentence:

This means that the primary is only a term of reference, i.e. that to which the others stand in relation (*pros*), and is

common to all just for this reason, and not because it is a universal in conformity with which (*kata*) the others are

said.[192]

This interpretation certainly coheres with the use of *pros hen* in the *Metaphysics* as a way of

providing unity specifically *without* having to create a genus. It also coheres with the senses of

priority that *ousia* is said to have over the other categories. It only leaves the 'problem' of *pros*

hen's being structured according to a notion that is itself structured as a *pros hen* set. However,

this is not a problem for the account of *pros hen* to be presented in this chapter – rather, the

recursive nature of *pros hen* structure is considered a fact that must be taken into account. As

such, Ferejohn's (and Owen's) interpretation of the passage on priority in the *Eudemian Ethics*

will be discarded in favour of Berti's.

In *Metaphysics* v Aristotle discusses four separate notions of priority. However, he takes one of

these senses of priority to be necessary for the others. He writes that some things are said to

be prior,

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[189] Aristotle, *Eudemian Ethics* 1236a20-21.
[190] Hermann Bonitz was a famous Aristotle commentator of the 19th century and wrote the *Index Aristotelicus*.
[191] Berti, 'Multiplicity and Unity of Being in Aristotle', pg. 196.
[192] Berti, 'Multiplicity and Unity of Being in Aristotle', pg. 196.

in respect of nature and substance, i.e. those which can be without other things, while the others cannot be without *them*, - a distinction which Plato used.[...] In a sense,[...] all things that are called prior and posterior are so called according to this fourth sense; for some things can exist without others in respect of generation, e.g. the whole without the parts, and others in respect of dissolution, e.g. the part without the whole. And the same is true in all other cases.[193]

The 'primary' sense of priority, which here will be called priority by 'non-reciprocal responsibility', is also the sense which is most relevant to the *pros hen* structure as such. As Aristotle indicates in the above passage, non-reciprocal responsibility indicates a kind of causal relationship, whereby one or more beings stand as a necessary (but not sufficient) condition for another, and where this relationship only functions in one direction (i.e. it is not reciprocated). This can be seen to relate clearly to both of the senses of *ousia* that Aristotle notes. Also in *Metaphysics* v, Aristotle writes:

[S]ubstance (*ousia*) has two senses, (*a*) the ultimate substratum, which is no longer predicated of anything else, and (*b*) that which is a 'this' and separable.

Of the first sense, one could say that *ousia* is non-reciprocally responsible insofar as it forms a substrate for all predication. Regarding the second sense, *ousia* is non-reciprocally responsible as the substrate of all composite being. These two senses are not strictly separable, except that they represent the two poles between which stretches a continuum. The first is considered to be prior in knowledge according to 'formula' and the second prior in 'perception'. Nonetheless, each within its own (perhaps only nominally separate) space takes up its role based upon its priority according to non-reciprocal responsibility. Further, *ousia* is not considered prior in terms of non-reciprocal responsibility exclusively. According to Aristotle, *ousia* is prior according to all senses of priority:

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[193] Aristotle, *Metaphysics* 1019a1-15.

Now there are several senses in which a thing is said to be primary; but substance (*ousia*) is primary in every sense – in formula, in order of knowledge, in time. For of the other categories none can exist independently, but only substance. And in formula also this is primary; for in the formula of each term the formula of its substance must be present And we think we know each thing most fully, when we know what it is, e.g. what man is or what fire is, rather than when we know its quality, its quantity, or where it is; since we know each of these things also, only when we know *what* the quantity or the quantity is.[194]

Each of these senses of *ousia*'s priority is relevant to its status within the *pros hen* structure of being. This is particularly important to recall when one becomes tempted towards a reductive reading of *pros hen*. From both perspectives of *ousia* proper (in 'formula' and in 'time/as a separable 'this'), it is non-reciprocally responsible for the other aspects of being. Also, as Aristotle notes, *ousia* is prior in knowledge. Most significantly, one ought to note that this passage suggests again that the *tode ti*, a 'this' something or other, the concrete object in time, serves as at least one of the forms of *ousia* according to which it is the primary instance of the *pros hen* set of 'being'. Once again, given that the full range of possibilities for priority applies directly to *ousia* insofar as it is a member of the set 'being', there is no obvious argument for the reduction of *pros hen* (particularly regarding 'being') to a logico-linguistic aspect.

Considered as a *pros hen* set, 'priority' does take on some strange features. Non-reciprocal responsibility is the *hen*, the primary instance, of this set; the subject matter being 'priority'. As such, an odd circularity is created. The relationship between the primary and secondary instances of any *pros hen* set is itself the *hen* of a particular *pros hen* set. Although 'priority' conditions the relationship between the primary and secondary senses of 'being', or indeed of any other *pros hen* set, 'priority' itself is structured in this same way. It would thus appear, upon first consideration at least, that 'priority' is structured according to itself. Perhaps, however, a

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[194] Aristotle, *Metaphysics* 1028a30-28b3.

slightly better reading would interrupt the apparent circularity by way of inserting a level of contingency, perhaps in the form of a judgement. In this manner one might say that non-reciprocal responsibility appears to gain its status as a 'primary instance' by way of a judgement regarding the hierarchical ordering of entities, and that this ordering is in fact described by the structure within which it is primary. The notion of 'priority' as a contingent relational structure informing the content of a judgement would appear to be supported by Berti's translation of *Eudemian Ethics* 1236a20-21, describing the 'primary' as 'that of which the notion is present in us'. The 'notion' of that which is primary may derive from somewhere other than 'us' of course, but it does appear on this reading that Aristotle's interest in assessing the primary in the context of *pros hen* does not extend beyond the extension of primacy to some being or another. In other words, he does not direct his attention to 'priority' itself. The description he does give appears to suggest a certain requirement of knowledge for its assessment. Further, it seems simpler to understand 'priority by non-reciprocal responsibility' in terms of simple non-reciprocal responsibility itself rather than attempting to recast it in terms of priority. Consider the application of 'priority by non-reciprocal responsibility' to the relationship between *ousia* and other being. What this expresses is *ousia*'s necessity for other forms of being. This relationship does not innately express priority; in fact priority itself is structured according to this relationship of dependence. *Pros hen* structure may not in fact be conditioned by 'priority', but rather by non-reciprocal responsibility as such. In this case 'priority' can be understood strictly as an addition to the description of *pros hen*. An essential feature of non-reciprocal responsibility is that it functions in one direction; yet this need not confer 'priority'. Priority is conferred, as an addition to the structure of non-reciprocal responsibility, by a judgement. The judgemental schema applied to the relation obtaining between *ousia* and the other categories is structured *pros hen*. It is this judgemental schema that is most appropriately investigated under

125

the subject matter 'priority'. Non-reciprocal responsibility finds its strongest representation in the ontological necessity of *ousia*. This necessity appears to be transformed into the central element of the *pros hen* set 'priority' by way of a judgement on the association of necessity with primacy. What grounds 'priority' as a relational structure is not the particular set of relations suggested by its definition in *Metaphysics* v, but rather the regularity of the relation between *ousia* and the other manifestations of being. *Ousia*, as the bearer of being, lends its necessity to the structure of priority as such; it adds 'weight' to its centre, distracting from its contingency. The fact of non-reciprocal responsibility manifests as a particular pattern within a meaningful milieu. Its association with 'priority' is contingent. In fact, the structure of 'priority' itself is dependent upon this fact and must be explained accordingly. As such, if the *pros hen* structure itself is to be explained, it will not be in terms of priority, which supervenes upon non-reciprocal responsibility. Non-reciprocal responsibility, the binding element of the *pros hen* structure, which is best represented by the relationship between *ousia* and other forms of being, is only superficially transformed by the notion of 'priority', and is the simpler concept.

5. The Pre-apprehension of Subject Matter and Its Integration into the Causal Milieu

In his paper titled *Focal Meaning*, D.W. Hamlyn writes of 'healthy things':

[W]e could not understand what it was for these kinds of things to be healthy if we did not know what health was.[195]

On this matter he is absolutely correct, and in fact this must be true of all *pros hen* sets if they are to be understood as ways of approaching and interpreting beings. This because a member of such a set only presents as such in terms of a given *episteme* or interpretive schema. 'Health'

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[195] Hamlyn, 'Focal Meaning', pg. 2.

for example, must be apprehended in some way prior to its application as a subject matter. However, the form of this apprehension is different to that which would apply to a 'thing' or an object. There is no *thing* called 'health', 'medical', 'priority' or 'being' with which a simple relation might be had. That which is apprehended as a subject matter is the notion of the potential or actual awareness of the relevance of a set of entities to a given set – and the nature of that relevance. The unity that is achieved under a *pros hen* set is thus also only possible in terms of given form of pre-apprehension. It is only because the subject matter of the *pros hen* set is already understood as a manner of approaching beings that the subject matter can be unified *pros hen*. The unity of such a subject matter is based both upon the relationship of non-reciprocal responsibility holding between the primary and secondary instances, and upon the particular knowledge-structures that inform the interaction between the subject matter and its objects. For example, 'health' must be understood in some way if one is to appreciate how one thing, act or circumstance can be healthy, while another cannot. This is even the case with the primary instance, the healthy bodily state, which can also only be recognised as such against a background of an awareness of 'health'. Likewise, 'medical' must be understood in some way if beings and practices are to be understood as either medical or not. Membership only becomes recognisable through engagement with the subject matter; 'learning' is this kind of engagement. The transformation of a 'learner' into a 'knower' is theorised by Aristotle in terms of the conceptual schema provided by actuality-potentiality. The 'knower' is one who pre-apprehends the subject matter in the interrogative act. Each subject matter represents a different mode of interrogation. Within the subject matter, beings are interrogated according to their relevance to that subject matter. Each *pros hen* structure is found, upon being known, pre-arranged in such a fashion as to be taken according to the 'meaning' of its subject matter, but this subject matter has no sense outside of the notion of the interrogative relationship that

127

the subject matter is said to describe. Note that the borders between each subject matter .

cannot be rigidly defined; consider in particular the close relationship between 'health' and

'medical'. The subject matter is determined, and determines, according to the form of the

interrogation, which is itself determined both by the beings themselves under interrogation and

by the accumulation of prior interpretive theory, practice and associated meaning that informs

the expectation of what beings are relevant to the study and in what ways. So the *pros hen* unity

of a subject matter functions only insofar as there is a pre-existing acquisition of relevant

knowledge. This is seen clearly in the 'health' and 'medical' examples, and is extended to the

study of being *qua* being by analogy. With *pros hen* extended to 'being' in this way, *ousia*, though

non-reciprocally responsible for the other senses of being, does not determine the meaning of

the subject matter 'being', and in fact only comes to have a relationship with 'being' insofar as

the subject matter 'being' has been broadly unified and pre-understood in some way.

The difference between any two kinds of subject matter is marked by the content of what

might be called its 'field'; the array of relevant entities and the particular senses in which they

are relevant. It is a difference in the structure of the space of engagement in which the

members of the field are revealed as 'what they are' *qua* the subject matter. As the acquisition

of familiarity with a given subject matter is subject to the continuity of the relationship

between 'learner' and 'knower', and further extends toward the horizon of discovery, the 'field'

can only be softly determined. Central to the field is the 'primary' instance of the *pros hen* set;

the object without which the proper function of the investigation according to the subject

matter could not viably proceed. The subject matter can also only be softly determined.

Although the subject matter, as that into which a 'learner' is apprenticed, plays a fundamental

role in determination of its objects, it remains somewhat indeterminate. As an illustration of

this, consider 'health'. 'Health' is the name of a subject matter organised *pros hen*. The name serves to indicate the organisation of a field of beings insofar as they relate to an investigation centring on the healthy bodily state. The notion of this state is a necessary but not sufficient condition for the other instances of 'health'. In terms of its broader meaning, 'health' takes many forms. It may be understood as an index of a state of the body (e.g. body temperature), or it may be understood in terms of the causal significance of another being or act upon that state, depending upon the aspect of 'health' brought to bear on the interrogative act. 'Health' as a subject matter informs the notion of the healthy state in myriad ways. It supplies the determination of the healthy state as *a* state, as opposed to a continuum of bodily arrangement. It brings the apparatus of secondary instances; significations causal relationships, kinships, and other relations of various kinds. Although these secondary instances are not directly responsible for the existence of the primary instance as an idea, they nonetheless modify the subject matter (in particular by modifying its field) – in terms of which the 'primary' instance is determined as its central concern. Within the study of 'health', the healthy body, its indications, causes and function will largely exhaust the subject matter. In this context, the meaning of 'health' is associated with notions of the difference between the healthy and the sickly. However, the difference between healthy and sickly bodies is not simply that one is healthy and the other sickly. Rather, the differences are concrete differences in spatial arrangement and function. The determination of the relevance of a difference or set of differences is the province of the study of 'health'. When 'health' is considered in terms of a set of differences between bodies, or in terms of a set of practices and objects that might have a bearing on these differences, a pre-apprehension of 'health' must already be in play. The array of facts and understandings pertaining to bodies, relating to things and actions insofar as they are healthy, is an insufficient explanation for the unity of 'health' as a subject matter. Nor

is it sufficient for the explanation of the circumstances under which healthy beings and practices are understood according to the meaning of 'health'. The meaning of the subject matter is not found solely in that which is met in the interaction, or solely in the subject matter considered in the abstract. Rather it is found in the relation that each instance holds with an enquiry according to the meaning as pre-apprehended. Although the field of relevant entities is determined *qua* the subject matter in terms of an already functioning mode of interrogation, the form of this interrogation is not static, and can itself only be understood in terms of this relation. The manner in which the pre-apprehension of 'health' appears will depend both upon the state-of-the-art in 'health' at a given time, and upon the interactions that obtain between this state-of-the-art of 'health' and the greater causal manifold. Clearly a 'subject matter' is not an object in the ordinary sense. As was discussed earlier in this chapter, attempting to give a subject matter meaning according to the kinds of classificatory schema appropriate to ordinary objects tends to fail in two broad ways: by advertently or inadvertently Platonising Aristotelian 'being', or by rendering Aristotle's account of being senseless. Confusion over the meaning of a given subject matter comes about with the attempt to define it according to standards more appropriate to objects. That the subject matter is not brought to absolute definition need not mean that it is misunderstood (nor also need it mean that it cannot be brought to some form of unity); perhaps rather that it is not amenable to a form of definition that particularly suits a definiendum with the characteristics of an object. For example, the subject matter 'health' is more or less well understood depending upon the quality and quantity of one's involvement with 'health' as an interrogative practice. Further, it is according to the notion of this interrogative practice that each subject matter can be considered a unity. 'Health', 'medical', and 'priority' remain as separate subject matter, and each is thus unified in some way, in virtue of the limit that the notion of the particular

interrogative practice applies to membership of the field of its subject matter. The limit of each subject matter must shift according to the conjunction of the subject matter and its objects – neither one nor the other in isolation. It is in terms of this limit that the study of being *qua* being can be considered universal, i.e. as universally applicable.

The interrogation, or study, of beings under any subject matter can have causal/transformative power. The relevant transformation is of a given *episteme* or subject matter. This is occasioned both by the interaction between the process of discovery (according to the study of a given subject matter) and formal/theoretical requirements of the subject matter. This causal interaction runs in at least two directions; i.e. from objects to subject matter and subject matter to objects. The subject matter holds sway over its objects insofar as they are held to belong together, are named, and given causal reference in terms of the set. However, the members of the set must also contribute to the nature of the subject matter. If this were not the case, then discovery would not be possible under a subject matter. Beings have the opportunity to be modified with respect to a subject matter through the process of discovery. As they move into the range of the interrogation and become significant for it, they are recognised and determined as such. Yet at the same time the subject matter must be subtly modified. This is because the subject matter is in part constituted by the relations between objects within its field; if these change, then the subject matter must change. The study of 'health', for example, is changed as the significance of its objects change. This change is persistent, in that it is a change in that which will be taught to the student of 'health'. Thus, the outward manifestation of such a change is a change in that which is transmitted between the teacher and the student. Further, between becoming a knower and becoming a teacher the person remains a site of

131

continuing causal interaction[196], such as to occasion the potential for transformation of a given

episteme. Such transformations may be central to the function of a given *pros hen* set; being

included under the notion of 'discovery'. However, bringing into consideration the relations

ancillary to a given subject matter, the sense of unity of a given *pros hen* set becomes even more

fluid. Such ancillary relations might include interactions between multiple *episteme* within the

one knower, differences in pedagogical practice, intellectual interests, the modification of

objects of a subject matter according to a set of causes external to the subject matter, and so

on. The point being that the particular subject matter is not isolated from the greater causal

manifold, and is as such subject to the same 'insofar as' as other manifestations of determinate,

or *actual* being. Taking a given *pros hen* set on its own is an abstraction of sorts. The particular

pros hen set can be thought of as the image of a particular interrogative practice as defined by a

subject matter. However, the creation of this image must be considered as an abstraction as

long as the continuity of the interrogative act is left out of consideration. The subject matter,

considered as a unity, is a hypostatisation of a continuous act. Carrying this idea forward,

categorial being can be reconsidered somewhat. The categories, where *ousia* and other aspects

of being are splayed out statically are, taken as a whole, a table of being insofar as beings can

be questioned as to what they are. As such, and in light of their being united *pros hen* about

ousia, the categories can be considered as a hypostatisation of a set of possibilities that reside at

the interface of question and answer under the subject matter of 'being'. Within this

interaction, the relation between question and answer operates tangentially to the structure of

the *pros hen* set. So, to construct a visual analogy[197], if the *pros hen* set is imagined to operate

two-dimensionally, according to the *x-y* axes of Cartesian geometry, the relation formed by the

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[196] It is as a modification of such a site of 'continuing causal interaction' that the Cartesian method will be considered in the next chapter.

interrogative act contributes the χ axis. By this analogy, the *pros hen* set can be imagined as a cross-section of a three dimensional structure, modified in time by causes both internal and external.

Whether or not one considers Aristotle to have had a 'metaphysics' as such, the status of being is determined in some way by the demonstration of the nature of its possibility as a study. As such, the beginning of *Metaphysics* iv is more than a preliminary discussion. In determining 'being' as study-able in a certain way, by analogy with 'health' and 'medical', 'being' is determined as a particular kind of subject matter. The determination of 'being' according to book iv is done in such a way as to avoid the reduction of being to *ousia*, and also to avoid the construction of a notion of 'being' as a genus. Regardless of how precise the analogy with 'health' and 'medical' is, the study of being *qua* being must be significantly different simply in virtue of its universality. The study of being *qua* being requires a form of pre-apprehended subject matter to which all being has some relevance. Consider Aristotle's discussion of the transmission of a given *episteme* from teacher to student, by way of incorporating the transformation of a learner into a knower into the notion of actuality/potentiality. In this situation it is the student that is the subject of change. However, as discussed in this chapter, the *episteme* itself can be taken as the subject of a change or transformation. This is because, in spite of its not having the character of an object, a given subject matter or *episteme* is both unified (*pros hen*), and integrated with the greater causal structure. In '*pros hen*' Aristotle has established an inter- and extra-categorial way to theorise the unification of an *episteme*. Aristotle's notion of transformation according to actuality-potentiality allows for peripheral transformations leading into larger-scale transformations, and allows for multiple levels of

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[197] A visual or geometrical analogy can be a useful simplification. Such a simplification is particularly useful when attempting to integrate indirectly related material.

analysis, through the 'insofar as' that is central to the function of actuality-potentiality. Under such a subject matter as 'being', the notion of its own constitution will be relevant. Its universality does not render it stable, as it is subject to the same forces as any other subject matter. The difference lies in the fact that consideration of itself is one of its potential sources of modification. The recursion resulting from this is difficult to make sense of in terms of Aristotelian theory. Nonetheless it appears to be a peculiarity to the study of being *qua* being if its founding analogy is followed consistently. It is not the aim of this thesis to pronounce upon the extent or scope of Aristotelian metaphysics. However, it does seem as though this moment, where first philosophy appears to potentially become its own object, lies just outside of the deepest level of discourse possible according to the Aristotelian paradigm. Nonetheless, many of the elements of such a discourse are present. The notion of a basically Aristotelian account of the processes and causes of the transformation of a given *episteme* is not entirely implausible. Aristotle's use of *pros hen* structure to set up the possibility of a study of being *qua* being borders on the meta-philosophical. He examines (albeit in a cursory manner) the manner in which two uncontroversial areas of study ('medical' and 'health') function as subject matter in relation to their objects, and how their objects interact with one another internal to the subject matter. By way of analogy, Aristotle extends the same structure to the proposed study of being *qua* being. However, there is no clear point at which the explanation of the possibility of the study of being *qua* being, and the study of being *qua* being proper, diverge. The meta-philosophical discussion at the beginning of *Metaphysics* iv is an instance of the very study it is ostensibly rendering possible, insofar as it determines its subject matter and its objects as being of such and such a kind. Being is a special subject matter; this is true insofar as the whole notion of the subject matter of 'being' and the act of its own study are within its purview. So the analogy with 'health' and 'medical is not perfect, at least on this one point.

134

Although one might happily discuss the structure of these realms of study without actually engaging in their study, the study of being *qua* being will naturally bring the conditions under which it is a study into itself. Unlike the study of 'health' or 'medical', a study of being *qua* being must be a component of its own object.

6. Conclusion

Several aspects of *pros hen* have been extended in this chapter in order to form a scaffolding for the integration of actuality-potentiality with the account of Cartesian metaphysics to follow. There are four aspects of particular relevance. (1) Regarding the possibly recursive structure of Aristotle's proposed study of being *qua* being, a related recursion will be shown to obtain within the relationship between the Cartesian method and Descartes' metaphysical system as a whole. (2) The universality of subject matter, as opposed to the universality of object. (3) *Pros hen* structure and the Cartesian method both describe, from differing perspectives, the relationship between a subject matter and its field. (4) Both Aristotelian *pros hen* and Cartesian method suggest, when pushed, the fundamental integration of subject matter into the greater causal milieu. These points of intersection are not intended to demonstrate any possibility of a reduction. Rather, it is intended that they will allow more and less peripheral connections between these distinct arrangements of concepts to be drawn out in some detail, in order to expand the imagined context of each. There is no suggestion here that there is anything less than a fundamental and irreducible difference in entire conceptual structure between the works of these two philosophers. Nonetheless, in order to facilitate an interaction one has been, and one will be, respectfully extended in such a manner as to create some common ground. Still several relevant differences remain even within this common ground; two of particular note: (1) Aristotle's use of *pros hen* is, considered most generously, a description of a form of

structure, whereas Descartes' method describes a change in structure, and (2) *pros hen* is used

by Aristotle to *establish* unity, whereas the Cartesian method is in part an attempt to *escape* the

imposition of subjective unity.

THOUGHT AND PHENOMENA IN THE CARTESIAN METHOD

1. Introduction

Descartes' *Rules for the Direction of the Mind* begins with the statement that,

the aim of our studies should be to direct the mind with a view to forming true and sound judgements about

whatever comes before it.[198]

This sentiment, with the addition of the notion that such 'true and sound judgements'

constitute absolutely certain knowledge[199], form the core of Descartes' overt characterisation

of the proper value of method.   The Cartesian method is, from this perspective, that set of

practical and theoretical principles that allow for the ready attainment of knowledge.   In *Rules*

for the Direction of the Mind the sixth rule[200], Descartes claims, 'contains the main secret' of his

method, as it,

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[198] Descartes, *Rules for the Direction of the Mind*, AT X 359, CSM I 9
[Note: All references to Cartesian texts are to "Rene Descartes, *The Philosophical Writings of Descartes*, trans. John Cottingham & Robert Stoothoff & Dugald Murdoch, 3 vols. (Cambridge: Cambridge University Press, 1985)." I will provide both page references to the appropriate Cottingham, Stoothoff and Murdoch volume (CSM I, II or III) and the references to the Adams and Tannery text.]
[199] Descartes writes at the beginning of rule two in the *Rules for the Direction of the Mind* that, "All knowledge is certain and evident cognition." (AT X 362, CSM I 10). 'Knowledge' (*scientia*) is, for Descartes, necessarily certain, so 'certain knowledge' is, strictly, tautological.
[200] "In order to distinguish the simplest things from those that are complicated and to set them out in an orderly manner, we should attend to what is most simple in each series of things in which we have directly deduced some truths from others, and should observe how all the rest are more, or less, or equally removed from the simplest." Descartes, *Rules for the Direction of the Mind*, AT X 381, CSM I 21

instructs us that all things can be arranged serially in various groups, not in so far as they can be referred to some ontological genus (such as the categories into which philosophers divide things), but in so far as some things can be known on the basis of other things.[201]

Noting later on that the "greatest advantage of our method lies in this progressive ordering."[202] Descartes considers such 'ordering' is useful insofar as it allows one to make best use of limited human capacities. It allows for a reduced possibility for error, as one need only ever consider the relationship between one term and the next within the constructed order. So far, this is not so far removed from the geometrical method of Euclid. It is the way in which Descartes sets about establish the first principles (or axioms) of a possible sequence, and the fundamentally reduced ontology that results, that is usually understood as uniquely Cartesian. Whereas the geometrical method begins from 'self evident' first principles, the Cartesian method ought to be understood as the process Descartes establishes for the grounding of self evidence itself. Descartes ostensibly demonstrates a concrete articulation of his method, from a first person perspective (that is, from the perspective of the limited human intellectual capacities), in his *Meditations on First Philosophy*. Here Descartes provides a first-person account of the transformation of a broadly Aristotelian structure of knowledge into something else. This transformation, as is well known, is structured according to Descartes' founding of 'self-evidence' in hyperbolical doubt; transforming 'self-evidence' into 'certainty' by way of indubitability.

The focus of this chapter will be on the detail of Descartes' characterisation of 'certainty' in terms of 'indubitability'. This focus ought to be understood as occurring within the greater context of a transformation of a structure of knowledge, conceived as an extension of the *pros*

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[201] Descartes, *Rules for the Direction of the Mind* AT X 381, CSM I 21
[202] Descartes, *Rules for the Direction of the Mind*, AT X 452, CSM I 65

138

hen structure outlined in the previous chapter. In *Metaphysics* iv Aristotle describes *prote philosophia* as the study of being *qua* being, and shows this study to be structured *pros hen*. The title of Descartes' *Meditations on First Philosophy* suggests at least a nominal connection between these two enterprises. However, the form of engagement each takes with fundamental philosophy is quite different. Aristotle's engagement with *pros hen* as a structure of knowledge is part of a demonstration of the possibility of first philosophy, as he conceived it, as a form of study. As was shown in chapter three, the use of this structure opens up the possibility for integrating forms of knowledge into a larger causal theory, allowing knowledge to function as both cause and effect. A 'structure of knowledge' should thus be understood as only a partial aspect of the greater sense of thought, and world, as such. Just as a 'theory' should only be understood as an adumbration, as a set of indices pointing towards a greater causal situation, a structure of knowledge should be understood as only the most obvious aspect of thinking. In describing changes in structures of knowledge, or perhaps after Descartes, 'structures of thought', one is describing snapshots, incomplete even when considered only synchronically, of a greater process of thinking in all of its aspects. In characterising the study of being *qua* being in terms of *pros hen* structure, first philosophy itself becomes a possible subject of transformation. Descartes' project appears to be motivated in part by a desire to put a halt to such transformation, or rather, to produce a *correct* transformation. It is in his association of indubitability and certainty that Descartes finds the principle of such correct transformation. In this chapter, the relationship between indubitability and certainty will be laid out, with particular attention given to the way in which Descartes translates an aspect of psychic life such that it might form the foundation of a theoretical structure; how he moves from the recognition of a concrete inability to doubt (an aspect of 'psychic life' or 'enacted thought'), to a 'certain' foundation of 'the sciences' in a set of concepts and principles.

The sense of 'priority' that informs Descartes' notion of 'first philosophy' differs significantly from that according to which Aristotle characterised the study of being *qua* being. Descartes claimed two motivations for the *Meditations*; the demonstration of the existence of God and the certain foundation of the sciences,[203] and these relate to priority in being and priority in knowledge respectively. Whilst it is more probable that Descartes' use of the expression *prima philosophia* in the title of *Meditationes de Prima Philosophia* relates to his discussion of God as an ontological foundation, the sense of priority that has been most closely associated with Descartes is priority in knowledge. It is according to this sense of priority that, in particular within the Anglo-analytic tradition, Descartes is often linked to the rise of epistemology as a foundational enterprise. However, if Descartes is said to have instantiated a modern notion of epistemological foundation, this only partially indicates the senses in which his method ought to be considered primary within the totality of the Cartesian metaphysical structure. Nonetheless, Descartes arguably occupies his present position within the philosophical canon as a result of an overtly practical sense of priority appearing to dominate his thought. For example, one of Descartes' central interests is in the proper ordering of tasks. Descartes may not be the first thinker to consider the proper order in which tasks of thought ought to be performed. However, with Descartes, the principles of such an ordering and the ordering itself must be included within the material to be ordered. This is because he constructs a system, based upon the proper ordering of tasks, that must finally provide the ontological support for the very act of system-building. When Descartes' system is complete, the Cartesian method and the principles produced by its action, and also the use of such principles, are all explained systemically. He does not only argue from knowledge to being, but his system also provides the ontological foundation for the specific knowledge structure by which it was

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[203] Descartes, *Meditations*, AT VII, CSM II 3

140

born. As such, Cartesian *prima philosophia* is recursive at its foundation – as with Aristotelian *prote philosophia* by way of its *pros hen* structure. Cartesian *prima philosophia* (at least as represented by the Cartesian method) and Aristotelian *prote philosophia* converge at three essential points: (1) their integration, as structures of knowledge, into the greater causal milieu, (2) their recursive structure and (3) the sense of their universality. In both cases the universality of the subject matter relates to its universal *applicability* rather than the universality of its object. This is not exhaustively true for Cartesian metaphysics, as Descartes characterises God in terms of universality. Nonetheless, from the perspective of method (and it is from this perspective that *pros hen* structure can be understood as relevant to Cartesian thought) the most relevant sense of universality is universal applicability.

In order to articulate Descartes' strategic movement between 'indubitability' to 'certainty', his utilisation of 'enacted' or 'lived' thought[204] must be taken with complete seriousness. Because he claims to found his system in an aspect of psychic life, this foundation can only be honestly considered and assessed by attempting to think through the moment of enacted thought he describes. For this reason, the following chapter will possess an almost phenomenological character; not so much as an indication of the theoretical investments of its author, but rather because this is what is directed by the material under discussion. The method will thus be animated, or thought through, in such a way as to respect the kind of thing that it is. As such, the method will not be taken solely as a set of principles for action, with an argument at its centre that merely *indicates* a 'subjective' element. Rather, it will be taken according to its concrete functioning, enabling its 'subjective' aspect to be given greater attention than Descartes provides, so as to follow through the movement between 'indubitability' and 'certainty', between experience and concept, as closely as possible. This chapter will thus

constitute, primarily, an attempt to think *through* the Cartesian method, insofar as one can do such a thing, in order to view more closely the manner in which concepts, and perhaps whole knowledge structures, might be transformed between its input and its output.

2. The Cartesian Theory of Judgment and the Cartesian Method

Whilst one ought to try to go along with Descartes as far as possible, this need not mean accepting his own characterisation of his project. For one thing, the narrative of the *Meditations*, with its implied temporal ordering, need not be accepted as fundamental – least of all because Descartes himself upsets the necessity of this ordering by recasting the same set of arguments in the absence of this narrative structure in the *Principles of Philosophy*. Rather, the 'priority of method' can be readily reduced to its being considered as a first task. This basic assumption enhances, and is enhanced by, the first-person narrative structure of the *Meditations*. It is a simple matter, given that the narrative style, considered only as a *style*, makes no claims and requires no argument, to let it simply 'wash over' without critical engagement. However, the result is often a profound interpretive neglect; the unchecked assumption that the linear structure of the narrative tends to mirror the genetic and/or logical-metaphysical structure of Cartesian philosophy. Such assumptions can be left unchecked precisely because they have the general air of self-evidence about them. However, this self-evidence, as will become clear, amounts to little more than a generalised epistemological 'mood'. This mood, encouraged by the device of the Descartes-narrator of the *Meditations*, allows the Cartesian systemic structure, of which the method is only a facet, to be reduced to a single aspect. Though the mode of presentation of the *Meditations* is rarely reflected on in the secondary literature in terms of its implications as a 'device', it regularly becomes the measure by which

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[204] That is, engagement with the *phenomena*.

the ordering of ideas is assessed. The Cartesian method thus becomes a relatively strict sequence of events in which the appearance of a particular idea is given an ordinal value with which it is associated fundamentally. As the first-person narrative itself connects the order of events to the temporality in which the thought that it describes operates, the systemic elements found therein obtain an odd pseudo-temporal quality. Thus such complaints from Peter Markie as, "He [Descartes] takes the proposition that he exists to be a moral certainty and a true metaphysical certainty for him at the start of Meditation Two; he doesn't know that all his clear and distinct perceptions are true until the end of Mediation Four." [205] There is not anything per se wrong with an assessment of Cartesian philosophy that begins from a modern epistemological perspective. The issue pertains rather to the reductive tendency that tends to come along with such an approach. The Cartesian system as a whole shares many, often structural, elements with the Scholastic philosophy it is in part designed to dislodge; an example being the basic structure of the relation between God and human. The methodology and method serve in several ways to renew and preserve, through a transformation of context, existing structures of priority, the demonstration of which will form a significant element of the later sections of this chapter.

Descartes constructs and animates his method from the perspective of a particular theory of judgement. The central function of the method is to anchor a conceptual apparatus, built from a set of axioms, in enacted thought. However, Descartes interprets enacted thought itself in terms of a particular conceptual apparatus, namely, his theory of judgement. The Cartesian theory of judgement is structured according to Descartes' understanding of the interaction between the 'will' and the 'intellect', the division between which Descartes

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[205] Peter Markie, 'Descartes' Theory of Judgement: Reply to Tlumak's Judgement and Understanding in Descartes' Philosophy', *Southern Journal of Philosophy,* 21/supp (1983), 101-10 pg. 107-8.

conceives as a fundamental division in thought as such.[206] Descartes does not make a significant attempt to argue for this particular theory. Whilst he is keen to demonstrate the *existence* of thought, as this will form the foundation for further arguments, he appears to take the structure of thought as being self-evident. It is in terms of this structure, this 'image of thought' as Deleuze might refer to it, that Descartes interprets certain phenomena as 'indubitable', and in terms of which he integrates them into his greater system as the source of 'certainty'. For this reason one must appreciate the basic structure of the Cartesian theory of judgement in order to appreciate Descartes' translation between phenomena and concept, and this is what the remainder of this section will be devoted to. The standard account of the relationship between the Cartesian will, intellect and method is not particularly controversial, except on a few small but significant points, as Descartes describes its structure in quite a straightforward manner.[207] The account provided below is quite uncontroversial and coheres with most of the secondary literature, except on several points that will be made clear. The theory of thought that Descartes utilises, insofar as it applied to judgement, is structured broadly as follows: 1) The concept of 'thought' is exhausted by the concepts of 'will' and 'intellect', whereby the intellect 'perceives' various things (some of which may be characterised as 'clear and distinct), and the will exercises a valuing function. The three modes of will most

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[206] The structure of Cartesian 'thought' will be considered in detail in a later section of this chapter. What follows in this section will require only a basic account of the relationship between its two major divisions.
[207] In particular as is a common understanding made more or less explicit in Jeffrey Tlumak, 'Judgement and Understanding in Descartes' Philosophy', *Southern Journal of Philosophy*, 21/supp. (1983), 89-100., Markie, 'Descartes' Theory of Judgement: Reply to Tlumak's Judgement and Understanding in Descartes' Philosophy'., Claire E Dierckes, 'Descartes and the Unlimited Freedom of the Will', *Dialogue*, 23 (1980), 1-13. and Anthony Kenny, *The Anatomy of the Soul* (Oxford: Blackwell, 1973). This account finds little resistance in the literature, save on points of detail. I have omitted references to 'belief' that usually appear in an account of Cartesian judgement and/or method. This because, in the secondary literature, 'belief' is often opposed to 'doubt', rendering doubt as a state rather than as a mode of the will. The common language sense of 'belief' is merged with Descartes technical sense of 'assent', forming the basis of an unsympathetic account of Cartesian method that is open to many easy criticisms. Remaining largely within the Cartesian vocabulary, or at least avoiding highly suggestive terms, is not particularly difficult and ought to aid clarity at least to some degree.

144

relevant to the method are assent, denial and doubt.[208] 2) Assent, denial and doubt each refer

to a positive action. That is, though assent and denial are mutually exclusive with respect to

the same intellectual content, the lack of one does not imply the presence of the other. The

inactive state of each is simple passivity of the will. Furthermore, doubt is not opposed to

'belief', but is rather an active capacity whereby material either denied or given assent can be

rendered neutral with respect to the will. Thus, the function of doubt is to induce a neutral

state rather than a state of disbelief.[209] 3) Some kinds of perceived intellectual material are able

to determine the action of the will. In particular, perceived content characterised as 'clear and

distinct' will naturally compel the will to assent. In absence of 'clear and distinct' ideas, assent

and denial are determined by other factors; they are, in a sense, optional. Being 'optional' does

not mean they are freely chosen, but rather that they are not determined necessarily one way or

the other by the intellectual content's 'clarity and distinctness' and are thus open to doubt.[210]

4) Some level of understanding is required for a judgement to be made. The level of this

understanding need not in fact be adequate. However, if it is known to thought that its

understanding of a matter is not adequate, then judgement will likely be suspended. Most

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[208] "All the modes of thinking that we experience within us can be brought under two general headings: perception, or the operation of the intellect, and volition, or the operation of the will. Sensory perception, imagination and pure understanding are simply various modes of perception; desire, aversion, assertion, denial and doubt are various modes of willing." Descartes, *Principles of Philosophy* 1.32, CSM I 204, ATVIIIA 17

[209] For example, the supposition that there existed "some supremely powerful author of our being who was attempting to deceive us in every possible way" (*Principles* 1.39, CSM I 206, ATVIIIA 20), is used not to induce assent to that very thing, but rather to remove the assent given to its negation. The supposition, taken on its own, does not imply a contradiction. Nor does the supposition that this is not the case (a supposition which, prior to doubt, had been taken as belief). That neither of the opposing positions implies a contradiction, and that neither has (yet) been recognised as conforming to the requirements of certainty, renders a neutral judgement psychologically feasible.

[210] 'Freedom of will' means determined by the will, as opposed to determined by God. It does not necessarily refer to a capacity for 'conscious' choice. 'Freedom of the will' is at bottom a concept that allows for the coexistence of human error and divine creation. Thus, "The fact that we fall into error is a defect in the way we act or in the use we make of our freedom, but not a defect in our nature. For the nature remains the same whether we judge correctly or incorrectly. And although God could have endowed our intellect with a discernment so acute as to prevent our ever going wrong, we have no right to demand this of him." Descartes, *Principles* 1.38, CSM 205, AVIIIA 19

error is the result of inadequate understanding being taken as adequate or, rather, not being questioned as to its adequacy.[211] 5) The role of the method is to render inadequacies of understanding clear and thus potentially eliminable. Further, it serves to train the mind to recognise clear and distinct ideas. As this involves renouncing formal assent to many strongly held instinctual beliefs and prejudices from childhood, the actualisation of the method in thought is by nature very difficult.[212] 6) The voluntary aspect of judgement does not relate directly to the assenting to or denying of any intellectual material. Rather it relates to the decision to train one's mind such that it is capable of recognising both inadequately conceived and clear and distinct ideas. Judgement *per se* happens somewhat autonomously, but the development of the ability to judge well can be chosen.[213]

Jeffrey Tlumak, in his paper entitled *Judgement and Understanding in Descartes' Philosophy*[214], manages to produce a sympathetic, rigorous and sophisticated account of the functions immanent to the Cartesian method. Yet the question of Cartesian foundationalism, central to his paper, reveals a narrowly epistemological interpretation of Descartes' philosophy. In spite of this, his explication of the relationship between judgement and method, taken on its own, is

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[211] "In order to make a judgement, the intellect is of course required since in the case of something which we do not in any way perceive, there is no judgement we can make. But the will is also required so that, once something is perceived in some manner, our assent may then be given. Now a judgement – some kind of a judgement at least – can be made without the need for a complete and exhaustive perception of the thing in question; for we can assent to any things which we know only in a very obscure and confused manner." Descartes, *Principles* 1.34, CSM 204, ATVIIIA 18

[212] This difficulty is precisely why there is such a requirement for the supposition of destabilising ideas. It is not a technical requirement (given Descartes theory of judgement) that doubt require a supposition (such as the evil genius) as a doubt-maker. Rather it is simply the case that such suppositions render doubt easier *as a matter of fact.*

[213] Descartes writes, "[W]hoever turns out to have created us, and however powerful and however deceitful he may be, in the meantime we nonetheless experience within us the kind of freedom which enables us always to refrain from believing things which are not completely certain and thoroughly examined. Hence we are able to take precautions against going wrong on every occasion." CSM I 194, ATVIIIA 6. Note that we must 'take precautions' against going wrong. It is not simply a case of choosing the right or the wrong, but rather choosing a path that will allow the latent potentialities of thought as such to function such as to bypass error necessarily.

[214] Tlumak, 'Judgement and Understanding in Descartes' Philosophy'.

146

broadly compatible with the aims of the present study. This for three reasons: (1) Tlumak appreciates that the structure of the Cartesian will, with its potential for passivity, renders many common criticisms of the Cartesian method irrelevant; (2) he draws a distinction between two senses of volition that can be found in Descartes (both the usual sense, meaning something like 'choice', and a technical sense which in Descartes' writing means something more like 'self-directed', describing the material origin of an operation of the will, rather than the [related] moral origin); and (3) the 'certainty' that Tlumak considers as central to the Cartesian method is *directly intuited* rather than mediated by propositions[215].

Regarding (1) and (2), many commentators interpret Descartes' claims pertaining to the compulsion of the will by the intellect as suggesting that, in absence of such compulsion in the form of clear and distinct perception, one can choose to believe or disbelieve what one wants. For example, Oswald Hanfling[216] claims that there are two kinds of 'reasons for doubting' embedded within the structure of methodological doubt, which Descartes nonetheless conflates. The first reason for doubting relates to reasons for which the belief itself is doubtful. It is this kind of reason with which a discussion of the similarities between waking and sleeping would be concerned. The second kind of reason for doubting refers to the outcome of doubt. In this case doubt is motivated; that is, it has a motive (such as the acquisition of certainty). According to Hanfling this second kind of reason for doubting requires that doubt be understood as an act of will (where 'will' is understood as 'choice').

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[215] Peter Markie published a critique of Tlumak's paper Markie, 'Descartes' Theory of Judgement: Reply to Tlumak's Judgement and Understanding in Descartes' Philosophy'. His critique is well wide of its mark however, precisely because he consistently interprets clear and distinct ideas as propositions. For example, where Descartes writes, "I am of such a nature that as long as I understand anything very clearly and distinctly I am naturally impelled to believe it to be true," Markie reads, "Whenever we perceive a proposition clearly and distinctly, we are naturally compelled to believe it." To be sure, the axioms derived from the method may need to be presented as propositions, but the clear and distinct ideas that authorise them as certain are by no means propositional. Rather, they are unmediated ideas of 'things' – Descartes characterises 'things' as substances or modes of substance, such as extension, quantity, thought, etc.

147

According to Hanfling, the conflation of these two reasons for doubting obscures the fact that Descartes also conflates clear acts of the will (choice) with belief, so that rather than doubting, Descartes is often actually supposing. Thus, Descartes conflates belief and doubt with affirmation and negation. However, while affirming and denying are overt speech-acts, believing and doubting are more fundamental psychological acts that cannot be so readily shifted. While the speech acts are subject to the will (choice), the beliefs are not. Thus, according to Hanfling, there can be no method of doubt, as the affective psychological components are not under the control of the will and thus unable to be recruited for the attainment of a goal, be it 'certainty' or any other.

However, Hanfling's position is based on several fundamental mistakes. His most fundamental error lies in the casting of doubt and belief as antinomies. He fails to take account of the technical differences between his and Descartes' accounts of the faculties of thought and their interrelation. He does not consider the Cartesian account of the will on its own terms, and thus fails to understand the will in its integrated psychological and metaphysical aspects. Cartesian doubt cannot rightly be considered as opposed to belief for several reasons. Firstly, doubt is a purely active potentiality of the will with no opposite. It is not a judgement per se, but rather remains as the possibility of its annulment. Descartes does not mention 'belief'[217] as such as a component of judgement, but its analogue in his theory of judgement would be the determination 'that x' or 'that $not\text{-}x$', i.e. assent or denial applied to a given product of the intellect, between which is a passive volitional state. Assent and denial

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[216] Hanfling, 'Can There Be a Method of Doubt?'.
[217] He does occasionally refer to belief as such in passing, but not when judgement as such is receiving technical explication. When Descartes uses the term 'belief' it seems to refer to 'preconceived ideas', i.e. to the set of judgements made without reflection. The term 'belief' does not refer to any particular element in Descartes theory of judgement. Rather, it is used in a superficial ordinary language sense; i.e. when

are no mere speech-acts for Descartes. Indeed between intellect, assent, denial and the memory created through their continued interaction is to be found the life-world of a concrete human; not a mere store of statements about the perceived world. Speech-acts are merely ancillary in the method, as its role is cognitive training in the immediate perception of certainty. Secondly, the sense of 'volition' that Hanfling applies to the Cartesian will is inappropriate. Descartes does not hold that a person can give assent to or deny anything at all as a matter of choice. Rather, the choice a person is faced with pertains to the manner in which they train their thinking to operate (their cognitive training) and, connected to this, the evidential framework that they accept. The 'cognitive training' inherent in the method allows for an appreciation and recognition of phenomena (characterised by clear and distinct perception) that are, considered *only* in terms of the greater Cartesian metaphysic, inherently certain. The evidential framework utilises this phenomena as a benchmark for knowledge. For Descartes, judgement operates largely without 'choice' and indeed without reflexive thought. The greater part of judgement (and thus the greater part of error) manifests as 'pre-conceived ideas' deriving from childhood or tradition. The role of doubt is not to transform a concrete belief in a thing's existence into a concrete belief in a thing's non-existence, but rather to remove the ideas of some things from the circuit of reflexive thought.

Considered from a larger perspective, Hanfling's paper can be understood as an unacknowledged battle between two technical notions of 'will', neither of which is properly articulated. The Cartesian will-concept is represented in his paper only by one of its effects – namely methodological doubt – while the will-concept used by Hanfling is named simply and unreflectively as 'will'. It is perhaps no surprise that methodological doubt fails to function

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speaking loosely, one might speak of 'belief', but more precise terminology will be required if one wishes to examine 'what is really going on'.

when its theoretical base is replaced by a set of concepts derived from twentieth century Anglo-analytic philosophy of mind. For Hanfling, 'doubt' and 'belief' refer to opposite sides of the same capacity. They are non-volitional, as they are largely determined by their content, and thus not under complete control of the will (understood as the capacity for choice). However, as already mentioned, Cartesian doubt is not opposed to belief. Indeed, 'belief' is a mode of neither the Cartesian will nor intellect, and is thus strictly not a feature of Cartesian thought as such, whereas 'doubt' is a mode of the Cartesian will with no opposite. It is a mode of the Cartesian will that is simply operating or not – it has no opposite operating state. One might compare Cartesian 'doubt' with other modes of Cartesian will, such as assertion or desire, which do come along with opposite active states – aversion and denial respectively. Consider assertion and denial for example; either side of judgement can only be actualised to the exclusion of the other, yet the absence of either assertion or denial does not imply its opposite. Thus, there remains the possibility of an inactive state – a suspension of judgement. The function of doubt is not to transform affirmation into negation, or belief into non-belief, but rather to break the bonds of judgement as such. It is precisely when a judgement cannot *in fact* be suspended, i.e., the nature of a particular 'perception of the intellect' itself demands a certain judgement (thus wresting power from the will) that certainty is achieved. By definition, Cartesian certainty, and thus knowledge[218], is found through an operation of the intellect that compels the will to assent. The will is technically involved, and thus exercises its technically 'volitional' function, but 'choice' is not a factor. This process does not involve a belief-concept of the kind used by Hanfling. Belief is simply not, at least in the form it takes in Hanfling's paper, a concept relevant to the Cartesian system. In fact the notions of 'knowledge',

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[218] Cartesian knowledge is necessarily certain. Since the faculty of knowledge is identical to the 'natural light' by which one gain direct access to the real, and thus an (albeit infinitesimal) aspect of God, knowledge always has a somewhat revelatory character.

150

'certainty' and the 'clear and distinct' are so tightly wound that this concept of belief is superfluous as a technical term. Knowledge, via the natural light (the name for the capacity to recognise phenomena as 'certain' and thus as 'knowledge') is direct awareness of the real – it is not mediated by a belief-concept (or by propositions, as per (3), above). This remains an issue for commentators who, like Hanfling, only assess the Cartesian system from an Anglo-analytic epistemological perspective. The role of the method, considered systemically, is to train the individual to recognise particular phenomenal states as certain – but ultimately certain only given *faith* in a creator God. The key is that in the attempt of thought to doubt itself, thought is brought into contact with, and thus taught to recognise, the 'natural light'. The 'natural light' itself is the first-person manifestation of a larger object of systemic faith.

At the point where the phenomenal priority of the 'natural light' (and the clear and distinct ideas found therein) interacts with the ontological priority of God, Tlumak's account and the present account diverge sharply. According to Tlumak, the reason for Descartes' adoption of a theory of judgement that divides intuition (the natural light) and 'belief' across the two major modalities of thought, is to stem the infinite justificatory regress inherent in internalist foundationalism (of which he suggests the Cartesian system is an example). Tlumak writes:

The foundationalist alternative to externalism is intuitionism, which purports to solve the regress problem not by appeal to other beliefs, but to intuition, direct awareness or acquaintance, or immediate apprehension. An intuition of state x allegedly supports the foundational belief about x. But intuitionism faces the following, powerful dilemma: If the intuition is not a cognitive grasp of x, it cannot support the belief about x. [...] What is Descartes' response to this challenge? First, he makes clear that the intuition is not identical with the belief. Intuition is an act of understanding; belief is an act of will. [...] [T]here are intuitions of psychological states, thoughts. They are *de re*. But if *de re*, [...] their authentication requires a criterion. But a criterion is required only if we need to distinguish real from ostensible intuitions, and this need to distinguish presupposes that the object of

intuition is somehow distinct from the act, and that the act may or may not succeed in apprehending its object. This is just what Descartes denies.[219]

The suggestion appears to be that by dividing thought into several modalities, Descartes has overcome both the problem of infinite regress native to 'internalist foundationalism', and the problem of intuition as a non-cognitive foundation for cognitive states. This is internally problematic for several reasons. Firstly, it is not clear how the division of intuition and assent across two faculties solves the problem of infinite regress, if there is such a thing. This division allows for greater clarity in the explication of the operation of a judgement, understood in terms of function, but it is not a division in substance. That is, thought is divided into various *modes*, considered as operations of the same substance. The divisions of thought are given in terms of possible operations or actions of the one thing. Thought is not divided materially, as Tlumak's position requires, but merely functionally. Thus, it makes little difference, in terms of a problem of infinite regress, whether assent is given by a 'different' mode of thought or the 'same'. Secondly, it is true as Tlumak claims that for Descartes the act and the object of intuition are identical. It is thus rendered clear in the course of an intuition that the intuition is a 'real' intuition. That the intuition is given attention in thought is sufficient to grant its status as intuition. However, it is not clear that the compulsion to assent with which the intuition affects the will is sufficient as a foundation in itself. Indeed, it does not seem that Descartes takes it to be so, as he himself allows thought to reflect upon intuition, to take it up as a concept as such and consider the nature of certainty found therein. He considers it to be a *certain enough feeling* that it would be incompatible with the notion of a benevolent Creator for it to misrepresent the real. Thus, Tlumak fails on two fronts: he fails to demonstrate the efficacy of the internalist foundationalism in terms of which he interprets the

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[219] Tlumak, 'Judgement and Understanding in Descartes' Philosophy', pg. 96-97.

Cartesian system, and he fails to demonstrate that Cartesian philosophy is an example of internalist foundationalism as such.

3. Method and Methodology

Although Descartes does not formally differentiate methodology and method, his writing on method can be divided into two categories – those that pertain to method as such and those that pertain to the articulation of a particular method. None of Descartes' individual writings could be said to be devoted entirely to one or the other of these approaches. However, as might be expected, earlier work (such as *Rules for the Direction of the Mind*) tends to display a greater interest in the *development* of method than later work (in particular the *Meditations* and *Principles of Philosophy*). For the sake of clarity, those parts of Descartes' writing that take method as such as their subject, will be classified as relating to methodology, and those parts in which the *telos* of the methodology ('certainty') becomes the subject of analysis will be classified as concrete instantiations of the method. For example, Rule 4 in *Rules for the Direction of the Mind* is clearly focused on the subject of method itself. Here Descartes writes:

By 'a method' I mean reliable rules which are easy to apply, and such that if one follows them exactly, one will never take what is false to be true or fruitlessly expend one's mental efforts, but will gradually and constantly increase one's knowledge till one arrives at a true understanding of everything within one's capacity.[220]

This passage (and those surrounding it) describes both what a proper method consists of and the end for which it ought to be devised and enacted. In the first instance at least, it seems that a method consists of a set of rules devised according to an end. The end in this case is *scientia*, translated as 'knowledge'. *Scientia* is the term Descartes uses (as distinct from *cognitio*,

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[220] Descartes, *Rules for the Direction of the Mind*, CSM I 16, ATX 371-2

which refers to any sort of belief or sensation about the world, true or false) to signify knowledge which is absolutely indubitable and certain.[221] Several elements are required to be in place before a discussion about method can become an enacted method of the kind proposed by Descartes. (1) A theory, either latent or overt, about the state of affairs obtaining before the operation of method is required; (2) an end or *telos* is required; and (3) finally, a set of guidelines to enable a transition from the original to the final state of affairs – these become the rules that constitute the method in the abstract.[222] In this case, the theory about the original state is a theory about knowledge (*scientia*), partially latent and partially overt. This theory is, and must be, integrated with a larger theory pertaining to thought as such. Without this integration, any set of rules constituting the method will fail to integrate the praxis they describe with the capacities they are designed to facilitate and maximise – or else they will do so by accident, and so doing annul the reflexivity in the relationship between methodology and method that allows for the production of Cartesian certainty in the first place. Descartes in fact utilises a modified Scholastic theory about thought, judgement and knowledge – a fact that both enables the method and renders it problematic (and which will be discussed at length in a later section of this chapter). Technically, the *telos*, the end of the methodology, is the production of a set of rules the following of which will guarantee certain knowledge. However, for the sake of convenience, and to avoid a further division of Descartes' thinking on method (i.e. into meta-methodology, methodology and method) it is better for the moment to consider the methodological *telos* as simply being the attainment of certainty.[223] Along these

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[221] 'Certainty' and 'indubitability' are not interchangeable terms. 'Indubitability' refers to a functional limit of the capacity for doubt – a mode of the will. Certainty is only gained when it is recognised that the benevolence of God renders the indubitable as necessarily true. This will be discussed further.

[222] This, it ought to be noted, mirrors the structure of Aristotelian actualisation – initial state/*telos*/causal environment/final state.

[223] 'Certainty', taken as an end, cannot be given a simple place within the division method/methodology. The object of the methodology is the method, whilst the object of the enacted method ought to be particular truths. So where is the proper place for 'certainty' considered as an end? I would be inclined to say that

lines, one may characterise the initial Cartesian state, prior to the operation of the method, in terms of two states – one present and on projected; i.e. there is a theory about an original state that is given in terms of 'thought' and there is a characterisation of a final state understood as the attainment of certainty. For there to be any relationship between these two states (i.e. a set of rules; a method), they must be commensurable in some way. In the case of the Cartesian method, their commensurability is given in terms of the *telos* (certain knowledge) being a possible outcome of the inherent properties of the relationship between the two major modes of thought – intellect and will. For this reason the method itself, or rather the set of rules that characterise the method as *praxis*, can all be referred back to the Cartesian theory of judgement. Thus, the theoretical grounding for the method consists essentially of the theory of judgement mentioned above – a theory that is historically contingent and taken up largely without reflection. However, the sense of certainty that develops out of the actual operation of the method is a rather different concept entirely. It is on this point of difference, that one might characterise as the difference between method and methodology, that two very different forms of priority (each characterised nonetheless as certainty) converge and interact. This interaction is what will be investigated below as the translation between 'indubitability' and 'certainty'.

The methodology sets up the key philosophical problem as being the sorting of information into the categories of 'certain' and 'uncertain'. In Part III of the *Discourse on the Method*, Descartes writes, "[M]y whole aim was to reach certainty – to cast aside the loose earth and

the overarching Cartesian goal is the attainment of certainty and that Descartes' system is coloured by this at every level. However, in this case, as Descartes thinking on methodological matters is itself driven by the demands of certainty, and his search for rules is itself conditioned by his prior understanding of certainty, it is safe to say that the teleological 'essence' of the methodology is certainty rather than 'rules the following of which will bring about certain knowledge'. The rules can be ignored as an element of the

sand so as to come upon rock or clay."[224] This 'whole aim' is thus given according to a very practical metaphor – understood literally this is indeed a very good aim for one who wishes to build a house. The relationship between the methodological *telos*, certainty, and the metaphorical *praxis*, "to cast aside...etc." is structurally identical to the relationship between the methodological *telos* and what becomes the actual method; that is, they are precisely analogous. In both cases, a large and amorphous concept (certainty) is given a simple and particular determination according to a readily accessible practical analogy – the sorting of material into the 'movable' and the 'immovable'. The physical side of the analogy is readily intelligible, but the extension of the movable/immovable comparison to thought is less obviously coherent. The certainty of the method is to be found in sorting the material of thought - a far less familiar conceptual space. The sorting is performed according to an ostensibly factual relationship obtaining between doubt (a mode of the will) and intellect; i.e., there are some products of the intellect that cannot be doubted, simply as a matter of fact. If one attempts to doubt, then one is destined to fail. Thus the 'rock or clay' of the intellect is that which cannot be doubted.

However, the indubitability of these intellectual products is not sufficient to render them 'certain'. The relationship between indubitability and certainty is a metaphysical one. Rock or clay are not classified *qua* foundation according to any higher attribute than being 'suitable for building' – the fact that they are *relatively* immovable, as compared to the material surrounding them, need not render them *necessarily* immovable. Likewise with indubitability – though the indubitable idea is indubitable *given available means*, it need not be *necessarily* indubitable. In fact, within the Cartesian system, certainty is only afforded by imbuing the Creator (the existence of

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methodological *telos* because their appearance is itself based on the assumption that a set of rules of a particular kind will produce certain knowledge.

which Descartes demonstrates as indubitable) with particular moral attributes, and doing so whilst maintaining a particular theory about thought. So for the sake of dividing the form/s of priority inherent in the method from those that are made manifest by the integration of the method into a system, the term 'certainty' will be dropped in favour of 'indubitability', at least until the character of 'certainty' as a form of priority has been adequately assessed. To put it another way, 'certainty' will be saved for use as a term for a concept that is not local to the method, but is related to several systemic structural elements.

Again, in *Discourse on the Method*:

I observed that there is nothing at all in the proposition 'I am thinking, therefore I exist' to assure me that I am speaking the truth, except that I see very clearly that in order to think it is necessary to exist So I decided that I could take it as a general rule that the things we conceive very clearly and very distinctly are all true; only there is some difficulty in recognising which are the things that we distinctly conceive.[225]

There are two distinct arguments described in this passage. The first is that it is by clarity of 'vision' that the relation of necessity between thought and existence becomes convincing. The second argument generalises the power of the first to all such clear vision. This pair of arguments is in fact the inverse of the argument according to indubitability – it is its positive counterpart. Indubitability, quite literally an inability, a limit, receives a positive characterisation by the connection Descartes draws with his rock and sand metaphor. The phenomena as such, however, are essentially negative Considering the metaphor of the sand and rock once again: the significance does not lie in the fact that the sand can no longer be cast aside (which could result from many accidental factors, including the failure of the tools in use), but rather that the rock *has been found*. This same moment can be described both

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[224] Descartes, *Discourse on the Method* III, CSM I 125, ATVI 29

negatively and positively, but it is only according to the positive description that something

determinate is posited as existing. Likewise with thought: it is not enough for Descartes to

find a limit for the modality of the will that is doubt (this could be a simple privation) – he

needs to positively determine intellectual content qua existence. The intermediary between

positively existent things, and the inability to doubt, is the 'clear and distinct perception', the

'natural light' of reason, the faculty of knowledge. The clarity of vision forms a bridge by

relating (in different ways) to each. From 'doubt', it is the positive characterisation of the

phenomena of indubitability, understood as the way this moment 'feels', rather than the way it

fits into a theory about thought. In terms of its relation to the 'existent thing', the natural light

is a faculty that is devoted entirely to the positive determination of truth. As such, it is no

privation and is thus subject to validation according to the notion of a benevolent creator (i.e.

if the faculty were inaccurate its only role would be a deceptive one – the positive yet incorrect

determination of truth).

4. Method and Phenomena

Within the Cartesian method (and wider system) two faces of doubt can be described; the

theoretical doubt that is a mode of the will, and the experience of doubt as it manifests in

enacted thought. Doubt as it manifests in enacted thought is, ostensibly at least, the

theoretical subject matter for 'theoretical' doubt. Nonetheless, it is by the theoretical sense,

and the wider theory of Cartesian thought, that the results of the 'enacted thought' sense of

doubt are interpreted. Still, the sense of doubt that is most appropriate to the actualisation of

the method is not theoretical. When Descartes writes, for example, that it "feels as if I have

fallen unexpectedly into a deep whirlpool which tumbles me around so that I can neither stand

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[225] Descartes, *Discourse* IV, CSM I 127, ATVI 33

on the bottom nor swim up to the top,"[226] he is describing an experience of doubt that is not

yet theoretical. This "deep whirlpool" does not require a theory of judgement. Rather, it

comes as the result of a concrete act of thinking. The 'concrete act' is not simply a product of

the first-person narrative structure of the *Meditations*. It is central to the method for several

reasons: 1) It is required naturally according to the terms of the method – i.e. only the concrete

act of doubting is indubitable[227], 2) it is by founding the system on a concrete act that

Descartes seeks to avoid infinite regress of belief,[228] and 3) it provides the method with a

structural function after its enactment – i.e. it secures the God-human dyad, which is entirely

systemic, to an extra-systemic element.

The extra-systemic 'concrete act' and attendant phenomena are necessary as well as

problematic. In particular, the extra-systemic nature of the fundamental elements of the doubt

process makes for significant difficulty in transferring the positive gains of the actualised

method to the system. When 'doubting' runs up against a limit it does not necessarily follow

that it has found an indubitable entity. Several moves are required in order to integrate this

failure of doubt into the Cartesian system as its 'Archimedean point'[229]. The first move is to

determine the failure of doubt in terms of existence. In this way, doubt is reduced from its

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[226] Descartes, *Meditations*, CSM II 16, ATVII 24

[227] It is only whilst doubt*ing* (present continuous) that the proof is evident. Descartes writes in the *Principles* (CSM I 195, ATIIIA 7), "for it is a contradiction to suppose that what thinks does not, at the very time when it is thinking, exist." In the *Mediations* (CSM II 17, ATVII 25) he writes, "if I convinced myself of something or thought anything at all, then I certainly existed," and, "*I am, I exist*, is necessarily true whenever it is put forward by me or conceived in my mind." Each of these refers to a particular temporal space defined by a concrete act – the concrete act (and attendant phenomena) is the natural operating space of the method.

[228] By allowing the phenomena, rather than propositions, to underpin his set of axioms, infinite regress is avoided (perhaps unsuccessfully) because the foundation of the axioms is not of the same nature as the axioms themselves.

[229] Descartes does not make these arguments directly, as he moves directly from the phenomena to clarity and distinctness. Nonetheless they are present as assumptions or unstated premisses, the discovery of which requires consideration of the detail of the phenomena and the historical/philosophical situation within which they were interpreted.

159

active/phenomenal sense to a simple operation of negation. There is no more whirlpool, but rather an array of plausibly negated *things*. In the *Meditations*:

So, for the purpose of rejecting all my opinions, it will be enough if I find in each of them at least some reason for doubt. And to do this I will not need to run through them all individually, which would be an endless task. Once the foundations of a building are undermined, anything built on them collapses of its own accord; so I will go straight for the basic principles on which all my former beliefs rested.[230]

Thus, Descartes begins without the benefit of particulars. In undermining *all* former knowledge, he has also undermined the structure according to which it is divided. In this sense, his whirlpool analogy is quite apt. However, when the limit of doubt is reached, it is immediately interpreted in terms of the ideas that had been excluded. In particular, the limit is interpreted as the boundary of a 'thing' having an 'existence' of a certain technical/historical type, and this 'thing' is interpreted according to a concept of 'thought' of a certain technical/historical type. This is a precise reversal of the essence/existence dichotomy favoured in the medieval post-Aristotelian tradition. Rather than 'existence' serving to explain the relationship between essences and entities (in terms of an act of God), in this case an essence ('thought') is projected upon an existence in order to produce an entity. As an aside, it ought to be noted that there is a subtle difference between the two basic formulations of the result of the initial action of the method. In the Second Meditation it is formulated positively as, "this proposition, *I am, I exist*, is necessarily true whenever it is put forward by me."[231] In this formulation, the being of the 'I' is given no particular determination. True, the 'I', understood as a marker of first-person subjectivity, locates the being that exists proximally local to a single body. However, the scope or content of the 'I', that which is to be included

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[230] Descartes, *Meditations*, CSM II 17, ATVII 18
[231] Descartes, *Meditations*, CSM II 17, ATVII 25

under its concept, is left aside. However, the negative formulation in the *Principles* is far more careful: "It is not possible for us to doubt that we exist while we are doubting[.]"[232] This formulation divides the world into those things that can, and those things that cannot *in fact* be doubted. This division thus negatively defines the space of the 'existence' onto which 'thought' is to be projected as the *concrete act*. It is the second formulation that is of interest here, as it is more fundamental. The positive articulation does in fact carry precisely the same meaning as the second, but only assuming that the nature of the 'I' has been defined in advance. The negative formulation, in tandem with an historical thought-concept[233], provides this definition.

The relationship between doubt and certainty is conditioned by an historical existence-concept. It is by the mediation of this existence-concept that the phenomena encountered within the concrete act of doubting are rendered compatible with the simple affirmation and negation of entities. It is thus in terms of this historical existence-concept that *I think* is claimed as certainly true. Doubt is understood by Descartes as applying to determinate entities; its function applies to the question of existence as opposed to essence. As such, the demonstration of its possibility takes shape as a demonstration of the possibility of the denial of the *existence* of determinate entities – and inversely, the failure of doubt becomes the demonstration of the existence of a determinate entity. Existence is thus demonstrated by the inverse of the limit-experience that accompanies the attempt to think the negation of thought. Confounded, thought finds a surface against which to project its own necessary existence - the limit of negation in thought is interpreted as the boundary of its existence. Thought cannot continue beyond the limit set by the attempt to think its own negation. One considers the

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[232] Descartes, *Principles*, CSM I 195, ATVIIIA 6
[233] Which, incidentally, Deleuze might have called an 'image of thought'

non-existence of the very 'thought space' in which the consideration operates and one fails to produce a coherent image. Thought cannot continue beyond the limit set by the attempt to think its own negation. This limit is interpreted (because it is considered in terms of 'negation' characterised as 'non-existence') as a boundary rather than a limit. It is interpreted as the boundary of a given phenomenal 'space', as the edge of a *thing* that cannot be passed. Once again the guidance of the 'rock and sand' analogy is evident. This analogy, in partnership with the prevailing existence-concept, conditions the experience of a limit of thought such that it can be reversed and revealed as a positive discovery – an 'Archimedean point'. The 'material' of this Archimedean point is phenomenal-theoretical. It is the actual confounding moment when thought reaches the limit against which its own necessary existence is projected as an historical theoretical thought-structure. The obvious clarity of this failure renders possible the next required move – the integration of the Archimedean point into the system at large by means of a mediate concept.

A mediate concept is required in order to render certainty of the 'Archimedean point' transferable. If the certainty of the phenomenal limit is to be transformed into systemic certainty, the phenomena must be reinterpreted in terms of suitably 'transferable' concepts – that is, concepts that will be commensurable with the final systemic structure. In order for the 'certainty' that is considered to apply to the limit phenomena to be carried over, *transferred*, to the system as a whole, the phenomena are brought under suitable Cartesian concepts. The 'suitability' of these concepts depends upon their ability to appear to form a seamless link between phenomena and structure. The basic concept that is brought to bear on the phenomena in this way is 'clarity'. Descartes does not render 'clarity' very clearly, but insists that there is no trouble recognising a clear thought as "the minds of all of us have been so

moulded by nature that whenever we perceive something clearly, we spontaneously give our assent to it and are quite unable to doubt its truth."[234] 'Clarity' thus can only be rendered through its exemplary case, where it becomes understood as the essence of the moment of 'being confounded'. The moment of 'being confounded' is 'clear' precisely because it is such a thorough confounding. As a result, thought is only able to proceed in a single direction – to retreat. In terms of certainty, the method has two essential functions: to instantiate a moment of certainty (as described above), and to extend it. These are technically two very different acts. The first is characterised by the discovery of the certainty within the concrete act of doubt, and the second by the characterisation of the essence, qua certainty, of that act in terms of *clarity* and *distinctness*. Beginning with the failure of doubt (characterised as negation), Descartes determines the quality of the experience found at the point of failure as clarity of 'vision'.[235] *Distinctness* is its quantitative counterpart and is directed at the object of the experience rather than the experience as such. The existence of thought is thus recognised as certain because it can be seen clearly and because it is distinct – i.e. it is simple or unmixed.[236] Having thus assessed this particular limit-experience as an exemplary case of certainty (as characterised by clarity and distinctness), Descartes reconfigures it as a category of psychic life. He extends the notion of certainty across other limit-experiences via the concepts of clarity and distinctness, regardless of the precise content of the experiences as such. The negation/limit-experience is reduced to being for the most part an experience of clarity and distinctness, and it is in terms of these that the concrete act is integrated into the system as a whole. Specifically, clarity and distinctness are integrated into the Cartesian theory at large by

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[234] Descartes, *Principles* 1.43, CSM I 207, AT VIIIA 21

[235] Descartes, *Principles* 1.45, CSM I 207, AT VIIIA 22

[236] Given the projective nature of the conceptualisation of the phenomena, perhaps one need only to ensure that one *projects* 'distinctly'. It seems to me that the distinctness Descartes refers to is rendered only by a failure to engage deeply with the phenomena, but this is another matter.

163

way of the concept of the 'natural light'. The natural light is a faculty of thought, specifically of the intellect. The Cartesian theoretical account of 'thought' is thoroughly enmeshed with the greater system. Thus, 'thought' forms a bridge between system and phenomena. The positive content (including, if only as an idea, all that which has been removed by the reduction to clarity and distinctness, i.e. the phenomenal content *per se*) of the original revelation is extended to *all* experiences that can be said to be characterised by clarity and distinctness. The concepts of clarity and distinctness allow the central experience of the limit of the negation of thought to be extended elsewhere by a simple, if problematic, argument: given that clarity and distinctness constitute the necessary and sufficient condition for certainty, anything characterised by clarity and distinctness must be certain. Descartes frames this argument in the *Third Meditation*:

I am certain that I am a thinking thing. Do I not therefore also know what is required for my being certain about anything? In this first item of knowledge there is simply a clear and distinct perception of what I am asserting; this would not be enough to make me certain of the truth of the matter if it could ever turn out that something which I perceived with such clarity and distinctness was false. So now I seem to be able to lay it down as a general rule that whatever I perceive very clearly and distinctly is true.[237]

The argument is problematic for several reasons. The collection of 'clear' perceptions is a set of particulars brought under a universal. The power of the universal is derived from a concrete instantiation of one of the particulars, and there is no evidence that this power ought to be considered as genus rather than a difference. Certainty *qua* clarity may be merely accidental. Furthermore, even if clarity were necessary for certainty, there is no argument for its sufficiency. Finally, in spite of the mediate concepts of clarity and distinctness, there still remains a fundamental difference in kind between the concrete act within which the

164

phenomenal certainty is discovered, and the concepts that it supports. 'Clarity' and 'distinctness' are the names given to the phenomena as they are to be interpreted *intra-systemically* – i.e. not on their own terms. The pure phenomena are necessary, if only as an *idea* of externality, for the production and maintenance of the Cartesian system. They serve as the touchstone for the entire edifice, but are strictly incommensurable with it.

5. Revelation and the Integration of Phenomena

The incommensurability of phenomena and system results from their being fundamentally different in kind. This difference is not textually recognised by Descartes, but it is recognised *systemically*. That is, there are structures built into the Cartesian system that enable the bridging of this gap. The difference in kind itself is the result of an anachronous application, in two fundamental ways, of the Scholastic existence-concept and the concomitant essence-concept. Firstly, these two concepts retain their proper Scholastic function, their sense, only in terms of an explanatory structure organised primarily with regard to final causality. 'Existence' is precisely that which is superadded to the 'essence', in the act of rendering the Real. It thus represents the subordination of the efficient to the final cause. Secondly, and following on, whilst the concept of the efficient cause can serve to unite temporally dislocated actualities through actualisation, the final cause can only be given in terms of complete entities, thus drawing in formal causality. The existence-essence dichotomy is a sensible concept pair only when understood in terms of a system dominated by final and formal causality. The actualisation of world, enacted thought or the concrete act – indeed transformation and change generally – are incompatible with a simple integration of essence-existence as fundamental concepts. Actualisation is only integrated through

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[237] Descartes, *Meditations*, CSM II 24, ATVII 35

exclusion – that is, it is integrated into the system as the idea of an external ground. The criteria for certainty must be grounded in something external to the method in order to avoid infinite regress. However, the confounding moment, the limit of the negation of thought that is found in the concrete enactment of universal doubt, is not truly reducible to this idea, the internal representation of which is the natural light of reason. This difference, founding the incommensurability of phenomena and system, renders the occasion of the grounding central to the Cartesian method as functionally equivalent to revelation.

Two senses of revelation function in the Cartesian system; a private sense, understood as divine grace, and a public sense, given by Scripture. They differ in manifestation but are covered by the same rule, i.e., "we must believe everything God has revealed, even though it may be beyond our grasp."[238] Descartes writes in the *Second Set of Replies*:

It should also be noted that the clarity or transparency which can induce our will to give its assent is of two kinds: the first comes from the natural light , while the second comes from divine grace. Now although it is commonly said that faith concerns matters which are obscure, this refers solely to the thing or subject-matter to which our faith relates; it does not imply that the formal reason which leads us to assent to matters of faith is obscure. On the contrary, this formal reason consists in a certain inner light which comes from God, and when we are supernaturally illuminated by it we are confident that what is put forward for us to believe has been revealed by God himself. And it is quite impossible for him to lie; this is more certain than any natural light, and is often more evident because of the light of Grace [239]

It would be easy to conclude from this passage that the natural light and divine grace were somehow in competition when it comes to matters of knowledge. This would be a mistake, as in fact they are in complete accord. Their apparent difference merely reflects their

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[238] Descartes, *Principles* 1.25, CSM I 201, AT VIIIA 14
[239] Descartes, *Second Set of Replies* CSM II 105, AT VII 148

difference in distance from the objective source of certainty that is Scripture. It is by faith according to doctrine derived from Scripture that faith in the natural light is derived (via God's supreme benevolence). For this reason it must be assumed that the contrast between these two is to be understood in terms of the direct object of faith – on the one hand the natural light, and on the other, Scripture. Were these levels of faith to come into conflict for some reason, their clear hierarchical ordering would bring a swift resolution. In fact, the natural light *is functionally identical to* a manifestation of divine grace, where the subject matter is not covered by doctrine. In terms of the development of certainty in the method, revelation takes on a more restricted role. It is no longer to be understood as the immediate attainment of knowledge, but rather as the immediate perception of a necessary relation between developed concepts. In this case between indubitability, clarity and distinctness, and certainty. It is a particular instance of the private sense of revelation that is relevant to the method, but it only attains its objective certainty according to the sense embodied in Scripture and related doctrine. Doctrine is the distant source of the transformation of indubitability into certainty, but it has no relationship with the method in and of itself.

The principle that serves as the criteria of certainty, the principle that 'the things we conceive very clearly and distinctly are all true', is integrated into the method as its central revelation. It is precisely the revelatory nature of the clarity and distinctness criterion that allows it to be generalised on the strength of one example. Equally, the demonstration could be characterised as simply a bad inductive argument. Nonetheless, the revelatory interpretation does appear more convincing from a whole structure perspective, given that the 'natural light' eventually becomes the de facto focus for faith in the Christian God. In any case, the moment of the generalisation of 'clarity and distinctness' from being a phenomenal

167

characteristic of a particular moment of certainty, to being a phenomenal characteristic that *guarantees* certainty demonstrates a fundamental problem-structure internal to *prima philosophia* – the problematic relationship between containment and excess, in this case characterised by system and phenomena, elsewhere by systemic change (i.e. system and system), and elsewhere again by stasis and transformation. The basic structure of this problem-situation is analogous to that out of which the concepts of actuality and potentiality developed, where the operation of time interrupted and confused the prevailing static being-concept. Here, however, Descartes has access to the concepts of God and phenomena, which allow continuity to be determined as external to the system. Descartes will ultimately attempt to shore up this problematic relation in *Principles of Philosophy* by rebuilding the whole system in reverse, i.e. from cause to effect (or from God to world). Difficulties notwithstanding, the incorporation of the revelatory element into the method allows for the possibility of the transition from the indubitable to the certain. After describing the four ways that one comes to acquire knowledge, Descartes writes in the preface to the French edition of the *Principles*, "I think that all the wisdom which is generally possessed is acquired in these four ways. I am not including divine revelation in the list, because it does not lead us on by degrees but raises us at a stroke to infallible faith."[240] Although divine revelation is only one of five sources of wisdom that Descartes provides, it is in fact the only source of certainty. The natural light is the fundamental manifestation, within thought, of the confluence of Gods good will and his omnipotence. It is given by God in accordance with his benevolence – and it is as this gift that the concept of the natural light allows the phenomena, and the concepts under which they are subsumed, their revelatory unity.

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[240] Descartes, *Principles* CSM I 181, AT IXB 5

In spite of the difference in kind between phenomena central to the method and the system that they ostensibly found, the phenomena must nonetheless possess particular qualities that allow them to be incorporated into the system – even if only as revelation. That is, though the phenomena function precisely through their being ostensibly a-systemic, they must nonetheless retain an aspect that gives at least the appearance of systemic integration. So, for example, the relation between a phenomenal limit of thought and certainty is made partly by way of an analogy with rock and sand. The shared element of the analogy is that 'movement' is restricted in some way. This 'restriction of movement' is a very vague notion on its own; in particular, it does not seem to be suggestive of a foundation. However, with the continuation of the analogy, the movement and limit become sand and rock. The relation between sand and rock and house-building allows the extension of a further analogy between house-building and system-building. However, the mediation of the analogy in the determination of the systemic role of the phenomena also actively determines the phenomena as such. Thus, in one sense the material underpinning the criteria of certainty has two parts – the recognition of certain aspects of psychic life as being amenable to hierarchical ordering according to a principle, and the recognition of the principle itself. However, this is a view that is strictly internal to the method – one must be sold on the method and inhabit the method to hold this view. More accurately, the recognition of the possibility of the hierarchical organisation of phenomena, and the organisation itself, is the same moment – the phenomena are cast, after the fact of the instantiation of the method, in a manner that reflects the method's ends and outcomes *in fact*. Considering revelation purely as a structural element of the Cartesian system, it can be understood in two ways: 1) as an intra-systemic event, uniting phenomena and system under a concept, and 2) as the revelatory experience as such, where the phenomena and a systemic element are brought

169

into view simultaneously. The first way represents the inclusion of the phenomena in the system, determined as the system's a-systemic ground. The second way represents the experience of, and justification of, this inclusion in thought. Or perhaps, given in terms of the greater structure of the Cartesian system, the first way shows revelation from God's perspective, whilst the second is from the perspective of thought.

6. From Method as Effect to Method as Cause

The method, considered as a set of guidelines (such as displayed in a general form in *Rules for the Direction of the Mind*, and in a more refined and precise form in part one of the *Principles*), can be understood as an effect of the collection of ends and assumptions that make up the methodology. However, as an effect of a methodology, the method is already considered as potentially a cause. The method is formed out of a methodology precisely as a set of guidelines that, when put into action, work as the organising principles of an efficient-causal mechanism. Thus, even insofar as it is considered an effect, the method is an effect that is primarily a potential cause. Considered as an effect that is a potential cause, the method is understood as charged with the expulsion of uncertainty from knowledge; or more precisely, since all knowledge is certain, the purification of knowledge. As such the Cartesian method is only one, albeit important, element within a greater teleological schema. The method, considered solely in terms of its potential to affect (that is, in terms of its most essential characteristic), is not strictly teleological. 'Certainty' is the *telos* of the methodology, where 'methodology' is understood in the abstract as precisely that set of considerations and assumptions that led to the production of the method. The method is crafted with certainty as its end (but only insofar as it is *constructed*), and according to a specific set of assumptions (regarding the structure of thought in particular) relevant to its potential affective capabilities.

170

Thus the method, whilst not of itself teleological, retains the teleological mark of its cause. At its most basic, the creation of method in general requires a goal or *telos*, an idea that expresses the nature of the need for a method in the first place, as well as a prior understanding of some aspect of the nature of the goal. The method is thus, considered as an effect, a concrete representation of a prior understanding of both an end or *telos*, and of the material circumstances under which this prior understanding determines it to act. Ostensibly, the method operates between these two points, a beginning in fact and a projected end, in such a fashion as to merely theoretically cohere with them. However, the Cartesian method is not purely theoretical – it is actualised in the space of enacted thought, and its significant objects include concrete acts.[241] Within the space of enacted thought, the guidelines of the method are themselves transformed into concrete acts, each affecting in some manner the actualisation of the method as a cause. Considered according to its concrete functioning, the method is no longer an effect. Insofar as it is a tool devised under the direction of methodology, the method must be considered as an effect, but considered as a tool that has presently been put to use, the method must be considered as a cause. It is the highest actualisation of the methodology, but is nonetheless no longer tied to its causal origins – in Aristotelian terms it thus represents the unity of *energeia* and *entelecheia*. As a cause, the method cannot be considered as a set of rules or procedures, but rather as the characterisation of a concrete act. Thus it becomes a principle abstracted from a continuous movement. Insofar as the method is an effect, it is simple, a set of rules and procedures – and as a set of rules collected around an end, it is a unity. Nevertheless, once the method is enacted, and it can come to be considered

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[241] As an aside, 'enacted thought', as opposed to theories about thought, is a central assumption of the Cartesian method. However, it always tends to be subsumed under a theory about thought. The first person narrative of the Meditations brings Descartes closest to illustrating this central concept. It, however, still consistently subsumes the concrete acts of thought under the theory and its concepts. Nonetheless, the

a cause, it is so in an entirely different sense to that sense in which it was an effect. As the method gains its status as cause, it loses its status as determinate – that is, understood as presently functioning, the method is characterised by the determinations that flow from its action, rather than by its status as a determinate product of methodology. Insofar as it is considered a cause, the method is not primarily prescriptive; this is its status as an effect; i.e. the effect of the methodology is to produce a prescriptive and proscriptive framework. However, insofar as the method is considered as a cause, it can only be understood as a pattern found in movement actually taking place temporally. Thus, insofar as it is considered a cause, the method is strictly no longer 'method' or any other determination – the term 'method' is simply an index for an indeterminate operation of thought. That through which the Cartesian method moves, insofar as it is considered a cause, is the world in its fullness, brought under the concept of 'thought'. From this perspective, the method can be considered 'method' only as a rough abstraction, as a determination of a state characterised in terms of a potential transformation in knowledge. The method 'in motion' takes similar shape to the Aristotelian concept of motion, as the actuality of the potential as potential – 'a sort of actuality, or actuality of the kind described, hard to grasp, but not incapable of existing.'[242]

7. Distinctness, Reduction and the Expansion of Ideas

According to Descartes, all output of the perceptive intellect must be regarded "either as things, or affections of things, or else as eternal truths which have no existence outside our thought."[243] This division, between thing and relation, corresponds precisely with the division of the intellect into imagination and understanding. Accordingly, the imagination projects

structure of the Meditations at least suggests or implies the continuity of the concrete act within enacted thought.
[242] Aristotle, *Physics* 201b25-202a4.

172

'things' and the understanding creates relational structures. As the class of perceived objects is exhausted by things and relational structures, it follows that it is they that are brought into view to be evaluated according to the method. The result of this operation is a set of foundational ideas, divided according to the intellectual faculty from which they originate. The relational 'objects' that remain indubitable after the operation of the method are termed 'common notions' or axioms. Descartes writes in the *Principles*:

> [W]hen we recognise that it is impossible for anything to come from nothing, the proposition *nothing comes from nothing* is regarded not as a really existing thing, or even as a mode of a thing, but as an eternal truth which resides in our mind. Such truths are termed common notions or axioms. The following are examples of this class. *It is impossible for the same thing to be and not be at the same time; what is done cannot be undone; he who thinks cannot but exist while he thinks;* and countless others.[244]

The set of axioms is thus a proposed list of propositions, of undefined length, according to which the relations that necessarily obtain between 'things' generally and 'things' specifically are described. The products of the imagination that are certified by the method, the 'clear ideas of things' are equally foundational. Of these Descartes writes:

> The most general items which we regard as things are *substance, duration, order, number* and any other items of this kind which extend to all classes of things. But I recognise only two ultimate classes of things: first, intellectual or thinking things, i.e. those things which pertain to mind or thinking substance; and secondly, material things, i.e. those which pertain to extended substance or body. Perception, volition and all the modes both of perceiving and of willing are referred to thinking substance; while to extended substance belong size (that is, extension n length, breadth and depth), shape, motion, position, divisibility of component parts and the like.[245]

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[243] Descartes, *Principles* 1.48, CSM I 208, AT VIIIA 22
[244] Descartes, *Principles* 1.49, CSM I 209, AT VIIIA 23-24
[245] Descartes, *Principles* 1.48, CSM I 208-9, AT VIIIA 22-23

These axioms and clear ideas form the foundation of the Cartesian system once their indubitability has been established. One ought to be able to construct the remainder of the system from this set of basic principles, corresponding to the ideas of things and the ideas of relations between things. A clear comparison can be drawn between these two foundational forms on the one hand and the integration of algebra and geometry, perhaps Descartes' signal achievement, on the other. Both are related directly to the two aspects of the intellect (geometry/imagination, algebra/understanding), and in both cases their integration constitutes a foundational moment in their respective field (i.e. mathematics and metaphysics).

An idea that is to be considered indubitable must be distinct as well as clear. In fact, distinctness is the more important feature for, according to Descartes, all distinct ideas are necessarily clear but not vice versa. [Again, he generalises this rule from one instance: "The example of pain shows that a perception can be clear without being distinct, but cannot be distinct without being clear."[246]] In order to be rendered distinct, ideas must be separated from one another to the point where they can no longer be understood as containing parts of a different nature. For example, the necessary existence of thought is easily rendered distinct because of the manner in which it is determined (i.e. negatively, and in conformity with the rock/sand analogy). Because, insofar as the method of doubt is in operation, 'thought' as discovered has no internal dimension (i.e. it is defined precisely in terms of its impenetrable surface), it is thus readily conceived as an indivisible idea. The effects of the requirement of distinctness are demonstrated rather differently for relational ideas as compared to ideas of things. Relational ideas, of the kind shown by Descartes in any case, tend to be simply and positively reducible, in same manner that the arc of a projectile can be reduced to the operation of two differently directed forces. Furthermore, relational ideas are not in question

with respect to their existence, as they exist only in thought, which has been shown to exist. The status of the abstractions of the understanding is thus related to truth rather than existence, and their truth is measured by their being inconceivably false. The process of methodological doubt will excise several relational ideas (i.e. the final cause), but on the whole their abundance is not the source of their power, and indeed those that remain, remain in much the same form as they began. On the other hand, the enforced separation of ideas of things, almost universally beginning as idea-complexes (thus the value of Aristotle's categories), has the result of a profound reduction in number. As the Cartesian method is already fundamentally reductive, the separating out of idea-complexes simply leaves more opportunity for reduction, as the transitory clarity (and thus indubitability) that a part may gain as a member of a whole is lost in the division. By the strict, albeit indefinite, requirements for a judgement of 'clarity' to be given, great portions of such idea-complexes are discarded or reduced. The Cartesian method is systematically reductive. First, ideas are discarded for their lack of 'clarity', and second, ideas are separated into simpler elements to be judged individually. The overall tendency as a result being one of an extreme reduction in the quantity of available ideas. However, this reduction in number is matched by a simultaneous increase in scope. Although the number of available concepts is reduced, there are no significant 'empty spaces' left in the remaining explanatory framework. That which is submitted to the method for evaluation is, for the most part, the product of the philosophical schools Descartes seeks to displace. The method itself is not creative in a simple sense. It is best viewed as a sort of machine, designed to transform that which appears at its input according to a given process. For this reason, the great mass of Scholastic learning is of great value to Descartes – even if he regards it as largely false. The conceptual schema of the Schoolmen, the material that

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[246] Descartes, *Principles* 1.46, CSM I 208, AT VIIIA 22

Descartes cuts away and reshapes is, like any well-developed philosophical system, an array of logically/causally interdependent elements – rather than a mere shopping list of self-sustaining ideas. Simply to remove an element without regard would be to throw its neighbours into disarray in terms of both their meaning and systemic context and, even more so, to remove *many* would likely render the remaining elements orphaned and senseless. Thus, in order to satisfy Descartes' desire for cohesion and unity (locally, let alone across the entirety of the sciences), the remaining concepts must be forced to connect in new ways to each other and to the whole. Compared with the Aristotelian category of *substance*, for example, the Cartesian version no longer tells of the nature of a particular entity, but rather of the basic nature of the world. With respect to this basic nature entities are only modes, defined according to one sense of quantity or another.[247] This comes ostensibly as a result of Descartes finding nothing in the concept of substance save the notion of 'independent' existence that satisfies the strictures of the method. It (substance) is reduced in terms of the breadth of its meaning, but the reduced meaning is extended in terms of its applicability. In the *Principles* Descartes writes:

By *substance* we can understand nothing other than a thing which exists in such a way as to depend on no other thing for its existence. And there is only one substance which can be understood to depend on no other thing whatsoever, namely God. In the case of all other substances, we perceive that they can exist only with the help of God's concurrence. Hence the term 'substance' does not apply *univocally*, as they say in the schools, to God and to other things; that is, there is no distinctly intelligible meaning of the term which is common to God and his creatures.[248]

So the substances other than God are such only in a qualified sense. In spite of Descartes' claim, aside from the exception of God, Cartesian substance must be considered basically univocal. After the reduction, substance comes to mean essentially *separate*, and as such, it

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[247] Descartes, *Principles* 1.48, CSM I 208, AT VIIIA 23

loses its primary Aristotelian sense. It no longer refers to the thing insofar as it is what it is, or to the thing as such (*tode ti*) and retains only one attribute, namely the 'separateness', of the Aristotelian sense. Although historically the notion of substance grew out of the consideration of entities, for Descartes entities as such are merely displacements of substance – to be explained by mathematical science. In relation to entities, and defined by its systemic function, Cartesian 'substance' is the entire space in which entities are determined by their neighbours to act. It is the 'unity' of the causal matrix. For Descartes, entities can be determined, and determined to act, in two irreducible ways – in a thinking way and an extensive way. Thought and extension are counted as *attributes* rather than substances. However, they are the first point of contact for method and the substances themselves are enumerated in terms of the method. The method begins with a concrete human, and as a result of this limiting fact, *mind* and *body* are named the basic substances – but they could in fact be named any way at all as, in spite of their metaphysical significance, at the moment of naming they are merely postulates. The substance itself is not directly intuited, but is rather discovered by way of a deductive interaction between certain axioms and clear ideas of things. The manner in which this is deemed to evolve is indicative of the manner in which Cartesian axiomatic foundations ought to function more generally. Along these lines Descartes writes:

However, we cannot initially become aware of a substance merely through its being an existing thing, since this alone does not of itself have any effect on us. We can, however, easily come to know a substance by one of its attributes, in virtue of the common notion that nothingness possesses no attributes, that is to say, no properties or qualities. Thus, if we perceive the presence of some attribute, we can infer that there must also be present an existing thing or substance to which it may be attributed.[249]

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[248] Descartes, *Principles* 1.51: CSM I 210: AT VIIIA 24
[249] Descartes, *Principles* 1.52: CSM I 210: AT VIIIA 25

The purpose of the reduction is not the simple removal of ideas, but the reclamation of the space of knowledge with a different set of concepts gaining ascendancy. Thus the remaining ideas take on a greater extension. This increase in scope is facilitated by the newly ascendant concept of 'quantity'. In rule fourteen of the *Rules for the Direction of the Mind*, Descartes puts forward a novel definition of 'unity':

Unity is the common nature which, we said above, all the things we are comparing must participate in equally.[250]

This definition is given as part of an argument for the utility of *res extensa* as a problem solving media. The argument is based primarily on an understanding of extension as being the space of thought in which the imagination and the understanding are able to collaborate most fully (the reason given being that extension is simultaneously abstract and concrete). 'Unity' in this context means something like 'that common element with which all things to be compared are commensurable'. Cartesian unity is not, as it was for Aristotle and Plato, the form of the single and the multiple; the basic form of separation and discreteness. On the contrary, it refers, in a metaphysical sense at least, to the possibility of smoothing borders between things. This push for commensurability is coupled with assertions regarding the specific nature of its possibility. Descartes writes, "There are but two kinds of things which are compared with each other: sets (multitudes) and magnitudes."[251] The basic form of comparison is thus in terms of quantity, and it is only by comparison that the problems of extended substance are to be solved. When the problem-solving media that is the *res extensa* comes to acquire metaphysical significance as one of two created substances in the *Meditations* and the *Principles*, what previously represented its unity is determined as its whole nature. The problems of the relations between 'entities' both abstract and concrete occasioned the development of the problem-solving framework of

[250] Descartes, *Rules for the Direction of the Mind*, CSM I 63: AT X 449

178

Cartesian geometry and the centrality of extension therein. However, once extension gains

metaphysical significance, the entities become merely modes of modes of extended substance

(the determination 'thing', qua extended substance, now belongs only to properly numerical

beings, such as size, shape, motion, position, divisibility, etc., which are themselves modes of

extended substance. Entities such as houses, trees, and so on are, qua extended substance, are

aggregations of these modes).[252] The centrality of quantity is of course only possible if its idea

survives the reduction central to the method. On this Descartes writes in the *Fifth Mediation*:

Quantity, for example, or 'continuous' quantity as the philosophers commonly call it, is something I distinctly
imagine. That is, I distinctly imagine the extension of the quantity (or rather the thing which is quantified) in
length, breadth and depth. I also enumerate various parts of the thing, and to these parts I assign various sizes,
shapes, positions and local motions; and to the motions I assign various durations.[253]

Thus, the primary characteristic of the extended substance is determined as quantity. But what

of thinking substance? In the *Principles*:

All the objects of perception we regard either as things, or affections of things, or else as eternal truths which have
no existence outside our thought. The most general items which we regard as things are *substance, duration, order,
number* and any other items of this kind which extend to all classes of things.[254]

Although the 'things' that are modes of thinking substance are perceived by the same

apparatus as the 'things' of extended substance (in fact, in part they perceive themselves, as the

'things' of thinking substance are faculties of thought) they are not mentioned here. This is

perhaps because in this passage Descartes is focusing on the sense in which these 'things' offer

'unity' to that which they subsume – and the problem with thinking substance is that it is

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[251] Descartes, *Rules for the Direction of the Mind* CSM I 64: AT X 450
[252] Descartes, *Principles* 1.48, CSM I 208, AT VIIIA 23
[253] Descartes, *Metaphysics*, CSM II 44: AT VII 63-64

perhaps only nominally unified. Whereas the subsumption of the entirety of the physical world under the notion of quantity may appear plausible, and may indeed simplify and solidify an understanding of the relations between extended beings, the idea of thinking substance merely brings a set of species under a genus. Thinking substance is, both theoretically (this will be discussed further on) and structurally, still fundamentally Aristotelian in that its components are grouped as a set of specific differences under a genus – culminating in the concrete act, the Cartesian equivalent of the *tode ti*.

The transformation of factual indubitability into certainty is a fundamental metaphysical event. Cartesian 'indubitability' refers a theory of knowledge to a set of factual circumstances interpreted according to a particular historical psychology. That is, 'indubitability' relates merely to one's factual inability to doubt a given perception. Thus, it has no overt metaphysical character as a concept. The indubitable becomes certain on the back of the concept of 'clarity'. Clarity refers (in the manner described in the previous section) to the 'feeling' of certainty; a feeling that comes along with a given perception, appearing to grant it certainty. If one assumes a creator-God, then the failure of such a feeling of certainty can be interpreted to constitute a lie. If one assumes a benevolent creator-God, and further assumes that truth-telling is a necessary condition for benevolence, then that which is seen clearly must be interpreted as certain. Descartes does in fact make these assumptions. Thus Cartesian indubitability, clarity and certainty are simply representations of the same systemic moment from different structural perspectives. From the perspective of the theory of judgement, indubitability is most relevant; from the applied method – clarity; and from the whole-system perspective – certainty. Furthermore, with certainty one gains direct access to the real. To the degree that a perception is clear, it must be real. This comes as another direct result of the

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[254] Descartes, *Principles* 1.48: CSM I 208: AT VIIIA 22-23

attribution of perfection to the creator-God.[255] His perfection necessitates both his benevolence and his omnipotence. The confluence of these two perfections render his perfect acts of benevolence as necessarily perfect qua the specific nature of the act. That is, if God is benevolent, his benevolent acts must be perfectly executed. Thus, if one is able to purify knowledge such that one only possesses knowledge that is indubitable, and thus clear, and thus certain, then that which one knows (in the strictest, purest sense) is not merely a collection of ideas, representations, perceptions or images. Rather, under these circumstances one directly and necessarily interfaces with real being. The point at which thought interacts with real being is the same point at which it discovers certainty – the faculty of the natural light of reason. As such, the distinction between real being and knowledge in the Cartesian system is one of scope rather than kind. Knowledge is real being as limited by finite human capacities: from the perspective of thought, knowledge is a glimpse of real being; from the perspective of God, knowledge is the point at which real being and the human reflective capacities intersect. The reduction of the method is thus highly significant. It is not so much a bracketing of knowledge of the world, as it is a fundamental reconstruction of the world as such. The realm in which the method functions is that of knowledge, but the metaphysical simultaneity of knowledge and real being leaves their difference as largely one of perspective.

It is indeed a 'world' that Descartes' method works to transform, if one takes the Cartesian systemic structure seriously. There are elements within the perceived environment that connect directly with real being. These elements are 'mixed' with others in such manner it seems as to both weaken and enhance one another, depending on their respective stature. This is made clear by, among other things, the requirement of distinctness. If the experience of certainty was not transitory, then distinctness would be irrelevant – it would be a concept

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[255] Descartes, *Principles* 1.14-1.31, CSM I 197-203, AT VIIIA 9-17

identical to clarity. The Cartesian 'world', it seems, is an admixture of differently sourced projections. In this context, the role of the method is to sort those projections into those which have their origin in God (and are thus certain), and those which have their origin in the structures and limitations of human thought. Those elements of the projected world that are shown to originate in God directly must subsequently be re-imagined in such a way as to constitute a totality. However, the world appears to be resistant to the redistribution of its concepts according to Cartesian certainty. This seems clearly enough understood by Descartes, given the necessity of powerful doubt-makers in the early stages of the method.[256] The pool of ready-made concepts takes effort to keep at bay – and this is precisely the difficulty in the method's application that Descartes mentions on several occasions. It takes a great effort of thought to avoid the surreptitious reintroduction of methodically barred concepts. The new structure must be *forced* upon the world. More significantly, the world must be held in line according to a set of principles that both assume and deny a radical disconnect between phenomena and system. The phenomena that are central to the method, and essential to its power to divide the world appropriately, are systemically determined only as a-systemic. Thus, the central moment of the method is fundamentally interpretive. This interpretive moment provides a conceptual ambiguity that serves to hide the fact that the instantiation of the method is itself essentially a creative act. The ambiguity is covered over by a concept of its own construction when it is interpreted in terms of clarity. The method is, from the perspective of the complete final structure, a justification rather than a cause. Through the Cartesian method, the ambiguity of change is reduced to a single point – the concrete act of thought – and subsequently brought into the system under a determinate concept. Thus, in being disguised as a simple program of reduction and expansion, the

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[256] The 'malicious demon', for example, mentioned in the *First Meditation.* (*Meditations* CSM II 15, AT

method serves to cover over the essentially creative and contingent nature of the work of system building with a veneer of necessity.

8. The Priority of "Thought" within Methodological Doubt

In the Cartesian system, there are two fundamental senses of 'thought'. Each sense demonstrates a particular modality of systemic priority fundamentally different from the other, yet the two are nonetheless conflated by a 'sleight of hand'. The first is enacted thought, or the concrete act, the basic function of which is to provide an a-systemic source of certainty that is nonetheless amenable to a degree of systemic integration. An epistemological counterpart for the necessity provided by God, enacted thought provides an object of faith that may be described and determined without risk of blasphemy. The second sense of Cartesian thought is that of its systemic representation as such. The role of this second sense is equally important, as it provides the basic form of the systemic structure – and it is this basic form that provides the theoretical grounding for the method and thus for the priority of the first sense of thought.

The basic structure of the positive Cartesian concept of thought is taken from the Aristotelian tradition extending through Averroes at one end and Suarez at the other. One might also argued that Descartes ought to be considered as one of this group if it were not for several significant divergences, pertaining to both the nature and scope, of Descartes' notion of thought. Ignoring the fine differences between the pre-Cartesian accounts, their structure was basically the same. The reason for their shared structure is closely related to the reason for the divergence of the Cartesian account. The function of the 'psychology' of these basically

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VII 22)

183

Aristotelian thinkers was to integrate sense perception with the intellect and thus with the essences of things. In this way, they unified the structure of the categories with the structure of thought, with the concepts of 'external' and 'internal' sense sharing in the accidental species, and the intellect presiding over the attribution of essence. As the 'problem' was shared by the Scholastic philosophers, and Aristotle himself had already provided a draft of a solution, there was little reason for radical change; rather more appropriate was a continual finessing, a continual restating of both the problem and the solution to create a closer fit. On the other hand, Descartes was committed to abandoning both the categories and the hylomorphic physics. Thus, in many ways, the Scholastic Aristotelian psychology, at least considered according to its overall position within the basic prevailing theoretical framework, is largely irrelevant to Descartes. The problems of Scholastic psychology are not the problems of Cartesian psychology, yet nonetheless they remain structurally almost identical. On the other hand, in spite of this similarity of structure, the divergence of Cartesian physics and methodology force a modification of the *functions* of the elements within the structure.

The Scholastic philosophers divided sense perception into an external sense and an internal sense, the latter of which served as an interface between the external sense and the intellect. There were some differences regarding the internal structure of each of these and of their divisions (i.e. disagreement over the specific faculties belonging under each heading), but this basic structure was shown by Aquinas and still defended by Suarez. On the account of Suarez[257], the primary role of the external sense is to interact with external species (colour, etc. – sensory elements derived from Aristotle's categories) and form them into a unified whole

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[257] I take much of my understanding of Suarez's account of the relationship between internal and external sense from a paper by James B. South entitled *Francisco Suarez on Imagination* – James B. South, 'Francisco Suarez on Imagination', *Vivarium,* 39/1 (2001), 119-58. He discusses the account of internal

(via the common sense), while the internal sense (imagination) produces and retains images that relate to the activity of the external sense. The intellect operates on the products of the imagination and determines them to fall under a particular essence or another, thus incorporating them into the categorial structure and the greater metaphysics of substance. Each level, from that which is sensed to the eventual intellection, gives occasion for the next to function according to its kind. They are all brought into contact in a rather obtuse manner under the notion of the unity and harmony of the soul, a concept which serves to fill any causal gaps. For several reasons, Suarez does not consider the transition from externally sensed species to intelligible essence as one of efficient causality. The concept of 'harmony' is used to wall up the causal story.

Descartes on the other hand has abandoned the categories and replaced the hylomorphic explanation of physical change with one based upon geometry. He keeps the basic structure of the psychology of Aquinas and Suarez but must, in keeping with the centrality of thought to the opening movements of the method and in keeping with his alternate physical science, reconfigure their roles somewhat in terms of their content and in terms of their relationships to one another. However, the basic structure [of sense, imagination, intellect (which Descartes terms the 'understanding')] remains. This structure itself never seems to be submitted to Descartes' method for verification – rather it seems to be taken as self evident. Indeed, when 'thought' (in the sense of 'enacted thought') is verified by its failure to doubt itself adequately, it is this basic structure, this *theory* about thought, rather than the amorphous sense of thought as sustaining action in time, that is taken as certain. It is taken by Descartes as obvious that the nature of thought can easily be known – and when it is known, it seems, it is known according

185

this tradition. Apart from two fundamental transformations of function, the difference between Descartes and the Scholastics, on the topic of thought, is not so much greater than that between Aquinas and Suarez. The first difference, as already mentioned, is that the intellect no longer serves to integrate the senses with the categories. This 'problem' (that of the production of essences), given Descartes' divergent physics, is no longer a problem. The second, and this is a requirement of the method, is that there is no longer an internal and an external sense, but rather all become modes of thought. What was considered as the external sensory component is now 'sensation', a mode of thought. As a mode of thought, sensation is no longer able to integrate the material of perception (colour, etc.) with the intellect. Whereas, prior to Descartes, the external sense formed a bridge between the internal sense and the physical world, for Descartes, sensation is a mode of thought with the characteristic feature only that it in part *refers* externally[258].

Cartesian 'thought', in its positive sense, indicates a complex of interrelated capacities or faculties. The precise notions of these capacities or faculties are derived from the Aristotelian tradition, with modifications performed where the Aristotelian theory of perception tends to contradict others of Descartes' theoretical commitments. The result is a categorial structure, with 'thought' as genus encapsulating several levels of species. That is, 'thought' is the name given to the entire array of primary human capacities, and it is subsequently divided into several species that are each further divided according to their various modes of action. The first division is between perception of the intellect and operation of the will[259]. Beyond this,

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[258] I write *in part* as the 'passions of the soul' (emotions, etc.) are also sensed. It seems that Cartesian 'sensation' includes a limited interpretation of the sense data in terms of its internality or externality.
[259] "All the modes of thinking that we experience within ourselves can be brought under two general headings: perception, or the operation of the intellect, and volition, or the operation of the will. Sensory perception, imagination and pure understanding are simply various modes of perception; desire, aversion,

perception is characterised by several modes, including understanding, imagination, and

sensory awareness – whereas modes of willing include desire, aversion, assertion, denial and

doubt. By far the most significant elements, in terms of the production of axiomatic concepts,

are the understanding and the imagination, as they are productive rather than simply

evaluative. Indeed the fundamental difference between an axiom as such, and a clear and

distinct idea of a thing, should be understood in terms of their being products of the

understanding and the imagination respectively[260]. Early on in Descartes' writing, in the *Rules*

for the Direction of the Mind, imagination is not precisely determined in terms of its content.[261]

The imagination is that faculty that serves to explain the production of images. It is most

naturally able to produce extensive images, but is not strictly reduced to their display. Because

indeed, at this early stage Descartes seems to consider the primary importance of extension as

a pragmatic one, i.e. it is useful to characterise a problem in terms of extension, as this will

most fully utilise the power of the faculty of imagination for the solving of a problem.

However, by the time of the *Principles of Philosophy*, extension is precisely that which

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assertion, denial and doubt are various modes of willing." Descartes, *Principles of Philosophy* I.32, CSM I 204, AT VIIIA 17

[260] Whilst most of the modalities of thought are somewhat 'dirty' (i.e., tend to refer to a cause external to a particular thinking thing), the understanding is relatively pure (meaning that it interacts only with other modalities of thought). This, taken along with the status of the axiom as being a pure product of thought, suggest that it is the role of the understanding alone to produce axiomatic propositions. In *Principles of Philosophy* Descartes writes: "But when we recognize that it is impossible for anything to come from nothing, the proposition *Nothing comes from nothing* is regarded not as a really existing thing, or even as a mode of a thing, but as an eternal truth which resides in our mind. Such truths are termed common notions or axioms." I.49, CSM I 209, AT VIIIA 23-4

[261] In *Rule 14* of *Rules for the Direction of the Mind* (CSM I 56, AT X 438-52) Descartes gives a detailed account of the relationship between intellect (in his later writings, what is called here 'intellect' will be renamed 'understanding', and 'intellect' will refer to the combination of imagination and understanding), imagination and extension. Much of this account is broadly compatible with Descartes later view, though he never again goes into so much detail. One commonality is his characterisation of imagination as that faculty which projects extensive images. This appears to be something that Descartes takes up as simply obvious. He gives little argument, and the transition from his position *Rules for the Direction of the Mind*, where the imagination is most comfortable dealing with extensive images, to that in *Principles of Philosophy*, where the imagination deals only in extensive images, is both significant and unexplained.

187

characterises the output of the imagination[262]. The imagination is finally, and only, the faculty that projects extension; whether in response to sense impressions or the understanding; and extension itself is understood as the representation of quantity by the imagination[263], ultimately providing a space within which the understanding and the imagination can function fully and in cooperation. The understanding is, of course, no longer defined by its ability to determine the essence of a thing, but is the faculty that serves to explain the facts of abstraction, pattern recognition, comparison and the production of axioms.

The imagination produces a unified extensive representation based upon diverse input. Sensory awareness[264], the name given to that mode of thinking that refers the body to an external world, is understood as the form of input that stimulates the imagination to project real extensive space[265]. Note that sensory awareness only *refers* externally – it is in fact internal

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[262] "[T]he objects of the imagination are restricted to those which have extension, motion and shape, whereas there are many other things that are objects of the understanding." *Principles* I.73, CSM I 220, AT VIIIA 37. Note that motion and shape need not have been mentioned, as they are both modalities of extended substance. Thus, "extension in length, breadth and depth constitutes the nature of corporeal substance[.] Everything else which can be attributed to body presupposes extension, and is merely a mode of an extended thing[.]" *Principles* I.53 CSM I 210 AT VIIIA 25

[263] It seems that Descartes considers that the greatest power of geometry lies in the fact that it aligns the two major modalities of thought to a common purpose. Though this relationship between the understanding, the imagination and geometry is only mentioned briefly and in an early work (*Rules for the direction of the Mind,* Rule 14), it remains basically compatible with the structure of Descartes later thought and is highly instructive.

[264] Descartes refers the unity of sensory awareness – the 'common' sense (another aspect of internal sense perception derived from the Aristotelian tradition) – to a physical explanation in terms of the pineal gland. (*Rules* CSM I 41, AT X 414; *Treatise on Man* CSM I 105, AT XI 175) The imagination, insofar as it is directed by sensory awareness, would be placed after the common sense, as the manifestation in thought of this physical combining. This physical explanation of the relationship between sensory awareness and imagination is not only fallacious – it also conflicts with Descartes own argument for the significance of real extensive space. In any case, with or without reference to a physical explanation, the imagination is the unified representation in thought of a complex of diverse yet interrelated data.

[265] Descartes does not describe the display of extension by the imagination as a 'projection' – this is my terminology. However, it is a piece of terminology that is appropriate given Descartes account of the role of imagination in general, its relationship with the body and real extension in particular. What are interpreted by the imagination are already modes of thought – insofar as these modes are considered to relate externally they are the elements of sensory awareness. They are received by the imagination not *qua* their relationship with externality, but *qua* the precise interactions between one mode of thought and another. The result is the presentation of real extended space. Real extended space is produced through an internal relation, but is presented as the very form of externality – thus I consider the imagination 'projective'.

to thought[266]. Its external reference is carried over to the imagination and thus to the projected real extensive space. The understanding works upon this projection as well. It finds regularities and thus recognises patterns. From patterns, the understanding forms rules and produces expectations for future projections, thus demonstrating itself also as projective in a certain sense. Although the understanding does not project absolutely (i.e. in the manner that the imagination projects real extension), it projects expectations for action within space, as well as projecting revealed eternal truths across all relevant intellectual content. Furthermore, the output of the understanding is sent back to the imagination, which is able to produce new representations based upon the combinatory structure dictated by the understanding. Each faculty retains the capacity for error. As both of these faculties are projective – the imagination projects extension and the understanding projects relational structures – minor deviations from the adequate operation of either faculty can easily result in errors of great magnitude. Separately and in concert, the imagination and the understanding have the potential to both hinder and advance knowledge – taken together they represent both its limit and its possibility. They represent its possibility in the sense that it is only as a result of their operation that the will has material to which it might provide or deny its assent; and its limit, as their precise nature formally defines the kinds of knowledge that are possible.

The Cartesian notions of both error and knowledge are informed by this structure of thought. They are both formed by the interaction between 'will' and 'intellect'. In the (later) Cartesian

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[266] "It must be realisèd that the human soul, while informing the entire body, nevertheless has its principle seat in the brain; it is here alone that the soul not only understands and imagines but also has sensory awareness." Descartes, *Principles* IV.189, CSM I 279-80, ATVIIIA 315 and, "We know for certain that it is the soul which has sensory perceptions, and not the body. For when the soul is distracted by an ecstasy or deep contemplation, we see that the whole body remains without sensation, even though it has various objects touching it. And we know that it is not, properly speaking, because of its presence in the parts of the body which function as organs of the external senses that the soul has sensory perceptions, but because of its presence in the brain, where it exercises the faculty called the 'common' sense." Descartes, *Optics* CSM I 164, AT VI 109

account of thought, the intellect is that aspect of the mind formed by the twin projective powers of imagination and understanding, and perception is the name of the action proper to it as a whole. Imagination provides 'image', understanding provides 'structure' (taken broadly), and their enacted interrelation is the 'perception of the intellect'. There are several causes of error that Descartes recognises (exactly four in fact)[267], but all have in common that they are made technically possible by a laxity of will. This technical possibility is rendered thus: the possibility of the perceiving intellect is represented by the intertwining projective powers of the imagination and the understanding, and error in this context is the assent given by the will to a projection, according to either or both of the projective faculties, beyond that which is clearly perceived and thus beyond certainty[268]. The scope of the will is wider than that of the intellect, and this is the basic source of error. The will is able to give assent to all manner of representations and propositions, many of them dubious. However, the will also possesses the capacity for doubt and thus, according to the Cartesian method, the ability to renegotiate its own capacities such that they may be directed exclusively to the certain. Thus, the will is introduced in its capacity as the producer of both knowledge and error. Its role according to this capacity is to integrate the *mere data* of the intellect into a discourse on knowledge, or a discourse on certainty, which for Descartes are the same thing (according to Descartes' definition, the true must become certain before it may be considered knowledge). For

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[267] "The chief cause of error arises from the preconceived opinions of childhood" and, "The second cause of error is that we cannot forget our preconceived opinions of childhood" and, "The third cause of error is that we become tired if we have to attend to things which are not present to the senses; as a result, our judgements on these things are habitually based not on present perception but on preconceived opinion" and, "The fourth cause of error is that we attach our concepts to words which do not precisely correspond to real things." Descartes, *Principles* 1.71, 1.72, 1.73, 1.74 CSM I 218-20 AT VIIIA 35-7
[268] "Moreover, the perception of the intellect extends only to the few objects presented to it, and is always extremely limited. The will, on the other hand, can in a certain sense be called infinite, since we observe without exception that its scope extends to anything that can possibly be the object of any other will – even the immeasurable will of God. So it is easy for us to extend our will beyond what we clearly perceive; and when we do this it is no wonder that we may happen to go wrong." Descartes, *Principles* 1.35 CSM I 204 ATVIIIA 18

Descartes, the bare product of the imagination or the understanding is simply incompatible with the notions of knowledge and error. This bare product must be assented to by the will before it becomes either[269]. Once assent is given and a judgement is thus formed, the result is necessarily either knowledge or error. Obviously then, knowledge of another kind is required (that is, of a kind different to that of the judgement at hand) that will enable the development of a practise through which such judgements can be clearly and reliably divided into those which result in knowledge and those which do not. This knowledge is of course knowledge of the method (and methodology) which, in this Cartesian form utilises 'doubt' as an innate mode of the will that allows the will to restrain its own excesses.

Recall for a moment the manner in which the twin powers of the intellect serve to limit knowledge, as well as enable it: they both enable and limit knowledge by constituting its form. However, there is another sense in which the intellect (the imagination and understanding) enable a limit of knowledge according to the Cartesian schema. They constitute a limit insofar as their positive projective capacity extends beyond the ability of thought as a whole to obtain certainty. Alternatively, rather, they *contain* a limit in this sense; they are the material circumstance in which an ideal limit is constructed according to a given array of concepts – God, thought (will/intellect) and certainty in particular. Thus, strictly this limit does not belong to the intellect. It is an ideal division *of* intellect *by* the will where the will can on the one side, assent, and on the other, negate. A question appears: how does one assure oneself

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[269] "In order to make a judgement, the intellect is of course required since, in the case of something which we do not in any way perceive, there is no judgement we can make. But the will is also required so that, once something is perceived in some manner, our assent may then be given. Now a judgement – some kind of judgement at least – can be made without the need for a complete and exhaustive perception of the thing in question; for we can assent to many things which we know only in a very obscure and confused manner." Descartes, *Principles* 1.34, CSM I 204, AT VIIIA 18. It seems, then, that the will is wider in scope only in the sense that it is capable of affirming in full those things which are perceived only in part or improperly. It does not have a greater scope in the strict sense; i.e. in the sense that it is capable of addressing a greater array of objects.

191

that the limit itself is determined correctly? One cannot simply point to the method as an

answer. The concepts modified through the method, as well as those through which the

method is constructed, must be products of the intellect. This includes the notions of the

modes of thought, and notions of thought itself, insofar as they are in fact *thought*. That is, the

concepts (including the structure of thought itself) according to which the ideal division of the

intellect is made by the will must themselves be products of thought, the idea of which is

exhausted in Descartes' theory by intellect and will. As the will is necessarily incapable of

producing material for its own judgements[270], they must be products of the intellect. Descartes

applies several methods of varying fame throughout his work, but each can be traced back to

concepts that must be products of the intellect[271]. In addition to the obvious concepts (i.e.,

those which are actually mentioned by name in the texts), it should also be remembered that

the demonstration of the power of doubt through the negation of thought required the

surreptitious functioning of several other concepts. In particular, it was shown earlier in this

chapter that when the will is wielded as a doubting implement, a particular and historical

concept of 'existence' is required for the translation between the phenomena and the

metaphysical system. If this concept is considered as a product of the

imagination/understanding interaction (in the Cartesian system it must be considered such a

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[270] As the modes of thought are ostensibly divided according to function, rather than form or by their location in the brain or any other place, to merge their function would be effectively to merge the faculties absolutely. Thus, if there is to be a division between will and intellect, then they must be absolutely distinct in their function.

[271] In *Rules for the Direction of the Mind* (in particular Rule 14, CSM I 59, AT X 442-3), one of Descartes methods involves the limiting of each projective faculty to its own sphere and using the other as a corrective – using one to ensure the other has not strayed. Thus the imagination is used to correct ideas produced by the understanding that suggest an extensive projection. If the imagination is unable to represent a purportedly extensive idea (e.g., the proposition that extension *per se* may exist without any extended thing), then by this method the idea must be false. As extension is projected by the imagination, ay idea of something extended must be imaginable at least. Conversely, the understanding conditions the status of imaginative projections *qua* their existence, through recognition of contradiction. Of course, all of this can only take the form of 'advice', according to which the will must make a judgement.

product), then one might wonder by what measure the will might make a judgement on *this* projection. Thus, three related yet slightly divergent problems remain. First, the theoretical aspect of 'thought', which is largely inherited and largely unquestioned, is never submitted to the method for verification/modification – and it is this 'theory' that provides the foundation for the laying out of the method. Second, assuming that this theory is perfectly acceptable, the operation of methodological doubt requires historical concepts in excess of those submitted for verification – concepts perhaps fundamental to the operation of the Cartesian method which cannot in principle be 'purified' (thus muddying the purity of the system's foundation). Third, the manner in which this theory of thought 'gets past the censors', so to speak, is highly suspect. Assume for a moment that it is acceptable to speak of a notion of thought that is prior to theory, and understand this notion to appropriately bear the title 'enacted thought'. When the 'I think' is shown to remain after its negation, this 'I think' can be nothing other than the very action of the doubt – if it is to be understood as 'thought', it must be as enacted thought. No theoretical structure of thought as such is implied by this inability of enacted thought to negate itself. However, the verification of the 'existence' of this 'space' also serves in Descartes' system to verify the self-evidence of the internal structure of this same space. The prototypical moment of methodological doubt serves, and this is one of the system's foundational elements, to authorise the introduction of an historical theoretical structure; and this through a sleight of the hand that functions by diverting the attention away from the theory and toward the thinker thinking through the thought experiment.

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[271] This term postdates Descartes' writings rather substantially and I do not propose to attribute to him any notion of epistemology or the epistemological – rather my intent is to draw a retrospective distinction for the sake of clarification.

In the secondary literature, the primary engagement with the various modes of Cartesian thought appears to relate to questions of 'substance' and Cartesian dualism[272]. In a paper titled *Cartesian Trialism*[273], John Cottingham argues that, alongside the 'officially' endorsed Cartesian dualism of created substance, is to be found a more flexible theory; something of a 'pseudo-trialism'. However, he does not argue that Descartes' system appears to support three created substances, but rather that the Cartesian psychology appears to support the classification of entities into three basic categories – those of mind, those of mind/body, and those of body. This position is derived primarily from the final few sentences of Article 48 of Descartes' *Principles of Philosophy*:

But we also experience within ourselves certain other things which must not be referred either to the mind alone or to the body alone. These arise, as will be made clear later on, in the appropriate place, from the close and intimate union of our mind with the body. This list includes, first, appetites like hunger and thirst; secondly, the emotions or passions of the mind which do not consist of thought alone, such as the emotions of anger, joy, sadness and love; and finally, all the sensations, such as those of pain, pleasure, light, colours, sounds, smells, tastes, heat, hardness and the other tactile qualities.[274]

Before rushing headlong into an analysis of the metaphysics of substance, one would do well to consider the above passage in light of Suarez's account of external and internal sense. The structures themselves, in spite of the obvious difference in the senses of 'external', are basically identical and, as such, are basically identical in the manner in which they fail to function and thus require a supplementary explanation. The very structure of this thought-schema entails a difficult transition between the internal and external sense, and the intellect, on the part of

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[272] In fact there are surprisingly (considering its systemic importance) few authors that deal directly with Cartesian 'psychology'. John Cottingham and Katalin Farkas are two that stand out, but even these two appear to be more interested in its import for substance dualism than the Cartesian system as a whole.
[273] John Cottingham, 'Cartesian Trialism', *Mind*, 94 (1985), 218-30 pg. 218-30.
[274] Descartes, *Principles* 1.48 CSM I 208-9 AT VIIIA 22-3

Suarez, and between the externally-referring and internally-referring modalities of thought on the part of Descartes. The interrelation of each level of sense with the intellect is covered in Suarez by the concept of 'harmony'. Descartes, however, employs a different method: all aspects of human experience are brought under the notion of 'thought', and are thus united, though several modes of such thought *refer* externally. That is, several modes of thought refer to a cause that is not of their kind (i.e. not of thinking substance). As Katalin Farkas[275] correctly points out, the causes of these externally-referring modes of thought could possibly be several, aside from one fact – only the supposition of their cause being 'bodily' tends to save God, given the powers attributed to him in the Cartesian system, from being morally questionable according to Christian *doxa*.

In any case, the question of the relationship between body and mind, extension and thought is a question pertaining to the *effects* of the interactions of the several prior elements of the Cartesian system. These questions themselves are prior only from the perspective of 20th Century philosophy of mind, which tends to take 'Cartesian Dualism' as a bare and complete historical approach to the analysis of the ontological structure of the world, abstracting it from its position within the Cartesian systemic structure. Taken as an element of the complete Cartesian system, substance dualism is an accidental, albeit major, result of the interactions between several other elements. The effect being that, if the number of created substances were to be modified, assuming that this is done in respect of those systemic elements that produced the necessity of two substances originally, the structure of the system itself need not be modified. A far more fundamental question (as opposed to that pertaining to the *unity* of two substances in thought), a question pertaining to a concrete sense of systemic priority is: why are the two sides of thought distinct? This question refers immediately back to two

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[275] Katalin Farkas, 'The Unity of Descartes' Thought', *History of Philosophy Quarterly*, 22/1 (2005), 17-30.

senses of priority functioning in the Cartesian system: the ontological (in the form of God), and the preconception (in the form of an inherited but modified Aristotelian thought-structure); the appearance of the latter is only discussed by Descartes as a possibility for error - as error stemming from preconceived ideas. Methodological doubt is primarily designed to overcome this form of error, but it is precisely via this form of error that methodological doubt receives its theoretical foundation in the form of an historical thought-structure.

From the perspective of Cartesian 'thought', the method is the act through which a healthy will is cultivated. The health of this will is measured by the depth of its mastery of the practice (the method), requiring a substantial degree of mental effort, that is devised for the purpose of obtaining certainty. The representation of certainty in what is ostensibly or at least relatively 'enacted thought'; the experience of this thought/method structure by the thinker; is conceptualised under the notion of the 'clear and distinct ideas' and of the 'natural light of reason', as discussed in the previous section. It is surely tempting to view the instantiation of an historical thought-structure on the grounds of a concrete psychological event as an obvious failure. In any case it would be counted as a failure from the perspective of some of Descartes' own stated aims for the method; the 'purification' of preconceived notions being one example of such an aim. To consider such a failure of method as a fundamental systemic failure, one must in the first place take Descartes' claims of the centrality of method as unequivocally true. However, the method itself is only one moment within the Cartesian system at large. Descartes' system appears stronger if his claims about the method are taken less seriously. The method and the thought structure that mutually support one another are also independently related to other elements within the system – in particular, the ways in which they relate to God are basically distinct. The Cartesian system is one in which the interplay of history,

196

method and ontology are, though distinguishable, thoroughly intertwined. From the perspective of this system as a whole, the Cartesian thought-structure is only a moment with an array of causes and effects. It is part of a sub-system internal to an already given system, the function of which is to restrict the spontaneous growth of the system as a whole. Considered thus, one ought to understand Cartesian methodological doubt not as revolutionary but as reflective. It is a systemic element, the function of which is to consume and digest not only history but also the system of which it is a part. The element of the system that describes the nature of thinking is actively thought through so as to condition the system as a whole according to the basic affective power of the specific theory of thought that Descartes utilises. That is, the 'sleight of hand' that introduces a theory about thought is not simply a failure; it also enables the *enactment* of thought according to or within a given structure *in time*. Descartes takes the systemic space of thought seriously as referring to the operation of thought in time. Thus, the process of thinking, the enacted thought, becomes systematised and so drawn as a concept into the mechanism with which the range and value of concepts is determined. The implications of the systematisation of thinking are drawn out by bringing active thinking into the systemic space occupied by thought as a concept. What is revealed is an inhabited living system encountering its own modification as immanently systemic and as temporal.

9. Conclusion

Cartesian method can be considered from three basic perspectives, each correlating either with a moment within the structure of change that Aristotle analyses in terms of the concepts of actuality and potentiality; as an initial state, as a process, and as a result. In this chapter the focus has been on the first two; in the next the focus will be on the third. The 'initial state' is

197

the point of intersection of the greater array of passive an active causes. This is point is only nominally such, i.e. there is not absolute beginning from which to understand the method, but an initial state can be posited as the location of a proximate cause in order to facilitate discussion. This state might be determined as any of many points, but in this case it will be considered as the point at which the method is created as a set of instructions relation to a concrete action in thought. From the perspective of the 'initial state' then, the method is an effect. It might be considered an effect of Descartes' methodological perspective or some other proximate cause, but whichever is the case, the most significant detail is that it is a prescription for action, but not an action itself. Considering method as a static unity, as an effect of the set of passive and active causes from which it arises, its priority lies in its being *representable* as prior. It is the theoretical representation of a potential prior act projected from a particular theoretical-conceptual location. This location might otherwise be characterised in terms of a total structure of passive and active causes. The method must be understood as being capable of effecting a transformation of its input such that the *telos* of the methodology is exhaustively represented at its output. It is the result of a process culminating in its construction, but it is not yet a process itself. Considered thus, as an effect, the method is the idea of the concrete path between methodology and *telos*. It is a set of rules or guidelines that are devised so as to take into account both the *telos* and the circumstances within which it might be realised. It is essentially projective, and the medium into which it projects is the imagined medium of an enacted thought not yet enacted. In this regard, it is the projection of a potential movement based on an array of notions pertaining to theory and to pre-theoretical thought. Central to this projection of method is its projection as 'prior'. In this case, 'priority' refers to a foundation within knowledge. In the context of Cartesian metaphysics, a foundation in knowledge is a point, however small, where 'thought' and 'real being' coincide.

198

Although the Cartesian method, considered as an initial state or an effect, is a prescription for action rather than an action as such, it nonetheless contains an imagined movement; it is imagined as a temporal process, with a beginning, middle and end. This is a result of its being specifically a method devised to operate within lived, temporally engaged, thought. Its beginning point is an imagined moment after which all is different. This is the moment which, from the perspective of the complete system, would be understood as its beginning. The imagined temporally prior moment of the system, the idea of the moment of the method's being instantiated in fact, in enacted thought, is projected along with the projection of the method as a set of guidelines or practices. It might be considered as the projection of the memory of its own instantiation, to be remembered as a foundational moment so that the process of the method need not be continually re-enacted.

However, considered as the proximate cause of the Cartesian metaphysical system, the Cartesian method is fundamentally different in kind to the method considered as an effect. Considered as a cause, method is enacted; a process. As enacted, the Cartesian method can be considered as the unitary efficient cause of a concrete transformation of ideas. However, insofar as method is considered as a cause, it must be considered as *becoming indefinite*. As a cause, method must be instantiated in enacted thought, becoming a 'movement' or transformation. It can no longer be considered as a set of guidelines for the negotiation of an idealised thought-structure. If the method is successful the guidelines or principles, from the perspective of enacted method, become the index of a concrete transformation in thought, as they are dissipated through enacted thought, which is the imagined space of enacted method. Enacted method differs from enacted thought as a totality only insofar as enacted thought is restricted in some fashion analogous to the structure of the guidelines that ostensibly

199

motivated it; that is, insofar as enacted thought is restricted in a manner analogous to the structure of the Cartesian methodology. The method as a set of guidelines is as different from the enacted method as a theory about thought is to thinking. As such, the connection between method as effect and method as cause is at most one of analogy. The enacted method cannot project itself freely according to the prescriptions of a theoretical-conceptual schema, but rather runs up against the necessities of its own action and its integration with the 'world'. In its becoming indefinite, the method retreats as an object and is replaced by the causal interactions that obtain according to its actualisation. Insofar as method is considered as an efficient cause, it is not an object available for consideration; it is rather the name given to a movement of thought such that it might be united analogically with the projection of method that extended from the methodology.

The theoretical sense of 'thought' in the phenomena that are given in enacted thought. The phenomena represent the method's a-systemic foundation, but it is only by a 'sleight of hand' that theoretical thought is attached to this foundation and thus given necessary existence. The theoretical sense of thought, once given necessary existence, goes on enable the basic theoretical structuring of real being. The essential function of methodological doubt is to work the a-systemic immediacy of the phenomena into mediate concepts that will translate that immediacy such that it might be integrated into a structure of determinate concepts. The presence of the method within the system, along with the notion of it's a-systemic phenomenal foundation, invites the system's constant reappraisal. Being founded in enacted thought, but structured according to a particular theoretical interpretation of thought, contingency is introduced at the system's foundation. Rather than shoring up contingency, the a-systemic foundation central to the Cartesian method demonstrates the instantiation of the method as a

fundamentally creative interpretive act. Aristotle's *pros hen* structuring of first philosophy allowed that subject matter to become an object of its own study, demonstrating the fundamental instability of a study of being considered thus. The Cartesian method transforms refines this instability by locating it within the difference between enacted thought and the theoretical structure that it authorises. The instability of the *pros hen* structure manifests as ambiguity. The Cartesian method further specifies this ambiguity as a fundamental possibility for creative reordering inherent in first philosophy.

THE ACTUALISATION OF CARTESIAN METAPHYSICS

1. Actualisation and the structure of Cartesian metaphysics

In the previous chapter, the method was discussed as an aspect of the greater causal situation surrounding the transformation of knowledge that Descartes includes at the core of his metaphysics. It was shown that, rather than shoring up contingency, the structure of the Cartesian method allows for the ambiguity within *pros hen* structured first philosophy to be refined and more thoroughly incorporated into a theoretical account of its study. The structure of the Cartesian method was shown to be such that it allowed the possibility of creative reorganisation into the central part of first philosophy, by way of its incorporating enacted thought as a source of a-systemic foundation. In this chapter, the development of Descartes' own metaphysical system will be considered from this perspective. This chapter thus describes the independent actuality that results from the concrete movement of the method. It describes the *actuality* of the method in the sense of an *entelecheia*, i.e. the work that is freed to enter into causal interactions in terms of that which it is, rather than in terms of its own proximate causes. As the method's own ontological foundation is to be found in the metaphysical system it purportedly produces, a proper appreciation of the method will only be available once it is considered in terms of its foundation in the larger structure of Cartesian metaphysics.

If the method were to be actualised in such a manner as to derive the certainty that Descartes seeks, then 'certainty' as a concept ought to become redundant, as the system would receive sufficient and clear ontological foundation in the idea of God. The method provides epistemological support for the foundation of the system, but not its ground. It provides the conditions under which grounding as such can be justified. With method, Descartes seeks a way towards *prima philosophia*, rather than the prior philosophy as such. *Prima philosophia* can be subsequently deduced from the axioms or common notions that flow from the application of the method – the most essential of these being that *God exists necessarily*. Within the Cartesian system, all other axioms depend on this one. The set of axioms needs to be characterised by absolute necessity, and this can only flow from God. When 'certainty' is applied to the world as a measure, via the method, necessity becomes possible. Necessity is the metaphysical partner to epistemic certainty – they require each other for their sense. The necessity that flows from God, through the Cartesian system, renders the natural light a source of certainty. Revealed as a gift, the natural light is the local object of faith – but once the local object of faith is revealed in its necessity, faith becomes certainty – which is required to demonstrate God as necessary at the same time as God's necessity is required to render the method certain. This interdependence, considered in the abstract, forms the basic structure of both the Cartesian system and that of the Scholastic philosophy he is attempting to displace. Nonetheless there is, in terms of this abstract structure, a fundamental difference between the God-human relationship of Thomas Aquinas' philosophy and that of Descartes. For both Descartes and Aquinas, God and human can ostensibly be seen to exist assuming the existence of the other, but Descartes appears, with the addition of phenomena, to have added a third axis of proof of existence outside of the God-human relation. Given the interdependence of God and human, divorced from the actual subjective moment of the instantiation of certainty,

the role of the Cartesian method is to demonstrate extra-systemic necessity from the perspective of knowledge. In this chapter, the focus will be shifted from the movement from knowledge through to being, to the movement of being to knowledge, that is, from cause to effect. In doing so it will consider the systemic role of God in the Cartesian metaphysics, and the specific axiomatic structure ostensibly derived from God's necessity.

In the context of the Cartesian system, actualisation can be understood in two ways. First, in terms of the actualisation *of* the system and second, in terms of the actualisation enacted *by* the system. The first of these refers to the genesis of the system and the second refers to its function. This difference for the most part mirrors the classical division of forms of priority as they pertain variously to knowledge or being. For Descartes, knowledge by definition must give direct access to the real; the acceptance of any lesser definition of knowledge will indirectly imply God's imperfection. The growth of the structure of the Cartesian system must, for this reason, be imagined strictly as the epistemic manifestation of the ontological. That is, the various components of each proof, though constructed within the limits of the human perceptual apparatus, must be equally vivid from the perspective of God. Items of knowledge cannot entirely be products of these perceptual limits; they must be gained *in spite of* such limits. The development of the system is the accumulation of the Real. What primarily divides the epistemological from the ontological is the direction of causal flow. In the development of the system the movement of thought is from effects to causes, but the reason for developing this structure is to create a situation in which thought is able to move from causes to effects. In the movement from effects to causes one considers the genesis of systemic structure; from cause to effect one considers the genesis of world. The material itself may be identical if one abstracts it from its concrete manifestation (i.e. the material under

consideration as 'world' as such), but is nonetheless modified according to the direction of thought.

The system as a whole must unify both directions of thought: from effect to cause and from cause to effect; from God to human and from human to God. After all, any possible position from which 'world' can be assessed is itself necessarily embedded within 'world', and thus necessarily affected by a complete determination of world as such. Descartes' complete system integrates the interrogative act with ontological structures fundamentally. It consists of a set of concepts with more or less definite powers, holding each other in check and thus ostensibly constituting the world as a stable system. The Cartesian world-system is, considered at a high level of abstraction, a complex relationship between two entity-concepts; human and God. Considered at this broad structural level, the Cartesian human-God relationship shares much with its contemporaries. Indeed the basic structure of this relationship (and thus the basic structure of the Cartesian 'world') is mirrored in Aquinas' Five Ways[276]. However, in the Cartesian version, the proofs of Aquinas' *Summa Theologica* no longer merely describe the relations between two objects. The nature of the relationship between human and God is modified by the mode of access to reality that the Cartesian system affords thought. That is, as the Cartesian interface between human and God is demonstrated according to the combination of the theory about thought and the idea of enacted thought as such, the structure of this relationship must itself be considered in this same manner. The relation is no longer merely a matter of argument, but is given in terms of the argument's concrete experiential correlate. The proofs of the *Summa Theologica* are thus in a way removed from the page, from the abstraction of demonstration, and installed into the structure of the lived world.

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[276] *Summa Theologica*, First Part, Question 2, Article 3 – from Thomas Aquinas, 'Summa Theologiae', in Timothy Mc Dermott (ed.), *Eyre and Spottiswoode* (1989).

205

In the Cartesian system the axes of the proofs of the Five Ways correlate directly with the axes of the systemic structure. Cartesian thought is steeped in the Platonic-Aristotelian scholastic tradition. However, the Cartesian system, taken broadly, settles into such a shape as to allow this tradition's basic concepts to be transformed into basic structures. In particular, the Cartesian God is less significantly an entity that must be justified; more significantly he is the origin of the structure of the justification of entities.

Aquinas' five ways ostensibly demonstrate the necessity of (1) an unmoved first mover, (2) a first efficient cause, (3) a necessary being, (4) something which is eminently in being and (5) a principle according to which all natural beings are organised teleologically. Regardless of Aquinas' intent, it is not entirely obvious that that which is demonstrated by each of these proofs reveals a different aspect of the *same* being. It is equally coherent to consider them as five (or four, three or two) separate things. Naturally however, Aquinas takes the results of these proofs as each referring to an aspect of the one God. The five ways thus provide a model for an attempt to bring priority to a single point, as the array of notions of ontological priority is folded into a single entity possessing five infinite attributes. This single point is characterised in terms of the God of Christian doctrine, which brings along with it the attendant notions of God's 'will' and his infinite goodness. Thus develops the infinite creative unity that comes to serve as the default source of solutions to problems pertaining to the relationship between determinacy and indeterminacy. In particular this unity, God, becomes the source of the solution to the problem of 'coming to be' that was dealt with by Aristotle in terms of actuality and potentiality. As a result, the consideration of actualisation as such becomes redundant. The relationship between actuality and potentiality loses its fundamental metaphysical significance, since a creative act of God is alone responsible for the difference

between an existent and a non-existent essence. For Aristotle, the interface between potentiality and actuality was a continually shifting limit that was intimately related to questioning as such; where potentiality was consistently usurped by actuality according to *logos*. For Aquinas, the interface between potentiality and actuality is God. Actuality and potentiality thus lose their 'insofar as' aspect. That is, a given entity becomes, for the most part, either potential *or* actual. The status of an entity as potential or actual is no longer related fundamentally to its place within the greater causal schema; it is either created or not-yet-created. Actuality is reduced to being the defining characteristic of present existence, and potentiality is reduced to mere possibility. Priority thus remains as 'said in several ways', but this 'saying' is said of a single entity that transcends each instance. The result is that 'priority' is divorced from the *pros hen* unity of its Aristotelian sense to become simply one entity with many powers, the fundamental systemic role of which is to sustain the world of causes and effects. Aristotelian *philosophia prote* opens up an approach to questioning entities. It is not a mode of questioning that seeks to determine the attributes of a given being. On the other hand, Aquinas' quest for the first causes of primary substance predetermines the result as being given in the form of an entity or entities. Furthermore, as an entity is determined to serve as the ground for entities as such, it is characterised as infinite in some manner, in order to overcome the limits that it shares with other entities *qua* entity. 'Infinite being' is thus introduced in order to address the 'problem' of an infinite regress of causes. 'Questioning' as such, raised to metaphysical significance with the usage of *pros hen* equivocation in book iv of Aristotle's *Metaphysics*, is likewise reduced according to the structure of the relationship between human and God. Although this structure may be understood as the relationship between degraded human reason and the eminently reasonable nature of God, the form of human reason nonetheless becomes fundamental. The image of humility presented in the

207

relation between human and God is deceiving. Although God's transcendence is fundamental to his function, it remains structured according to a distinctly human schema. The larger Cartesian structure aligns precisely with the human-God structure suggested by the Five Ways. Although the method ostensibly grounds the system in an a-systemic element through the introduction of enacted thought, this is more than balanced on the ontological side by the necessary transcendence of God. This transcendence necessarily exceeds the a-systematicity of phenomena, as it serves as the ground not only for the system as such, but for 'world' in total, including the a-systemic phenomena that ground the method. Nonetheless, the manner in which the Cartesian system is constructed tends to render the axes of the human-God structure somewhat differently as compared to the structure of the Five Ways. For example, one may compare the second way and the fourth way of Aquinas with their Cartesian analogues. Aquinas' second way is from the notion of the efficient cause and runs thus:

In the world of sense we find there is an order of efficient causes. There is no case known (nor indeed, is it possible) in which a thing is found to be the efficient cause of itself, because in that case it would be prior to itself, which is impossible. Now in efficient causes it is not possible to go on to infinity, because in all efficient causes following in order, the first is the cause of the intermediate cause, and the intermediate is the cause of the ultimate cause, whether the intermediate cause be several, or only one. Now to take away the cause is to take away the effect. Therefore, if there be no first cause among efficient causes, there will be no ultimate, nor any intermediate cause. But if in efficient causes it is possible to go on to infinity, there will be no first efficient cause, neither will there be an ultimate effect, nor any intermediate efficient causes, all of which is plainly false. Therefore it is necessary to admit a first efficient cause, to which everyone give the name of God.[277]

His fourth way is from the 'gradation to be found in things' (the notion of 'eminence'), and is written as:

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[277] *Summa Theologica*, First Part, Question 2, Article 3

Among beings there are some more and some less good, true, noble, and the like. But 'more' and 'less' are predicated of different things, according as they resemble in their different ways something which is the maximum, as a thing is said to be hotter according as it more nearly resembles that which is hottest. There is then, something which is truest, something best, something noblest, and, consequently, something which is most being; for those things that are greatest in truth are greatest in being, as it is written in the *Metaphysics*. Now the maximum in any genus is the cause of all in that genus; as fire, which is the maximum of heat, is the cause of all hot things as is said in that same book. Therefore there must also be something which is to all beings the cause of their being, goodness, and every other perfection. And this we call God [278]

These two proofs are almost mirror images of one another. The relations they suggest between human and God are given in each according to an opposite movement of the mind. Following the fourth way, thought moves from effect to cause; following the second, cause to effect. The 'gradations' by which the fourth way is demonstrated are gradations judged to apply to created beings. They are the raw material out of which their transcendent analogues are projected as formal causes. On the other hand, the 'first efficient cause' demonstrated in the second way refers immediately to the act of God as creator; it does without the mediation of imaginative projection. As is well known, Descartes sought, overtly at least, to reduce the number of causes relevant to human endeavours to one; the efficient cause. He nonetheless utilises all four Aristotelian causes in various ways; particularly with respect to the structure of the relationship between human and God. In this manner, for example, his argument from eminence utilises the structure of formal causality, being as it is an analogue of Aquinas' fourth way. However, as it is used by Descartes, this structure can only be a means of access to a more concrete idea of God; the idea of God as the first efficient cause. Considered in tandem with the Cartesian method, and thus with the notion of enacted thought as the space in which epistemic certainty is properly grounded, the relationship between the argument from the

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[278] *Summa Theologica*, First Part, Question 2, Article 3

efficient cause and the argument from eminence takes a uniquely Cartesian shape. The argument from eminence takes the form, when considered in connection with its Cartesian phenomenal ground, of a *looking back* toward God. The Cartesian system lends a worldly aspect to the argumentation of Aquinas by imbedding it in enacted thought. The fourth way represents the image of God as restricted by the structure of causality and the nature of the imagination. It describes the appearance of the cause from the reduced perspective of the effect. The more deeply the effect (i.e. the human) considers its own cause, though it may obtain less and less clarity, the further it reaches into reality. Though this argument is given in terms of the formal cause, this simultaneous reduction of clarity and increase of reality functions equally according to the efficient cause, as it is a feature of Cartesian causality as such (a feature inherited from Scholastic philosophy), that the cause must contain at least as much reality as the effect. This reduction in the breadth of clarity corresponds precisely with Descartes' own reductive tendencies. Descartes requires God as the source of certainty and attaches certainty to clarity. The reduction central to the Cartesian method is thus founded upon the relationship between clarity, reality and causality. Once the structure of the Cartesian system has been laid out, the concrete role of God is made plain: he is the first efficient cause insofar as he creates and recreates the world from moment to moment. Descartes states this explicitly:

[T]he nature of time is such that its parts are not mutually dependent, and never coexist. Thus, from the fact that we now exist, it does not follow that we shall exist a moment from now, unless there is some cause – the same cause which originally produced us – which continually reproduces us, as it were, that is to say, which keeps us in existence. For we easily understand that there is no power in us enabling us to keep ourselves in existence.[279]

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[279] Descartes, *Principles* 1.21: CSM I 200: AT VIIIA 13

Thus God functions in the first instance as the efficient cause of time and causality as such, which are in fact immanent structures of this created world. They are the structures by which access can be gained to the fundamental causal activity; the continuing actualisation of world by God. This is the pure idea of divine action – the Cartesian 'Realpolitik' – the interface between God and world. The flow of efficient causal chains through time, the appearance of order, the formal and material causes and the mediate manifestation of the 'will' of God, all supervene upon this first efficient cause, too distant to be viewed directly, and so approached via the phenomena of indubitability.

2. From Axioms or Common Notions

If Descartes' method is considered 'geometrical', then the Cartesian axiomatics is strictly a component of the method, as the geometrical method is by definition a method in which an array of propositions are demonstrated by recourse only to a small set of axioms and common notions. However, referring to the *Cartesian* method, as opposed to the geometrical method, implies some kind of difference. The differences are mostly to be found in the attention with which the sense of 'self-evidence' is given. For Euclid, self-evidence serves adequately on its own[280], but for Descartes, the status of self-evidence is itself the major problem of method. Thus, the truly Cartesian method is the method by which Descartes develops axioms. It is the construction of the system on the back of these axioms that might be compared to the 'geometrical' method. The set of all possible Cartesian axioms or common notions refers to the collection of all eternally true statements as derived according to the Cartesian method. Interactions between axioms, and between axioms and imaginative material that has been verified as accurate, produces propositions that are themselves necessarily true. Further, these

propositions can interact with each other and also with the axioms and accurate imaginative material. The axioms thus form the genetic foundation (in knowledge) of the systemic structure as such. It is in terms of the relationship between axiomatics and system that Descartes' method can be called geometrical. Following this analogy, the Cartesian method would be comparable to the 'self-evidence' of Euclidian axioms. Thus, *qua* axiomatics, the method is the structure of Cartesian metaphysical self-evidence. The self-evidence becomes metaphysical in its transformation into 'certainty' through God. In the *Principles* Descartes writes,

[W]e must give our attention in an orderly way to the notions that we have within us, and we must judge to be true all and only those whose truth we clearly and distinctly recognise when we attend to them in this way. When we do this we shall realise, first of all, that we exist insofar as our nature consists in thinking; and we shall simultaneously realise both that there is a God, and that we depend on him, and also that a consideration of his attributes enables us to investigate the truth of other things, since he is their cause. Finally, we will see that besides the notions of God and of our mind, we have within us knowledge of many propositions which are eternally true, such as 'Nothing comes from nothing'. We shall also find that we have knowledge both of a corporeal or extended nature which is divisible, moveable, and so on, and also of certain sensations which affect us, such as the sensations of pain, colours, tastes and so on (though we do not yet know the cause of our being affected in this way). When we contrast all this knowledge with the confused thoughts we had before, we will acquire the habit of forming clear and distinct concepts of all the things that can be known. These few instructions seem to me to contain the most important principles of human knowledge.[281]

As described in the previous chapter, enacted thought is integrated into the general theoretical-conceptual milieu either in terms of a structure to which it conforms or as the idea of the system's a-systemic foundation. The structure is a theory *about* thought, about the interaction

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[280] See: Euclid, 'The Elements of Euclid: Books I to Vi', in Thomas L. Heath (ed.), (London; Edinburgh: W. & R. Chambers, 1884) at Book 1.

[281] Descartes, *Principles* 1.75: CSM I 221: AT VIIIA 38

212

between intellect and will. On the other hand, the foundational aspect of enacted thought does not function according to the peculiarities of any theory. Rather, it is foundational precisely and simply by its externality and by the systemic (internal) representation of this externality in terms of clear and distinct ideas. Enacted thought is foundational only insofar as the particular limit-phenomena it encounters can come to serve the cause of certainty. The extra-systemic status of these limit phenomena provides their power, which is ostensibly transferred to the system by way of the concept of the clear and distinct idea. Upon completion of this foundational operation, the idea of the 'clear and distinct' can be characterised, with respect to its purported function, in three separate ways: firstly, it can be understood as the idea of enacted thought insofar as it is purified through the concrete actualisation of the method; secondly, as a product of enacted thought that integrates with the Cartesian theory *about* thought; and finally, as referring to a set of specific outcomes; the axioms and clear ideas that are the foundation of the Cartesian system in its specificity.

Those propositions, the truth of which can be clearly and distinctly perceived according to the natural light of reason, Descartes calls axioms or common notions. Axioms are explicitly characterised as propositions and thus, given that propositions are by their nature relational, must be considered as having their origin in the understanding. The imaginative counterparts to the axioms are the clear ideas of things and are representational in nature. Although the axioms and the clear ideas are formally and genetically separate, they are united in function. The clear ideas, by their being clear and distinct, are considered certainly accurate – but it is only by the relevant axiom/s (that 'all clear and distinct ideas are necessarily true', etc.) that this holds. Likewise, though the axioms are considered pure products of the understanding, it is only by way of their application to imaginative content that such axioms may extend beyond

the confines of thought; for, whilst the imagination projects externality, the understanding merely projects onto imaginative content. Clear ideas of things require axioms for their certainty, and axioms require clear ideas for their content. Furthermore, there are very few possible base level axioms and clear ideas – thus they can only form the barest, most minimal foundation. All certain propositions must either be axiomatic, that is, they must be representative of understandings developed under the natural light of reason, or else they must be developed according to the interactions between these axiomatic propositions. The majority of axioms are not constructed from the bare interaction between the certain products of the imagination and the certain products of the understanding. Rather they are the products of the interactions of these products – that is, the are 'deductions' in the Cartesian sense. Descartes defines deduction (as opposed to induction) in terms of the clarity of its necessity as presented to thought. The nature of the connection is not defined in terms of a logical structure, but rather in terms of the same clarity of thought that characterised the intuition of clear and distinct ideas. Descartes writes in the *Rules for the Direction of the Mind*:

Deduction is made through intuition when it is simple and transparent, but not when it is complex and involved. When the latter is the case, we call it 'enumeration' or 'induction', since the intellect cannot simultaneously grasp it as a whole, and its certainty in a sense depends on memory, which must retain the judgements we have made on the individual parts of the enumeration if we are to derive a single conclusion from them taken as a whole.[282]

Thus the connections between ideas are subject to the same reductive process as the ideas themselves. Taken together, they represent the only formal access to indubitability in the Cartesian system. Regarding this Descartes writes,

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[282] Descartes, *Rules*, CSM I 37: AT X 407-8

[L]et us now review all the actions of the intellect by means of which we are able to arrive at a knowledge of things with no fear of being mistaken. We recognise only two: induction and deduction.[283]

The difference between intuition and deduction is not one of kind. Rather, both may be understood as modes of a larger Intuition concept, whereby 'intuition' is the static and 'deduction' the dynamic representative. Whilst the intuition of the clear and distinct pertains to objects that are simple, static and immediately self-evident, the deduction is a sequence of movements of thought. The results of the process of deduction are not immediately self-evident and require the further concept of 'memory' for their integration into the general Cartesian theory about thought.

Though Descartes gives little attention to memory as a mode of thought, it is a concept that is foundational for his axiomatics. Memory is the concept under which diverse parts of an argument are brought into proximity with one another. It is only under the concept of memory that a sequence of propositions can be understood in terms of a 'movement of thought'. Memory brings the recollection of the relation between one moment and another in this movement, so that it can be submitted to verification according to the natural light. The possibility of the verification of relations between propositions is thus explained by memory. The other significant role for the memory is that it must retain the method – and retain it with an appreciation of its success as a technology devised for the production of necessity. Thus one can secure for the deductive chain the same certainty found in the clear and distinct idea. It is not enough to verify the integrity of the chain itself, as it is the memory of the clarity of the foundation that prevents the constant reappraisal of the system. Such a continuous

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[283] Descartes, *Rules*, CSM I 14: AT X 368

'revolution' of ideas is unlikely to be Descartes' aim as a physical scientist and metaphysician. In any case, one may also want to assume that memory *itself* is capable of becoming the subject of an axiom. If not, how can it support deduction? One can only guess what form of Cartesian argument might be appropriately levelled in support of the status of memory, as Descartes does not provide one — indeed he seems determined to deny its participation.[284] Deduction as such must itself also be verified according to the method. Although one may recognise a kind of circularity here, it should be remembered that anything that passes the test of the method is ostensibly certain — regardless of its origin. There can be no vicious circularity, as the natural light is the only relevant measure for knowledge (excluding faith in Scripture). Memory ostensibly allows that thought can move from axiomatic propositions to conclusions, to further propositions and so on, with the certainty represented in the basic axioms remaining intact. In spite of its necessity, Descartes mainly considers memory in terms of its inadequacies — and in spite of its inadequacies, he declares the 'deductive' process itself unimpeachable:

Moreover, we must note that while our experiences of things are often deceptive, the deduction or pure inference of one thing from another can never be performed wrongly by an intellect which is in the least degree rational, though we may fail to make the inference if we do not see it.[285]

It seems then that the only potential concern is that one may fail to make a relevant positive judgement. There is no issue with the status of a positive judgement once it has been made. However, this does not explain the need to develop a technique for the expulsion of memory (more on this shortly), if memory is the very mode of thought upon which deduction, in distinction from static intuition, is grounded. Memory is in fact highly problematic for

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[284] Descartes, *Principles* 1.44, CSM I 207, AT VIIIA 21
[285] Descartes, *Rules*, CSM I 12: AT X 365

216

Descartes. While it provides the material circumstances for deduction, it also introduces into deduction the contingency, the 'deception', that also characterises one's 'experiences of things'. Extending talk of the 'deception' further into the process of the deduction, via particularity and contingency, Descartes writes:

Deduction, therefore, remains as our sole means of compounding things in a way that enables us to be certain of their truth. Yet even with deduction there can be drawbacks. If, say, we conclude that a given space full of air is empty, on the grounds that we do not perceive anything in it, either by sight, touch, or any other sense, then we are incorrectly conjoining the nature of vacuum with the nature of this space. This is just what happens when we judge that we can deduce something general and necessary from something particular and contingent.[286]

It is for precisely the same reason that particular sensations are excluded that memory is excluded. It has been shown to be as contingent and particular as the senses. However, it is required *absolutely* for the development of the very certainty and necessity that it threatens. Although memory is required if one is to 'deduce' new propositions, Descartes fears that its limitations may render it incompatible with the goal of certainty. On deducing distant propositions from axioms Descartes writes:

For this deduction sometimes requires such a long chain of inferences that when we arrive at such a truth it is not easy to recall the entire route which led us to it.[. .] So I shall run through them several times in a continuous movement of the imagination, simultaneously intuiting one relation and passing on to the next, until I have learnt to pass from the first to the last so swiftly that memory is left with practically no role to play, and I seem to intuit the whole thing at once.[287]

Rather than interpreting his 'continuous movement of the imagination' as perhaps a technique for maximising the usefulness of memory as the necessary medium for deduction, Descartes

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[286] Descartes, *Rules*, CSM I 48: AT X 424-5
[287] Descartes, *Rules*, CSM I 25: AT X 387-88

considers it a way of abolishing memory from the deductive process. He appears to be arguing that a significant reduction in time between individual propositions within the 'continuous movement of the imagination' will render them all present simultaneously. That is, they become effectively a single static idea. A single static idea, Descartes seems to imply, does not require memory or any other temporal aspect. His 'continuous movement' of thought as an act produces continuous, and thus unified, thought content. The continuity unifies thought so that it is grounded in the present – the thought occurring 'now' is the same unified thought that extends into 'before', thus negating the role of memory. Descartes fails to recognise that continuity in no way guarantees unity; nor does it exclude temporality. It merely modifies the space of the problem of stasis and change so that its material is now 'thought'. Descartes has merely inserted an old problem into a new media, i.e. the familiar dyads of actuality/potentiality, stasis/change, discrete/continuous become rendered in this context as idea/act of thought. Those concepts of unification (i.e. potentiality, continuity, etc.) are excluded on grounds of their connection to contingency. Regardless of this overt exclusion, such contingent and continuous notions are required for the function of the Cartesian system. For Descartes, one of the systemic manifestations of contingency is the dubitability arising from the interaction of the various human capacities and their limitations, and it is this form of contingency that his attempted exclusion of memory ostensibly serves to expel. However, unfortunately for Descartes, this approach can only fail. It is the concept of memory itself that gives the ontological foundation for the 'continuous movement' that allows for his deductive 'intuitions' to operate solely in the present. To exclude memory is to exclude Cartesian deduction. Descartes' simple denial of its role in deduction is no solution to the problem. Furthermore, the structure formed by the interrelated concepts of memory, thought and 'continuous movement' is a poor fit with Cartesian deduction, which involves the production

218

of particular propositions. In developing new propositions that partake in 'certainty', one must

intuit that the connection between one thing and another is wholly necessary. This act of

'connecting' things in thought already suggests a problematic relationship between continuous

and discontinuous thought. Unless the content of the deductions can be 'translated' into a

continuous form, the continuity of the thought act as such can do nothing to negate its

discreteness. Of course, at least in the *Rules for the Direction of the Mind*, Descartes supposes that

this 'translation' is possible. It is facilitated by the concept of 'extension', which serves to

mediate between imagination and understanding on the topic of quantity. However, even if

this is correct, it is only relevant to those parts of theory that deal with quantity and extended

space. The deeper parts of the Cartesian metaphysics are not available for translation in this

way. Descartes writes:

Deduction can only proceed from words to things, from effects to causes or from causes to effects, from like to

like, from parts to parts or to the whole...[288]

and,

If, moreover, we are to make use of the imagination as an aid we should note that whenever we deduce something

unknown from something already known, it does not follow that we are discovering some new kind of entity, but

merely that we are extending our entire knowledge of the topic in question to the point where we perceive that the

thing we are looking for participates in this way or that way in the nature of the things given in the statement of

the problem.[289]

In the *Rules* Descartes understands 'making use of the imagination as an aid' specifically as the

utilisation of imagination, via 'extension' as an aid in the working out of problems of quantity.

Furthermore, by the time of the *Principles*, he has completely limited the function of the

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[288] Descartes, *Rules*, CSM I 50: AT X 428

imagination to the extensive projection. Thus, the helpful interaction of the understanding and the imagination is only helpful regarding certain kinds of problems. In fact, Descartes' utopian view of the purity of the deductive process (i.e. 'it does not follow that we are discovering some new kind of entity', etc.) clashes not only with the manner in which he moves from axiomatics to metaphysical structure, but also with the manner in which he arranges his method from the outset. In particular, with the use of analogy to draw connections between otherwise unrelated concepts (sand/rock – free thought/obstructed thought).

A proper demonstration of the relation between the Cartesian method and its outcomes is lacking in Descartes' writing. The connection between the method, and the specific set of axioms that constitute its results, is formed by a constellation of concepts united around 'clarity'. A major difficulty in applying Descartes' method for the development of axioms is that the key concept of 'clarity' is not properly elucidated. Rather, it is assumed to be completely and naturally evident. For example, Descartes defines a perception as clear, "when it is present and accessible to the attentive mind – just as we say that we see something clearly when it is present to the eye's gaze and stimulates it with a sufficient degree of strength and accessibility."[290] His definition is no more precise elsewhere, and is perhaps most precise here because he completes the analogy from which he draws the concept. Unfortunately the definition contains no practical detail or instruction, and the analogy itself is broad enough to submit readily to creative interpretation. Of course, for Descartes, there ought not to be any need to precisely define 'clarity', as its meaning ought to be obvious to anyone who has experienced a clear perception. However, if one has not experienced such a thing (if, in

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[289] Descartes, *Rules*, CSM I 56: AT X 438
[290] Descartes, *Principles* 1.45: CSM I 207: AT VIIIA 22

Descartes' words, one was unable to put aside preconceived ideas) it will be impossible to understand or anticipate its nature, much less its connection with certainty and systemic necessity. Those who may doubt the power of 'clarity' are precisely those who must be absented from its critique, on the grounds that they cannot have perceived clearly. This 'catch 22' may render the theory somewhat safer from critique, but it also renders it less convincing – particularly as those who will need to be convinced will be precisely those who cannot be. The development and demonstration of the argument for the necessary existence of thought does show a particular sense of 'clarity' reasonably well. However, the manner in which other axioms or common notions might share this 'clarity' is not demonstrated. As was shown earlier in this chapter, there is no clear and necessary relationship between the method as Descartes sets it out, and the particulars of the system that it purportedly founds. What counts as 'clear and distinct' under the natural light of reason is by no means clear.

The demonstration of the necessary existence of thought is the only example of a possible implementation of the method given in any real detail. It is from this example that the concept of 'clarity' is demonstrated. As has already been shown, even this example is problematic. Nonetheless, it is this example that provides the only significant articulation of clarity from the perspective of concrete phenomena; and it is from the phenomena that clarity is authorised in its systemic role. Even if it is allowed that the phenomena associated with thinking the negation of thought are adequately characterised as 'clear and distinct', it remains unclear in what manner other particular phenomena can be said to share in this characterisation. The failure to doubt the 'act of doubt' as it is enacted is a very specific failure with a very specific structure. It is not obvious how the structure of the genesis of the axiom to which it relates could be shared by any other axiom. One may suspect that the relationship between basic

221

axioms is merely one of analogy, i.e. one that sidesteps the rigours of the method to a large

degree. An analogy is able to facilitate a reconstruction from both sides of the comparison

that constitutes it. In other words, one cannot be immediately sure that it is 'clarity' that is

giving credence to a judgement, rather than a judgement giving meaning to 'clarity'. If it is the

former, then one would already need to understand 'clarity' in order to appreciate the sense in

which a given axiom is 'clear'. If it is the latter, then there may be hope for an understanding

of clarity in terms of the outcome of the analogy. Such an approach to 'clarity' may appear to

offer greater hope for developing a concrete appreciation of its meaning, but such a hope must

be based on the assumption that in each case Descartes has devised the axiom properly. One

might think that it would be possible to approach the meaning of Cartesian 'clarity' by

scanning his list of fundamental axioms for a common element – to 'survey the analogy', as

Aristotle entreats, rather than searching for a precise definition. The result could, if one were

to maintain a degree of scepticism regarding the legitimacy of Descartes' derived axioms, only

be a purely structural definition. That is, the meaning of 'clarity' would be developed from its

use or function, as that which unites the various axioms *qua* axiom, rather than by Descartes'

overt definitions or genetic narrative. Further, even if this is technically feasible, it is

nonetheless limited in practice, as Descartes does not provide an extensive list of axioms or

common notions. His list is only as large as he needs it to be for the development of the

structure of his system, as he considers that an understanding of the method ought to enable

one to enumerate the set of relevant axioms for oneself.[291] Though Descartes does present a

small number of propositions that he considers would count as axioms, he presents them as

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[291] On the enumeration of 'eternal truths', or axioms, Descartes writes, "It would not be easy to draw up a list of all of them; but nonetheless we cannot fail to know them when the occasion for thinking about them arises, provided we are not blinded by preconceived opinions." Descartes, *Principles* 1.49: CSM I 209: AT VIIIA 24

finished products[292]. That is, he makes no attempt to display in detail the successful passage through the method of such propositions. Nor does he demonstrate their necessary connection to the phenomena that are characterised in terms of clarity and distinctness. Thus, in order to develop a broader appreciation of Descartes' sense of 'clarity', lacking a range of demonstrations, one has no option but survey the limited analogy provided – with all attendant uncertainties intact. The presence of such a minimal array of axioms can allow one an appreciation only of the minimum spread of axiomatic concepts allowable according to the natural light. That is, the existence of several examples allows for an appreciation of *some* of the possible differences between clear ideas such that they nonetheless remain clear. They suggest minimally that clear ideas can be different from one another in the specific ways demonstrated, whilst ostensibly still maintaining their connection with the phenomena by which clarity and distinctness came to be described.

The axiomatic proposition, *nothing comes from nothing* (NCFN), is one candidate for analysis. It ought to be comparable with *He who thinks cannot but exist while he thinks* (or *I think. I exist* (ITIE)), insofar as it relates to the method, by tracing it back through the process of hyperbolic doubt and testing for its success. One would imagine that, if Descartes had appropriately derived this axiom, its reassessment would provide a further example of 'clarity' – perhaps identical to the first example, perhaps viewed from a different aspect, or perhaps significantly different (In any case, second, third, fourth, etc., examples of clarity would be required if one was to attempt to form a significantly refined analogy). By comparison with NCFN, the failure to deny the existence of thought derives its power as a demonstration of existence from the

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[292] For example, in *Principles* 1.49 (CSM 209: AT VIIIA 24) he gives the following propositions: *Nothing comes from nothing; It is impossible for the same thing to be and not to be at the same time; What is done cannot be undone; He who thinks cannot but exist while he thinks.*

fact that the subject and object of the negation are ostensibly identical.[293] Enacted thought attempts to negate itself and thus induces a moment of bewilderment. This impasse is reversed and becomes the proof of the certainty of the opposite act of the will applied to the existence of thought – the affirmation of the thinking subject. Although its integration into the Cartesian system at large remains highly problematic, the power of this insight (of the implausibility of the doubting of present doubt, given in those terms precisely) is significant. However, the one generalisable principle of certainty that Descartes seems to abstract from this structure is rather different and retains little of the power of this basic example. From the operation of the 'natural light', the intuitive capacity demonstrated by the attempted negation of thought, Descartes seems to produce the rule, that anything the denial of which produces a contradiction must be true. In the *Principles of Philosophy* he subtly restructures his statement of the necessary existence of thought to take a propositional form, rather than being simply the index of an intuition. The "*I think, I exist*" of the *Meditations* becomes "*I am thinking, therefore I exist*"[294] and finally "*He who thinks cannot but exist while he thinks*"[295] in the *Principles of Philosophy*. The difference is significant: the first of these directs one to the moment of the intuition as such, whilst the second divides the unity of the intuition into two parts connected by a relationship of entailment, and the third represents an abstraction of this intuition such that it becomes a general rule. While the first is grounded in the concrete moment where thought fails to negate itself, the second and third are grounded in a further unjustified premiss – that

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[293] Of course, they are only *ostensibly* identical, as already demonstrated. The thinking as such, the living thought in which the negation unfolds is not identical to the concept that is saved by the failed negation. The confusion that is confronted in thinking this negation is the result of the negation of the present act, *precisely as that act*. The second form of thought is, on the other hand, a concept inserted into the space posited as the beyond of this limit of thought.

[294] Descartes, *Principles* 1.7: CSM I 195: AT VIIIA 7

[295] Descartes, *Principles* 1.49: CSM I 209: AT VIIIA 24

an action must be referred to an existent entity[296]. Furthermore, the grounding intuition is forced to conform to the structure of propositional logic by way of the law of noncontradiction. Descartes writes:

But we cannot for all that suppose that we, who are having such thoughts, are nothing For it is a contradiction to suppose that what thinks does not, at the very time when it is thinking, exist.[297]

The 'sleight of hand' that facilitated the incorporation of enacted thought into the Cartesian system as its a-systemic foundation is completed here. Though the thought experiment of the *Meditations* was powerful, i.e. it did not fail to induce the bewilderment required for 'certainty', it rested upon a fallacious premiss – that thought can be classified as a unity in the same manner as any other object of affirmation or negation. On the back of this objectification of thought, a historically derived theory (an Aristotelian/Scholastic theory of the structure of thought) was inserted into and formed the centre of the Cartesian system. The transformation from intuition to proposition represents a second sleight of hand, in which the mechanism for the organisation and recognition of 'intuited' material no longer requires intuition as such. On the back of such a transformation, the precise meaning of 'clarity' is allowed to take on a specific logical-historical aspect. The law of noncontradiction and the principle of sufficient reason must now be authorised as 'clear' as they now appear to constitute the forms of clarity central to the intuitions regarding the existence of thought and God respectively. In a sense they become axiomatic precisely as those structures that are necessary for the fundamental

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[296] It is true that Descartes makes mention of this principle. In the *Principles* he writes, "I did not...deny that one must first know what thought, existence and certainty are, and that it is impossible that that which thinks should not exist, and so forth. But because these are very simple notions, and ones which on their own provide us with no knowledge of anything that exists, I did not think they needed to be listed." This is clearly a response to earlier criticism, but unfortunately it is a response that can only destroy the integrity of his earlier 'intuition'. If these concepts are to serve as his overt foundation, then he can not avoid even the *appearance* of infinite regress that he avoids by anchoring his system a-systemically.

[297] Descartes, *Principles* 1.7: CSM I 194-5: AT VIIIA 7

axiomatic intuitions as such. In the case of the existence of thought, it no longer matters that the form of 'contradiction' embedded within the thought experiment is not identical to the form found in the law of noncontradiction. Within the famous Cartesian thought experiment, the 'contradiction' is particularly powerful because it is not simply one of logic. The thought experiment invites the thinker to direct their attention towards precisely that which allows their attention to be drawn as such. It is an invitation to direct attention to that space in which negation, affirmation and attention as such operate. On the other hand the propositions, *Nothing comes from nothing; It is impossible for the same thing to be and not to be at the same time; What is done cannot be undone; He who thinks cannot but exist while he thinks* are of a distinctly different kind. The nature of their success as axioms is not identical to the success of the thought experiment. For example, *nothing comes from nothing* refers to relations between objects of thought, rather than to thought itself. The confusion inherent in the attempt to consider the reverse of *nothing comes from nothing* is not a confusion in which the attempt, the act, the 'enacted thought' is directly implicated. If its negation causes a contradiction, it is a *structural* contradiction. That is, it is a contradiction the result of which is a problem for particular systems of thought (perhaps even for *all* systems, insofar as they are systems), but not for thought as such.

'Clarity' thus appears to have two senses – one justificatory and one transitive. The justificatory sense is a concept devised as the reverse of a thorough and particular bewilderment, as described in the previous chapter. The nature of this form of clarity lays in its connection via negation to an experience of extreme confusion. As such there is much room for misapplication. Though arising from many causes, the experience of bewilderment itself appears uniform. This experiential space, uniform in its phenomena yet diverse in its causes, is reversed under the concept of clarity – a sleight of hand that allows the diversity of

its causes to be reversed according to their natures as well. Thus, supposedly, it is the inability to think a given scenario that renders its negation certain, e.g. one fails to articulate *something comes from nothing* in thought, and so one negates it by affirming its opposite.[298] However, this is not required for the development of the axioms that arise from the above mentioned transformation from intuition to proposition, as they emerge precisely as the transformed structure of the clear idea as such – i.e. they are themselves the second form of clarity; transitive because no longer specific to particular phenomena. Thus the structural differences between *I think, I am* and *Nothing comes from nothing* are well hidden, though fundamental. With respect to the origin of the 'clarity' they each respectively attach to, they differ greatly. *I think, I am*, is not only derived from the same phenomenal material as the concept of justificatory clarity – it is in fact the measure of such clarity and the source of any motivation to transform and extend clarity to other material. On the other hand *Nothing comes from nothing* requires 'clarity' to authorise its validity, and this is achieved by a sleight of hand. The sleight of hand is in fact the transformation of the content of intuition along propositional lines, such that the basic structure of propositional logic itself appears necessary to intuition. The two propositions also differ with respect to the nature and significance of the space they occupy within the structure of the Cartesian system. The first (*I think, I am*) serves to link the systemic structure (as yet undetermined as to its precise nature) with something a-systemic, rooting the God-human dyad in phenomena. The second merely brings the familiar historical metaphysics into the structure, grafting it onto the rootstock of the first proposition. *I think, I am*, is a systemic interpretation of a potentiality of phenomena. It is an internal representation of

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[298] If it seems odd that a limit of a human capacity might serve as the herald of certain knowledge, it would pay to remember that in the Cartesian system the faithful articulation of the world in thought, at least in properly refined thought, is guaranteed by the beneficence of God, as will be discussed further below.

externality. *Nothing comes from nothing* is, on the other hand, an internal principle of systemic organisation.

3. Axiomatics and Structure

As an internal principle, *Nothing comes from nothing* concerns both the efficient-causal interplay between existent entities or ideas and also the form in which entities and ideas come to be. That is, it is not only the continuing interactions, but also the natures of things that must have 'something' as their cause. This split, between interactions and natures, is mirrored in another basic, and related, axiomatic proposition that Descartes offers: that *God is the first efficient cause of everything*[299]. God is brought into contact with this division through his characterisation in terms of causality; a concept which is itself structured largely in terms of something like *Nothing comes from nothing*. As a result, the causal relationship between God and world will tends to be structured in two separate ways, in line with the split between interactions and natures. In this way, God is considered both the first efficient cause of motion and change in the world and the efficient cause of the space within which causality plays out. With respect to the nature of motion, Descartes writes:

This is twofold: first, there is the universal and primary cause – the general cause of all the motions in the world; and second there is the particular cause which produces in an individual piece of matter some motion which it previously lacked. Now as far as the general cause is concerned, it seems clear to me that this is no other than God himself.[300]

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[299] "[W]e should not be so arrogant as to suppose that we can share in God's plans. We should, instead, consider him as the efficient cause of all things; and starting from the divine attributes which by God's will we have some knowledge of, we shall see, with the aid of our God-given natural light, what conclusions should be drawn concerning those effects which are apparent to our senses." Descartes, *Principles* CSM I 202: AT VIIIA 15-16

[300] Descartes, *Principles* 2.36: CSM I 240: AT VIIIA 61

Thus he overtly names God as the origin of motion itself – but this is not all. Descartes understands God as preserving the world in an identical manner in which he created it[301], i.e. God continually recreates the world at each instant, guaranteeing its rational unity by his benevolence. In this manner, the concept of God and the concept of time become inextricably entwined:

[T]he nature of time is such that its parts are not mutually dependent, and never coexist. Thus, from the fact that we now exist, it does not follow that we shall exist a moment from now, unless there is some cause – the same cause which originally produced us – which continually keeps us in existence.[302]

And this 'existence' could have been entirely different had God so desired:

[W]e cannot determine by reason alone how big these pieces of matter are, or how fast they move, or what kinds of circle they describe. Since there are countless different configurations which God might have instituted here, experience alone must teach us which configurations he actually selected in preference to the rest.[303]

Although it is matter and motion that are dealt with in the above quote, the effect of God's omnipotence also affects relational principles as well, as Descartes notes in the *Meditations*. Descartes needn't have made this explicit though, as it is a direct and clear result of God's continual re-creation of the world in *time* that principles of transformation are possible at all. Thus, on the one hand, God will be understood as the primary cause from within a particular causal milieu. But, on the other hand, he will be understood as the cause of the precise nature of causality, and thus of every factor which has causal relevance; not just as to their motion but as to their nature, i.e. to their potentiality for motion.

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[301] "God imparted various motions to the parts of matter when he first created them, and now he preserves all this matter in the same way, and by the same process by which he originally created it." Descartes, *Principles* 2.36: CSM I 240: AT VIIIA 62 Although this quote refers in particular to motion, the arguments can be (and in fact are) extended to all aspects of created things.

Though it is strictly impossible for the Cartesian intellect to form an image of God[304], given

that the finite imagination is not equal to the task of reproducing infinite being, Descartes

considers the understanding as being capable of recognising certain eternal truths pertaining to

God's essence. Any Cartesian axiom is, by its nature, a product of the understanding rather

than the imagination, and this is true *a fortiori* for any axiom pertaining to God. Thus, although

'God', being a pronoun, suggests a particular unified being of a certain nature – an imagined or

imaginable being – any statements pertaining to this sense of God could not be axiomatic.

The most basic axiom pertaining to God is a statement of his necessary existence. However,

'existence' is an empty concept; not because it serves no purpose, but rather because it does

not provide any information that is specific to the being that has had its existence

demonstrated (on the other hand, as will be discussed further, specific information is required

in the first place, in order to demonstrate its existence). 'Existence', as used by Descartes, is

devoid of representational content. From the Scholastics he inherits a purely binary concept,

the purpose of which is to name the difference between a possible or actual being. What is

common to both a possible and an actual being is its essence. The essence is in the truest

sense that which the being is. It is in terms of the essence that a being may have possible

existence or actual existence, but in each case remain the same being. Thus, the axiom

pertaining to God's existence can on its own provide no information whatsoever that might

pertain to God as such; i.e. to God's essence or any information at all pertaining directly to

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[302] Descartes, *Principles* 1.21: CSM I 200: AT VIIIA 13
[303] Descartes, *Principles* 3.46: CSM I 256: AT VIIIA 100-101
[304] "[T]he infinite, *qua* infinite, can in no way be grasped. But it can still be understood, insofar as we can clearly and distinctly understand that something is such that no limitations can be found in it, and this amounts to understanding clearly that it is infinite. Now I make a distinction here between the *indefinite* and the *infinite*. I apply the term 'infinite', in the strict sense, only to that in which no limits of any kind can be found; and in this sense God alone is infinite." Descartes, *First Set of Replies*: CSM II 81: AT VII 112-13
And

God. In comparison, *God is the first efficient cause of everything* does endow God with a specific

characteristic, i.e. that of being the first efficient cause. However, for Descartes, the

characterisation of God as efficient cause is a negative one; i.e. he is *only* to be considered in

terms of efficient causality. The characterisation of God as first efficient cause is given as a

limit constructed to mitigate the effects of the finitude of human knowledge – in particular, the

rampant speculation born from the consideration of final causality[305]. The context in which

Descartes makes this reduction is one in which the relationship between human and God is

automatically characterised causally according to Aquinas' five ways. Aquinas' five ways

function according to the four Aristotelian causes; two according to the efficient cause and one

each for the material, formal and final causes. As a result of their being generated according to

an idea of quadripartite causality, these proofs arguably demonstrated more than simple

existence. Each demonstration shows God in a particular light; as being in a particular

relationship with causality and with humanity. Given the prevailing philosophical/theological

thinking in Descartes' time, it might be expected that Descartes would understand the

characterisation of God in terms of causality as philosophically neutral. Indeed, from this

perspective he was reducing, purifying the role of God in his system by reducing the material,

formal and, in particular, final causes. It need not have been obvious to Descartes that God as

cause could be considered as a supplement to God as existing.

Upon consideration of the relationship between *Nothing comes from nothing* and *God is the first*

efficient cause of everything, it becomes clear that, rather than merely being divided analogously,

they develop their particular Cartesian-systemic meanings in tandem. *Nothing comes from nothing*,

understood superficially, that is, ahistorically, suggests the necessity of a foundational entity.

"[S]ince we are finite, it would be absurd for us to determine anything concerning the infinite; for this
would be an attempt to limit it and grasp it." Descartes, *Principles* 1.26: CSM I 201: AT VIIIA 14

God is the first efficient cause of everything supplies the empty structure of *Nothing comes from nothing*

with a determinate structure. It refines and focuses the axiom that serves as its counterpart,

reducing the scope of its potential meaning and thereby simplifying the actualisation of the

remainder. *Nothing comes from nothing* on its own is too wide in scope – it broadly suggests that

'things' are responsible for the generation of 'things', and that if no-thing is responsible, then

no-thing is generated; whereas *God is the first efficient cause of everything* lends a particular tone to

that basic structure. The axiom pertaining to God gains weight by the simplicity of its partner

axiom, whilst reducing that simplicity and thus rendering the pair more useful for the task of

system building. One axiom renders causality as necessary, while the other axiom determines

the meaning of 'cause' according to one historical kind (efficient cause) and sets a first or

primary cause (God). The setting of a primary cause appears to avoid the 'problem' of infinite

regress of causes, which could be considered a problem for two related reasons. Firstly, such a

causal structure is incompatible with Christian theology and is thus inappropriate for reasons

that may be considered non-philosophical. Secondly, given that Descartes had inherited the

notion that knowledge from the cause is greater than knowledge from the effect, and given the

slippage between his concept of knowledge and his concept of being, it would have been at

least very difficult for him to consider the infinite regress of causes as anything but a problem.

It would have meant that adequate knowledge was effectively unattainable; and thus that the

Cartesian method was unfeasible, given its emphasis on the relationship between indubitability

and certainty.

The specific nature of the characterisation of God in terms of efficient causality derives from

both the reduction of historical Aristotelian causality, the interplay of this characterisation with

other Cartesian axioms, and the acceptance of the divine revelation of Scripture as a higher

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[305] See again Descartes, CSM I 202: AT VIIIA 15-16

form of knowledge than that given by the natural light. As such, if a proposition stands as an axiom, it does not strictly do so according to the Cartesian method. It may indeed display 'clarity' in the Cartesian sense, i.e. that its denial produces bewilderment, but only where it has been taken as axiomatic in a sense prior to the institution of methodological doubt. That is, its denial may produce the requisite bewilderment only if it is understood as coming from a source more fundamental than the natural light. This is in fact Descartes' understanding, and the source in question is, of course, the book of Genesis. The derivation of certain axioms from Scripture is not surprising; in fact Descartes is very clear about the pre-eminence of Scripture in cases where it conflicts with the natural light. However, there is a further problem. As it is Scripture and subsequent theology that establishes God as having particular characteristics, and it is in terms of these characteristics that indubitability becomes certainty via the concept of the natural light, it is not entirely clear what such a conflict might consist of. Considering that revelation as manifested originally in Scripture is the source of certainty for both, it seems that pre-eminence of one over the other can only consist in its being in closer proximity to the source. If this is the case then the implication seems to be that the knowledge characterised by the 'feeling' engendered by the application of the method, the feeling of 'certainty', is in fact somewhat less certain than the results of the direct interpretation of Scripture, for the reason perhaps that it suggests more interpretive steps between the source and the knowledge. In any case, whatever the reason, three results appear. Firstly, the natural light (and the interaction of products of the natural light) is not the sole source of axiomatic propositions and second, the natural light is the less certain of the two sources and thus, thirdly, the certainty manifested by the natural light is not absolute. In this way the suspicion is further strengthened, that the natural light ought more accurately to be understood as the mechanism within the Cartesian system by which 'self-evidence' or 'common sense' is

authorised as a particular manifestation of faith. This is a very broad criticism. However, the same basic problem can be followed right down to the level of the phenomena. For example, the sources of the bewilderment that is reached through negation might be several. As the state of bewilderment itself is one in which positive clarity is lost (whereas a negative clarity is gained, i.e. a 'failure to proceed') it is not obvious that each manifestation of such bewilderment has its source in factual indubitability. Although factual indubitability may be interpreted as one of these sources (and thus, if the rest of the argument holds, certainty one of the outcomes), it is by no means necessary that in any particular case indubitability is actually the source in question. This fact, considered together with the demonstration of the existence of God according to the natural light, and the function of God within the system at large (to be elucidated in the next section of this chapter) suggests the role of the natural light to be *at most* something of a legitimator of fundamental *doxa*, 'common sense', or 'self-evidence'. The factual inability of enacted thought to negate the space of negation is thus an exception rather than an exemplar. The natural light can be seen to lend from the indubitability and certainty concepts (as discovered in the attempt to negate thought) little more than an air of the legitimacy that it ostensibly provides, serving to cloud the distinction, drawn by Descartes himself, between *doxa* and knowledge, between preconceived ideas and truth.

Even if it is allowed that the Cartesian method does produce some axioms that are necessarily true, other problems arise. These become most clear upon consideration of the demonstration of the accuracy of extensive space according to the intersection of the benevolence and omnipotence of God[306]. One need not attend specifically to the demonstrated accuracy of

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[306] The division of perceived content into imagination (extensive projection) and understanding (everything else) appears rather *ad hoc*. However, it helps Descartes greatly, as it means that any perceived material

extensive extended space, as opposed to the demonstrated truth of any axiomatic proposition, as each relies upon this intersection of benevolence and omnipotence. However, although all axioms are ultimately grounded in God's benevolence by way of the natural light, the case of extensive space is clearer, as there is no intermediary. That is, extensive space is rendered certainly accurate according to God's benevolence and omnipotence directly. According to Descartes' theoretical construction of thought, the imagination itself cannot produce anything to parallel the axiomatic propositions of the understanding. While the understanding may intuit true propositions, the imagination obtains no equivalent certainty on its own. Nevertheless, the *function* of the imagination, the projection of extensive space, is determined as certain by the understanding. Descartes understands the function, or rather the faculty itself, to be a direct creation of God, whereas the content of each faculty is formed by the complex interactions between such creations. Thus, although Descartes attributes error *within* any faculty of thought to human thought's extension beyond its natural limits, he considers that an inaccuracy of the *form* of that faculty would suggest either a flaw in one of God's creations or else a limit to God's benevolence. He thus reasons that, given God's moral perfection and omnipotence, the basic form of any faculty must accurately represent that which, if anything, it ostensibly represents. In order to render such an argument as axiomatic, the understanding ought first to determine the certain existence of a God with particular properties. This must be a God that stands in the kind of relation to extension that renders extension formally certain as described. However, in the first instance, only the *existence* of God is demonstrated. Descartes argues that God must exist because a perfect being, being perfect, must at least

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other than that relating directly to extension is potentially axiomatisable. This is why specific concepts of causality, among other impure relational concepts, are able to be determined as eternal truths.

possess the perfection of existence.[307] Disregarding the absurdity of this argument (which would be more properly, albeit uselessly, constructed conditionally as: *if* there is a perfect being *then* it must exist), which has been demonstrated too many times already, and allowing that God thus described exists, it still remains that simple existence cannot stand God in any particular relation to any other thing. In order to connect the pure existence of God (which is, strictly speaking, empty) to any other concept or systemic element, this pure existence must be given at least some minimal qualities or properties. In order to prove God's existence certain properties were already assumed. For example, God was taken from the outset as a perfect being. From the assumption of God's perfection, Descartes secures the 'necessary' existence of a perfect being by reflecting on his own imperfections.[308] This is essentially a modified argument from the cause, whereby it is understood that there must be at least as much reality in the cause as the effect – a standard argument upholding church dogma then and now. Secondly he makes the argument, if God is taken as perfect, then he must, *a fortiori* be taken to exist.[309] If one accepts that these arguments demonstrate God's existence, one must also accept God's perfection. 'Perfection' is a quality that might be said to apply, insofar as the demonstration is considered successful, to God insofar as he exists, and thus may be capable

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[307] "[I]f we attentively examine whether existence belongs to a supremely powerful being, and what sort of existence it is, we shall be able to perceive clearly and distinctly the following facts. First, possible existence, at the very least, belongs to such a being, just as it belongs to all the other things of which we have a distinct idea, even to those which are put together through a fiction of the intellect. Next, when we attend to the immense power of this being, we shall be unable to think of its existence as possible without also recognising that it can exist by its own power; and we shall infer from this that this being does really exist and has existed from eternity, since it is quite evident by the natural light that what can exist by its own power always exists. So we shall come to understand that necessary existence is contained in the idea of a supremely powerful being, not by any fiction of the intellect, but because it belongs to the true and immutable nature of such a being that it exists." Descartes, *First Set of Replies*: CSM II 85: AT VII 119

[308] "[R]eflecting upon the fact that I was doubting and that consequently my being was not wholly perfect (for I saw clearly that it is a greater perfection t know than t doubt), I decided to inquire into the source of my ability to think of something more perfect than I was; and I realised very quickly that this had to come from some nature that was in fact more perfect." Descartes, *Discourse on the Method*: CSM I 128: AT VI 33-34

of serving as a bridging concept between God and other things or ideas. However, perfection is also a somewhat empty concept. It refers to a superlative state, but to no particular superlative. It refers to the superlative state as such. In order to connect God with any content of the imagination, at least one superlative element will need to be drawn more clearly. One of the major axes upon which superlatives are applied to God is morality. This ought not to be surprising, as perfection itself implies gradations of *value* (i.e. as opposed to gradations of size, colour, place, etc.). The fact that God's perfection is considered absolute must render certain contextual 'perfections' as less relevant to a consideration of God; i.e. being perfectly suited to a particular role within a particular context. Omnipotence is a perfection of course, but God's omnipotence can in no way provide an argument for or against any of God's propensities to action; rather it is an indication of the potential amplitude of such an act. Further, God's perfection cannot be cast in terms of certain acts as, being limited, these can only ever be seen as at most only the particular manifestations of divine power. Rather, it is by moral virtue, by its being negatively and positively absolute simultaneously, that God can be shown to have absolute power, yet simultaneously to tend towards particular outcomes. It is, for example, his absolute veracity (and thus abhorrence of mendacity), that brings certainty to the extensive projection. It would, according to Descartes, result in a contradiction if one was to doubt the accuracy of the form of the imaginative projection.[310] Any particular mode of

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[309] Descartes also makes the same argument a little differently: that it can be seen by the natural light that God's essence contains his existence. However, given the circularity of such a reference to the natural light, I consider this to be the weaker of the arguments.

[310]"The first attribute of God that comes under consideration here is that he is supremely truthful and the giver of all light. So it is a complete contradiction to suppose that he might deceive us or be, in the strict and positive sense, the cause of the errors to which we know by experience that we are prone." Descartes, *Principles* 1.29: CSM I 203 ATIIIA 16

"God would deserve to be called a deceiver if the faculty which he gave us was so distorted that it mistook the false for the true even when we were using it properly." Descartes, *Principles* 1.30: CSM I 203 ATIIIA 16

"This substance [the substance that excites the senses such as to form images in the imagination] is either a body, that is, a corporeal nature, in which case it will contain formally everything which is to be found

237

that projection (i.e. any particular entity found in the world or imagined) can readily be doubted; understood as products of the limit of human capacities or of the overextension of the will. However, the form of the projection itself (extension) can be attributed only to that which created the faculty of imagination as such (i.e. God). In light of his assumption that the creator God must be perfectly benevolent and thus perfectly truthful, for Descartes any inaccuracy in the form of the projection of the imagination is unthinkable, and thus, not the case (note that in this case the matter at hand is rendered certain not by its conformity with the phenomena, but by its conformity with the structure that is assumed to authorise particular phenomena as a herald of certainty). As the concept of perfection employed (outside of those aspects relating to potentiality to act, i.e. omnipotence, omniscience, etc.) relates primarily to the perfect manifestation of *virtue* (i.e. in opposition to *vice*) there is no room within it for deviant perfections. For example, although the idea of something being eminently mendacious is structurally identical to the idea of something being eminently veracious, only one half of this antinomial pair is appropriately termed a perfection. Although perfection and eminence are of course synonymous in the Christian dogmatic sense, thus rendering an eminent vice automatically contradictory, in the rarefied air of methodological doubt such

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objectively in the ideas; or else it is God, or some creature more noble than a body, in which case it will contain eminently whatever is to be found in the ideas. But since God is not a deceiver, it is quite clear that he does not transmit the ideas to me either directly from himself, or indirectly, via some creature which contains the objective reality of the ideas not formally but only eminently. For God has given me no faculty at all for recognising any such source for these ideas; on the contrary, he has given me a great propensity to believe that they are produced by corporeal things." Descartes, *Sixth Meditation*: CSM II 55: AT VII 79

"[W]e have sensory awareness of , or rather as a result of sensory stimulation we have a clear and distinct perception of , some kind of matter, which is extended in length, breadth and depth, and has various differently shaped and variously moving parts which give rise to our various sensations of colours, smells, pain and so on. And if God himself were immediately producing in our mind the idea of such extended matter, or even if he were causing the idea to be produced by soothing which lacked extension, shape and motion, there would be no way of avoiding the conclusion that he should be regarded as a deceiver. For we have a clear understanding of this matter as something that is quite different from God and from ourselves or our mind; and we appear to see clearly that the idea of it comes to us from things located outside ourselves, which it wholly resembles. And we have already noted that it is quite inconsistent with the nature of God that he should be regarded as a deceiver." Descartes, *Principles* 2.1: CSM I: AT VIIIA 40

'impurities', or rather, preconceived ideas might be expected to require a demonstration of their authenticity in the same manner as other such preconceptions. 'Perfection', as it stands within the demonstration of the accuracy of extension, is 'moral perfection', and this moral perfection refers of course to a particular historical moral structure. Such a structure must count as among the 'preconceived ideas' to be reassessed according to the method. However, it is not assessed in any fashion. Thus, as this structure is simply inserted into the space created by the demonstration of the existence of God, its particulars remain entirely contingent. The necessity of the axes according to which moral gradations (whereby God might be said to be eminently x or eminently y) are given cannot be shown simply by the existence of a 'perfect' being. Rather they ought to be shown to be formally necessary for much the same reason as that extension must be demonstrated both as existing and as the correct form of bodily substance; or more accurately, as the particular historical thought-structure inserted into the Cartesian system also ought to have been demonstrated in its necessity. The axes upon which moral gradations (benevolence/malice, veracity/mendacity, etc.) function ought to have been verified as to their formal necessity according to the method and thus according to the test of the natural light if they were to be utilised in the formation of basic principles. However, given that it is by these very moral axes that the natural light is authorised as the local focus for faith in God, their verification according to the method would be profoundly circular; perhaps one of the few forms of vicious circularity that might pass through the method and yet remain vicious. Descartes could not, and does not, attempt such a verification, as it would highlight the centrality of preconceived ideas within his system; not as potential error or material for verification, but as foundation. The natural light, and any principles preserved under the natural light, rely for their status *qua* certainty on the formal

necessity of particular axes of morality; in precisely the same manner as does the demonstration of the accuracy of the extensive projection.

The particular array of virtues attributed to God that form the structure within which certain aspects of the world are guaranteed as accurate, is thus formed according to the intersection of the concept of perfection and a particular historical moral schema. The demonstration of God's existence is also given in terms of the concept of perfection, but in this case 'perfection' does not appear at first to be structured in this same manner – according to this moral structure. Rather, God's existence is demonstrated according to his, for want of a better term, 'metaphysical' perfection. The differences between these two forms of perfection are significant according to their effect yet minor according to their cause. 'Moral perfection' might be understood as the complete attainment, or rather, the attainment to an infinite degree, of the complete range of positively valued elements within a given moral framework. This particular historical moral framework, structuring Descartes' integration of God into the system as the genesis of certainty, consists of a collection of interrelated dyads, with each dyad composed of an antinomial pair. Each pair is extended opposed, along an infinitely graduated span, toward infinity in both directions, with the infinite value found in each direction corresponding to the infinite magnitude of the element of the dyad with which it is aligned. Thus the notions of infinite benevolence and infinite malice might be understood as occupying the two poles of a single dyad. Each dyad derives from a particular human virtue/vice. The complete moral framework can be said to represent the 'values' of humans in two senses. It is a framework according to which human beings value and also a framework according to which human beings are valued. God is assigned moral perfection in both senses, that is, as judge and judged, but it is only the second sense that is relevant to Descartes' system; where he is

considered as holding infinite positive value according to a finite human framework. It is in this form that God's perfection is relevant to the demonstration of the accuracy of the extensive projection or the natural light. On the other hand, 'metaphysical perfection' does not ostensibly derive its meaning according to a structure of value that is human in both senses (i.e. though it refers to a structure by which humans value, it need not refer to a structure by which humans are valued). It roughly refers to the complete possession of all positively valued attributes or qualities, insofar as these are not limited by other imperfect attributes or qualities, taken as a whole. So whereas a rock or tree, for example, cannot be virtuous, it can exist, or be brown, or be extensive, or be impervious (relatively). Of course, being said to be brown or extensive is not appropriate for God, due to the limitation implied, but being said to be impervious or existent appears to create no such problem. In any case, in order for something to be brown, extensive, or impervious, it seems that it must exist. Thus the 'necessity' of existence may appear to endow it with a positive value. However, 'existence' is a concept the history of which is tied to the history of a particular problem. Namely, 'existence' is that concept that preserves a foundational role for God in the post-Aristotelian structure of coming-to-be that is characterised by the triad essence/possibility/actuality[311]. Within this structure, existence is that which God adds to the possible essence such that it is actual. It (existence) provides a name for the difference between possible and actual essences, and preserves a role for God in the coming-to-be of otherwise self-sustaining actualisations. However, there is not a prima facie need for this sort of concept in Descartes. After all, hasn't he done away with the categories, and the formal and final causes? Indeed, there ought no longer be a need for the categorial explanation of the being of objects in the world, as their explanation is now given according to the Cartesian physics. Nevertheless, there are several

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[311] For a detailed account of the historical emergence of the concept of 'existence' see Gilson, *Being and*

powerful reasons why this existence concept does not simply disappear with the destruction of Scholastic/Aristotelian physics. Firstly, and this will be detailed in the following section, the four causes are *not* reduced to the efficient cause, except in the case of local motion. Although the movement or change of worldly objects is understood solely in terms of efficient causality, the structure of the world and the relationship between world and God is still understood in terms of all four causes. Secondly, from the outset Descartes is responding to real or imagined 'non-believers'; i.e. those who do not believe God to exist. This dialogue itself moves Descartes to interpret God in the manner of an essence (the ontological argument relies upon this interpretation). Thirdly, the existence-concept is required for the integration of phenomena and system, as described in detail earlier. In the same manner, the grafting of an historical moral structure onto the foundation of the system, interpreted as phenomenally grounded, is made possible through the mediation of a concept that tends to determine relatively continuous phenomena in a determinate manner favourable to that historical structure. Thus the existence-concept facilitates the transformation of *doxa* into a transcendent value structure. Fourthly, the concept of the efficient cause had developed since Aristotle such that the version contemporary with Descartes' writing (and still today perhaps) was intimately tied to the structure of coming-to-be of the Scholastics. In particular, the notion of what is a proper subject for causal interactions had to change given that the notion of what is a proper subject for interactions *per se* had changed. That is, from the Aristotelian position, where an entity is only understood as an efficient cause *insofar* as it is actual rather than potential, the Scholastic version of the same position is that only an actual, as opposed to possible, entity can *be* an efficient cause. This is a direct result of the transformation of the continuity of the Aristotelian actuality/potentiality concept into the strict duality of 'actual' and 'potential'

Some Philosophers.

essences, divided by 'existence'. Thus, the existence concept is required in order for fundamental Cartesian systemic processes to function. Given the idea of contemporary efficient causality as the notion of a cause operating between existent entities, the fundamental utility of the existence-concept for Descartes consists in the fact that it can enable a given entity to be integrated into the efficient-causal milieu. This is the primary structural reason to interpret God in terms of existence. 'Existence' allows God to be integrated with causality generally; and without this integration, God could not be the 'first efficient cause of everything'. However, 'existence' is not a concept that admits of gradations, rendering it strictly incompatible with the notion of eminence. It is a concept that divides the possible from the actual, according to a specific historical schema, incompatible with any notion of measurement beyond the binary existent/non-existent. Ideas that admit of gradations are ideas of quantity and as such are understood in terms of measurement. 'Eminence' is precisely the projection of supremely large measure of a positively valued, graduated idea. Descartes' use of eminence betrays a particular moral system (which is not hidden in any case); first, formally, as the concepts involved are of such and such a kind, and second, because these concepts are usually dual, of which only one pole is considered a perfection. The concept of existence is irrevocably tied to the sentiment that God must have a place within the structure of coming-to-be. It is a concept the principle technical role of which is to provide God with a job. Considered thus, God *is* first and foremost the difference between possible and actual. Of course God was understood in other ways, but considering only the problem of coming-to-be, and ignoring the question of God's will for the moment, this is the systemic role of God for Descartes' Scholastic contemporaries. In light of this, the consideration of God in terms of existence/non-existence starts to appear somewhat shambolic. It is perhaps this shambolic, 'bewildering' appearance that lends power to another of Descartes' 'eternal truths', that God's

243

essence includes his existence. In any case, it is at least clear than in fact, if not in principle, the Cartesian axioms bear little connection to the method. The significance of the method, from the perspective of the system brought to actuality through axiomatic interaction, is as a *post hoc* justification. The axioms are 'self-evident' in the same sense as Euclid's axioms, as they represent the genesis of system insofar as the system is able to represent its own origin. They are significantly less valuable than Euclid's axioms in one sense of course, as the interactions between the Cartesian axioms are not characterised by the same necessity, and in fact are determined once again by such 'self-evidence'. But they have a different significance for the reason that, accurately or not, they are understood to be grounded in some aspect of the life-world that is necessarily a-systemic. Thus, they suggest, *qua* genesis, the ground of 'self-evidence' as being one that escapes the theoretical space in which such self-evidence appears.

4. From God

The ontological equivalent of Cartesian certainty is necessity. That is, Cartesian certainty is the subjective correlate to the objective necessity of God. Descartes utilises two proofs for the existence of God, i.e. the 'ontological argument' and the argument from eminence. These arguments can be wielded from two directions each. In the first place, if God is assumed to exist, they can be used, along with other arguments, to demonstrate the possibility of certain attributes being predicated of God analogically; that is, approximately. However, assuming that God's existence must be demonstrated, as Descartes does, one must begin with the assumption that a god must possess those attributes that would be demonstrated by these arguments. Descartes clearly assumes that all relevant questions pertaining to the approximate conception of God were settled by Aquinas (who integrated the idea of God with an Aristotelian cause-structure), as he sees no reason to consider what it might be appropriate to

244

predicate of God in the first place. Thus, at the very least, Descartes' system must be understood as being founded in part on particular Christian dogma, and thus being held together not only by the faith in the natural light for which he argues, but faith in a particular historical interpretation of Scripture. The relationship between human and God, taken from the perspective of the human, is mediated by faith in both Scripture and the natural light. God is connected directly, though infinitesimally, to method, by human faith in the natural light, and is aligned with the natural light by faith in God's good will. Thus clear perception is structured as a gift from God; the gift of a glimpse of the Real. Being as it is a gift of information, the primary relationship to be had with it is one of trust or faith. The trust in the direct experience is secured by faith in God as being both supremely powerful and supremely good. Thus faith in God is structurally identified with trust in the natural light. Without faith in God, the experience of 'clarity' may be as readily interpreted as a form of madness as an access to knowledge. Faith renders the negative account of knowledge (i.e. the Cartesian account, where knowledge is the remainder once the obscure has been removed) as positive; a reduction in obscurity becomes a knowledge of the real. Considered in the abstract, i.e. purely in terms of the systemic structure and function of its elements in relation to one another, faith in the natural light is, *qua* knowledge, the point of near-direct (mediated by the Real) intersection between human and God. However, this intersection says nothing of God's broader systemic function. It only indicates the point at which human failure to recognise the legitimate effect of God as creator ends. It is still negative and still constrained by the idea of concrete human capacities. Nonetheless, God has a concrete positive systemic function. The role of God within the Cartesian system is clouded by both the local objects towards which faith is directed (i.e. Scripture and the natural light), and also by the proofs with which his existence is demonstrated (the ontological argument and the argument from eminence). Each

of these demonstrates a facet of the relationship between human and God in a certain way, but rarely in terms of God's direct systemic function. For example, Descartes proves the existence of God by way of the argument from eminence. Such a demonstration necessarily provides God with attributes of a sort (i.e. every excellence found in every created thing, insofar as each such excellence can be rendered free of any defect, and rendered infinite in scope). However, the attribution of such qualities to God is necessary to the Cartesian system only as a pathway towards the transition from indubitability to certainty. It is a component of the movement from the epistemological to the ontological, but does not contribute significantly to the latter. On the other hand the 'ontological' argument, whilst seemingly providing God only with empty existence, requires for its success that either, maximally, God be taken to have an 'essence' in fact, or minimally, it is appropriate to apply the concept of an essence to God. In either case the implication is that, although God may not be determinable (given epistemic limitations), he may nonetheless be *determinate*. Whilst Descartes allows that God must be infinitely different from created things, he nonetheless integrates God into their causal structure by minimally allowing that God can be considered in terms of essence/existence. It was shown in this chapter and the previous chapter that Descartes on occasion employs a sleight of hand whereby he demonstrates the existence, but not the essence, of a being, only to graft an essence of his own choosing onto the root of the empty existent. In like manner Descartes gives God's actual attributes according to ordinary doctrine, having only demonstrated his empty existence. Of course, ostensibly at least, these attributes are reduced according to the method. This reduction does little in fact to modify God's systemic role, but much to further the sleight of hand – restructuring the appearance of the dynamic aspect of the inclusion of God as a reduction rather than a positive addition. Taken from the perspective of knowledge and the method at least, the affective role of God is 'reduced' to his

246

being the first efficient cause of everything. However, the 'faith' that is directed toward God via the natural light is not the faith in this efficient cause. As doubt removes the *telos* from consideration, it leaves an entire causal field open only to God, forming a vacuum into which knowledge might be filtered through doubt. This correlates with the reduction/expansion pattern, considered from the perspective of the relationship between faith and knowledge. The idea of God's will grounds the limited human experience of God as efficient cause; the difference between these creates the space within which 'world' is projected. Cartesian methodological doubt, directed towards certainty, requires faith in precisely the obscurity of the infinite/outside, as the potential yet ontologically prior space into which knowledge is projected. Thus the fundamental object of faith is the externality of a teleological structure. That there is such a thing as a first efficient cause is assumed from the outset of Descartes' project; the assumption taking the form of an axiom of sorts, that the efficient cause must have at least as much reality as its effect[312]. The faith relates rather to the structure of that which is taken to be the first efficient cause. Specifically, it is faith in an entity with primary efficient causal status that is structured in such a fashion as to be classifiable according to a specific historical moral structure. Thus, minimally this entity must be compatible with the notion of 'will'. The faith in God that is systemically relevant is faith in a primary efficient cause that is in possession of a will. It is precisely faith in a 'will-structured' infinitely powerful being that renders the particular certain. Of course, according to Descartes, there is no human capacity that allows for an understanding of God's will. This is why, in line with the reduction of the method, God is understood only as the first efficient cause of all things.[313] Final causality correlates with the idea of God's will, and both are the province of God alone, yet

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[312] Which Descartes supposedly derives by way of the natural light. He writes, "Now it is manifest by the natural light that there must be at least as much <reality> in the efficient and total cause as in the effect of that cause." Descartes, *Meditations*, CSM II 28, ATVII 40

necessary as objects of faith for structuring of the precise efficient causal matrix in such a fashion as to render certainty possible.

From the perspective of knowledge, the Cartesian God appears anthropomorphic. Considered as an omnipotent, omniscient being, structured according to the notion of 'will', the action of God appears as a mere radicalisation of human action. Furthermore, considering that the Cartesian God is not only infinite, but infinitely *different*, from the created human, the spread of his infinite nature is readily interpretable in terms of experience. That is, being that God is understood in terms of so many anthropomorphic concepts, yet is nonetheless infinitely *different* (i.e. not just infinitely more powerful, etc.), it is a simple matter to understand the relation between human and God as an analogue of the relation between human and human, where the common feature is the internal infinitude of experience. This feature, God's experience of himself, also characterised as his will, or as the final cause, is removed from specific consideration by methodological doubt, as well as by doctrine. However, from the perspective of God's action (as opposed to knowledge of God), as required by the Cartesian system, God appears somewhat differently. Those attributes of God that are used to argue for certain human knowledge are accidental to his primary role as creator. The divine attributes are found in a world already created in such a fashion as to allow them to appear. The basic functional role of God is not to be 'good', or to have a 'will', but to actualise the world precisely as it is. He creates and re-creates the world in precisely such a manner as to allow for the connection of cause to effect in the way that it comes to be seen. God brings individually static moments of 'world' together in such a manner as to allow the appearance of motion, change, causality, and stability of law. Descartes writes:

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[313] Descartes, *Principles* 1.28: CSM I 202: AT VIIIA 15

Thus, from the fact that we now exist, it does not follow that we shall exist a moment from now, unless there is some cause – the same cause which originally produced us – which continually reproduces us, as it were, that is to say, which keeps us in existence.[314]

From the perspective of being, God is that which explains structure as such. The anthropomorphic God does not relate to his action qua God, but only to the acquisition of knowledge of God. That is, the anthropomorphic God is the static intelligible counterpart to the idea of divine creativity. It is a necessary step along the way to the creation of a system in which the transcendence of God can be recognised in terms of activity rather than attribute. The activity of God, that which God adds to the *complete* Cartesian system, is the integration of moments, static though infinite in scope, into an *order*. 'God', understood purely according to activity or function, is required in order to integrate the ideas of succession and interaction. Without the maintenance of precisely this world, faith would have no *telos* as its object. Faith is maintained from the lived world towards a 'beyond' that secures the world precisely as it is. Removed from the consideration of the path toward knowledge that this being-structure allows, this 'beyond' need no longer be considered along anthropomorphic lines, but rather takes the function of pure temporality. However, 'pure' temporality is beyond the reach of the Cartesian system, within which God, even considered as a pure structural-systemic function, always retains a minimal anthropomorphic signature. The Cartesian God is equivalent to the structure of time, only insofar as time is considered as the succession of static moments, such as to be productive of the experience of duration through causally linked movement. The concept of 'God' in the Cartesian system is at base an expression of the transcendence of pure temporality. The ineffable nature of God's will, from the perspective of knowledge, correlates directly, from the perspective of being, with the ineffability of 'succession' and 'order', and

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[314] Descartes, *Principles* 1.21: CSM I 200: AT VIIIA 13

thus with the original Aristotelian problem situation, in which actuality and potentiality were created to render the continuity of time and the discrete manifestations found therein compossible.

5. Conclusion

Cartesian *Philosophia Prima* is actualised ostensibly through the interaction between axioms and by the subsequent interaction between these axioms and the propositions that are produced from them. The system is actualised once it has achieved its ontological foundation; that is, when the systemic function of God has been described. Thus the actualisation of the Cartesian system can also be understood as the actualisation of Cartesian priority. It is only when the systemic role of God has been determined that that the system as such can attain stability. This is not only for the reason that Descartes holds that knowledge from the cause is greater than knowledge from the effect, but also because of its more significant metaphysical correlate. The fundamental sense of systemic priority is found in the precise function of God. This is because God, considered only as a Cartesian systemic function, is reducible to the idea of systemic necessity and sufficiency. The actualisation of the Cartesian system (considered broadly) is precisely the actualisation of a space in which method can function, and in which an axiomatic actualisation of system can interface with being as such. The potential for this actualisation consists of the originally unmixed state of the axioms or common notions. A latent appreciation of the potential inherent in a particular collection of unmixed simple notions must form the basis of any attempt to create an axiomatics. This is an assumption shared by Cartesian and Euclidian axiomatics. It is primarily in terms of his axiomatisation of metaphysics that Descartes can be seen as attempting to mathematicise philosophy. However, the propositions ostensibly deriving from the interactions between the Cartesian axioms do

250

not attain the apparent necessity of the geometrical propositions deriving from Euclidian axioms. Etienne Gilson correctly notes:

The evidence of mathematics depends on both their complete abstract generality and the specific nature of their object. Because of its complete generality, the mathematical method can be infinitely generalised, but, if we want it to yield evidence, it cannot be indiscriminately extended to all possible objects.[315]

The successful axiomatisation of geometry is largely the result of quantity itself being an idea amenable to abstraction. In any case, the 'mathematicising' of philosophy is not, whether in terms of a renegotiation of concepts, or the construction of evident relations between axioms and propositions, of primary structural importance to the Cartesian system. In terms of priority and the Cartesian systemic structure, the fundamental difference between Cartesian and Euclidian axioms lies in the source of their 'self-evidence'. For Euclid, the foundation for the axioms consists in their self-evidence. For Descartes, the functioning of self-evidence itself must be rendered evident. Thus, from the perspective of the Cartesian axiomatics, the function of the method is to provide an external ground for this 'self-evidence'. Further, this 'external ground', understood as the method in total, is itself grounded ostensibly in a concrete act of thought. However, the connections between the concrete act and method in total, and between the Cartesian method and the axiomatics, are constituted by a sleight of hand. The connection between act and method is made by passing off a historical theory about thought as identical with the concrete act. The connection between method and axiomatics is formed by ignoring the genetic differences between different moments of 'bewilderment', interpreting all in terms of the genesis most favourable, i.e. in terms of the bewilderment encountered as a result of the thought attempting to doubt itself. Further, the actualisation of the system as such is founded on a similar sleight of hand. Upon demonstrating (whether adequately or not)

251

the necessity of a god of some kind, Descartes switches this somewhat open notion of a 'creator', for a complex concept born out of the interaction between scripture, doctrine and post-Aristotelian philosophy. The resultant formation is a large-scale systemic structure formed broadly according to the structure of the God-human relationship set out in Thomas Aquinas' five ways. In spite of this, Descartes modifies the God-human relationship in two fundamental ways. Like that of Aquinas, the Cartesian system sets up an ostensibly necessary relationship between God and human such that, if one is assumed to exist, then the other must exist as well. However, in 'enacted thought' Descartes finds an extra-systemic source of necessary existence. This fundamentally modifies the structure of the God-human relationship, as it redefines several of the axes of their connection, such that they no longer correspond to relations between two determinate concepts, but are rather structured in terms of their being subjects and objects of thought. The relationship is rendered three-dimensionally, so to speak – whereas the God-human relationship according to the five ways sketched out the structural interactions between two present entities, the Cartesian system requires that the structure is 'inhabited', such as the signs of the interactions are rendered in terms of concrete phenomenal data. Where, for example, 'faith' is no longer merely a concept of connection of a certain kind, but is rather identified with a precise thought-act. As a result, the mechanisms proper to introspection and those proper to conceptual analysis are (perhaps awkwardly) integrated; most obviously through the systemisation of extra-systemic 'enacted thought'. 'Enacted thought' does not survive this inclusion except as the idea of phenomenally derived certainty. It doesn't remain as an element of the system except as the very idea of extra-systemic foundation. Further, the phenomenal foundation is quickly rendered as necessarily one of faith. This faith integrates a local conceptual-phenomenal element (i.e. the

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[315] Gilson, *The Unity of Philosophical Experience* pg. 144.

natural light) with being at large. Faith in the natural light is structurally identified with faith in God. However, those aspects of God by which faith extends knowledge into being are not identical to God's overall systemic function. The concrete object of faith is always an outgrowth of doctrine, characterised by an array of first-level anthropomorphic concepts, distinguished from *anthropos* as such only by their eminence, infinitude or perfection. However, the concept of God always retains, in similar fashion to the foundational phenomena, the attribute of externality. Faith in God manifests 'internally' (both with respect to the system and with respect to thought), but precisely as the idea of an a-systemic cause (where the notion of 'system' is expanded to include 'world' in its totality). The function of God considered purely in terms of his systemic transcendence, i.e. no longer in terms of the passage from appearance to knowledge but purely in terms of his function, is no longer anthropomorphic except in the broadest possible sense. Reduced entirely to his creative function within the Cartesian system, the idea of the transcendence of God is equivalent to the idea of the transcendence of time. Though he failed to give it serious attention, 'time' is fundamental to Descartes' system, whether through necessary inclusion of enacted thought, or through the artifice of the narrator in the *Meditations*, or through the necessary yet derided function of memory. A-systemic foundation is the fundamental Cartesian *a priori* concept. It manifests in two ways: from knowledge, the transcendence of enacted thought; from being, the transcendence of time, nominally determined as God.

CONCLUSION

The foregoing chapters should be understood as an attempt to consider the transformation of

fundamental knowledge from a variety of perspectives. Each of these perspectives ought to be

understood as coalescing around a single object, determined as such analogically. The analogy

in question began to develop in chapter two, through Aristotle's analogical demonstration of

the utility of the concepts of actuality and potentiality. Aristotle's use of analogy as the sole

form of 'definition' for these concepts leaves them structurally open to extension. Further, the

form of extension required for the application of the concepts of actuality and potentiality to

transformations in knowledge had precedent in Aristotle's thought. In the *Protrepticus* Aristotle

had applied the concepts of actuality and potentiality to the status of the being of the 'knower'

of knowledge. By the time of the *Metaphysics* he had extended the actuality-potentiality

concepts such that they could be applied to the status of knowledge as such. However, a given

form of knowledge could never be taken by Aristotle as the subject of a transformation, as

'knowledge' does not qualify for inclusion under his categories. This constitutes a significant

difference between Aristotelian thought, and the use made of Aristotle's thought in this thesis.

However, this difference ought not to be overstated. Aristotle does describe 'knowers',

'teachers' and 'learners' in terms of their relationship with the knowledge held, transmitted, or

learned. This knowledge is not absolute, but rather of some particular kind such as the

example Aristotle gives of 'house-building'. As such, although it is outside of Aristotle's

purview, there are grounds for considering a particular 'epistemic x' as the possible subject of a

transformation. In considering a form of knowledge as a possible subject for transformation the concepts of actuality and potentiality were extended, in chapter two, from applying to the status of a generalised idea of knowledge, considered solely in terms of its modification of knowers and potential knowers, to the status of the knowledge itself that might be passed *between* knowers and potential knowers. In considering an epistemic 'something' as being subject to transformation, and theorised under the concepts of actuality and potentiality, this 'something' is thus brought into the greater structure of active and passive causes. Still, in order to be integrated thus, a form of knowledge would need to be understood as unified in some way. Aristotle's consideration of knowledge in terms of actuality and potentiality, in the development of his analogical demonstration of these concepts, shows knowledge to function in a sense incompatible with its being taken in terms of a categorial unity. Functioning as a difference under the category of *ousia*, knowledge cannot itself be considered either a genus or a species.

For this reason, chapter three was dedicated to a consideration of *pros hen* structure as one sense in which a knowledge-structure, and in particular the knowledge of being *qua* being, might be understood as constituting a non-specific or -generic unity. With his several uses of *pros hen* Aristotle demonstrates both a non-generic form of unity and a basic outline of a theory of the structure of particular knowledge. Furthermore, this structure can be interpreted such as to integrate a structure of knowledge into the larger world of beings and their interactions. In chapter three *pros hen* structured knowledge was characterised as something that both changes, and is changed, by beings. Aristotle's analogical demonstration of *pros hen* structure was expanded upon to show that, within Aristotle's thought, there was a latent theoretical structure applicable to the creation of an account of the integration of the notion of a

255

transformation of a structure of knowledge into the greater causal manifold. As Aristotle

extends his application of *pros hen* structure to the subject matter of 'being', the properties of

pros hen structure more generally can be considered to apply to the study of this particular

subject matter. The relationship between a *pros hen* structured subject matter and its objects

was shown in chapter three to be fundamentally co-constitutive. That is, the subject matter

and its objects were shown to be subject to modification according to the structure of the

interrogation of objects suggested by the *pros hen* organisation of a subject matter. As such, the

study of being *qua* being, and the awareness of 'being' that organises this study was seen to be

integrated into the greater causal narrative as both cause and effect – organised according to

the broadest range of causal interactions and also serving to organise causal interactions; it can

affect and be affected. A *pros hen* structure is named according to its subject matter ('health',

'medical' and 'being' are Aristotle's primary examples). One of the purposes of this thesis has

been to show that transformations in such subject matter can be imagined according the

concepts of actuality and potentiality. In extending the *pros hen* structure to the subject matter

of 'being', Aristotle also extends to 'being' its inclusion, as a subject matter, into the wider

causal structure. This is by way of the very structure of *prose hen*, whereby the subject matter

both determines, and is determined by, its particular instances. Aristotle thus provides the

foundation for the extension of transformations *in* being to transformations *of* being as such.

In chapter four, the Cartesian method was approached as a first-person representation of the

transformation a structure analogous to that suggested by the *pros hen* organisation of a

structure of knowledge. An attempt was made in this chapter to take Descartes' use of living,

enacted thought seriously as a source of systemic foundation. This attempt was structured

according to the Cartesian theory of judgement, which provides the fundamental structure of

his method. The integration of a 'subjective' mode into the transformation of a structure of knowledge is indeed significant, but does not preclude this transformation from being considered according to a different mode. That is, although the first-person mode introduced by Descartes tends to restrict focus to the proximate 'subjective' elements of *certainty*, *indubitability* and *faith*, these elements can also be considered according to their role within the greater structure of Cartesian metaphysics, abstracted from this first-person mode. Considered in terms of this greater structure, the operation of the Cartesian method was considered as a transformation rather than exclusively in terms of the attainment of a goal. The *telos* of the method may be 'certainty', but this need not mean that the attainment of these *telos* exhausts the Cartesian method's meaning or function. Similarly, the failure to attain this goal need not render the Cartesian methodological project a total failure. The Cartesian method shares with *pros hen* structure the feature of, when pushed to display its function more clearly, containing evidence of its own integration into the greater causal milieu. This integration has significant meaning for the studies through which these theoretical structures are themselves created, as in each of these cases (in the *pros hen* organisation of the study of being *qua* being and the Cartesian reorganisation of metaphysics by way of the method), the study that is undertaken must be considered a component of its own object. The integration of both *pros hen* structure and Cartesian method into the greater causal flow results in the creation of recursive structures right at the foundation of the theoretical systems they support.

Descartes describes a transformation from one structure of fundamental knowledge to another. In order to offset the contingency that such a transformation would lend to fundamental knowledge, he attempts to anchor the specific transformation he undertakes to an aspect of psychic life. In so doing he introduces living, temporally engaged thought to the

257

study of metaphysics. However, he takes account of this 'enacted' thought only to justify the installation of a historical-theoretical thought-structure at the centre of his method. The 'self-evidence' of the existence of thought is transferred uncritically to his theory about thought, such that this *theory* becomes the internal structuring principle of his metaphysics, and a narrative describing the origin of the self-evidence of his axioms. 'Enacted' thought, in spite of its being in fact external to the developed Cartesian system, remains within the system as the idea of its phenomenal foundation. This is partly rendered possible by the kind of phenomena that he considers and the manner of his consideration. In taking a kind of 'bewilderment', a concrete inability to proceed with thinking, as the source of certainty, he provides a phenomenal space onto which a range of notions can be projected. This is because, differing from the 'rock and sand' analogy according to which it is considered, the 'inability to proceed' with thinking does not itself provide any knowledge of the source of the obstruction. There is no equivalent to the 'rock', but rather a generalised breakdown in the entire structure of the attempt to think. As a result of this generalised breakdown, described above as 'bewilderment', a space is opened up, a 'gap in thinking' into which a variety of propositions might be placed. It can be difficult to counter such projections precisely because, in thinking through the narrative of their origin, thought becomes 'bewildered'. Setting aside his stated aim of the attainment of certainty, Descartes' project might be understood as an account of the transformation of a total conceptual apparatus. The use of the phenomena is one element among many contributing to the greater causal context in which this transformation takes place. Other elements include Christian doctrine, the theoretical determination of thought, the potentiality for deformation of the concepts brought under the method, and of course the greater causal manifold within which thinking operates *in fact*. This greater causal manifold is approached by Descartes in terms of the relation between human and God. However,

258

considered at a further level of abstraction (that is from above the 'view of God'), the concept of God can be seen to coincide, on the level of pure 'function', with a notion of time in which temporally discrete moments inhere. As such, a return to a problem-situation more directly analogous to that out of which actuality-potentiality developed can be seen. The basic structure of Descartes' final ontology is such that a transcendent, continuous temporality stands in contrast to the discrete moments of time that form the basis of the structure of causality. In Aristotle's writing, in particular in the *Physics* as noted in chapter two above, the problem-situation within which he wrote was such that the continuity of temporal being became an issue for the determination of discrete entities as such and such an entity. Aristotle dealt with this by allowing that any determination is contingent upon the greater collection of passive and active powers within which such a determination takes place. He thus extended the sense of what a being is from its pure static determination back towards its causes and also continuing forward toward its effects. This extension was described according to the conceptual apparatus of actuality-potentiality. Descartes' system exhibits a similar structure. However, rather than applying to entities in their particularity, the fundamental ontological structure of Descartes' system relates to the transformation of 'world' as such, the a supporting structure for the transformation of individual entities, which on their own are no longer central to ontological considerations for the reason that they are to be theorised according to mathematical science. The Aristotelian concepts of actuality and potentiality thus find analogous structures in the Cartesian metaphysics both at the level of method and of ontology. On the level of method, the transformation of one knowledge structure to another is directly analogous to the transformations described by Aristotle in the *Physics* and *Metaphysics*. On the level of ontology, Descartes' total system resolves to a structure in which the problem-situation out of which the concepts of actuality and potentiality developed is recreated on a grand scale.

259

For Aristotle the problem of change grew from consideration of a change from not-*x* to *x*. Descartes defers consideration of change in the physical world to mathematical science. However, the result is that problem is reasserted at a higher level of abstraction, becoming a problem relating to the persistence of a world in time. The Cartesian metaphysical system is thus, rather than a solution, a total restatement of the problem situation for which Aristotle developed the concepts of actuality and potentiality.

Aristotle utilises *pros hen* structure to demonstrate the possibility of a unified form of study, the study of *prote philosophia* in particular, the unity of which is non-generic. However, the use of this structure has the further effect of opening up the possibility for the integration of a form of knowledge into the greater causal milieu; allowing it to both affect and be affected as both an agent and a patient of change. In characterising the study of being *qua* being, or first philosophy, as structured *pros hen*, Aristotle incorporates first philosophy into the total causal situation, opening up the structural possibility of a transformation of the totality of study the of being *qua* being, from its subject matter through to its objects. Further, first philosophy, structured *pros hen*, becomes an object of its own subject matter; introducing a recursive ambiguity at its foundation, modifying the possibility of its transformation such that it might be understood as the possibility for *spontaneous* change. Such a possibility is in part what Descartes seeks to close off with his method. The method is, from this perspective, an attempt to take control of the transformation of first philosophy such that it might be transformed *correctly*, such that it could no longer be subject to such change. He finds the principle of correct transformation in the relationship between a concrete inability to doubt and the concept of 'certainty'. However, Descartes leaves the movement between indubitability and certainty, between experience and concept as fundamentally ambiguous.

Further, as the remainder of the system, including its ontological foundation, is drawn from this ambiguous relationship, the Cartesian metaphysical structure remains as recursive as Aristotelian *prote philosophia*. He reduces and refines the contingency of first philosophy, but it is not excised. Rather it is reconfigured such that, rather than the entire systemic structure being imbued with a generalised ambiguity, this ambiguity is focussed at the point of a founding creative act. The structures of *prote philosophia* and *prima philosophia*, taken together, demonstrate the possibility for creative reordering inherent in the project of first philosophy considered broadly. This possibility extends from the specific attributes of the Cartesian and Aristotelian systems, met with today by their influence upon diverse streams of thought, but also more fundamentally from the more generally recursive structure of any totalising system.

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