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THE PRIORITY OF FORM IN THE METAPHYSICS OF THE HUMAN PERSON. A CONTEMPORARY DEFENSE OF ARISTOTELIAN-THOMISTIC HYLOMORPHISM

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INTRODUCTION

In this thesis I aim to offer a critical exploration of the metaphysics of the human person. More specifically, I intend to defend a number of conceptual standards which are philosophically crucial to a theory of human nature whereby the ontological unity, integrity and intellectual specificity that belong to it are safeguarded and promoted. Given this rather elevated vision of human persons, we need to look at the necessary philosophical tools available and that do justice to the complexity of such themes. It is possible to study human beings from a variety of disciplines, for instance, sociology, psychology, legal theory, biogenetics or economics. One of my claims throughout this thesis will be that none of these disciplines do enough justice to the deepest criteria that underly a theory of human nature. For this we need metaphysics. In fact, the mystery of human nature, its ontological constitution as well as the ensuing problems related to the interface between thought, cognition and corporeity have been with us since the beginning of philosophical discourse. However, important choices must be made regarding the metaphysical commitments to be undertaken and I intend to show why in my defense of the ontological unity, coherence and identity of human nature, the Aristotelian and Thomistic metaphysical systems are to be preferred over and above at least two other highly influential philosophical traditions, namely substance dualism on the one hand and reductivist materialism on the other.

The Object of Research

The metaphysics of the human person is an association of questions that have been asked since the inception of philosophy as a formal inquiry. The reasons why this is so may be obvious, since it pertains to human nature to be linguistic, to think propositionally, to reflect critically and conceive of the world in both analytic and symbolic ways. That is what philosophers do when they ask questions about what everyone else takes to be obvious, raising queries about the truth of phenomena and searching for accuracy and coherence when articulating such problems. Thus, the question 'what are human beings?' has been answered in different ways which, on a closer look, yield a subset of more specific questions about thought and corporeity, that is about, the intellect and the human body, about physical movement and intentional choices, abstract thought and practical wisdom. Most languages up and down the ages have a term for the 'soul', the 'mind' and the 'brain' as well as the 'body'. At a very early

stage, questions about the relation between the intellectual sphere and the body we experience through sensation were raised until at a certain point we realised that framing the question in this way already commits us to a form of dualism even if unofficially stated.

The debates shifted between different axes and guided toward many different directions. Are the mind and the brain different? Are they separate entities or are they just two different manifestations of a singular capacity? What if we argued that the mind and the brain are actually the same, mutually inclusive or reducible to each other? That would be one family of questions asked within this general debate. Another cluster of challenges would focus on the mode of relationship between the mind, the brain and the human body. If we say that the intellectual activities generally falling under the umbrella of the mind are immaterial, are they distinct from the brain viewed as an extended bodily organ? How does something immaterial interact or even have an impact on a physical entity? Alternatively, can mental states or intellectual operations be seen as emergent properties, mysteriously arising out of the rightly configured scheme of physical properties and conditions? Is the mind and body problem a merely conceptual one or is it rooted in the true nature of things?

The problem may be systematically formulated in two ways, one logical and the other realist. By way of example, the logical way may be stated in a hypothetical conditional way: If the claim that physical and nonphysical entities cannot possibly interact *is true* and if the claim that the mind is immaterial and the body is physical is true, then we cannot defend the other claim that mental states impact in some way on physical states and vice versa. However, if the mind and the body do in fact interact, then we have a unique case whereby a physical entity and an incorporeal thing *do in fact* interact. From a purely logical point of view the problem seems irresolvable until the claims are qualified and modified.

The issue can also be stated in a less formal way, but which is still sensitive to the paradoxical nature of the question at hand, based on a realist approach to the empirical world of data that is constantly available to us through the natural sciences as well as through personal and shareable experiences. Thus, the human body is an incredibly complex network of physical tissues, muscles, organs and body parts that form fascinating networks that are systems supporting the nature, being and operation of the person as a whole. From a purely physical point of view, much that is said of humans may also be analogously observed in the bodies of other animals. The way sensation occurs, that is how we receive information and stimuli through our senses is a very well-documented narrative, as when sound waves hit the ear drum and reverberate in such a way that this input is also registered by the nerve endings leading directly to the brain, or the light that impinges on the two retinas in my eyes and which transmit

signals electrically to the brain via the optic nerve. The neuroscientist will inform us that the visual cortex, in the case of hearing, may be localised at the back of the brain. Yet, what does it mean to see and to hear intelligibly? As we shall see later on, the chiasm between sensation and perception is analogous to the interface between the physical and the mental aspects of cognition and the intellectual life of humans. This thesis will argue that the neuroscientist and the biologist are confined to an empirically acquirable and verifiable account which does not set foot into the philosophical conversation if not to support and confirm whatever is stated philosophically and by providing credible data-based views of the natural sciences. One long-term implication of this is the notion that the brain may be a necessary but not sufficient condition for the mind.

Moreover, there are operations and there is intellectual content in the activity of the rational soul which is not traceable or reducible to the activity and operation of the physical organ that is the brain. Thus, an account of neural activity does not get anywhere close to explain what it is like to see, or what it means when a person claims, "that is a tree", for neural networks, are taken in themselves, body cells and they are nothing more than that. Yet we experience consciousness and self-consciousness, we think through symbols, thus, we compose algebra and mathematically complex fugues. Plugging into J. S. Bach's brain while creatively composing a complex fugue would not show that fugue mapped out on a CT scan as he thought it through, nor would the complex algebraic equations declined by S. Hawking in support of his cosmological views would in any way feature through an observation of his brain's nervous system. Such observations of a rather informal nature give a sharp insight into the problem of explaining how the mental and the physical relate, if at all.

In this thesis I argue that a hylomorphic account of the Aristotelian and Thomistic kind is by far the preferred philosophical tool that meets all the requirements mentioned here. Specifically, I argue that the priority of form in both these influential traditions enters fruitfully in conversation with the empirical sciences that often dominate discussions and research on the intellectual life of the human person. Finally, I am conscious of the risk of committing philosophically 'anachronistic' judgments when aligning the 'mind' and the 'soul' in my discussion of the so-called mind-body problem. I hope to show that I am aware of the differences there are between mind and soul, the main one being that the soul is not only a broader and richer concept which enables us to distinguish the human person with a very complex yet artificial machine, but since it is the primary ontic cause of being and identity – that is what Aquinas means when he refers to it as substantial form – it also provides the

properly organised hierarchy of faculties and powers that define the human person, mental life being one among them, albeit the highest of them all.

State of Research

This thesis focuses on one particular aspect of hylomorphism, namely, the role of priority served by the formal cause in the ontological framework of the human person. Moreover, this will be carried out with the aim of defending it within a particular philosophical tradition, the Aristotelian and Thomistic account of hylomorphism. Apart from rehearsing and clarifying and deepening our understanding and exposition of such a noble current of critical and constructive thought, a further aim will be to find the right philosophical tools which enable the hylomorphist of such a tradition enter into a meaningful and critical conversation with contemporary philosophy and science. Both Aristotle's and Aquinas's accounts of the human soul were forged within a critical and polemical scenario as they dealt with substance dualism on the one and atomistic reductionism on the other and thus, it is a natural choice to continue that conversation with contemporary versions of both extremes, with a keen eye on what has come to be called broadly, 'naturalism' and which enjoys a pervasive acceptance among academics today.

This exercise has been going on for some time. Every one of the five chapters captures a particular philosophical conversation that has had its own original moments and that still carry on in the present. Powerful evaluations of the general thrust of this discussion may be found in James D. Madden's book, *Mind, Matter and Nature: A Thomistic Proposal for the Philosophy of Mind*.[1] This is an excellent stimulus for the discussion that wants to evaluation the strengths and weaknesses of all the positions. It is, of course, not a neutral book in that it defends hylomorphism yet more needs to be done to show the concrete relevance of form understood as the intrinsically structured principle of nature and how it applies to the human person and also allows the account of the human intellect to transcend it. Another book which deserves to be mentioned because it is a very up to date indication of this current revival of Aristotelian hylomorphism within contemporary thought is the collection of articles by Simpson, W. M. R., Koons, R. C., and The, N. J., *Neo-Aristotelian Perspectives on Contemporary Science*.[2] In particular in displays three important articles as follows: the first

[1] James Madden, *Mind, Matter and Nature – A Thomistic Appraisal for the Philosophy of Mind*, (Washington DC: Catholic University of America Press 2013).
[2] William, M. R. Simpson, Robert C. Koons, and Nicholas J. Teh, *Neo-Aristotelian Perspectives on Contemporary Science* (New York: Routledge Publications, Taylor and Francis 2018).

is, 'A Biologically Informed Hylomorphism', by Christopher Austin[3]. The achievement of this article is to highlight those parts from science which benefit from Aristotle's account of form. The second is, 'The Great Unifier: Form and the Unity of the Organism', by David, S. Oderberg.[4] This article too makes an effort at updating parts of both science and philosophy which are sensibly relevant to a hylomorphic account. Thirdly and the one most relevant to my topic, is 'Hylomorphism and the New Mechanist Philosophy, in Biology, Neuroscience, and Psychology' by Daniel, D. De Haan.[5] On this level, the state of research may be captured by these cited authors. Two shortcomings in all these publications may be mentioned and which I hope will be addressed in this thesis. One common deficiency is that they lack the detailed analysis of the classical texts they refer to. That discussion needs to be kept alive while also being sensitive to the original meaning of the philosophical arguments presented by the classical philosophers. Another deficiency is that there is not sufficient critique of how, firstly, scientists easily slip into physicalism and atomism and, secondly, how philosophers too have sympathised with such forms of materialism. Thus more work needs to be done to provide the correct philosophical understanding of certain new parts of information given by contemporary science as well as making sure that the classical authors are interpreted correctly and with respect to their context. An excellent work which makes sure that the historical and intellectual milieu of the classical authors is comprehensively studied is Edouard-Henri Weber's book, *La Personne Humaine au XIIIe Siecle*.[6] This book is not helpful in providing a bridge with contemporary thought, but it is extremely helpful with providing reliable historical and critical exegesis of medieval texts in general.

Sources and literature

I shall proceed by selecting a number of representative texts from the currents of thought that I judge to be especially significant and influential within the topic of each chapter. While I offer a critical reading and interpretation of such texts, assisted by the help of the secondary literature, I hope to underline the salient concepts within the philosophical positions presented and proceed with my investigation at hand, namely applying the standards and criteria I have chosen for the debate on the mind and body problem. My desire is to show that through this

[3] Ibid., 185-210.
[4] Ibid., 211-234.
[5] Ibid., 293-326.
[6] Edoard H., Weber, *La Personne Humaine au XIII Siècle* (Paris: Sorbonne Librairie Philosophique J. Vrin 1991).

method it becomes clear why hylomorphism, in the manner developed by Aristotle and Aquinas and continued by contemporary philosophers remains the best solution to the profound problems this topic is otherwise faced with.

Though my interest is not primarily historical but thematic, I strive to be sensitive to the historical factors which influence and sometimes define a philosopher's scheme as well. Moreover, with an open eye toward the grand scheme of things and the finality of this research project, I also hope to keenly indicate the eventual relevance of concepts toward a positive and constructive discussion with contemporary scientific accounts coming from biology and neuroscience while establishing the irreducibility of metaphysical discourse. The originality of this thesis lies in the creating of an analysis that focuses on major representative views that have shaped the debate on the metaphysics of human persons as well as an explicit effort at plotting a conversation between metaphysics and rather powerfully held scientific doctrines about our human nature and specifically about the themes had already interested masters like Aristotle and Aquinas. The novelty here is that I integrate the long-debated views of great traditions both with their modern commentators and interpreters, but while learning and understanding the groundbreaking novelties offered by the empirical sciences, a critical tool is developed from the philosopher's end into these sciences. The upshot of this exercise, I hope, will be a result that favours the belief that hylomorphism – and, specifically the explanatory and causal role played by the formal cause in the Aristotelian and Thomistic account of the human soul – shows how enduring such a position is and how fundamental it must always be in our treatment of the metaphysical constitution and identity of human persons.

In the first chapter my primary focus will be addressed to the following works: Plato's *Phaedo*[7], with other references to his *Republic*[8]; Augustine's *De Trinitate*[9] and Swinburne's *Mind, Brain and Free Will*[10] and *Are We Bodies or Souls?*[11] The second chapter on Aristotle will take a close look at the salient works related to our investigation, namely his *Metaphysics*[12],

[7] Plato, *The Phaedo*, Translated by Hugh Tredennick, in *Plato: The Collected Dialogues*, Bollingden Series LXXI (Princeton, Princeton University Press 1961) 40-98.
[8] Plato, *The Republic*, Translated by Paul Shorey, in *Plato: The Collected Dialogues*, Bollingden Series LXXI (Princeton, Princeton University Press 1961) 575-844.
[9] Augustine, St., *On the Trinity*, Translated by Stephen McKenna, Edited by Gareth B. Matthews (Cambridge: Cambridge University Press 2002).
[10] Richard Swinburne, *Mind, Brain and Free Will* (Oxford: Oxford University Press 2013).
[11] Richard Swinburne, *Are we Souls or Bodies?* (Oxford: Oxford University Press 2019).
[12] Aristotle, *Metaphysics*, Translated by W. D. Ross, in *The Complete Works of Aristotle*, Edited by Jonathan Barnes (Princeton: Princeton University Press Bollingdon Series 1995, Vol. 2) 1552-1728.

On the Soul[13] and *On the Parts of the Animals*[14]. The amount of works in St. Albert's corpus is immense, and I have limited myself to the *De Homine*[15] and his *De Principiis Motus Processivi*[16], while also relying on a vast number of scholars commenting on his text. The same can be stated of St. Thomas Aquinas, while my main reading has focused on his *Summa Theologiae*[17], his *Commentary on the Metaphysics*[18] and the *De Anima*[19] as well as his *Disputed Questions on the Soul*[20]. In the fifth and final chapter, while continuing the investigation started in the second and fourth chapters, namely those on Aristotle and Aquinas, respectively, I also take a look at contemporary authors who have been beneficial to my project and who's writing stimulated my desire to provide a framework that offers a critical analysis and a defense of the priority of form in the metaphysical account of the human person. These are David Oderberg's book *Real Essentialism*[21] and a number of related articles that intend to scientifically inform the ongoing discussion while remaining faithful to Aristotle's hylomorphism, especially 'The Great Unifier: Form and the Unity of the Organism'[22]; James D. Madden's book, *Mind, Matter and Nature*[23] for also sustaining a scientifically informed Thomistic analysis and a number of articles written by Daniel, D. De Haan, specifically: 'A Heuristic for Thomist Philosophical Anthropology: Integrating Commonsense, Experiential, Experimental, and Metaphysical Pyschologies'[24], and 'Hylomorphism and the New Mechanist Philosophy in Biology, Neuroscience and Psychology'.[25]

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[13] Aristotle, *On The Soul*, Translated by J. A. Smith, in *The Complete Works of Aristotle*, Edited by Jonathan Barnes (Princeton: Princeton University Press 1995, Vol. 1) 641-692.
[14] Aristotle, *On the Parts of the Animals*, Translated by W. Ogle, in *The Complete Works of Aristotle*, Edited by Jonathan Barnes (Princeton: Princeton University Press 1995, Vol. 1) 994-1086.
[15] St. Albert the Great, *De Homine*, Volume 17, Part 2, Edited by H. Anzulewicz and J. Söder (Cologne: In Aedibus Aschendorff Publications, 2008).
[16] St. Albert the Great, *De Principiis Motus Processivi*, in *Opera Omnia* (Paris: Borgnet Edition, Volume 10, 1891) 361-628.
[17] St. Thomas Aquinas, *Summa Theologiae*, Translated by the English Dominican Province (London: Benzinger Brothers Edition 1945).
[18] St. Thomas Aquinas, *Commentary on Aristotle's Metaphysics*, Translated by John Rowan (Chicago 1961).
[19] St. Thomas Aquinas, *Commentary on Aristotle's De Anima*, Translated by Kenelm Foster and Sylvester Humphries (New Haven: Yale University Press 1951)
[20] St. Thomas Aquinas, *Disputed Questions on the Soul*, Translated by John Rowan (St. Louis and London: Herder Publications 1949).
[21] David Oderberg, *Real Essentialism* (New York and London: Routledge, Francis and Taylor 2007).
[22] *Neo-Aristotelian Perspectives on Contemporary Science* (New York: Routledge Publications, Taylor & Francis 2018) 211-234.
[23] James Madden, *Mind, Matter and Nature – A Thomistic Appraisal for the Philosophy of Mind* (Washington DC: Catholic University of America Press 2013).
[24] *American Catholic Philosophical Quarterly*, Vol. 96/2 (Spring 2022) 163-213.
[25] *Neo-Aristotelian Perspectives on Contemporary Science* (New York: Routledge Publications, Taylor & Francis 2018) 293-327.

Methodology

This thesis adopts primarily the *metaphysical method* based on explanation, analysis of causes and supported by textual and conceptual analysis in line with the tradition developed in the framework of realist metaphysics. There is a profoundly important and Aristotelian sense in which philosophy and philosophical research may also be described as scientific. Experience is such a source of science, and hypotheses and theories are tested through empirical examination in order to verify their truth. Science, knowledge and understanding together constitute an intellectual virtue, Aristotle thought, that is, an acquired habit of the mind that thinks rightly about a particular subject, by which one obtains and systematically articulates a body of knowledge of an object through knowledge of its fundamental causes.

Formally speaking, scientific knowledge is generated when we understand the causes of the objects that we encounter through the deduction of conclusions from self-evident first principles grasped by common sense as well as inductively from experience. In this sense, the philosophical disciplines are sciences with as much right to the term as the empirical sciences. This thesis is an inquiry in metaphysics, the science of being qua being, and hence it too, reaches conclusions that are deduced from evident first principles while the phenomena of experience are understood through grasping of underlying causes. Philosophical sciences are distinguished by their respective objects. What they all have in common is the method of investigation by which they investigate the most fundamental causes of their respective objects and, thus are different species of the genus of philosophy.

The formal object of our enquiry here is the ontic status of the human person. The material object is the human person taken its metaphysical complexity both in its own essence as well as in relation to the philosophy of the natural world and the important subaltern conclusions from other scientific discourse and research. The project here has been significantly responsive to the two principles of realist metaphysics adopted, among others, by the Lublin Philosophical School, the first being a return to the original sources of important philosophers especially to Aristotle and St. Thomas Aquinas and the second towards a more thematic analysis of urgent philosophical matters,

> […] which took into account the generally accepted achievements of the logical theory of science.[26]

[26] Mieczsław A. Krąpiec, and Andrzej Maryniarczk, "The Lublin Philosophical School: Founders, Motives, Characteristics" in *Studia Gilsoniana*, 4 / 4 (October – December 2015) 411, 413; see also Mieczsław A. Krąpiec, and Andrzej Maryniarczk, *The Lublin Philosophy School* (Lublin: Catholic University of Lublin 2010) 103.

Against the tendency to eliminate the importance of a fact-oriented and objectivist metaphysical analysis – pressures coming especially from scientism and atomism, both views carrying within them undisclosed metaphysical commitments – this project seeks to conduct an *ad rem* approach, meaning that it follows on the footsteps of Aristotle and Aquinas in seeking to provide a realist analysis of facts. It is, however, not a positivistic analysis since our primary concern is the application of the theory of being to the metaphysical constitution of the human person. Hence, this will be conducted with faithfulness to the philosophical landmarks that were Aristotle and Aquinas while providing an updated ontic nature of man.[27]

Such a method adopts a critical approach to neo-positivist conceptions of philosophical method and of metaphysics by retaining the formal object of the theory of being at the centre of the investigation based on a metaphysical analysis of substance, essence, causality, analogy and a realist account of cognition that will promote such standards throughout and which link metaphysics and epistemology without rejecting the direct relevance they mutually have or without reducing the former to the latter. This is an investigation in realist metaphysics and aims to establish the truth of the facts about what human persons truly are.

Additionally, the following are five interpretative preliminary assumptions that should be kept in mind, and which help bridge metaphysical, historical and thematic analysis. *The first is that behind every metaphysics of the human person there is a philosophy of nature and a cosmological worldview.* Although I will not show how this is so for every single philosopher discussed in this thesis, familiarity with the metaphysical backdrop of atomistic conceptions versus dualistic conceptions of human nature, for instance, will help us form a better evaluative judgment on such philosophical standpoints. Moreover, *the classical paradigms that usually fall into dualism on one extreme and atomistic reductionism resurface episodically in philosophical analysis, under different names and equipped with different cultural and scientific resources*. This is a philosophical, not a scientific claim, which is directed toward the conceptual analysis and the claimed or unclaimed ontological commitments which anybody can have, whether one is a philosopher or a scientist. Since every professional viewpoint has some philosophical commitment or other, whether explicit or hidden, it is the role of metaphysical analysis to expose it. My claim in this thesis is that the metaphysical account of

[27] Stanisław Kamiński, *On the Methodology of Metaphysics / Z Metodologii Metafyziki* (Lublin – Roma, Polskie Towarzystwo Tomasza z Akwinu & Societa Internazionale Tommaso d'Aquino, 2018) 32-35.

form within the Thomistic tradition that I present and defend achieves this successfully within contemporary debates – including those involving science – as it did in ancient times.

Furthermore, *the predominance of scientific discourse should neither disqualify nor discredit the unique contribution of philosophical analysis.* I have already exposed the rationale of this hermeneutical principle above which is based on the separateness of different academic disciplines as are philosophy and science on the one hand but also showing the parasitical nature of philosophical inquiry since there is no academic research area or practice which may have a claim to immunity from philosophical scrutiny. This applies with greater urgency when it comes to arguing for the substantial unity and integrity as well as intellectual transcendence of the human person. Of course, *philosophy has an obligation to be conscious of both inconsistencies committed within philosophy as well as in science, showing the peculiarity and limitations of both.* The higher-order reflection of metaphysical investigation includes an introspective awareness and a vocation to humility, since just as it is possible for scientists to fall into the traps of materialism or of theists who believe in an afterlife to be attracted to substance dualism, it is similarly possible for philosophers to lower down their commitment to logical and conceptual rigour. It is a mark of the greatness of the Aristotelian tradition that it is inspired by the realism of a philosophy of nature even when attempting to construct a metaphysical account through hylomorphism. Finally, which philosophical systems will be preferred? If by philosophical enquiry we also understand a critical tool by which to discern the coherence of philosophical theories, then *those metaphysical accounts that safeguard and guarantee the ontological unity and integrity of the human person will be preferred*, especially when these do not deny the knowledge we have from the empirical sciences but by surpassing them, also offer those reliable metaphysical categories that survive the scrutiny of all the factors in the game.

General Scheme of Work

What follows, finally, is a programmatic overview of the upcoming five chapters of this thesis. The first chapter tackles what is probably the oldest account of human nature, namely, dualism. On this the commonest view of what constitutes us humans, the soul or mind taken loosely, is a separate and nonphysical entity, an immaterial substance undetectable through sense experience or through any other instruments. Since mind and body dualism views the soul as a nonphysical part and thus not part of the natural world, we can say that substance dualism about souls and bodies is a fundamentally antinaturalist view. Since our mental life is not part of

nature the dualist will need to provide some sort of account to support this view along the other more challenging views of how a non-natural substance could interact with the body, a physical and thus, natural entity. Along with the 'difference thesis' – that the soul/mind and the body are essentially different things – there is also the 'separability thesis', which indicates the sense that soul and body can exist separately, independently of each other.

In this first chapter I choose three major thinkers who have embraced a substance-dualist account of the human person. The first one is Plato, given his longstanding influence on the philosophical debate on practically all the core topics, including the metaphysical status of human beings. As expected, one must situate his views on human nature within his broader cosmological views. I chose the *Phaedo* dialogue as one example, not only as representative of Platonic dualism but also in order to appreciate the objections that are given against his views. The second major supporter of substance dualism I have chosen is St. Augustine. This choice is not an innocent one. First of all, Augustine's views were the result of a life-long journey of intellectual and spiritual searching and while he feasted on the benefits of a Neo-Platonic account of the metaphysics of the world, he also strived to reconcile that with the demands of Christian anthropology and personal experience. Some philosophers have credited Augustine with the invention of the 'subject'. While not going into the merits or demerits of such a claim, I also examine St. Augustine's methods used in defending the separability thesis within a largely dualist account of human nature. Thirdly, I discuss Richard Swinburne's philosophical views on human nature. Though substance-dualist thinkers are a minority today, Swinburne deserves to be admired for his convinced adherence to a substance dualist account of human nature. I think he is an outstanding representative of this school in contemporary philosophy because he belongs to the analytic tradition which is not known for its love for the immateriality of the human soul or for its existence even. Moreover, he has been consistent in his account throughout his professional career as a philosopher. Thirdly, he goes to great pains in order to explain the core concepts of his theory, thus making his account a formidable read in itself.

Since I think that substance dualism does not meet the criteria required in order to safeguard the metaphysical unity of the human person while balancing the truths shared by the empirical sciences, as well as the intercausal dependence between brain and mind while protecting the intellectual transcendence of a human being's mind I then move on to discuss the analysis offered by Aristotle, in Chapter Two. Aristotle's philosophy was developed as a response to another highly influential system, atomism. As we shall see, atomism is both a philosophy as well as a method of analysis at the same time. Atomists attempted tried to explain

the paradox of identity and change by reducing the identity of anything we think exists to its constituent parts. They invented the concept of an atom even though they had no empirical evidence of its existence. Aristotle's familiarity with the natural and empirical sciences as well as his keen metaphysical and logical mind developed a much more credible account of identity and change founded on his concept of substance along his theory of causality. The richness of his metaphysics enabled him to view entities hylomorphically, that is, composed of matter and form. This was surely inspired by his encounter with living beings across nature, highest of which one finds the human being as a rational animal. In this second chapter I examine how Aristotle successfully shows the serious problems that are found in atomistic materialism. This he does by offering an account of living substance that have at their centre the theory of the soul as form and act. I then conclude the chapter with a review of the principal achievements of the Aristotelian metaphysics of life.

With the third chapter we enter new territory, namely the high middle-ages and an encounter of philosophical ideas and theories that amaze us by their brilliance as well as they by their courageous vitality. With St. Albert the Great one can sense this richness as well as the eagerness with which he engages with thinkers of different fibre attempting a synthesis but more than anything else offering an eclectic account of the world, including of human nature. The eclecticism originates from the not yet fully defined Aristotelian corpus and the strength of the predominantly Neo-Platonic and Avicennian accounts of the soul. However, St. Albert was also a zoologist and a lover of nature, like Aristotle. thus, despite the numerous divergences one can find in him when comparing him with Aristotle, one can never reach the conclusion that Albert is an anti-Aristotelian. However, the hylomorphic clarity and especially the grand unificatory role the formal cause as prior and principal cause of substantial unity and identity have not yet matured in Albert as it will with Aquinas. In fact, the mature Aquinas will react against such forms of eclecticism in his specialised questions on the soul. However, St. Albert deserves merited attention for the way he attempts to merge Neo-Platonic metaphysics of emanation with Aristotle's views. The affinity with the Divine Intellect St. Albert believed we can discern in natural things convinced him – as it did for St. Augustine, centuries before – that *opus naturae est opus intelligentiae*. St. Albert's account of nature can be said to be anthropocentric since he believed that man is the most perfect animal. From an analytic point of view, however, that is, when one investigates the coherence of his metaphysical claims, there are troubling concerns with the ontological status of the human soul and its relation to the body, as we shall see.

In chapter four I discuss the major achievements of St. Thomas Aquinas's account of the metaphysics of persons. Aquinas is not afraid to tackle the view that a soul may be a *hoc aliquid* while also being the form of the matter. The way he does so will produce a rich account of hylomorphism where the form clearly enjoys priority over matter since it transcends matter while also causing it to be this matter of this human being, through his account of potency and act. The account of soul as substantial form consolidates the metaphysical unity of human persons. He also rejects the dualism and the atomism of his predecessors and shows that they cannot do justice to the irresolvable complexity that ensues from either of the two extreme views. Aquinas's account of the immateriality of the soul thus takes the Aristotelian hylomorphic account to a new level achieved through a new synthesis.

In the fifth and final chapter I address the different hermeneutical strands traced through the preceding chapters. My aim will be to give a voice to the urgent discoveries presented to the mind and body debate from the side of the natural sciences. One motivation for this is, as hinted above, the influence such views about science, thought and the brain have had within the philosophical community itself and, sadly, the impression has been that such a development favours a materialistic or physicalist account of the mind / body interface. Thus, the challenge in this final chapter will be to show the limitations of such an approach on both philosophical and scientific grounds (the latter being achieved through the pointing out of the limits of scientific discourse). Moreover, I reintroduce the Thomistic account of souls and bodies in order to show the ongoing relevance of this hylomorphic defence of the human person. The originality of this exercise will be found in the fresh way such classical texts are read and interpreted, while showing that they should not be dismissed in the way they have been by certain authors. In fact, serious philosophical fallacies are committed by scientists when certain views about the mind and the brain are held in dogmatic fashion and such dogmatism at times finds its way in the thought of philosophers as well. Thus, diagnosis as well as a proposal for the way forward in terms of hylomorphism to guarantee the complete metaphysical integrity and substantial unity of the human person with specialised focus on the notion of the priority of form within the Aristotelian and Thomistic philosophy of human persons is what I hope to have achieved at the end.

CHAPTER 1

DUALISM ABOUT THE ONTOLOGY OF HUMAN PERSONS

Many of the questions that contemporary philosophers ask – is the mind a different substance to the body and how are the two related? Does the mind have a simple or complex ontology? What is the best constitutional ontology to be attributed to human persons? – are also found in Plato's dialogues. In this chapter we shall be examining three major proponents of substance dualism, beginning with Plato, who's contribution to the topic heavily influenced the metaphysical discussion on the nature of the relationship of the soul to the body. That will be followed by an examination of the views of St. Augustine of Hippo, where we can observe one of the most important encounters between the Greek classical traditions and later currents of thought and which has the effect of sharpening a problematic appraisal of the mind-body problem. Thirdly, we shall present and examine the core ideas of the position consistently adopted by a contemporary philosopher, Richard Swinburne, who treats the issue in a systematic and informed way. The purpose of this chapter will be, finally, to assess the coherence of the substance dualist position and understand why it will be necessary to look toward more satisfactory alternatives as a result.

1. Plato's proposal

Although we associate a systematic and analytic account of the metaphysics of the soul and human nature with Aristotle, especially, to his work the *De Anima*, Plato's account is also very rich in both argument and insight with, needless say, a long-lasting impact on western philosophy. Plato's overall thinking is associated with a strong commitment to body and soul dualism, where the soul animates the body but the relationship is not a felicitous one. His metaphysical psychology has a relevance that goes beyond its immediate borders and is constitutive of his broader system of ontology, epistemology and of course ethics. The soul acts like a microcosm – as the medievals will later say – or a bridge between the world of the senses or appearances and the world of the Forms, Ideas or Essences. However, a closer look at his dialogues will reveal that there are tensions, or at least some sort of accommodating flexibility within this system of thought pertaining to the relationship of soul and body. Thus, in a number of dialogues, Plato's soul is simple while other dialogues present a complex and

tripartite constitution.[28] Is it only the rational part of the soul which is immortal? In some dialogues that is so, in others all the three components of the soul are entitled to immortality. Is the soul a helpless prisoner of the body as we are told in some places or does it actually have a natural ability to rule over the body as Plato clearly thinks elsewhere? Contemporary philosophers discuss the challenging problem of consciousness and mind, specifically how typically neural events generate the experience of sentience and consciousness. Plato too, carefully debated in what manner is the soul different from the body while Plato's tripartite division of the soul has been a schematic inspiration to a long-lasting tradition.

For my present purposes, while taking note of the different nuances or conceptual development that can indeed be measured in Plato's philosophical journey, I will generally assume that Plato's position was that of a substance dualist which supports the existence of an independent, separate and immaterial soul. Moreover, as a methodology I will focus especially on his *Phaedo* and show points of important contrast with the *Republic* as the argument moves forward. Although the purpose of his arguments in *Phaedo* is primarily to defend the probability of the soul's continued existence after the death of the body we also witness here to an important feature of Plato's middle period metaphysical views, sometimes referred to as his "theory of two worlds." The main thrust of the *Phaedo* is thus based on the efforts of Socrates to establish the immortality of the soul – and hence its ontological independence – by pointing to its resemblance to the Forms. This has come to be known among commentators as "the affinity argument". The soul is akin to the elevated world of the Forms in very important ways. The dichotomy between the world that we accede through our senses is a perishable, heteronymic and unreliable world. The world of Forms is famously accessible through contemplation, dialectic and is immutable.

> Is it not extremely probable that what is always constant and invariable is incomposite, and what is inconstant and variable is composite?[29]

The discussion then moves on to assert that the soul is more like world of Forms, whereas the body is more like the world of the senses and of appearances.

> Then to which class do we say that the body would have closer resemblance and relation?[30]

[28] There is a clear contrast between Plato's remarks about the simplicity of the soul in the *Phaedo* and his views in *Republic IV*.
[29] Plato, *Phaedo*, 78c, Translated by Tredennick, H., in *Plato: The Collected Dialogues*, Bollingdon Series LXXI, (Princeton: Princeton University Press, 1962), 41-98.
[30] Ibid., 79b.

> […] when it investigates by itself, it passes into the realm of the pure and everlasting and immortal and changeless, and being of a kindred nature, when it is once independent and free from interference, consorts with it always and strays no longer, but remains, in that realm of the absolute, constant and invariable, through contact with beings of a similar nature.[31]

These arguments give us some important insights into how Plato views both the nature of the soul as well as that of the body. According to the dialogue in *Phaedo*, the nature of the soul is formed in analogy with two other entities, namely, the Forms – the 'Argument from Affinity' – and attunements or *harmoniai*.[32] Given that Plato – through the voice of Socrates – is committed to a bipolar ontology of sensible particulars on the one hand and Forms on the other – whereby each contain their own consequences, dissolution and destruction for the former, invisibility and permanence for the latter – the soul will be analogous to that which is unchanging and permanent in being, since it is simple and complete in itself. We do not get to hear that the soul is one of the Forms. Rather, it inhabits a hybrid existence of sorts between Forms and sensibles, being invisible and ontologically simple, yet also subject to the swaying of the passions and sensory experiences incurred by the body. Whenever the soul is dragged by the body towards the world of sensory pressure it is no longer serene, becomes confused, dizzy and foggy. We can detect at this point an alignment of ontology and morality so typical to Plato's philosophical method and principles. The upshot of this account is that the soul seems to manifest features that are akin to both the sensible world as well as the world of Forms, in proportion with the nature of its activities. The nature of the soul – on this account – is thus ambiguous, strictly speaking and commentators have debated.[33]

The Argument from Affinity has been viewed with suspicion by analytic scholars, probably not without good reason. When describing the overall indecisiveness of Plato about the true nature of the soul D. Bostock famously spoke of the 'chameleon-like' features of the soul enabling it to acquire bodily features to meet the sensible world.[34] We are not ultimately given a coherent proof of the soul's decisive similarity to the Forms which are imperishable and immortal.

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[31] Ibid., 79d.
[32] The translation 'attunements' comes from Ellen Wagner's informative discussion in the 'Introduction', *Essays on Plato's Psychology* (Oxford: Lexington Books, 2001), 6.
[33] This ambiguity is attested to by Wagner herself: "The soul has an ambiguous status: depending on how one interprets Socrates's use of 'opposites' it may be a substance or 'stuff' or an immanent form or character." Ibid., pg. 7. For instance, since the soul is a bearer of life, it will not admit death, which is the opposite of life. That shows that it is immortal and indestructible. For this reason, it may also be characterised as an immanent form.
[34] David Bostock, *Plato's Phaedo* (Oxford: Clarendon Pressv19860) 119.

1.1 Simmias's objection: the soul as *harmonia*

This ambiguity does not go away when we take a look at the other argument in the *Phaedo* according to which the soul is a *harmonia*. This opinion is presented by Simmias as a rather materialist alternative to the soul as immortal and imperishable as we find in Argument from Affinity. The conclusion of the *harmonia* theory is that the soul is mortal. It is a thesis Aristotle too discusses briefly and rejects in his *De Anima*.[35] Simmias argument is fundamentally an objection against Plato's commitment substance dualism which is assumed in this dialogue as a basis for the immortality of the soul. It achieves this by showing that the soul claims no affinity to the Forms and hence perishes when the human person dies. So for instance Simmias shows the soul to be a complex composite of properties and elements, in stark contrast to the ontological simplicity required of an independent and subsequently immortal substance.

The notion of *harmonia* suggests a constitutive interrelation between the soul and the different parts and elements of the body. Death may be viewed as cancellation of such a causal and constitutive interrelation and thus the soul-*harmonia* ceases to exist as it cannot exist on its own in a state of disharmony.[36] However, the very notion of the soul as a *harmonia* lacks philosophical clarity and it needs to be interpreted. Moreover, further worrying problems arise from the way in which Socrates counteracts Simmias's objections. Let us take a brief look at both.

The ambivalent meaning of *harmonia* when applied to the soul arises from the fluid meaning of the term itself. C. C. W. Taylor offers a detailed analysis of the different uses of the term *harmozein* which could express a fitted arrangement of things forming an integrated whole with a reference to proportion in the context of a mixture, a proper relation or organisation or dialectic of forces.[37] The term can also refer to a framework. Aristotle's

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[35] Aristotle, *De Anima*, 407b27-408a30:"[… It would be more 'harmonious' to use the word harmony in connection with health and the successful performance of bodily functions in general than to use it of the soul… Now there are two things that we refer to when we sue the term harmony. The main use is to denote the composition of quantities in things that have motion and position, when these are so fitted together as to admit nothing of the same kind, and the secondary use is to denote the ratio of ingredients in a mixture. In neither sense is it reasonable to call the soul a harmony…The upshot will be that there are many souls and everywhere in the body, if all parts of the body are indeed composed from mixtures of elements and the *logos* of a mixture is a harmony and thus soul.]" in Aristotle, *De Anima*, Translated by H. Lawson-Tancred (Suffolk: Penguin 1986) 144-145.

[36] Cfr. Gabriele Cornelli.: "This same *lectio* happens to be suggested by Socrates himself, while he's taking the separation of the soul from the body as 'practice to die easily' (81a1-2). We can see here a process of simple conformation of the philosopher to the inevitable ontological reality of dualism" in, Gabriele Cornelli, 'Separation of Body and Soul in Plato's *Phaedo*: An Unprecedented Ontological Operation in the Affinity Argument', in *Psychology and Ontology in Plato*, Edited by Luca Pitteloud, & Evan Keeling , *Philosophical Studies* Series, 139 (Switzerland: Springer, 2019) 25.

[37] Christopher, C. Taylor, 'The Arguments in the *Phaedo* Concerning the Thesis That the Soul is a *Harmonia*', in *Essays on Plato's Psychology*, 52-53.

references to the thesis of the soul as *harmonia* is aware of these different senses.[38] In fact we are told that one of the possible senses of the term is the mathematical ratio of different elements – "the *logos* of the mixture" – and in another sense it can also refer to the combination or synthesis of physical objects within a given complex of parts. Since Plato – as others before him apparently did[39] – borrows the image from the world of music and sound, the idea would be that the soul as harmony "is something causally dependent on a certain disposition of materials; e.g., a melody is distinct from the strings that produce it, and equally from the tuning of the strings," etc.[40] Taylor's conclusion is that Plato does not sufficiently distinguish between the different relevant semantic options when applying the *harmonia* metaphor to the soul in its relation with the body.

The *harmonia* theory can in one way be seen as a move in the direction of materialism, for the soul could be ultimately viewed as dependent upon the interrelated organisation of body parts. In an interesting article Ellen Wagner observes that Plato should have been alerted to another subtle implication against his commitment to substance dualism resulting from the *harmonia* thesis. Cornelli seems not to have taken note of Wagner's important argument when he says that, "the recurrent complaint of the scholarship – referring to the Argument from Affinity this time – regarding certain inconsistency [….] seems to disregard a central issue in the economy of the dialogue: the main frame of the dialogue as a whole is to persuade Simmias and Cebes to agree that the soul is immortal".[41] The crucial point is made by Aristotle when he asks whether the soul is identical with a ratio or whether it is something else that originates in the parts.[42] Wagner remarks that the *harmonia* thesis suggests a third alternative to materialism and substance dualism (the latter assuming that the soul is ontologically independent and hence immortal) which points in the direction of the soul originating from the parts configured as a human body themselves, hence the supervenience hypothesis. Wagner also refers us to the exegesis of Plato's text offered by D. Sedley whereby we see that "the causal language of the Phaedo regularly employs the following three locutions: […] *aitia / aitiai; dia* with accusative or causal dative; and *poiein* as to cause or to make." There thus is sufficient evidence in the text for a robust theory of causality whereby things and not just states of affairs are brought

[38] See footnote 7 above.
[39] "The *harmonia* theory was, then a current theory of the soul, and we are safest to suppose Aristotle to be attempting to expose the fundamental errors of the theory as such, rather than give an exact exposition of any version of it". Ibid., pg. 56.
[40] Taylor, Ibid., 52.
[41] Cornelli, Ibid., 27.
[42] Ellen Wagner, 'Supervenience and the Thesis That the Soul is a *Harmonia*', in *Essays on Plato's Psychology*, (Oxford: Lexington) 75.

about: "causes for Plato are best explained as functioning by causing their like".[43] In other words this is not just a matter of epistemological explanation but rather of ontological causation. The problem, Wagner concludes, is that Plato does not actively resist the negative implications of the *harmonia* proposal for his views on substance dualism. This is because the *harmonia* thesis is essentially based on the assumption that material entities such as the lyre, in the case of music, or the human body can be the cause of and give rise to an immaterial substance, the *harmonia* or the soul, thus fatally undermining his views – at least according to traditionally held interpretations – on the ontological separateness and completeness of the soul. This is not to mention further damage potentially caused to Plato's overall theory of Forms and its relationship with the world of sensible appearances.

1.2 Final comments on the *Phaedo*

So, serious doubts arise about Plato's consistency in his commitment to substance dualism. Not only is this kind of dualism far from clearly defended in the *Phaedo*, but one could even argue that it is not at all close to being desired and established as such. This is the position adopted by Cornelli in his interesting interpretation which proposes an "ontology of the incarnation" of the soul "seeking expression through the body" in what we may refer to as "the somatization of the soul".[44] This interpretation is possible, according to this commentator, due to Socrates's assertion that the soul is "*sumphuton*" with the body, indicating a mutual connaturality or coupling, borrowing from a botanical metaphor whereby the soul and the body grow together.[45] This interpretation, if correct, seriously challenges Plato's intentions in the Argument from Affinity, if that is taken to be a reliable indication of his thought. It also questions the generally held assumptions about Plato's substance dualism. According to Cornelli the *Phaedo* is not primarily concerned with an ontological account of how the soul and the body are related and what their respective status should be, apart from the thematic overlap of any ontological intuitions with Plato's standards for morality.

Some clarity on the issue may be obtained if we shift our focus to how the body itself is viewed in the dialogue at hand. In fact, the body is seen as a hindrance or an obstacle, *empodion*, to the life of reason according to the *Phaedo*. According to M. A. Fierro it is in the later and more critical dialogues like the *Timaeus* that the body acquires a positive role in the

[43] Ibid., 83.
[44] Ibid., 29.
[45] Cfr. *Phaedo* 81c 4-7.

operation of the soul's rational faculties. In fact, a closer look at the Phaedo will reveal one Plato's least ambiguous positions, namely, a negative judgment of the mortal body which is treated as an obstacle, *empodion*.

> Is there any certainty in human sight and hearing, or it true, as the poets are always dinning into our ears, that we neither hear nor see anything accurately? […] Then when is it that the soul attains to truth? When it tries to investigate anything with the help of the body, it is obviously led astray. […] Surely the soul can reflect […] when it ignores the body and becomes as far as possible independent [...] in despising the body and avoiding it, and endeavouring to become independent – the philosopher's soul is ahead of all the rest.[46]

Later on, we are told that the soul should avoid relying on sense perceptions because it is vulnerable to them as a prey to its predator which induces it into a state of quasi-drunkenness. The body is connected with the sensible world through appetition and emotion and all of this antagonises the soul's pursuit of wisdom and truth. This brings forward the ultimate liberation which is death whereby the body would then be free to possess and contemplate knowledge.[47] However, as Fierro observes, we do find a more positive role played by the body as soma in the *Phaedo*, namely, the ability to support the acquisition of knowledge and ideas if used appropriately. The process of reminiscences – *anamnesis* – requires the contribution of the sense and their stimulatory apparatus implying that sense perceptions that depend on bodily interaction with the world play an "essential part" in the *cathartic* process the philosopher needs to undergo in order to possess wisdom after death. *Soma* may indeed be a hindrance, an empodium, yet if the motivation behind bodily activity is aligned with the desire to acquire knowledge, then it also plays a positive role.

2. The Augustinian solution

Although like most ancient philosophers Augustine believed the human being to be a compound of body and soul, there is a general consensus among scholars that this topic in his thought is one of the "indéterminations augustiniennes"[48] and that there is a great deal of development in his metaphysical anthropology. With the typical risk of oversimplifying matters, two principal stages may be identified in his intellectual journey with regard to our topic. A strong sympathy for Neo-Platonist dualism may be discerned at the earlier phase of

[46] *Phaedo*, 65b-d.
[47] Cfr. Ibid., 66e2-5, 68b4.
[48] Étienne Gilson., *Introduction a l'Etude de S. Augustine*, (Paris: Libraire Philosophique J. Vrin 2eme edition, 1987) 62.

his intellectual career while there is evidently a movement toward an account of a unified human nature in his later writings. Generally, the soul is understood as the life-giving element and the central locus of consciousness, perception, of thinking and of willing. The rational soul must control the sensual desires and the passions if it is to acquire wisdom and if it turns to God who is the Supreme Being and the Supreme Good.

It is natural to sketch the Manichaean background first, whereby Augustine considered both God and the soul to be *material*, the soul being, in fact, a fallen portion into the corporeal world from God's being, after which it is alienated even from its own body. His subsequent encounter with neo-Platonic authors regaled him with a philosophical system that included a substantial account of immaterial and non-spatial reality. Crude dualism got replaced with an ontological hierarchy in which the soul occupies a middle position between God, who is totally immaterial and immutable being and material bodies that are subject to temporal and spatial change.

> […] for I was unable to grasp the idea of substance expect as something we can see with our bodily eyes. […] even though I was no longer hampered by the image of a human body, I was still forced to imagine something corporeal spread out in space, whether infused into the world or even diffused though the infinity outside it […]; because anything to which I must deny these spatial dimensions seems to me to be nothing at all, absolutely nothing, not even a void such as might be left if every kind of body – earthy, watery, aerial or heavenly – were removed from it, for though such a place would be a nothingness, it would still have the quality of space.[49]

Augustine retained fairly consistently his belief that the human soul can exist without the body. This belief coexisted with his views that (1) the soul is immaterial or incorporeal even later on, when the resurrection of the body became more central to his beliefs, and (2) although he argued against Porphyry's alleged claim that in order to be happy, the soul must free itself from matter, Augustine emphasised, despite his views on our fatally corrupted nature that it is desirable, even, for a soul to govern a body. His beliefs regarding the immateriality of the soul are expressed with striking epistemological certainty:

> The soul is incorporeal; and this I proclaim confidently, not as my opinion but as certain knowledge.[50]

[49] Augustine, St., *The Confessions*, Bk. VII, 1, Translated by Henry Chadwick (Oxford, Oxford University Press 2009) 202.
[50] Augustine, St., *De Genesi ad Litteram*, Bk. XII, c. 33, Translation by J. H. Taylor (New Jersey: Newman Press 1982) 225.

Augustine always retained his view that human persons are mysteriously composed of body and soul understood as two absolutely distinct and different principles. This position runs throughout his intellectual career despite its profoundly developmental trajectory:

> There is a different manner of contact of spirit with body, which produces a living being; and that conjunction is utterly amazing and beyond our powers of comprehension. I am speaking of man himself.[51]

An increased familiarity with the Bible became, arguably, an opportunity for more unitarian approach to metaphysics of the human person. Thus, we find a modification of his dualistic views especially when coming to grips with the Christian mystery of the Incarnation and which led him to increasingly appreciate the value of the human body so negatively viewed by Neo-Platonism. So, for instance the *De Civitate Dei* gives us a more nuanced approach:

> […] man is not merely a body or merely a soul, but a being constituted by body and soul together. This is indeed true, for the soul is not the whole man; it is the better part of man, and the body is not the whole man; it is the lower part of him. It is the conjunction of the two parts that is entitled to the name of 'man'; and yet those parts taken separately are not deprived of that appellation even when we speak of them by themselves.[52]

Although I have no pretence here to provide a thorough exegesis of his writings, it is probably fair to say that Augustine's position transitions from a strict dualism to an account of a discernibly unified conception of human nature. What primarily concerns me here in this brief overview is his philosophical attitude towards the human composite, for, I believe it may still be characterised as dualist, especially when one keeps in mind the arguments he would eventually defend in one of his most mature works, namely, the *De Trinitate*. There, too, he is rather clear about his commitment firstly to the immateriality of the soul and his mind-body dualism is undeniable. To a closer study of that view, we now must turn.

2.1 Augustine's arguments for mind-body dualism

Augustine's views on ontological dualism are essentially views of human nature seen as a rational substance consisting of soul and body, while also committing to the view that neither the soul alone nor the body is an individual human being or a human person since only the soul-body composite is an individual human being, a person: separate principles of the composite while the soul is the superior and ruling part of the body.

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[51] Augustine, St., *De Civitate Dei*, Bk. XXI, c. 10, Translated by Henry Bettenson (London: Penguin Classics 1984) 986.
[52] Ibid., Bk. XIII, c. 24.

> Even if we so define man as to say: 'Man is a rational substance consisting of soul and body,' there is no doubt that man has a soul which is not body, and a body which is not soul […] even if the body is set aside and the soul alone is considered, the mind is something of it, as it were, its head, or its eye, or its countenance, but we should not think of these things as bodies.[53]

How did Augustine defend his views for the immateriality of the soul against the materialist positions of his time? Is there any affinity between his philosophical position and contemporary forms of mind-bod dualism? These two questions form the programme of the remaining sections of this chapter. Thus, we shall begin by examining two principal arguments which he offers in favour of the soul being an incorporeal entity. The first of these arguments is based on the ability the human mind has for the imagination. The argument is not based merely on the rather obvious experiencing we have of imagining things. Image formation and retention in the mind, as well as the ability to dream or have fantasies about things or experiences we know exist even though we might not have actually seen them, all this is a given. However, Augustine observes, these processes are incorporeal since they are very dissimilar in nature to what goes on in the body:

> These thinkers [referring to the philosophers] and their like could not conceive of anything beyond the fantasies suggested by imagination, circumscribed by the bodily senses. They had, to be sure, something within themselves which they did not see; they formed a mental picture of what they had seen outside themselves, even then they did not see it any longer but merely thought of it. Now when a material thing is thus seen in the mind's eye, it is no longer a material object but the likeness of such an object; and the faculty which perceives this likeness in the mind is neither a material body, nor the likeness of a physical object; and the faculty which judges its beauty or ugliness is certainly superior to the image on which it passes judgment. This faculty is the human intellect, the rational constituent in the soul of man, and that, without any doubt is not a material object, if it is true that the image of the object, when it is seen and judged in the mind of a thinking man, is not a material object.[54]

The argument stays on the epistemological order, since it rests upon the claim assumption that the faculty that enables us to perform imagination with immaterial content must itself be incorporeal and this faculty he identifies with the human soul, i.e. which is a rational soul. The experiencing of immaterial images – hence an account of mental events – does not by itself yield proof of the autonomous existence of some different order which Augustine wants to identify with the soul. some sort of similarity between the object of cognition and its faculty is all he has shown to have so far and that is not enough to defend substance dualism.

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[53] Augustine, St., *De Trinitate*, Bk. 15, Chapter 7, Translated by Gareth B. Matthews (Cambridge: Cambridge University Press 2002) 178.
[54] Augustine, St., *De Civitate Dei*, Bk, VIII, Chapter 5, *Concerning the City of God against the Pagans*, Translated by Henry Bettenson (London: Penguin Publications, Revised Edition 2003) 306.

In the second half of his *De Trinitate*, Augustine reflects systematically on the doctrine of the Triune God while hoping to find the most adequate image, borrowed from creation, that could 'capture' such a theological mystery. This exercise will provide him – or so he believed – with an argument to defend his position that the subject of the mental acts is an incorporeal substance. His discovery is that this is possible only by a process of introspection away from material sensibility toward one's own conscience of oneself as a spiritual, rational being. He refers to this, famously, as the journey from the 'outer' man to the 'inner' man.[55] The dynamics of this journey are transported through remembering and hence memory, which yields knowledge and love, respectively. The triad of memory, intellect and will prove to Augustine a striking image whereby three distinct yet equal persons are pictured within the mind. This exercise is possible primarily, because the mind is viewed as a substantial source which unifies the three different acts within that same substance. The inner man is thus the mental substance, contrasted to the outer man, namely, that part of the soul involved with sensation and bodily change. Sensation is thus not included in the mind and other animals have no share in the mental life of the inner man. The overall upshot of this meditative reasoning of Augustine is that the mind is substance, complete and absolute while the memory, intellect and will are distinct acts – not powers or faculties – of the one mind. For this we need to take a close look at a famous passage in *De Trinitate* 10.

> All these people overlook the fact that the mind knows itself, even when it seeks itself, as we have already shown. But we can in no way rightly say that anything is known while its substance (or: essence) is unknown. Wherefore, since the mind knows itself, it knows its own substance (or: essence). But it is certain about itself, as is clearly shown from what we have already said. But it is by no means certain whether it is air, or fire, or a body, or anything of a body. It is, therefore, none of these things. And it belongs to that whole which is commanded to know itself, to be certain that it is none of those things of which it is uncertain, and to be certain that it alone is the only thing of which it is certain.[56]

As hinted at earlier, it is a truism for Augustine that one has a mind for this is something "intimately known" by all. The mind/soul and body gap is evident from the methodology behind this introspective mediation which is a turning away from the sphere of sensation and of the body, in general, toward the inner awareness which is the mental sphere of the inner man. This latter point might or might not have been a powerful justification for dualism,

[55] Exegetes of Augustine view Chapter 10 of Augustine's *De Trinitate* as a response to the invitation of the Delphic Oracle to know oneself and that this is the initial stimulus for the exercise that follows and that will then ascend toward a symbolic revelation of the Trinity within the human soul itself; cfr. Mateusz Strózyński, 'There is no search for the self: Self-Knowledge in Book Ten of Augustine's *De Trinitate*', *Phronesis* 58 (2013): 280-300.
[56] Augustine, St., *De Trinitate*, Bk. X, Chapter 10, 16

depending on whether or not Augustine intended it only in a metaphorical way, that is, inner versus outer. However, this is not the case, for he considered it to be a major distinction within the soul, through its relation to the inner man, on the one hand and to the outer man, on the other.

> Anything in our consciousness that we have in common with animals is rightly said to be still part of the outer man. It is not just the body alone that is to be reckoned as the outer man, but the body with its own kind of life attached, which quickens the body's structure and all the senses it is equipped with in order to sense things outside.[57]

Although it is not perfectly clear whether the life of the body is *per se* a principle that is distinct from the soul, it is clear that the mind has an independent unity which is set apart from the lower parts of the soul which are hindrances, rather than an integral part of the human unit, as it were.

A few technical comments may be in place here. First of all, it is advisable to be aware of Augustine's use of the words for mind and soul. He uses both the feminine word in Latin, *anima*, and the masculine word, *animus*, for 'soul'.[58] These Latin terms are akin to their derivative English term 'animate' and to the Latin verb *animare* which means both 'ensoul' and 'make alive'. It is therefore natural for Augustine, as a Latin speaker and writer, to think of the soul, the *anima/animus*, as what makes a certain kind of body alive. The term *anima* tends to be used more generically for any soul, including a human one, whereas the term *animus* is more specifically applied to the human or the rational soul.[59] Additionally, Augustine also uses the feminine word *mens* for a mind or rational soul. In fact, *mens* is the main focus of the text just cited from *De Trinitate* 10. Thus, even though Augustine here does not speak about the human soul but rather about the human mind, the human mind being the rational part of the soul, he does not intend to imply that the human soul is divided. The human soul remains one simple entity possessing different abilities or functions. If this interpretation is correct, then it offers weight to the view that Augustine is after all a substance dualist. Another remark, as observed by B. Niederbacher[60] is that the formulations used by Augustine here, namely, "the mind thinks" and "the mind cognizes" or "the mind is certain" could be replaced with "I".

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[57] Augustine, St., *De Trinitate*, Bk X, pg. 322
[58] Gareth Matthews, 'On Minds and Bodies', in *The Augustinian Tradition* (Berkeley: University of California Press 1999) 224-5.
[59] Ibid. pg. 225.
[60] c, pg. 131.

> For we do not apprehend those truths by the bodily senses […] We can also summon up in thought the immaterial images which closely resemble those material things […]. But the certainty that I exist, that I know it, and that I am glad of it, is independent of any imaginary and deceptive fantasies.[61]

Augustine's discussion in *De Trinitate* 10 is an exercise on the theory of knowledge and the epistemic property of beliefs. However, there is a meta-philosophical concern or philosophical aporia: can one desire any (*x*) without having any previous knowledge of that same (*x*)?[62] What enjoys priority, the human desire to know itself or the self-knowledge it already had? To answer this Augustine distinguishes between *se nosse* knowledge, which is an implicit form of self-awareness which, however, may be articulated conceptually as *se cogitare*.[63] In fact, he says that the former is a habitual type of knowledge whereas the latter exemplifies an actualisation of that knowledge. One may know some (*x*) or of some (*x*) without actually thinking about that (*x*). The mind's knowledge and understanding of itself is unique and incomparable to other forms of cognizing according to Augustine. This distinction includes that knowledge we have of other persons and hence, of other minds. In the same section of *De Trinitate* he mentions various types of knowledge whereby the thing known is not immediately present to us. Examples of this would be knowledge and understanding through testimony, perception and inferential reasoning and observation. These and other forms of cognition and understanding are different from the cognitive route we have into ourselves for they are all obtained through some mediated way or other. The mind, however, *knows itself immediately* and the kind of access that I have to myself is unavailable to anybody else and which I have to nobody else. [64]

The remaining steps of Augustine's argument flow quite rapidly which does not mean that they do not require further explanation and defence. To know a thing is to know its essence. Here, Augustine uses the term *substantia*, but that term could rightly be translated as essence since to know a thing is to know the essence or the nature of this thing.[65] Building upon the previous premises we have the following line of argument. The mind knows itself in the sense of *se nosse*. If knowing a thing is tantamount to having knowledge about its nature then it follows that, the mind has *se nosse* knowledge of its own nature.

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[61] Augustine, St., *De Civitate Dei*, Bk. XI, Chapter 26.
[62] Cfr. Scott MacDonald, 'The Paradox of Inquiry in Augustine's Confessions', in *Metaphilosophy*: 39, n. 1 (John Wiley and Sons, Online ISSN 1467-9973, January 2008) 20-38.
[63] Bruno Niederbacher, 'The Human Soul: Augustine's Case for Soul-Body Dualism' in *The Cambridge Companion to Augustine* (Cambridge: Cambridge University Press, 2014) 132.
[64] *De Trinitate* X, Chapter 9, 12: "But when it is said to the mind, 'Know thyself' it knows itself at the very instant in which it understands the word 'thyself'; and it knows itself for no other reason than that it is present to itself."
[65] The use of the alternative 'essence' is justified, according to G. Matthews, by "Augustine's remark in Bk. 5 of the same work that 'the usage of our language has already decided that the same thing is to be understood when we say *essentia* as when we say *substantia*' (Bk. 5, C. 9, 10), op. cit. 229.

When thinking about the mind's self-knowledge, epistemological worries related to certainty are bound to arise. Although it sounds modern and post-Cartesian, the certainty of beliefs is a thorny issue which maps out itself across beliefs, properties and knowledge in general. After Descartes it has become increasingly common to acknowledge a gradation where knowledge is of a less binding and reliable standard than that of certainty. Epistemically speaking, then, certainty is of a higher standard than knowledge. A sceptic would naturally like to show that we do not typically have beliefs that are certain. However, sceptics do not always manage to demonstrate that our beliefs are altogether epistemic unreliable. In faithful Cartesian fashion, epistemic certainty is often presented in terms of *indubitability*.

Thus, in the *Second Meditation*, Descartes's quest is consoled by the knowledge that even in a space of epistemic doubt, "he will never bring it about that I am nothing so long as I am something". The proposition that he himself exists is true whenever he considers it and that is the conclusion of the argument which serves as a springboard for an epistemic conceptual scaffolding. This is why the *cogito* has a unique epistemic status, for it seems to resist even the "hyperbolic" doubts raised in the *First Meditation*. There is a striking affinity between Descartes's search for an Archimedean benchmark, the *cogito*, with Augustine's approach in the tenth book of *De Trinitate*.

For Augustine, the point is not just that no philosopher has happened to doubt that one who understands also lives and also exists. One feature which stands out curiously in the *De Trinitate* passage is the inclusion of life or living as one of the functions performed by *mens*. According to Augustine, a mind is a complete substance and is a 'something' that lives, remembers, understands, wills, thinks, knows and judges. This knowledge that we have of the mind is received not through observing other minds or through conceiving of what a mind is like from their mind but simply from knowing itself. As Augustine remarks, somewhat rhetorically:

> On the other hand, who would doubt that he lives, remembers, understands, wills, thinks knows and judges? For even if he doubts, he lives; if he doubts, he remembers why he doubts; if he doubts, he understands that he doubts; if he doubts, he wishes to be certain; if he doubts, he thinks; if he doubts, he knows that the does not know; if he doubts, he knows that he ought not to consent rashly. Whoever then doubts about anything else ought never to doubt about all of these; for if they were not, he would be unable to doubt about anything at all.[66]

[66] *De Trinitate*, X, Chapter 10, n. 15.

So far Augustine presumes to have established that the mind is certain of itself, of its existence and operation, just as it is certain of its essence or nature (*substantia*). He has now also defended the required level of certainty that the mind has established. This defence in favour of certainty could be called Augustine's own 'cogito' argument.

Responding to the academic scepticism in *De Civitate Dei* he restates the same argument using the first person:

> They say, 'suppose you are mistaken?' I reply, 'If I am mistaken, I exist.' A non-existent being cannot be mistaken; therefore, I must exist, if I am mistaken.[67]

What has Augustine really achieved with this line of argument? Is he simply asserting that whenever I make a claim about myself, I thereby presuppose my own existence? In fact, the introduction of the epistemic criterion of certainty needs to be applied confidently in ways that go beyond rather trivial beliefs such 'I am air', 'I am fire', 'I am a body' or 'I am a brain' for beliefs of this kind are not certain – and indeed could not be ascertainable – for the one thinking. Believing that one is a brain is a far cry from knowing that one is a brain. At best it can only propose that "I have the opinion that I am a brain". Augustine knows this and he applies the Delphic criterion of self-knowledge in order to move away from such bodily or sense-oriented statements which interfere with properly mental introspection. Thus, the certainty criterion needs to be applied to the first-person existential phrases, so to speak, beliefs such as 'I am', 'I know that I am', 'I think that p', etc. As a result of this mental purging – in fact some authors have described it as a process of "mental subtraction"[68] – a negative conclusion is reached whereby Augustine states that the mind is none of these bodily things and self-knowledge alone reveals with epistemic certainty knowledge both of the essence of the mind as well as of its indubitable existence.

A question that Augustine faces results from a comparison that needs to be drawn between the criteria for certainty and truth, respectively. He seems to assume that the latter are fulfilled when the former are met. However, it is far from clear that states of epistemic certainty thereby imply the validity required by truth claims. His position seems to rely entirely on the immediacy of the presence the mind uniquely has toward itself with the resultant cognitive access that accompanies such mental introspection. However, it remains open to discussion

[67] *De Civitate Dei*, Bk 11, Chapter 26.
[68] Cfr. M. Strózyński, op. cit. 283.

whether standards of certainty and of truth are so clearly aligned in the way that Augustine expects them to be in the case of the mind's self-knowledge.

A second and deeper point that Augustine fails to clarify is related to his conception of the mind in relation to its acts. We have already seen that in *De Trinitate*, the triad of memory, intellect and will are acts of the single substantial core which is the mind. Augustine seems to attribute an essential character to other mental actions that are performed, such as when the subject performs actions, "I exist, I think, I doubt". There is a clear danger here in assuming that "I exist" consists in an essential property that I have in existing in the way God exists, an outcome Augustine would sure want to avoid. A suspicious feature that uncomfortably causally connects the epistemological order with the existential order is already traceable here. This is further complicated by another confusing problem. It appears that too much work is being done by the facts the human mind has immediate access to, since facts as that "I think" or that "I exist" also seem to surrender credible epistemic beliefs about my nature or my essence. To know that such and such an entity exists and acts in a certain fashion does not *ipso facto* engender any claim to knowledge of its essence. Perhaps I am being unfair to Augustine who would probably want to say that the mind is a special case since it is a unified core and acts and thinks and thus exists as a whole. Moreover, essences are knowable by their characteristic operations and acts and similarly, mental acts are after all the best access one could wish for into the mind nature.[69]

I am not convinced, nonetheless, that enough ground has been gained in order for Augustine to maintain substance dualism that hinges essentially on claims about the immateriality of the soul/mind. What he manages to establish, at the most, is that if the mind were something corporeal, this would clearly feature in its act of introspection and self-knowledge and it would know itself as such, namely as corporeal. Yet this does not happen since the mind has no epistemic certainty of it having a corporeal nature, which encourages Augustine to affirm that the claim that the mind is corporeal is false. Within his system and his method, therefore, Augustine is happy with the conclusion that the mind cannot be a body, or anything bodily.

One way of strengthening his argument as it unfolds in *De Trinitate* Book 10 would be to base his claims upon the competence of the user of the first-person singular. If I am a

[69] St. Augustine's views that since the mind knows itself it must necessarily be an immaterial substance according to *De Trinitate X* needs careful literary analysis as may be found in: Charles Brittain, "Self-Knowledge in Cicero and Augustine (*De Trinitate X*, 5,7-10, 16)" in in G. Catapano & B. Cillerai Editors, *Augustine of Hippo's De Trinitate and its Fortune in Medieval Philosophy* (Medioevo XXXVII 2012 107-36.

competent user of "I" – thereby implying that I have some epistemic competence in the application of "I" – then I have immediate access to what I am. Indeed, cases from psychotic dissociative disorders from psychopathology show the possibility of having incompetent users of the first-person pronoun precisely because there is a pathological deficit which hinders the unity of the mind in such persons.

As we shall see shortly, while discussing Richard Swinburne's views, the argument from competence can be deployed in order to defend Augustine's claim that there is a credible basis for inerrancy whenever "I" think, judge or doubt that such and such is the case. It must be said that Augustine's confidence in the ability to possess epistemic certainty through immediate insight into its non-corporeal nature is akin to an a priori discernment abut what it essentially means to be. This is one popular reason modernity often credited Augustine with having invented the subject. Whether such accounts as Augustine's can truly be defended as a cogent account of mind-body dualism still, however, needs to be seen.

2.2 Insights from contemporary thought

Some more authoritative assistance for Augustine's epistemic access arguments in favour of the immateriality of the soul, could come from contemporary analytic philosopher and substance dualist, Richard Swinburne. Drawing on insights from modern semantics – with particular reference to the thought of philosophers Hilary Putnam and Saul Kripke – Swinburne comments upon the distinction between logical and metaphysical possibility.[70] A logically possible would be a world whose full description entails no contradiction. Kripke and Putnam had written upon the necessary truth or necessary falsehood of propositions and whose truth or falsity were discoverable only *a posteriori*. This clarified the distinction between a metaphysically possible world from a merely logically possible world. A metaphysically possible world is one which has to be both logically possible and one whose full description involves no propositions which are metaphysically necessarily false.[71] A logically possible proposition like "Carbon Dioxide is ABC" where ABC is different from H_2O entails no contradiction yet does not hold in a metaphysically possible world.

> The Kripke/Putnam type of metaphysically (but not logically) necessary propositions are all ones in which some substance (property or event or time) is referred to by a rigid designator of a kind which is rather uninformative about the nature of what is referred to. A rigid designator

[70] See for instance, Richard Swinburne, 'From mental/physical identity to Substance Dualism', in *Persons: Human and Divine*, edited by Peter Van Inwagen & David Zimmerman (Oxford: Oxford University Press 2011) 145s.
[71] Ibid.

> of a substance, property, event or time is a word which picks out that substance, property, event, or time in every possible world. Rigidifying any uniquely identifying description will yield a rigid designator, but it may tell you very little about what is designated.[72]

Swinburne is, therefore, saying that substances or substance-kinds can be picked out by referring expressions that may be informative or uninformative. So, we may use expressions and refer successfully to the corresponding things without knowing the nature of these things. Having just the concept of *(x)* would not enable us to find out whether there actually exists some *(x)* on our planet earth or anywhere else. Words for such concepts are called uninformative designators in contrast to informative designators. In the cases where the referring expression is an informative designator, and we know how to use it, then we know the nature of what is picked out. We can identify new instances of the object with them.

Now materialists like Rorty or Smart would probably say that "I" is an uninformative designator and as such, we pick out something by it, but we do thereby not know the essence of what we pick out.[73] An *a priori* consideration alone does not tell us that what we pick out is or is not identical to some physical entity. We have to discover such truths *a posteriori*. Dualists, on the other hand, could claim that 'I' is an informative designator. When we know how to use 'I' we pick out something the essence of which is familiar to us. When we know how to use 'I' we cannot be mistaken about when to apply this expression. When I think, doubt, see something red, experience pleasure, etc. I cannot doubt that it is I who am thinking, doubting, seeing something red, having the sensation of pleasure. It would entail a contradiction to assume that something can be red and blue all over. Similarly, *a priori* reflection tells us that the subject of the aforementioned acts and experiences cannot be a physical entity. What I unmistakably pick out with the expression 'I' is a mental substance, the soul. So, this could be a way in which the immateriality of the soul in a substance-dualist context might be defended. The question, however, remains: is the expression 'I' really an informative designator? Why is the alleged immediacy and self-evidence of the knowledge of the essence of 'I' still so controversial?

Swinburne's approach opens avenues for the dualist to build arguments using modal logic. Descartes himself uses this approach in his *Meditations*.[74] The whole arguments hinges upon the claim that it is possible that my psychological states exist without my brain.

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[72] Ibid., 146.
[73] See for instance, Arnold B. Levison, "Rorty, Materialism and Privileged Access" in *Nous*, Volume 21 / 3, September 1987, 381-393.
[74] Descartes, *Meditations*, Translated by Donald, A. Cress, (Indianapolis: Hackett Publishing Company, 4th edition 1999) 50-51.

Proponents of this position typically argue that it is a supposed fact that we can conceive of such psychological states without bodies. In fact, it is often proposed that possible worlds are best defined in terms of what is conceivable. Conceiving here does not mean imagining or picturing a certain state of affairs, as I can imagine a unicorn or the elder sister I have never had. Rather, to conceive of a state of affairs is to understand it and that we can recognise it as a logical possibility.

Descartes believed that he can clearly conceive of his mind existing without his body, because it is possible for him to doubt that his body exists – as it may be that our bodily experience is part of an elaborate dream or a hallucination brought by a malicious demon – whereas he cannot coherently doubt the existence of his psychological states entirely, because doubting is itself a psychological state. Descartes argues that the mind is a substance that has his psychological states. If he can conceive of it without his body therefore it is possible for his mind to exist without his body. The modal argument states then that since it is conceivable that my mind exists without my brain, there is some possible world in which my mind exists and my body does not.

3. An overview of Swinburne's ontology

No other contemporary analytic philosophy is more closely associated with a bold and neo-Cartesian substance-dualistic approach to the metaphysics of persons than that expounded in recent years by Richard Swinburne. His position on the matter can be summarised into two principal assertions, namely, that human beings are pure mental substances while the body is an inessential part and, secondly, that souls rely on a Kripkean notion of rigid-designation which serves to guarantee their individual identity *as well as their* interaction with the body. Since his philosophical output is so rich as well as intellectually courageous – given the philosophical climate of our times – his theory deserves some attention. I shall first provide the philosophical background to his thought and then will take a closer look at his most recent works on the matter, namely, *Mind, Brain and Free Will*[75] and *Are We Bodies or Souls?*[76]

The positions he presents in these last two works are actually a development on an earlier work written in 1997, *The Evolution of the Soul*. His position is now sharper and he considers his arguments in defence of substance dualism to be more compelling. As readers who are familiar will know Swinburne operates within a sophisticated ontology. He dedicates a forty-page long chapter to explain the ontological framework supporting his position,

[75] Richard Swinburne, *Mind, Brain and Free Will* (Oxford: Oxford University Press 2013).
[76] Richard Swinburne, *Are we Souls or Bodies?* (Oxford: Oxford University Press 2019).

defining what he means, among others, by substances, properties, events, states of affairs, informative and uninformative rigid designators and the important difference between metaphysical and logical possibility. So let us first unpack a few of these core ideas and then see how they are deployed in his ontological architecture. Finally, we will assess whether this account succeeds to guarantee the ontological integrity of human persons that is promised.

We are told that by substance is understood a particular concrete object whereby a substance exists "all-at-once" which means that whenever substances exist, they exist totally. Properties may be either monadic or relational. Moreover, some properties of a substance are essential properties. Swinburne defines an event as either a substance having a certain property at a certain time or else the coming into existence or the ceasing to exist of some substance at some time. Events are to be distinguished from states of affairs whereby the former involve change and the latter do not. While substances may include and contain other substances, they are what they are because of their essential properties.

> Of the properties which a substance has, some are essential (or necessary) properties of that substance; that is, if the substance did not have these properties, it could not exist.[77]

Some properties may be essential to the substance, as is the negative charge in an electron, or else contingent, as is the brownness of a wooden door. If a substance has privileged access to a property that is instantiated, then that is what makes it an essential property. If we are purely mental substances as Swinburne argues, then the essential properties that are instantiated are pure mental properties as opposed to a physicalist account of properties. This account has the consequence of distinguishing sharply between mental and physical properties. His position throughout his philosophical treatment of the mind-body problem has been that other theories fail because they fail to offer a comprehensive account or description of the world which includes substances, properties and events in a way which offers criteria to distinguish between substances, properties and events that are either mental or physical.

Central to Swinburne's reasoning is his direct engagement with modal arguments in both logic and metaphysics. Indeed, the heart of his argument depends crucially on carefully distinguishing between logical and metaphysical necessity on the one hand and logical and metaphysical possibility on the other. The general line of argument is to transition from the logical possibility of the mind existing without a body to its *metaphysical* possibility. In other words, he wants his argument to trace the passage from the idea that a mind existing

[77] Richard Swinburne, 'Ontology', Chapter 1 in his *Mind, Brain and Free Will*, 5.

without a body is logically coherent, to the idea that such a claim is realistically possible. This is a metaphysical possibility, he claims, because there is a purely mental element which constitutes 'me'.

What are the identity criteria that need to be established for the modality of substances, properties and consequently, events which would, according to Swinburne, afford us this dualism? The groundwork for this discussion is laid out in the third section of chapter one of *Mind, Brain and Free Will*. The simplest way to discover whether a proposition is logically necessary is to check if denying would entail a contradiction. When something (x) is not discoverable *a priori* to be metaphysically impossible then it we can say that (x) is a logical possibility. It is logically possible that the day after tomorrow will be a sunny day, for to deny this proposition is not contradictory (even if it is false).

> I see no reason to suppose that there are any logically impossible sentences other than ones which entail a contradiction.[78]

Swinburne moves from obvious to less obvious thought experiments that to demonstrate logical possibilities. Moreover, he is keen to show that from discovering logical possibilities we could move on to also devise a method to determine metaphysical possibilities. When asking what determines the meanings of sentences and the sense of their truth conditions, that is, under which conditions they are true, and under which conditions they are false Swinburne notes that humans have a universally shared capacity to learn and through a dialogical and critical process achieve progressively mature pedagogical clarity and understanding of the meaning of concepts, grammar deployed accurately. Intellectual competence is achieved through the acquisition of accurate information and deployment of the right concepts, within the right grammar, etc. By contrast, a deficiency in information would debilitate the participant in a conversation and would suffer as a result of a lack of adequate understanding and hence, diminished competence. All this comes in to play with regard to Swinburne's application of Saul Kripke's notion of a "rigid designator".[79]

In fact, the hermeneutical key the issues of 'metaphysical' and 'logical' possibilities is "the notion of an informative designator".[80] Kripke had proposed the concept of a 'rigid designator' whereby what is referred to is always the same object in any possible world,

[78] Ibid. 18.
[79] Saul Kripke, *Naming and Necessity*, especially in Chapter 3 about 'Identity', (Harvard: Harvard University Press, Cambridge Mass 1980).
[80] R. Swinburne, Ibid., 14.

whatever the conditions surrounding or qualifying that object. Within his theory of language, rigid designators are the names of the same thing in every possible world. They are to be contrasted with 'non-rigid designators', which refer to an object in virtue of some non-essential property it has. So, for example, 'Angela Merkel' is a rigid designator, whereas 'the present German Chancellor' is non-rigid, as it could refer to a different person at different historical stages of time.

Swinburne needs to include further condition for the application of this concept since as Kripke and Hilary Putnam famously pointed out we can pick out an object named by some rigid designator by virtue of some normal superficial properties, such as surface appearance, while missing the object's *essence* which underlies those contingent properties, but which is in fact a necessary aspect of what makes that object that object. That is why Kripke defined naming as a reference to the thing named in terms of its essence.

So, the objection would be that even a competent language user may be ignorant of what a word's essence refers to thus negatively impacting one's full understanding of what is truly meant by any such particular term. To refresh ourselves on one of Kripke's own examples, explorers named a certain mountain seen from Tibet 'Everest' before people knew the true geography of the Himalayas, while an unavoidably large mountain of a somewhat different shape seen from Nepal 'Gaurisanker', using these names in both cases as rigid designators of those mountains. Objectively, the mountains are in fact one and the same, but the explorers and general opinion, not knowing this, ascribed different names to what they believed were two different mountains.

Putnam drives home the same point with a similar kind of example using the term 'water'. No chemical is as ubiquitous as water yet its chemical structure only became evident in the late 18^{th} century – following the discovery of hydrogen and oxygen by H. Cavendish and J. Priestley respectively in the middle of the same century. The formula H_2O was only established by Cannizzaro in 1871. Moreover, pure water is not colourless. Its colour may be pale blue, although this is not apparent unless more than 2 metres of it is viewed against a white background, in for example, a swimming pool in some ice formations, etc. Anyone oblivious of water's 'underlying' essence might lack the required confidence (and competence) about using this rigid designator in all possible situations. How should we view any other transparent and potable liquid that had the same appearance and taste and water but was not it?

Swinburne is aware of these objections and introduces a number of clarifications in his adapted Kripkean theory of designation. The principal adaptation is the condition for a rigid designator, which Swinburne renames, 'an informative' designator for which linguistic users

must know the conditions of its application. Rigid designators are now 'informative' designators and these pick out the essential properties of a substance. By contrast an 'uninformative' designator refers to the accidental properties or predicates that describe or refer to a substance in a non-essential or contingent manner. Swinburne intends the term informative designator in such a way that it must be the case that anyone who knows what the word means also knows the conditions in which to apply it (or the concepts by which it is defined), one's faculties are in working order and is not subject to illusion. Thus, if I know what a particular colour-term means I can't be wrong about when to apply it, given that my eye-sight is unimpaired and I am not subject to some kind of illusion. Swinburne argues that although 'water' prior to 1877 was an uninformative designator, 'H_2O' as used today is an informative designator of that substance.

When discussing modal theories of meaning and reference years back, Kripke and Putnam had argued that the phrase 'water is not H_2O' is not *logically* impossible. Yet such a claim is *metaphysically* impossible. In other words, there would be no logical contradiction in denying that water is H_2O and yet, given that we have credibly discovered that water is H_2O it cannot be otherwise that water is H_2O. Thus, anything that is not H_2O is not water, and anything that is H_2O is water). However, Swinburne argues, rightly in my view, that the notion that 'water is not H_2O' would be a logical possibility only if we did not understand what the term 'water' really referred to.[81]

This is where Swinburne's preparatory work pays off: he argues that if we replace uninformative designators with *informative* ones, then competent knowledge of a logically necessary claim would imply that we can also know it as metaphysically necessary.

> These definitions have the consequence that any identity sentence, in the sense of a sentence claiming that two things (substance, properties or whatever) picked out by (informative or uninformative) rigid designators are the same thing, is – if true – metaphysically necessary, and – if false, metaphysically impossible.[82]

The explanation continues: if in the sentence 'Everest is Gaurisanker' we substitute for both terms an informative designator 'A' designating the rocky material constitutive of that mountain, we get a claim which is logically necessary – "given that these mountains are the same" – such that we would be claiming that A is A. Swinburne argues that this means that the

[81] Ibid.,19.
[82] Ibid. 20.

identity of the mountains is metaphysically necessary since it has to be the case in all circumstances.

A full description of a world will entail all its events, including the events underlying the visible Everest or water.[83]
There is a lot of weight being defended in a short space by Swinburne in this section of his work and the implications are quite important. It is important for an appreciation of his philosophy to keep note of the important landmarks he himself highlights. On this point, I would like to highlight two important observations he makes:

1. The logical / metaphysical necessity distinction gave rise to the notion of a metaphysically possible world as one which was different from a merely logically possible world; it had to be both logically possible and one whose full description involves no metaphysically necessarily false sentences.[84]
2. […] any logically possible world is a metaphysically possible world, and conversely. Hence when talking about worlds, I do not distinguish between, for example, logically possible/necessary worlds and metaphysically possible/necessary worlds.[85]

3.1 Rigid designators and personal identity

The above arguments and distinctions are crucial to Swinburne's discussion of dualism, brains, minds, or souls. His overall plan will be to show first, that survival of the soul without a body is a logical possibility, so that he could then, secondly, invoke informative designators to show that it is also metaphysically possible. If this metaphysical possibility can be shown to work for something non-physical that is ‘me’ then the case for substance dualism is made.

Swinburne's elaborate account which is intended to distinguish, among others between essential and superficial properties also claims to provide identity-criteria which counteract reductivist accounts by materialists or physicalists whereby mental events are considered to be merely physical events. The probably more significant claim – and the one more relevant to my discussion here – is the confidence Swinburne's shows in making the move from the logical possibility of an extra-bodily mental existence to its metaphysical possibility, making it not just a conceivable but a real, or actual, possibility. It is evident that a lot of weight is given to the role played by what he calls 'informative' rigid designators and, in this case, applied to the first person, 'I'. But what exactly is this notion meant to achieve for the metaphysics of persons? How will it guarantee both the unity as well as the interaction required for an ontology of human nature?

[83] Ibid. 21.
[84] Ibid. 21.
[85] Ibid. 22.

Despite the elaborate ontology that Swinburne painstakingly develops and defends, his claim for modality – and which is directly connected to his account of informative designators – comes with a suspicious reminder of the fallacies philosophers have long been highlighting ever since St. Anselm proposed his Ontological Argument. In my view, Swinburne's account is valid only until it is applied to the radical views he applies to the nature of the unity and the constitution as well as the identity of persons. The most fundamental claim which defines his philosophy is that to be human is to be a purely mental substance, i.e., a soul. In essence humans are incorporeal and whilst we ordinarily treat interaction with and through our bodies as a casual fact of daily life, our physical being is not essential to our constitution both in the present as well as in the future. To his credit, Swinburne breaks off from the dominant – neo-Lockean – view in analytic philosophy which heavily roots identity within contingent features within our psychology and insists that the identity of a person over time is something ultimate, not analysable in terms of bodily continuity or continuity of memory or character.

Keeping in mind what needs to be said in the following chapters regarding the primacy of form, it is worth noting analogous efforts by contemporary thinkers to highlight, by default, the same requirements for a reliable ontology of persons, using, however, different notions. For instance, Bernard Williams distinguishes two types of identity in his account which generated much discussion among contemporary metaphysicians.[86] Both of the modalities of 'identity' defended by William, namely identity as 'particular' and identity as 'type' can be satisfied by a comprehensive account. The former version refers to the temporal and spatial 'thisness' of a uniquely singular person, whereas the former has a more classificatory and genre-related purpose. Swinburne is more concerned with establishing ontological criteria for the first account of identity discussed by Williams, namely, particular identity. It is for this account that Swinburne will resort to an updated account of the notion of a rigid – in his case 'informative' – designator.

> I define a mental substance as one for which the possession of some mental property is essential […] With these definitions I can raise the question whether humans are mental substances, and whether they are pure mental substances. (My definitions leave it open at this stage whether there can be persons who are never embodied – that is, never have physical properties – and whether humans can become disembodied.)[87]

[86] Bernard Williams, 'Identity and Identities' in *Philosophy as a Humanistic Discipline*, edited by Andrew W. Moore, (Princeton: Princeton University Press 2006) 56-64. Williams will develop and account arguing that the body is a necessary yet not sufficient condition for the temporal endurance of personal and human identity. This account was further developed – regrettably in favour of further reductionist accounts – by philosophers like Shoemaker, Dennett and Parfit.

[87] Richard Swinburne, *Mind, Brain and Free Will*, 141.

One of Swinburne's ambitions – as well as one of his hardest challenges –is to prove that talk about 'disembodied' persons is coherent and intelligible, even. In order to do that he needs to provide fixed points that guarantee identity conditions – including ontological completeness and unity as well as continuity across time – without relying on the body for all these events which typically *do rely* on physical entities. How will that be possible? Moreover, how can purely mental substances, as Swinburne insists that human persons are, be individuated? How will he defend the view that personal identity is ultimately not analysable in terms of the body?

In Chapter Six of his *Mind, Brain and Free Will*, Swinburne lays out his account in defence of the powerful identity conditions he needs, in terms of synchronicity and diachronicity. The former refers to something being the substance that it is as an object of a particular type. From a synchronic perspective, the identity conditions for a person are based on the coexperiencing of a mental substance, such that the subject must be experience all mental events.

> Almost all the time almost all human-looking bodies move and produce sounds in a unified way so as to lead us naturally and rightly to suppose that each such body is the body of a human being who is doing the moving and speaking, and who has privileged access to all and only the conscious events which are the immediate cause or effects of events in that body's brain at one time. But occasionally in abnormal circumstances some human bodies behave in a disunified way which might seem to suggest that the conscious events connected with the bodies of those persons are not all coexperienced.[88]

Does this possibility threaten the identity criterion Swinburne needs? His argument continues by postulating that coexperienced events belong to different substances but since he defines humans as "mental substances since their spatial boundaries are determined by a mental property"[89], then coexperienced mental events provide the criterion he needs since they belong to the same substance. That is, what he claims, provides the unity criterion for personal identity. The logical structure underpinning his ontological claim is that the fact that humans coexperience conscious events entails that they are mental substances. Will this argument work? In her article, L. Rudder Baker argued that Swinburne's argument based on synchronic unity is unsound since it is not at all clear how his account of properties coexperiencing certain properties at a time both establish the physical boundaries of the substance as well as determine

[88] Swinburne, 144.
[89] Ibid.

which physical properties it has.[90] If humans are mental substances, it is not clear what is doing the causing and what is being determined ontologically.

> So, if a coexperiencing substance also has physical properties […] then that mental property (of coexperiencing certain properties) will delimit the physical boundaries of the substance, and so help determine which physical properties it possesses.[91]

It seems to me that Swinburne assumes that his account has already established that physical substances like brains can be shown to interact with mental substances. However, the response he himself offers in the same journal issue shows that it clearly hasn't:

> What makes a brain my brain (ontological fact) is that my mental events are caused by, or cause, events in the brain (causal fact). It then follows that if I have any physical properties […] then necessarily a mental property of mine determines that certain of my brain properties are […] among those physical properties […] we could regard the physical part of me as only a brain, in interaction with another substance constituted by the rest of my body.[92]

It seems to me, therefore, that the argument based on synchronic unity does not reach its desired conclusions because it is circular, since the entailment passage from the fact that humans 'coexperience' conscious events does not ipso facto establish that we are mental substances. The identity of disembodied persons cannot be established, for example, by appealing to memory claims since memory claims themselves required identity-criteria rather than constitute it and hence, the argument would be circular. The same can be said of Swinburne's line of argument. One cannot establish the existence of incorporeal and purely mental substances by appealing to the coexperiencing of events as its cause, since the latter, rather must be entailed by the former, namely the mental substance and not the other way round.

Next, how do we guarantee continuity in personal identity across time, in other words, being the same person over time? Swinburne forges his default response by showing what he thinks are serious deficiencies in animalist theories and then goes on to present his account of the 'diachronic' unity of persons. It is possible for a person P_1 at time t_1 to be the same person at time t_2 if we understand that at the heart of the matter is the view of human persons as mental

[90] Lynne Rudder Baker, 'Swinburne on Substance-Dualism', in *European Journal for the Philosophy of Religion* (Innsbruck Vol. 6 / 2 Summer 2014 ISSN 1689-0831) 5-15.
[91] Swinburne, *Mind, Brain, and Free Will*, 143.
[92] Swinburne, 'Responses', pg. 51-63; We do not have the space to discuss at length Swinburne's acknowledgment that the evidence of 'split-brain' cases offers a serious and irresolvable challenge to his position. He is resigned to the fact that his concern is methodological rather than phenomenological and accepts that for each postulated viewpoint designed to explain data there is bound to be some difficulty in explaining a number of phenomena within that occurrence.

substances characterised and defined by their designator, i.e., 'thisness'. He prefers a "simple" theory as opposed to the complex views that ground identity of persons in spatial, psychological and physical continuity as does animalism. Relying on his already problematic position that coexperienced events necessarily entail a single mental substance rather than different substances. This is combined with his other view that mental events are instantiations of mental properties in a substance at a specific time as happens when we recall a memory. Swinburne doesn't explain however, how purely mental events are individuated.

In the first few pages of the same sixth chapter referred to above, he tackles those views which view mental life as "an inessential feature of humanity",[93] especially since they consider the criteria for the existence and continuity of human beings to be the same as the criteria for the existence and continuity of human bodies. Insisting that it is an "evident datum" that conscious mental events are coexperience and thus belong to the same substance, he then moves on to show how theories operating with a concept of substances as merely "bundles of coinstantiated properties" then there is a serious deficiency in not being in a position to guarantee sameness and identity of that substance across time since it has no "thisness".[94] Consequently, mental substances are left out of the overall account necessary to cover the fact of coexperienced properties which belong to the same mental substance across time. Sensory experience of sorts, Swinburne argues can be accounted for both synchronically as well as diachronically since both constitute the sameness of a human individual. The bundle theory he attributes to the animalist accounts cannot explain this. For Swinburne the characterisation of the human as a mental substance, even diachronically, is a consequence of a coexperienced physicality which is in turn, however, itself delimited by the mental substance.

3.2 From modal logic to ontology

As is easily noted, however, the reliance of diachronicity on synchronicity for the mind-body dualism Swinburne wants to secure is highly dubious. He still has to show how this logical possibility will also yield a metaphysical possibility. It seems that his account rests on rather shaky foundations. In fact, Swinburne offers a number of thought experiments that according to him strongly point toward the logical plausibility that I might exist without a body. We shall not be going into these thought experiments and my starting point here will be a presumption in Swinburne's favour, that is, let us assume that a disembodied existence is logically possible.

[93] Ibid. pg. 142.
[94] Ibid. pg. 148.

What concerns me primarily is the modal argument that points toward an ontological presumption, namely the metaphysical possibility based on a few key notions he develops, for instance informative designators and epistemological privileged access.

At an earlier stage of his book, specifically in Chapter Three on 'Epistemology' Swinburne tackles the criteria of knowledge and about the ways in which we can derive justified beliefs about logical possibility and impossibility:

> The logically impossible is metaphysically impossible; and the logically necessary is metaphysically necessary. If all the substances, properties, and so on, in a logically possible sentence are designated by informative designators, then that sentence will also be metaphysically possible.[95]

The spirit of this argument takes us back to other forms of problematic argument in the history of philosophy. What, exactly, are the implications – or aspirations, rather – of this argument? It all seems to be hinging on the concept of a rigid designator and crucially, on "I" as an informative designator when competently used by the first person. Swinburne's assumption is that when a person competently uses "I", then that not only constitutes an informative designatory but that such usage is immune to error through misidentification, since the person is the subject of a present experience and that, Swinburne contends, is infallible. This is what establishes, according to Swinburne, the central claim that "I" can continue to exist without the psychological underpinnings of memory or character or brain matter, even.

Swinburne's argument on this point is not convincing. For, if it really were the case that whenever the first person competently deploys the term "I" this meant that he or she is fully satisfying all the relevant epistemological and logical conditions and possibilities then everyone who used the term "I" would also know themselves to be *ipso facto* a mental substance. This is exactly the criticism levelled at Swinburne by Rudder Baker in her aforementioned article.[96] It seems to me that there is unjustified confidence in the implications of the usage of the term "I" which are supposed to entail the metaphysical possibility of a mental substance. There is too much variety and indeterminacy – analogy too once could say – in the usage of the term "I" and not all cases conform to Swinburne's criteria being capable of picking out the mental substance. Reference varies with the speaker and nothing can establish the indubitable standards Swinburne needs to support his position.

[95] Swinburne, Ibid., Chapter 3, 'Epistemology' in *Mind, Brain and Free Will*, 54.
[96] Ibid., 7-8.

Swinburne would respond to this criticism by reminding us that on his account, the claim to "I" usage competence is infallible, since there is an epistemologically privileged access criterion that can only be fulfilled by the first person. That is what makes the notion of "I" an informative designator which can only be used truthfully by a pure mental substance. Once again, Swinburne causally welds his epistemology to his claims to ontology with the aim of establishing the existence of an incorporeal mental substance.

> […] each person has a 'thisness', a uniqueness, which makes them the person they are quite apart from the particular mental properties they have any physical properties (and any thisness) possessed by their body…. the body is only a contingent part of the person, and the body's properties are only contingent properties of the person…. As used by others 'Richard Swinburne' is an uninformative designator. [97]

Swinburne thus thinks that the term "I" names an incorporeal mental substance. Misidentification is avoided by the uniquely competent use of the term in the first person. The logical possibilities within this frame of semantic refence include the logical possibility of "I continue to exist when my brain, memory and character are replaced all at once". This usage of "I" constitutes an informative designator which is infallible since it identifies the mental substance that is myself with the first person "I" who is using the term. For Swinburne this also yields the metaphysical possibility of my disembodied existence, which is what a substance dualist needs to establish a strong mind-body dualism as is Swinburne's.

Apart from the optimistic reliance on epistemic infallibility granted to competent first-person usage of the term "I" – an immunity from error that would be hard to accept even with linguistically mature human beings – there is a more serious problem with Swinburne's overall argument. The direction of his argument bears a striking resemblance to the way St. Anselm's Ontological Argument seeks to establish the existence of God following from a strictly 'infallible' notion of God's perfection which presumably would also entail his existence. At least the classical and famous criticisms addressed by Gaunilo to Anselm point out that having the logical possibility of a perfect island derived from the idea of such an occurrence does not entail its existence. Let us see what Swinburne had asserted of the informative designator:

> I argued in Chapter 1 that a logically possible sentence is metaphysically possible iff the substances designated in it are picked out by informative designators. A rigid designator φ is an 'informative designator', iff anyone (when favourably positioned, faculties in working order, and not subject to illusion) can recognise when something is (now) φ and when it is not merely

[97] Swinburne, *Mind, Brain and Free Will*, 164-66.

> in virtue of knowing what the word 'φ' means (that is having the linguistic knowledge of how to use it) … and can make simple inferences involving φ.[98]

However, it seems to me that the entailment from informative designators – competent usage of the term "I" – to the existence of a purely mental substance is fallacious in ways analogous to the Ontological Argument. Competent usage of the term "I" as an informative designator plays the same role that perfection does in the idea of God which according to Anselm permits us to conclude that God's metaphysical reality is necessary. Swinburne cannot derive the metaphysical possibility of a fact from the purely conceptual designator, no matter how epistemologically tight the account of its conditions and criteria are.

The problem with Swinburne's method is to build informative designation in the notion of 'I' such that linguistic and epistemic knowledge applied in the first person are ontological guarantors of the existence of a purely mental substance. That sounds very similar to what Anselm tried to achieve by building 'necessary' existence in the idea of 'God' and thereby concluding that it is necessary for such a being to exist. However, the identity and moreover, the existence, of a purely mental substance as Swinburne's views the essence of personal identity cannot be ontologically guaranteed on the grounds of 'I' treated as an informative designator. Swinburne's theory lacks the resources to establish the truth of substance-dualism, or to explain how it is possible for mind to interact with the body in an intelligible way and moreover, to show how such a tricky concept as the informative designator 'I' can be identified over time.

Conclusion

In this first chapter I have considered the substance dualist approach to the metaphysics of human persons. Specifically, I examined three different versions of such substance dualism with regard to human nature borrowed from three different phases in philosophy. One of the primary sources for Plato's views on the issue is his *Phaedo* dialogue, where we see his general commitments to views on the body that is likened to an imprisoned confinement for the soul and the argument from affinity, among others which highlights the analogy of the soul to the substantially complete entities that are the Forms. However, serious objections are presented, among others, the ambiguous likening of the soul – body relationship as the result of supervenient *harmonia* and which seem to go in the direction of a materialist understanding as represented in the person of Simmias.

[98] Swinburne, Ibid., 158.

Strong elements of mind-body dualism are found in St. Augustine's dynamic intellectual development, yet another giant of philosophical inquiry. While adhering to the view of many ancient thinkers that the human person is a compound of body and soul and after his Manichean phase, he saw in the soul the spiritual principle of life and the focal centre of consciousness, perception and cognition. To the soul is assigned the need to control the baser desires found in the bodily passions. The mature St. Augustine certainly increasingly stressed the urgency of the soul to free itself from the body and anything corporeal while defending the possibility of its eventual existence without the body. Augustine's views on the soul are at the core Platonic and thus his thought reflects the problems of classical soul-body dualism. If the soul is a purely spiritual substance, how can it exercise control over the body? How are the psychological faculties of the soul related to the various phenomena associated with bodily change? The role of introspective epistemology in Augustine's articulation of the metaphysics of human persons is central as becomes tangible in his account of the human soul in *De Trinitate*. The increasingly central role of *mens* in defining the human should not go unnoticed in this account of subjectivity and the desired conclusion that the mind cannot be a body or anything bodily.

Finally, I discussed the Richard Swinburne's philosophy of souls and bodies. I did this for three reasons. Firstly, to show that mind-body substance dualism is not dead and one can still find very distinguished defences of such a position. Secondly, Swinburne develops a fully fletched philosophical grammar of concepts in order to meticulously expound and defend his position. Thirdly, it is a position he has held consistently throughout his philosophical career despite the fact that on this point he is on the absolute minority side within the circles of analytic philosophy. Ultimately, I still think that such a position is not tenable, especially because of the ease with which he transitions from a modal to a metaphysical sequence and which resonates with the Augustinian epistemic access criteria discussed earlier on.

In this chapter we have seen on the one hand, that dualism is may come in a number of different varieties:

"Dualism is a many-headed beast; there are a variety of forms, depending upon what one thinks the entity other than the human being, but with which we are supposed to be identical, really is."[99]

I think that dualism is untenable for a number of reasons. There are, firstly, arguments based on reasons from common sense. Substance-dualism does not do justice to our experience as

[99] Robert, P. R. George, and Christopher Tollefsen, 'Dualism and Persons', in *Embryo: A Defense of Human Life*, (New York: Doubleday Publications 2008) 61.

unitary beings. This also implies a more profound concern regarding the identity of the subject of both mental and physical events. I am looking for a philosophy that safeguards the ontological integrity of the human person whereby who perceives, cognises, feels and acts is the same ontological entity. Substance dualism does not offer a guarantee for this unity. Moreover, the second and related worry concerns the way minds affect bodies and how physical events sustain neurological and mental conditions. If Plato, Augustine and Swinburne are right to say that there is a deep metaphysical chasm that characterises humans so deeply that we cannot be identified with the ontological unity of both physical and mental conditions, then we face an insurmountable problem of explaining the relationship between these two dimensions. Moreover, animal life and the organic life of human persons both show substance dualism to be indefensible since the very basis of identity when asking, are we bodies or souls? has no objective criteria to arbitrate between the two since we can prove to be neither.

CHAPTER TWO

THE METAPHSYICS OF LIFE: ARISTOTLE'S ANALYSIS

In the previous chapter we examined three versions of anti-materialistic responses to the mind-body problem based on a strongly dualist metaphysics. We also indicated the weaknesses of these positions and also why that dualist metaphysics leaves important questions unanswered and are, hence unsatisfactory. In the remaining chapters of this thesis, I want to show that the metaphysics developed by Aristotle provides a philosophical framework that not only is more reliable than the substance-dualist approach which leaves too many gaps, but also has the resources of engaging fruitfully with the evolution of the natural sciences. In this chapter I want to take a close look at the building blocks of Aristotle's metaphysics and method, while keeping an eye both on the targets he was addressing in his own time, as well as some interpretative issues pertaining to the understanding of some of his claims which may have a decisive impact on the credibility of hylomorphism for the mind-body problem.

In this chapter I intend to achieve four things. The first will be to discuss the principles of atomistic philosophy while locating it within its classical Greek philosophical context. I shall briefly discuss what this school of thought attempts to achieve and why it fails. The second will be to take a close look at Aristotle's discussion of the formal cause in his important work on the philosophy of nature together with the metaphysical tools he employs. Third, I hope to demonstrate how his account of form definitively blocks the atomistic move to explain change, identity and substance. Aristotle is indeed carefully arguing against the atomists primarily in the *Physics*. Fourthly I intend to lay out the principal philosophical intuitions behind Aristotle's account of body and soul in the *De Anima*. In this way we can provide the conceptual groundwork for future discussions related anti-atomistic theories in favour of a holistic and ontologically unified account of the relation of mind and body which will be the main topic of this thesis.

1. Atomism and the paradox of change

One could argue that the birth and eventually the onset of philosophy were catalysed by a popular interest that *change* and its paradoxes stirred among the pioneers of post-mythological

thought.[100] Both the earliest philosophies of nature and metaphysical insights were attempts at making sense of identity and continuity on one hand and change and flux on the other. Or, to say it in Parmenidean fashion, how to resolve the problem about how change can be possible without something coming from nothing.

In nature we can observe a significant level of regularity and predictability as are the laws of gravity and motion. However, upon a deeper analysis we can also identify two kinds of change. I may plant a mustard seed and I should not expect a strawberry shrub. When I return a book to my shelf, I don't expect it to turn itself into a house-mouse and flee off. On the other hand, my intelligent Labrador pet might accidentally fall off a staircase – in one of its notoriously energetic and restless stints – and hurt itself thus seriously injuring its foot. This latter case of change can be safely described as accidental – not, primarily due to a happy convergence of terms – but to the fact that since it has survived the fall, its truest identity, dog-hood, namely, is preserved despite the unfortunate yet temporary change it has incurred. We can go on and say that this kind of change is nonessential to its nature and it brought about the loss of a nonessential or secondary property, namely, agility, while being in possession of its recognisable identity as my Labrador pet dog throughout the ordeal.

One can imagine, however, a different scenario whereby in one of its fits of frenzy the Labrador pet leaps into the family fire-place and as a tragic result gets engulfed in flames and is reduced to a mass of dismembered bones and ash. This kind of change is so radical that the dog loses possession of all its essential properties and ultimately of its truest identity. The four-legged thing driven by self-moving energetic skills in a crazy fit of running no longer exists as a dog, which is tantamount to saying it no longer exists at all. The change is not accidental in this case, but, rather, substantial. Restated in general terms, change can be either accidental or substantial. In the former case a change occurs on the level of non-essential properties during which the substance and identity of the entity in question persevered throughout the trajectory that we call change. In the latter, the change affects not only secondary or non-essential properties but the essence or truest identity of the thing in question, such that at the end of the process of change we are presented with some entirely different kind of thing.

[100] Guthrie, Keith, C., *A History of Greek Philosophy, Vol. 1: The Earlier Presocratics and The Pythagoreans* (Cambridge: Cambridge University Press 1965) and David Sedley, "Atomism's Eleatic Roots," in Patricia Curd and Daniel W. Graham (eds.), *The Oxford Handbook of Presocratic Philosophy* (Oxford: Oxford University Press 2008) 305–332.

Although it is hard to decisively interpret Parmenides, one traditional view is that he denied the existence of the world which is the result of our ordinary experiences of change and motion since they such beliefs are entirely deceptive. This could be described as a 'strict monist' interpretation.[101] Based on a profound conflict between reason and what is received through the senses, Parmenides adopted a rationalist approach which took aim at the materialism of Milesian philosophy. At the risk of oversimplifying here, Parmenides argued that acknowledging the being of an entity and thereby acknowledging that something is debars us from making references of past origin or future change or dissolution in time absolutely, since whatever is, just is. The Milesians had offered an account of a changing reality derived from one original substance.

In his work the *Physics* Aristotle introduces the notions of a substratum of change, the principle of potentiality, whereby a thing at time T(1) owns some kind of potential towards an actuality at T(2) even though it lacks the actuality at T(1). In *Physics* 192a4 Aristotle will introduce the logical distinction between a privation and a negation whereby the latter, unlike the former, indicates an essential deficiency in the nature of a thing. We will take a closer look at Aristotle's arguments in the *Physics* in the next section.

The atomists in Aristotle's cultural milieu argued that the two fundamental and oppositely characterized constituents of the natural world are indivisible bodies – atoms – and void or the negation of a body. The atomists of course had no empirical evidence of the atom, which they considered to be intrinsically unchangeable with the possibility of moving about in a void and combining into different clusters. The impact of their thought however has been widespread and, to my mind, rather devastating. '*A-tomos*' – with this conceptual postulate lacking any empirical proof for its existence, the atomists thought they succeeded in offering a comprehensive solution to all the paradoxes, both logical and metaphysical, that result from change. They could say that identity is preserved because all atoms are substantially identical

[101] A classical representative of this interpretation is Keith Chambers Guthrie according to whom Parmenides thought, "that reality [is], and must be, a unity in the strictest sense and that any change in it [is] impossible" and consequently, that "the world as perceived by the senses is unreal": Keith, C. Guthrie, *A History of Greek Philosophy, Vol. 1: The Earlier Presocratics and The Pythagoreans* (Cambridge: Cambridge University Press 1965) 4-5. A different 'Logical' and dialectical interpretation is offered by Bertrand Russell in his *History of Western Philosophy*. Commenting on the words, 'The thing that can be thought and that for the sake of which the thought exists is the same; for you cannot find thought without something that is, as to which it is uttered': "The essence of this argument is: When you think, you think of something; when you use a name, it must be the name of something. Therefore, both thought and language require objects outside themselves. And since you can think of a thing or speak of it at one time as well as at another, whatever can be thought of or spoken of must exist at all times." Bertrand Russell, *A History of Western Philosophy* (London: Routledge 1993ed) 67. Subsequent scholars such as J. Barnes would abandon the idea that Parmenides was reacting to his Milesian predecessors though his impact on what came later would be long-lasting, cfr. Barnes, *A History of the Pre-Socratic Philosophers*, (London: Routledge 1982) 124.

everywhere, irrespective of the apparent variety of identifiable objects that fill our experience. On the other hand, they believed they could explain the motor that brought about change by saying that since atoms are separated by a void; they must rather bounce off one another when they collide.

The long-term consequence of this while the atoms themselves are eternal for they persist through all time, everything in the world of our experience is transitory and subject to dissolution. However, their theory was even more radical than that. The atomists did not only say that everything is composed of atomic reality. Their position also stated that everything is *reducible* to atoms. Thus, atomism is not merely a compositional theory but rather a constitutive methodology which aims to offer a simplified account of identity and change. On their account nothing really deserves to be called a substance *ousia*, in the strict Aristotelian sense, since the status of anything comparably stable lies with eternal and immutable atoms. Moreover, to give an account of anything A would merely be tantamount to giving an account of the constituents of A. There is nothing privileged on the level of identity of object for in reality the identity factor has its source in that of the atoms. The identity of A is thus *reducible* to the identity of the constituents of A.

The atomists of course also rejected the possibility of the immaterial soul or any operation of the mind independently of the dynamic aggregation of atomic reality which was a function of matter. Stated in Aristotelian terms of causality, the atomists reduced the causality of the efficient, the formal and the final cause, to a singular causal factor, namely matter, or the material cause. According to Aristotle's discussion in his work *On Generation and Corruption* (I, 8) the motivation for the first postulation of atoms as indivisible bodies was to solve a metaphysical puzzle about the possibility of change and multiplicity ensuing from the philosophy of ontologically austere views of Parmenides.[102] Several Pre-Socratics responded by offering philosophical systems in which change does not require something that coming into being from complete non-existence, but rather the arrangement of pre-existing elements into new combinations. According to the Atomists, the atoms fulfil the role of Parmenides's requirements for the notion of Being: they are unchangeable and contain no internal differentiation of a sort that would allow for division. There are, of course, for them, many, not

[102] Aristotle: "There were, then, certain thinkers who, for the reasons we have stated, enunciated views of this kind about the truth […] Moreover, although these opinions appear to follow logically, yet to believe them seems next door to madness when one considers the facts. For indeed no lunatic seems to be so far out of his senses as to suppose that fire and ice are one; it is only between what is right, and what seems right from habit, that some people are made enough to see no difference", On Generation and Corruption Book I, 8, Translated by H. H. Joachim, in *The Complete Works of Aristotle* Volume One, Edited by Jonathan Barnes (Princeton: Princeton University Press Bollingdon Series 1985) 531.

just one, which are separated from another by nothing, i.e. by void. One of the major limitations against the Atomists will be their lack of accountability toward an overall, integrative and constitutive source of identity, structure and ontology.

> The ultimate source of the trouble, Aristotle states [...] 'that is just where everything goes wrong' – is that aggregation and segregation define generation and destruction. As this definitional identification comes together with the conception of potential divisibility as involving an internal structure of latent parts lying ready to be actualised, it is this conception which has to be rejected.[103]

On this initial account of Atomistic thought, we are quite close to what is today called 'eliminative materialism.' All that truly exists is just atoms and we have also lost the reality of change on different accidental or substantial levels. Atomism cannot account for how things come to be for change is more apparent than real. Underneath change there is the Parmenidean sphere of constant identity and universal being, whereby you always have one subject and a vast number of atoms that are aggregated differently largely as a result of change.[104] Moreover the atomists fail to provide an account which guarantees the individuality of things since if all atomic reality is substantially co-extensive and identical, there would be a huge number of objects overlapping over other similar objects since there would be no real criterion to demarcate and distinguish them among themselves. The atomists cannot provide for a distinction between essential and non-essential change, a substantial or an accidental loss since every account of being is reducible to the dominant semantic and ontological role universally relegated to the atom as metaphysical construct. This approach towards an analysis of nature that is purely atomistic and reductionist will be found later on in Lucretius, especially in his work *De Rerum Natura* composed a little earlier than 50B.C. For instance, we find the following argument:

> […] there is one illusion you must do your level best to escape, an error to guard against with all your foresight. You must not imagine that the bright orbs of our eyes were created purposely, so that we might be able to look before us; that our need to stride ahead determined our equipment with the pliant props of thigh and ankle, set in the firm foundation of our feet; that our arms were fitted to stout shoulders, and helpful hands attached at either side, in order that we might do what is needful to sustain life. To interpret these or any phenomena on these lines is perversely to turn the truth upside down. In fact, nothing in our bodies was born in order that we might be able to use it, but the thing born creates the use. There was no seeing before eyes were born, no talking before the tongue was created. The origin of the tongue was far anterior to speech. The ears were created long before a sound was

[103] Hasper, P. S., "Aristotle's Diagnosis of Atomism", *Apeiron* 39, (2006) 147.
[104] Yves, R. Simon, *The Great Dialogue of Nature and Space* (Indiana: Notre Dame 1970) 30.

> heard. All the limbs, I am well assured, existed before their use. They cannot, therefore, have grown for the sake of being used.[105]

It is this position which Aristotle opposed, not however, because he agreed with Plato's *Timaeus* which postulated a Craftsman who created everything with a purposive plan that is reflected in nature, but, rather, because he rejected the idea that disorder and chaos and sheer chance and physical necessity lie at the bottom of reality and of nature. This led him to focus closely on showing how the structures of biology and its systems could not have possibly been the result of blind spontaneity and chance combinations of atoms.

We must now pause within this preliminary laying out of the main characteristics of atomistic classical thought and turn to Aristotle's arguments against the atomistic account, first by looking at his philosophy of nature in some detail and, secondly, by examining the application of those principles to his account of the soul. We will then return to later and contemporary versions of atomism with references to contemporary biology and mind-body theories and attempts to show how Aristotelian and Thomistic metaphysics not only highlight the fatal deficiencies of atomistic philosophy but also offer a superior and more coherent account of the metaphysics of body-mind relations.

1.1 Aristotle's philosophy of biology as a response to materialism

In this section I would like to take a closer look at how his theory of form and finality form the backbone of his anti-materialist philosophy and which provide the framework for his account of the relationship between the soul and the body in the human person. Aristotle's analysis takes the explanations of biological structure as its point of the departure. As much as he despised the atomistic idea that man and the other species spontaneously sprung out of mud, he also criticised his interlocutors for not having discerned the complexity of causality and change in the fourfold manner which his own analysis had, with reference, namely, to the material, efficient, formal and final causes. One can sense the climax of this line of criticism in Book IV of his *Meteorology*:

> Our account of the formation of the homogenous bodies has given us the elements out of which they are compounded and the classes into which they fall, and has made it clear to which class each of these bodies belongs. The homogenous bodies are made up of the elements, and all the works of nature in turn of the homogenous bodies as matter. All the

[105] Lucretius, *On The Nature of the Universe*, Book IV / 8, translated by R. Latham (Suffolk: Penguin Classics 1974) 156.

> homogenous bodies consist of the elements described, as matter, but their essence is determined by their definition. This fact is always clearer in the case of the later products, of those, in fact that are instruments, as it were, and have an end: it is clearer, for instance, that a dead man is a man only in name […] If you take the extremes, matter is pure matter and the essence is pure definition; but the bodies intermediate between the two are related to each in proportion as they are near to either […] What a thing is always determined by its function: a thing really is itself when it can perform its function; an eye, for instance, when it can see […] Now heat and cold and the motions they set up as the bodies are solidified by the hot and the cold are sufficient to form all such parts as are the homogenous bodies, flesh, bone, hair, sinew, and the rest […] But no one would go as far as to consider them sufficient in the case of the non-homogenous parts (like the head, the hand, or the food) which these homogenous parts go to make up. Cold and heat and their motion would be admitted to account for the formation of copper or silver, but not for that of a saw, a bowl or a box. So here, save that in the examples given the cause is art, but in the non-homogenous bodies nature or some other cause […] For we know the cause of a thing and its definition when we know its matter and its definition – and best when we know both the material and the formed factors of its generation and destruction, also the source of the origin of its motion.[106]

Although Plato resorted to the notion of a 'Craftsman'[107] in order to explain causality – especially final causality – in the world, Aristotle then dropped this notion and replaced it with 'Nature'. He uses this term throughout his works but all commentators agree that it used in an elastic, popular or analogical way. If we need something metaphysically precise, we need to look at his theory of causes (*aitia*). His uses of 'nature' aim at underlining the attestation of natural processes which typically operate in the direction of a purpose or advantageous result or end, thereby displaying end-orientedness or finality. For instance, his commitment to an ontologically integrated account of causality in nature is clear in his work *Parts of Animals*:

> Similarly, the true object of architecture is not bricks, mortar or timber, but the house; and so the principal object of natural philosophy is not the material elements, but their composition, and the totality of the substance, independently of which they have no existence […] As every instrument and every bodily member is for the sake of something, viz. some action, so the whole body must evidently be for the sake of some complex action. Thus, the saw is made for sawing, for sawing is a function, and not sawing for the saw. Similarly, the body too must somehow or other be made for the soul, and each part of it for some subordinate function, to which it is adapted.[108]

His account understands Nature – or rather individual natures of living animals, plants or humans – as a coordinated system of parts serving a function which enable that particular nature

[106] Aristotle, *Meteorology*, IV, 12, 390a1-390b1, Translated by E. W. Webster, in *The Complete Works of Aristotle Volume One*, Edited by Jonathan Barnes (Princeton: Princeton University Press Bollingen Series 1984) 624-625.
[107] As we find in Plato's *Timaeus* with reference to a purposive god who organised the cosmos teleologically, as we find especially in the first part of the dialogue.
[108] Aristotle, *Parts of Animals*, Book II, 645b1-15, Translated by W. Ogle, in *The Complete Works of Aristotle Volume One*, Edited by Jonathan Barnes (Princeton: Princeton University Press Bollingen Series 1984) 1004-1005.

to survive and flourish within a given context. We are, however, getting ahead of ourselves as we first need to see what he says of his fourfold understanding of causality, before being able to focus more closely on form and finality. In fact, in Aristotle's *Physics* II, we find not just finality but the rich fourfold complexity underlying natural identity, processes and change:

> Knowledge is the object of our inquiry, and men do not think they know a thing till they have grasped the 'why' of it (which is to grasp the primary cause). So clearly, we too must do this as regards both coming to be and passing away and every kind of natural change, in order that, knowing their principles, we may try to refer to these principles each of our problems […] In one way, then, that out of which a thing comes to be and persists […] in another way, the form or the archetype, i.e. the definition of the essence […] again the primary source of the change or rest […] Again, in the sense of the end or that for the sake of which a thing is done. […] This, then perhaps exhausts the number of ways in which we term 'cause' is used.[109]

Of course, understanding this last definition, thinking of the '*telos*' or the sake for which "a thing is done" as a cause in itself is very different to our normal 'Humean' understanding of causality. How can the 'telos' – which is a state of affairs that happens toward the end of a process or operation and hence is chronologically subsequent – be the cause of something that happened before? Moreover, in natures, as is the case with the anatomical organs discussed by Aristotle himself in various different writings, the presence of a 'telos' needs to be stuck to an unconscious agency and this seems to be wrong. For instance, if the 'telos' of the heart is adequate blood circulation, how is that the cause of the heart to be a muscle and, hence, a pump to achieve that? Would we need to change the term from 'cause' to 'explanation' then? This is precisely why we need to examine the notion of causality more closely.

Let us take the example of teeth and their constitution with the nature of mammals as well as non-mammals. Does the tiger have a set of carnivorous teeth because it is a carnivore, or is it a carnivore because it has a set of carnivorous teeth? The Atomists would say that the tiger just happens to be a carnivore because it just happens to have carnivorous teeth. Aristotle would certainly answer that the former reply is correct, namely, that the tiger has a set of carnivorous teeth in virtue of its carnivorous nature. This is famously the topic of Book III of his *Parts of the Animals*, yet again. We are told of "invariable office" of teeth in the case of food-reduction and, secondarily, of defensive purposes in certain specialised cases.[110] "In man, however, the number and the character of even these sharp teeth have been mainly determined

[109] Aristotle, *Physics II*, 3, 194b20-195b1, Translated by R. P. Hardie and R. K. Gaye in *The Complete Works of Aristotle Volume One*, Edited by Jonathan Barnes (Princeton: Princeton University Press Bollingen Series 1984) 332-333.
[110] *Parts of Animals*, 661b1.

by the requirements of speech".[111] The idea is that "nature allots each weapon" to a species in order for it to function and compete successfully in the world. "Thus males are stronger an more choleric than females".[112] Analogously, "In birds the mouth consists of what is called the beak, which in them is a substitute for lips and teeth. This beak presents variations in harmony with the functions and protective purposes which it serves."[113] Raptors, flesh-eaters and the like have the kind of crooked beak which typically marks them because they are carnivores. The Atomists would make a claim in the contrary direction saying that it is because they are equipped with that kind of beak that they are flesh-eaters. So, if Aristotle needs to successfully defend his commitment to final causes in nature he needs to show how the efficiency of the teeth, beak, tongues, etc., *is a cause* of their species-specific shape. In contemporary language, it has become commonplace to just say that animals have the parts they do "because of evolution", meaning that every part displays a "survivor value" for that particular species which enables to gain an advantage over weaker contenders and to successfully endure across a longer time as a result. However, not only was Aristotle not an evolutionist, since he believed that species are unchanging, but that reply in itself is misleading, for it only offers a diachronic response from a purely evolutionary perspective while failing to explain the intrinsic structural relationship between part and whole in a living being. This is precisely what Aristotle's theory of causality seeks to achieve and, in my view, as I hope to show along the remaining arguments in this thesis, he does it convincingly by looking carefully at the synchronic, or relevant structural relations as well.

It is interesting to note that the imprecision of commonplace language which blindly invokes 'evolution' or 'Nature' as an explanation for the remarkable fit there is between parts and wholes in living beings is analogous to the hypothetical Craftsman which is found in some of Plato's dialogues. Aristotle no longer relies on that myth to explain and defend the preponderance of teleology that exists in Nature and so we cannot simply say – as many materialists would – that the characteristics we customarily associate with finality in Nature simply are those qualities you would expect to find in species – and in a Nature – which is flexible enough to accommodate the urgencies and life-supporting adaptation that we observe everywhere. Instead, Aristotle's philosophical biology treats the 'telos' as a proper cause and that it is the way of life of a particular species that gives rise to the possession of its typical characteristics.

[111] Ibid., 661b10.
[112] Ibid., 66b30-135.
[113] Ibid. 662b1.

Of course, the synchronic account which we are working out together with Aristotle need not contradict or be in tension with the diachronic account. The latter account would, in fact, rely on Aristotle's understanding of how reproduction is related to finality. We find such an insight in another very important *Physics II* text:

> Now, the causes being four, it is the business of the student of nature to know about them all, and if he refers his problems back to all of them, he will assign the 'why' in the way proper to his science – the matter, the form, the mover, that for the sake of which. The last three often coincide; for the what and that for the sake of which are one, while the primary source of motion is the same in species as these. For man generates man – and so too, in general, with all things which cause movements by being themselves moved […].[114]

Thus, according to Aristotle, the reproductive factor, i.e. the seed fulfils a threefold role since "these three often coincide" he says, namely as the efficient cause which engenders the upcoming generation, the formal cause which bears the essence of the species and which is also the purposive or final cause of the reproductive journey. On this interpretation Aristotle sees a foundational nexus between structure, survival, reproduction and identity which is captured by what he calls teleology. He is not saying that any species has a particular quality with a view to future possibilities that arise related to its behaviour. Rather, its having that particular quality is causally determinative of the options available for it to survive and flourish being the specimen of natural life that it is. The successful operation and deployment of a specimen's natural features related to food, reproduction, habitat and so on, guarantee the successful generation of that species across time. On this interpretation the final cause is a cause because it forms biological structures which is why Aristotle says that final and formal causes are identical.

> There are four causes: first, the final cause, that for the sake of which; secondly, the definition of essence (and these two we may regard pretty much as one and the same); thirdly the material; and fourthly, that from which the source of movement comes.[115]

It is evident from all these references to Aristotle's invocation of four kinds of *aitia*, that these are not merely a classification of epistemological, metaphorically intended or practical heuristic devices but, rather, genuine causes whereby a cause is taken to be a token of

[114] Aristotle, *Physics II*, 7, 198a 22-27, Jonathan Barnes edition, op. cit. 338.
[115] Aristotle, *Generation of Animals*, I, 715a4-5, translated by A. Platt, in *The Complete Works of Aristotle*, Edited by Jonathan Barnes (Princeton: Princeton University Press Bollingen Series 1984) 1111.

responsibility for an outcome of sorts, i.e., 'cause' (A) is responsible for outcome, existence or resultant state of affairs (B).

1.2 The primacy of form in Aristotle's philosophy of nature

Aristotle famously declares at the beginning of his *Metaphysics* that "all men by nature desire to know". Knowledge properly speaking, for Aristotle, consists of understanding, *episteme*, and understanding involves science. In his *Posterior Analytics* [116] he insists that we only have scientific knowledge when we have epistemically justified knowledge: it is neither sufficient nor particularly interesting from a scientific point of view to "know" a fact incidentally or merely to be able to assent to something which is true. The proper function of science is to know *why* something is a fact, hence, to provide demonstrations. Scientific knowledge is, therefore, knowledge in a specific sense: according to Aristotle, to know something scientifically is to know the cause or reason why it must be as it is and cannot be otherwise, and that scientific knowledge must consist in knowledge of causes.

It is no surprise, then, that the opening lines of the *Physics*, Aristotle's treatise on nature, tell us that the scientific knowledge of nature stems from a grasp of its principles, causes and elements.[117] In *Physics* I, Aristotle sets himself directly in the tradition that hails from Plato's *Phaedo*, where we learn that the so-called "inquiry into nature" consisted in a search for "the causes of each thing; why each thing comes into existence, why it goes out of existence, why it exists".[118] Aristotle devotes most of Book I to a discussion of change and how his account of change resolves problems felt by earlier thinkers. Little is said about what nature is *per se* until we turn to *Physics* II.

Book II reopens the question about what counts as a natural object and, consequently, what the scope of natural science is. In fact, Aristotle has found it to be unclear from Book I whether matter or form is a substance, which is why he starts again with a subset of changes, those that have an internal origin in a natural organism; and he wants to know what the origin is. At the core of Book II are arguments discussing the relationship between chance, spontaneity and causality, but the theme of the natural scientist is recapitulated in the latter parts of Book II in the context of another controversial topic, that of finality in nature. In discussing the alleged centrality of form in a scientific investigation of nature I shall be tracing

[116] I, 712a 21-33.
[117] 184a 10.
[118] 96 a 6-10.

whatever scheme can be made out in Book II and attempt to bring out and critically discuss the main relevant arguments which he gives.

Physics II opens with Aristotle's account of which objects do count as 'natural' objects, thinking that he can straightforwardly distinguish living organisms (including their parts and the 'simple' bodies – earth, air, fire and water) from everything else because each of them has within itself a cause of change or stability.[119] Although what this definition of nature fully implies needs to be clarified in ways which could prove problematic for his account of nature and scientific knowledge – we shall return to this further on – Aristotle proceeds by asking whether the 'nature' of a natural substance should be understood to be its matter or its form, and gives some arguments on each side[120].

In the next chapter his own response will be that both matter and form contribute to a thing's 'nature', and consequently the scientist should pay attention to both[121]. To borrow an example from D. Bostock[122], if one asks why a tree floats on water, it is because of its matter: its matter is mainly wood, and all wood floats on water. But if the question is why a tree has roots, the answer is that this is because of its form, that is, because of what it is to be a tree: to stand upright and not be easily blown over, needing nourishment like all living things, etc.

In the immediate context Aristotle defends the claim already anticipated in Book I, that form, rather than matter, is nature and substance. He presents an argument, ascribed to Antiphon, to show that matter is the nature of things. Antiphon had argued that if you planted a bed what would emerge from the rotten bed would not be another bed, but a shoot which would grow into wood. This was thus proof that the real nature of the bed was wood and that the form of the bed was merely an attribute imposed on it or a temporary arrangement of the wood[123].

Antiphon's argument attempts to show that the *matter* is the internal origin of change, and therefore the nature, by showing that the changes happening to the bed are explained by its being wood, not by its having been a bed. Thus, we might say, if we set it alight or smash an axe into the bed, it will burn or break in so far as it is wood, not in so far as it is a bed.

Aristotle's reply however is that such a position as Antiphon's implies that the form of a bed is superficially imposed on wood, whereas we must think of the bed as having its own

[119] Aristotle, *Physics* II, 192b8-33.
[120] Ibid., 193a9-18.
[121] Ibid., 194a12-15.
[122] David Bostock, 'Introduction' to Aristotle's *Physics*, translated by R. Waterfield (Oxford: Oxford University Press 1996)
[123] Ibid., 193a9-17.

integrity and ask: *what is it to be a bed?* And the notion of wood here is of little help; a pile of wood is at best a bed *only potentially*, such that it could be formed into a bed by a competent craftsman[124] . This last point is based on a connection between form and what something is "actually" (*entelecheia*) as opposed to 'potentially' (*dunamei*). Although Aristotle will explain better this connection in his *Metaphysics*, here it remains obscure and sketchy. In any case we will need to look at this text in greater detail further on.

Aristotle thus thinks that form is better equipped than matter to be a thing's 'nature'. If we are to think of a bed as having a nature at all, it is more appropriate to identify the bed's nature with its form. That the bed does not reproduce other beds shows that the bed does not have a nature, for the form of a bed is not a principle internal to the bed. Contrasted to Antiphon's opinion according to whom this latter point reveals something important about natural objects, Aristotle sees in this an important difference between natural objects and manufactured things.

What Aristotle seems to mean is that to specify only the matter of a thing would be to give only a very partial account of the 'nature' of the thing; the form is needed too. He does not say, as I think he should, that to specify only the form but not the matter – if that is possible – is *also* to give only a partial account, so both are needed. Aristotle believes that things that are "by nature" include both form and matter. In fact matter too must be grasped by the physicist because "matter is among things which are in relation to something; for there is different matter for different form"[125]. So, for example, the matter of an oak differs from that of a human. Furthermore, when a natural thing grows, it does not produce matter first, but only in relation to form – any natural thing grows towards its form and toward nature in the sense of form[126]. So, an acorn does not produce "wood", but becomes an oak; and it does so because it possesses an intrinsic ability to be moved.

An argument is offered in 193b 8-12. If the 'nature' of a bed must be its matter, because if you planted a bed, and it began to grow, then it would give rise to wood, but not to a bed, *then* equally the 'nature' of a man must be his form, since a man begets a man. Aristotle does take this to be an important point about form that man 'gives rise' to man.

[124] *Physics* II, 193a34-35.
[125] Ibid., 194b8-9.
[126] Ibid., 193b13.

The last argument offered in this section argues that a growing thing is not what it grows from, but what it grows into, and that this is its form[127]. However, this doesn't yet show clearly why the form of the thing is (part of) its 'nature'.

Commenting on the arguments offered in this preliminary part of Book II, T. Irwin observes that such arguments to show that form is nature reflect a dialectical strategy and expose its weakness[128]. Aristotle appeals to the way we speak of form, when we ascribe a nature to something, and when we mention the origin and conclusion of its coming to be. Antiphon challenges the truth of common beliefs and common ways of speaking about them, rather than our commitment to them and Aristotle's arguments to not yet meet his challenge and we still have no compelling reason to believe in the primacy of form over matter when studying nature.

It is more rewarding to take a closer look at Aristotle's critique of his 'materialist' opponents (he mentions Democritus and Empedocles in 194a18). Aristotle gives us a brief statement of the materialists' position:

> If… any of these materials [such as wood] stands in the same relation to something else – if, for instance, bronze and gold stand in this relation to water, and bones and wood to earth – then this, they say, is their nature and substance. And so fire or earth or air or water, or some of them, or all of them, have been named by various thinkers as the nature of things. Whichever candidate or candidates they select, it or they are said to comprise all the substance there is, while everything else is an affection, state, or disposition of this. And each of them is everlasting (since it is impossible for it to change from what it is), while everything else comes to be and ceases to be countless times.[129]

Given that X is made of E_1, E_2, E_3, etc., does it follow that X has no nature apart from the natures of E_1, E_2, E_3, etc.? Put differently, does it follow that X is nothing but E_1, E_2, E_3, etc. in certain states and arrangements? An affirmative response to these questions expresses the general position of the materialist. From this perspective not only artefacts fail to count as natural substances, but so do all natural objects composed of natural substances, since the composite is only its constituents combined and hence, there is no single substance with a unitary nature in its own right.

As S. Waterlow has pointed out,[130] we can articulate two distinct parts in the materialist position and it is not immediately clear how effectively Aristotle tackles each of them. In the passage which refers to Antiphon's objection and Aristotle's comments about it, the materialist claims that the nature of a thing is its *immediate* matter. In the passage just quoted above

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[127] Ibid., 193b12-18.
[128] Terence Irwin, 'The Formal Cause' in *Aristotle's First Principles*, (Oxford: Clarendon Press 1988), 99-100.
[129] 193a17-28.
[130] Sarah Waterlow, 'What things have natures?' in *Nature, Change and Agency in Aristotle's Physics*, (Oxford: Clarendon Press 1988) 56ss.

however, it is claimed that the only real substances or things with natures are the *elements* that ultimately underlie all physical objects. This last strand of the materialist position argues that if what a structured thing is immediately composed of is its nature, then whatever what composes it is composed of must be the latter's nature, and so on until we arrive at some stuff or stuffs that are not themselves composed of anything.

It is curious that Aristotle himself does not realise how question-begging this second version of the materialist argument is. For he can reply saying that if it is true that the nature of a thing is the matter of which it is immediately composed, then simple stuffs, which are not themselves composed of anything cannot be said to have a nature. In this case, how can they be the nature and substance of everything else? This position states that there are ultimate constituents, but if that's true then either they themselves have natures, or not. If not, then the internal principle of change in a complex being cannot be identified with the nature of any ultimate constituent of it. Aristotle could press on further saying that although a complex being is composed of simpler substances, its having a nature does not consist in its being thus composed, so that there is no ground for the claim that the nature it has is not really *its* nature, but that of some constituent or constituents.

Although these two versions of the materialist position make two different points, they both strike common ground when they contradict Aristotle's view that structured organic beings have, as such and in their own right, substancehood and nature. In any case and unfortunately so, Aristotle seems to treat them as one single position and the somewhat sketchy arguments we have discussed earlier on in Part I are all that we get as an official reply to the materialist objection. Before asking whether we can eventually gather a stronger response from what Aristotle says in the rest of *Physics* II, it might be worth returning to the beginning of his attack on the materialism that identifies nature with immediate matter.

> Just as the word 'art' is applied to what is by art and an artefact, so the word 'nature' is applied to what is by nature and natural. In the former case, we should not say that anything is by art while it is only potentially a bed and does not yet have the form of a bed, and nor do we say that it is art. It is the same with things constituted by nature. *For that which is potentially flesh or bone does not yet have its own nature [as flesh, etc.] until it acquires the form specified in the definition, and nor is it by nature* (my italics). Thus on the other account [of what nature is], nature would be the shape and form of those things that have within themselves a principle of change, not separable from them except in formula. (The combination of these [i.e. the form with the matter], as for instance a man, is not a nature, but by nature.) Shape and form is nature rather than matter. For it is when a thing is actual rather than potential that its definition applies.[131]

[131] Book I, 193a 31- b 8.

The difference between art and nature which Aristotle tries to bring out can be misconstrued. J. Lear, for example, claims that Aristotle "relies on the analogy between art and nature to give one some idea of the form of a material object. A craftsman can impose a form on various bits of matter…"[132] But this is the exact point of disanalogy between nature and art: in natural things matter is dynamically aimed at form, and so there are no such "bits of matter". Furley makes the point when he argues that the quarrel between the Atomists and Aristotle lay primarily "in an epistemological preference for the bits and pieces of things on the one hand, and for the whole forms on the other".[133]

This analogy between nature and art depends on common linguistic usage and on a play on words. If it is making a philosophical point, it is not immediately clear which. I have already noted that the phrase in 193a 34-5 (italicised above) is ambiguous. If 'nature' is being used here to capture what one would mention if asked to say *what* the thing is, that is, its typifying characteristics, then the remark is a tautology since even artefacts might be said to have natures. The analogy asserts that an object's inner principle of change cannot be or be grounded in its component materials alone, but that is precisely what we needed to prove in the first place.

Aristotle may also be intending to rely on a parallel between nature and art. He seems to insinuate that the matter of a structured natural object of type A is devoid of nature of its own so long as it has not yet acquired the specific form that makes it of type A. From this it would follow that nature resides in form rather than matter. Hence the parallel since 'art' is properly applied to the product, not to the raw materials of an artefact and hence it seems that the product's status depends upon the structure or form alone. The problem is that unless it is certain that the constituent materials of which a natural object is composed lack natures in the sense that raw materials lack art, we cannot draw a similar conclusion for 'nature'. Moreover the immediate matter of the constituent elements of a natural object seems to have a definite character, such as flesh and bone and so far it hasn't been shown that such elements do not have a nature of their own.

Another analogy comes in 193b 12-18, where Aristotle contrasts nature (*phusis*) to the art of medicine. The contrast is based on two points. First the resulting state of healing is not medical art whereas the natural process of growth denoted by the word 'nature' does result in a state that in turn gives rise to such processes, and this state is also called *phusis*. Secondly,

[132] Jonathan Lear, 'Nature' in *Aristotle – The Desire to Understand*, (Cambridge: Cambridge University Press 1988), 17.
[133] David Furley, 'The Cosmological Crisis in Classical Antiquity', *Proceedings of the Boston Area Colloquium in Ancient Philosophy*, Vol. 2 (1986 /1), 1-19, 5.

the healer does not assume a new character whereas the natural entity that 'does the growing' *itself* passes into the developed state. There is a conceptual coincidence between nature *qua* developing and nature *qua* developed since in both cases a natural substance is endowed with an inner principle of change. If 'A' is the predicate expressing the shape or form when fully developed, it may be both *qua* developing and *qua* developed defined as A.

This passage brings to the fore what is perhaps a fundamental difficulty with 'form' in Aristotle which in a living thing at any rate is supposed to comprise both that which is *the primary source of change or rest* (which Aristotle calls the efficient cause and which receives a definition which is practically identical to the one given to nature itself) and that for the sake of which (this is the final cause, addressed toward the *telos* or end). How can what something is to be, which it necessarily is not yet, *be* what brings about the present process towards what it is to be?

The choice seems to be between accepting this paradoxical equation of formal, efficient and final causes and the absurd situations which arise from denying it. For if we reject the identity between nature as a principle of change and nature in the sense of a fully developed structure, then, whenever a developing creature attains a developed form, it has a property which earlier it lacked. Moreover, this substance only would be a substance once it has acquired this developed form – in virtue of which the creature is an essence with an identity – and was before either of a different kind or it was no substance at all. Another absurd alternative would be to deny that the fully developed structure is an essential property of the natural substance which attains it. In this case, the developing creature lacked nothing in virtue of which the developed is the kind of substance that it is. But then what is the essential or substantial nature that was present throughout? The only likely candidate is the property of being a source of development into such and such a type of structured object.

Aristotle is aware of all these challenges and this leads him to say later on that,

> Three [of the four causes] often coincide. For what a thing is the same as what it is for the sake of, and that from which the change first began is the same as these in form; for man generates man.[134]

While it is left somewhat vague quite how 'often' this triple coincidence occurs, it presumably is intended to apply at least to all living things, which are Aristotle's primary examples of

[134] 198a 24-7.

substances. We also have a more plausible reason why the scientist ought to look into the formal causes of nature than the material cause given that form is so pregnant with explanation.

If Aristotle's claim that form is significantly relevant to the scientist in ways that matter is not, then he must provide arguments that seriously undermine the second version of the materialist thesis. He needs to argue that a natural substance is a *metaphysical* unity (by contrast to the empirical accounts given so far) in a sense in which this would entail that its nature is irreducible to those of more primitive constituent substances. Aristotle attempts to do this in Chapters 8 and 9 of Physics II by showing that the organisation and behaviour of organisms and their organs can and ought to be accounted for teleologically. In fact he registers commitment to the claim that there are goals in nature at the very beginning of the book though he only argues for it in these two final chapters. It is due to a thing's form (its being an apple tree, for instance), Aristotle believes, that it develops from the seed in certain particular ways and stages, and once fully grown behaves in certain other particular ways. Such explanations are teleological, since they postulate as a goal the formal nature that the behaviour being explained serves to produce and thereafter maintain. His materialist adversaries would all agree on the need for explanation at the level of matter, but many would deny the existence of a separate level of formal natures, not wholly dependent on and reducible to matter.

Empedocles, whom Aristotle associates with the materialist position, hypothesised that during one stage of the world's history all manner of animals were constantly being formed *by chance* collocations of varied animal parts more or less like those of animals known to us; some of these, having the necessary parts survived, others died out. Aristotle represents his materialist predecessors as having supposed one could explain why there are the species there are, why they are preserved, and why the seasons follow one another as they do, in terms of nothing but the natures of the various materials the world contains and the ways in which, given their distribution at any given time, they interact with one another. Against such a view, he brings the following two arguments.

The first is found in *Physics* II, 8[135] and its interpretation is controversial. Materialists argue that the various parts that are produced in the course of a creature's formation are produced by nothing by *material necessity*: the natures of the materials are such that this kind of tooth (a sharp one) necessarily comes up in the front of the mouth, and other material necessities result in that kind (a flat one) coming up at the back. But what explains the fit between these dental arrangements and the creature's need for food? According to Aristotle the

[135] Physics II, 8, 198b 32 – 199a 8.

materialist's account cannot explain how the front teeth, for example, are not just sharp, but useful for tearing food off, which is something the creature needs to do to survive and flourish. Following the interpretation of Gotthelf and Lennox,

1) An occurrence which is advantageous to someone or something it is either by coincidence or for that reason, i.e., *because* of the good it does. If it is for the good, then it occurs either by a lucky coincidence or *for* the good of the person or the thing in question.
2) The materialist denies that in nature anything happens *for the sake of* any good that results. He has no option but to say that these good results are only coincidences: the teeth come up sharp in front by material necessity.
3) However, a coincidence is necessarily an exceptional occurrence, whereas,
4) an animal's organs are always (with occasional pathologies) formed in such a way as to serve the creature's needs.[136]

The thrust of these arguments from Aristotle thus seek to eliminate the presupposition that such organs serve an organism's needs through mere coincidence. Rather, another explanation is required which would satisfactorily show that in animals and plants, parts are always formed serviceably to cater for the needs of the higher organism. This happens not sporadically or occasionally but, rather, consistently and throughout time.

2. Soul as form in Aristotle

In his *De Anima* Aristotle argues for the soul as form keeping in mind the material backdrop that characterised much of Ancient Greek philosophy. He tells us that Democritus, for instance, considered the soul as a "sort of fire or hot substance; his 'forms' or atoms are infinite in number; those which are spherical he calls fire and soul".[137] The soul here was understood as the source of movement in living things.

Aristotle's *De Anima* is composed of three books covering vast selection of interests: sensation and perception, self-motion, nature and life as well as the relation between mind and body. Three characteristics feature in his philosophical method. The first is the priority he gives to biology as a source of facts. For instance in 418a26-424a15 we find careful discussions of the functions of the senses and their operation which relies on his biological understanding. As

[136] Allan Gotthelf & James G. Lennox, 'Hypothetical Necessity and Natural Teleology', in *Philosophical Issues in Aristotle's Biology*, ed. by A. Gotthelf, J. G. Lennox, (Cambridge: Cambridge University Press 1987) 251-252.
[137] Aristotle, *De Anima*, 1.2. 404a1-5, in *The Basic Works of Aristotle*, ed. Richard McKeon (New York: Random House 1941) 69.

Richard Sorabji noted, Aristotle emphasises "the continuity rather than the differences, between processes in plants and processes in animals."[138] The second is a system of integrated principles and ideas that are applied as a conceptual analytical tool. Aristotle thus transports into the *De Anima* the central concepts of his philosophical system and consciously applies them to his investigation there. Right from the start, upon asking the question "What is soul?" (412a1-5) he deploys with urgency the core concepts of substance, matter and form, act and potency. This conceptual system enables him to defend the inseparability of soul and body, saying that the soul is forma and the body is matter (414a16-17). Significantly, Aristotle provides a comprehensive causal story when he says that the souls acts as an efficient cause in its being the cause of movement, it functions as final cause as end, it is the essence and the formal cause of the living body (415b8-11). Thirdly, Aristotle is keen on providing a critical analysis of his predecessors. In Book I, particularly, Aristotle reviews the strengths and weaknesses of the views of his predecessors. He rejects the views that the soul "is what moves (or is capable of moving) itself", "or that it is a harmony of contraries" or that it is "the subtlest and most incorporeal of all kinds of body" (4-6a1-409b21-2).

Aristotle's conception of soul is a direct consequence of his method in philosophy of biology. When he speaks of nutritive soul (in the case of plants) and sensitive soul (in the case of animals) soul is to be understood as coextensive with life and not simply mental life (434a22-30). Here his account of soul begins with a rehearsal of his theory of form and matter. Reminding us of his positions in the *Physics* and the *Metaphysics*, Aristotle argues that substance can mean, form, matter or the combination of both in a particular individual. Matter's association with potentiality shows its connection to change and can, for that reason, taken on various forms. (412a9-10). In the *Metaphysics*, Aristotle notes that "matter exists in a potential state, just because it may attain to its form; and when it exists actually, then it is in its form" (1050a15-16).

Aristotle then moves on in his investigation of the soul and he does this by applying the ontological concepts characteristic of his system. The organism can be called a 'substance' in the sense that it is a composite of soul qua form and body qua matter. He further describes the soul as "an actuality of the first kind" where "first" indicated priority "in time and existence" because any power must be prior to the exercise of that power (412a26-27). The essence of the soul cannot be reduced to the mere exercise of these capacities, for that would preclude

[138] Richard Sorabji, 'Body and Soul in Aristotle', in *Aristotle's De Anima in Focus*, Ed. by Michael Durrant (New York: Routledge 1993) 165.

organisms, dormant vegetation and animals, as well as the unthinking man from possessing a soul.

Nonetheless, the interpretation of the soul in Aristotle's *De Anima* is not a straightforward matter. Perhaps the commonest reading is that soul for Aristotle is "a complex of actual capacities"[139] and Sorabji notes that for Aristotle, the soul is "a set of capacities, such as the capacity for nutrition, the capacity for sense-perception, and the capacity for thought... related to each other in such a way as to form a unity".[140] However there is lack of agreement on a number of issues here. Aristotle says that the notion of soul is, in a way, the notion of a particular individual and a substance and that it carries with it the notion of *entelecheia*, meaning actuality. He tells us at the beginning of the *De Anima* that it makes 'no small difference' whether the notion of the soul is the notion of an *entelecheia* or of a thing which "is in *dunamis*". However, as W. Charlton observes, he never really clearly shows us what the distinction is.[141] It seems there is the lack for an account of 'actuality' concepts. Further confusions arise because Aristotle defines change generally as a kind of *energeia* which seems to interfere with the account of sensory experience in terms of actuality and potentiality.

Other problems of interpretation relate to whether Aristotle was after all a dualist in his mind-body theory. For instance, R. Heinaman argues that Aristotle's theory of the mind-body problem is probably "best characterised" as dualism.[142] On this account the soul is a form. Since forms are immaterial entities, we need to understand how they relate to matter. A form can be a structural feature or principle of order, such as the form of a house or health pertaining to a body. In a second sense the soul need not be an immediate structural or physical feature of matter but is supervenient upon and dependent for its existence on immediate physical features of matter as Alexander argued.[143] Thirdly, we can conceive of a form as not dependent on matter or material features for its existence.[144] The third account of form is akin to Cartesian dualism. The first account would fit in with a materialist account of things even though the soul would still be an immaterial substance. According to Heinaman, Aristotle's account fits well into the second kind of form relating to matter which he sees to be similar to 'emergent dualist' account of mind and body relations.

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[139] Michael Wedin, "Aristotle on how to define a psychological state" in *Topoi*, 15 (1996) 15.
[140] Sorabji, op. cit. 163.
[141] William Charlton, "Aristotle's Definition of Soul", in *Phronesis*, Vol. 25, 2, 1980.
[142] Robert Heinaman, "Aristotle and the Mind-Body Problem", *Phronesis* 35:1990, 83.
[143] Ibid., 90.
[144] Ibid. 89.

I disagree with Heineman's classification, firstly because of Aristotle's own account of materialism with reference to the first sense in which soul relates to matter. This theme we shall be discussing later on. However, it seems that there is here a failure to understand the breakthrough offered by Aristotle's account of the soul. Aristotle's position should not be described as dualist since he rejects the view that the soul is a thing ontologically distinct from the body. Contemporary debates on the mind-body relation are carried out within a strict materialism versus dualism characterisation, admittedly, with a number of variations on both sides. On the other hand, Aristotle pushes forward an anti-materialist position by contrasting the soul as form of the living organism to body as matter. In *De Anima I*, Aristotle is trying to show the inadequacy of the accounts of the soul put forward by his predecessors or contemporaries. In *De Anima II* he puts proposes his own positive account of the science of the soul. His task is to show how the soul is a source of motion to the body while avoiding the impasses presented by dualism and materialism. This is the central role played by cognition through an account of the cognitive powers but also by showing how the soul is incorporeal, immaterial without sliding into dualism. I agree with Stephen Menn in that, firstly, dualism is not a primary target for Aristotle in *De Anima* and, secondly, that some form of dualism is presupposed by practically all the views discussed in *De Anima* I.[145]

So, what are the achievements of Aristotle's account of the soul if this is not to be assigned to the materialist-dualist dichotomy? In chapter 5 of his foundational work on the *Categories*, Aristotle defends an account of "primary substances" as individual particulars (2a11-4b19). Language about 'souls' and 'bodies' can be misleading because it may give the impression that the soul and the body are two distinct things with an independent existence, a position that would be defended by Plato and Descartes. One might be led to think that the soul is a primary substance from that perspective. This is not, however, the account we find *De Anima*. Aristotle's account in this work seems to defend another sense of substance as a 'compound' of matter and form (412a6-9). From this position, Aristotle denies that the soul exists independently as a substance but, rather, the whole living organism exists as one substance and one unity, a compound of body qua matter and soul qua form. It is true that there is convincing evidence in favour of the view that the soul is not merely the organisation of bodily parts, but it is also something which supervenes on bodily parts when they have been

[145] Stephen Menn, "Aristotle's Definition of Soul and the De Anima", in *Oxford Studies in Ancient Philosophy*, n. 22, 2002, 103.

organised in a certain way.[146] The soul is a *dunamis* that supervenes (*epigignetai*) on the body when the organisation of matter has reached a certain level.

However, there is reason to believe that Aristotle rejected dualism when one reads his account of self-motion and perception in Book I, Chapter 4 of the *De Anima*.

> We speak of the soul as being pained or pleased, being bold or fearful, being angry, perceiving and thinking.[147]

Although Aristotle concedes that these seem to be cases whereby the soul is moving itself or that the movement originates in the soul, we ought to be careful about our choice of language he says.

> It is doubtless better to avoid saying that it is the soul that pities or learns or thinks, and rather to say that it is the man who does this with his soul.[148]

The soul is thus also a set of perfections and should not be understood as a separate substance. There are some grey areas of interpretation as to Aristotle's application of the inextricable unity of matter and form when discussing human thought. On one hand he does seem to consider the possibility of thought without the body. On the other hand "the soul never thinks without an image" and all imagination is a motion that results from an actual exercise of a sensory power.[149] The mental therefore cannot exist without the body.

How is Aristotle's account a rejection of materialistic accounts of the soul? It is noteworthy that in his arguments against dualism and the independent existence of the soul, he engages with his philosophy of nature and psychology most of all. When it comes to the critical analysis of materialistic theories, he adopts a more thematic and conceptual philosophical methodology that is typical of his system of thought. When reading his account of the emotions such as anger in the first book of Chapter 1, one might feel inclined to conclude that Aristotle is, after all, proposing a materialist account of mental states. For instance, he refers to the physicist's understanding of choleric reactions as "the boiling of the blood or warm substance surrounding the heart".[150] On the contrary, however, Aristotle's aim is to show that a purely materialist or physical account of anger is incomplete. Moreover, the psychological answer that

[146] 408a20-21.
[147] 408b1-2.
[148] 408b5-14.
[149] 431a17; 429a2.
[150] 403a31-32.

anger is "an appetite returning pain for pain" is also incomplete.[151] It is a philosophical account of emotions like anger that we need and this is what Aristotle intends to develop. An account of the affections in the soul needs to bring together both the 'material' conditions as well as the 'formal' ones.[152]

The house analogy which he also offers confirms his position that there be both material and formal factors in an explanation. What is being here is an anti-reductionist account of causality and being which precludes any materialistic interpretation of Aristotle's thought. An account of a house as merely "stones, bricks, and timbers" without any including its end and form as "a shelter against destruction by wind, rain, and heat" – or vice versa[153] would be as incomplete as an exclusively materialistic account of the emotions. The proper and more complete description, Aristotle argues, "would say that it was that form in that material with that purpose or end".[154]

Aristotle's approach also provides an argument against what is commonly known as 'identity theory'. This is a cluster of views on the relationship between mind and body holding that at least some types of mental states are, as a matter of contingent fact, literally identical with some types of brain states. A more radical position was taken by David Armstrong who argued that *all* mental states, including intentional states, are identical with physical states. Aristotle would oppose this position saying that it would be grave mistake to think that the "stones, bricks, and timbers" are identical with "a shelter against destruction by wind, rain, and heat." This would be completely mistaken since the material compounds of a house will both predate and survive the house itself. As already stated, reductionism would wrongly affirm that "a shelter against destruction by wind, rain, and heat" is nothing but "stones, bricks, and timbers." This shows that we cannot reduce formal causes to material causes within the Aristotelian system.

Thus, although Aristotle's biological focus may seem to push us towards a materialist interpretation of the mind, it is an untenable interpretation. Aristotle is neither a dualist nor a materialist, but rather something else entirely. In fact, he offers a way out of the dichotomy offered by substance-dualism and materialism in the mind-body problem. Dualists like Descartes consider the thinking activity of an existing mind uncontroversial and self-explanatory. In his *Meditations on First Philosophy,* Descartes defends the certainty of the

[151] 403a30-31.
[152] 403b1-2; 403b7-8.
[153] 403b4-6.
[154] 403b7.

existence of minds in the Second Meditation but only tackles the existence of bodies in the Sixth Meditation. The reverse approach is taken by materialists who regard the existence of physical bodies as self-evident and obvious while trying to figure out how best to establish the existence of minds if at all. In the *Philosophy of Mind*, Jaegwon Kim characterises the mind-body problem as that of "accounting for the place of mind in a world that is essentially physical".[155] Aristotle's account of the soul offers a breakthrough that avoids the dichotomy between dualists and materialists by regarding the organism as one whole, a complete substantial unity, composed of matter and form.

Careful attention is required when tackling the topic of the metaphysical unity of things and Aristotle is keen to elaborate on this elsewhere. For instance, in Book 8 of his *Metaphysics* he argues that it would be impossible to comprehend the unity of things if our starting point is to wonder how all the features of an entity are glued together:

> Clearly, then, if people proceed thus in their usual manner of definition and speech, they cannot explain and solve the difficulty [of the unity of features of an entity]. But if, as we say, one element is matter and another is form, and one is potentially and the other actually, the question will no longer be thought a difficulty. For this difficulty is the same as would arise if 'round bronze' were the definition of 'cloak'; for this word would be a sign of the definitory formula, so that the question is, what is the cause of the unity of 'round' and 'bronze'? The difficulty disappears, because the one is matter, the other form.[156]

Aristotle thus resolves the stubborn problem of unity by proposing a different approach to the subject, namely, by deploying the matter and form as both integral aspects of 'ensouled' substances. The reliance on matter and form will, of course, still require mediation with the contemporary science and the resultant questions raised philosophy of science. That will be the topic of later chapters. In the meantime, we may think of the mind as a particular type of operation or action of the organism as a whole or as an emergent property as suggested by John Searle.[157] Two questions persist at this point: is the unity and causality of mind and body as intractable as certain thinkers have purported it to be? Secondly, should we accept that unity is ultimately a brute fact, perhaps requiring an explanation in terms of efficient cause but no more. Aristotle seems to think so:

> Therefore it is like asking what in general is the cause of unity and of a thing's being one; for each thing is a unity, and the potential and the actual are somehow one. Therefore there is no

[155] Jaegwon Kim, *The Philosophy of Mind* (Boulder: Westview Press 1998) 9.
[156] 1045a21-30.
[157] John Searle, *The Rediscovery of the Mind* (Cambridge: Cambridge MIT 1992), 111-2.

> other cause here unless there is something which caused the movement from potency into actuality.[158]

2.1 A brief review of some neo-Aristotelian accounts of form

In his recent article, philosopher James G. Lennox states that "it should now be clear that the advent of an evolutionary understanding of the world has very little to do with whether biology is or is not an Aristotelian outlook – though some were critical of Darwinism, none of the organismal biologists had any doubts about evolution."[159] I take this to mean that the neo-Aristotelian interest that has been very noticeable within metaphysical circles as well as areas of philosophy of science is compatible with the information that comes to us from a biology that is permeated by evolutionary ways of thinking. We have already seen in our second chapter that to ask about the causal nexus between parts and wholes – this is especially the case in living organisms – is to inquire about their nature. Such questions can be answered metaphysically reflecting on the data which may be – and need better be – scientifically informed, which answers are primarily provided with reference to the formal cause within a hylomorphic framework. It is a fallacy akin to the mereological fallacy in the case of neuroscience mentioned in the previous section, to appeal to evolutionary development in order to explain the way form synchronically works as a nature here and now. In the same article Lennox masterfully shows how after a century of biology dominated by Darwinian concepts like random variation, gene pools, fitness differences and selection co-efficients, biology is returning to its Aristotelian roots. What interests here is how this is relevant to Aristotle's metaphysics of life and how it leads him to his unique approach to living things, an approach which integrates biological form, biological function and biological development within a hylomorphic account.

It would be helpful to sketch out once again the key insights behind the role of form in nature and to demonstrate its priority. What Lennox manages to show, I believe, is the biological priority of form in living beings. Firstly, the conception of the form of a natural entity as activity (*energeia*) or realisation (*entelecheia*), and of soul, the form of a living being, as its first realisation. Secondly, the living body is instrumental in the sense that it is constituted of the precise parts it is, organised in the precise ways they are, *for the sake of* performing the activities that constitute the way of life of the animal whose body it is. Thirdly, form is the

[158] Ibid.
[159] James G. Lennox, "An Aristotelian philosophy of biology: Form, Function and Development", in *Acta Philosophica* 1/26 (2017) 47.

source of generation and as it is called today, development, as a process irreducibility for the sake of being – even for the sake of "being eternal as far as possible, i.e., eternal in form".[160]

Let us take another look at a passage *On the Parts of the Animals*:

> Since every instrument (organon) is for the sake of something, and each of the parts of the body is for the sake of something, and what they are for the sake of is a certain action (praxis tis), it is apparent that the entire body too has been constituted for the sake of a certain complete action. For sawing is not for the sake of the saw, but the saw for sawing; for sawing is a certain use. So the body too is in a way for the sake of the soul, and the parts are for the sake of the functions (ton ergon) in relation to which each of them has naturally developed.[161]

We should first study actions because the similarities and differences in parts and bodies as a whole are for the sake of performing certain activities or functions and living certain kinds of lives. Let us focus in this passage on the connection between body and soul, on the one hand, and parts and functions, on the other. The first sentence embeds a *teleological* conception within a wider, instrumental teleology: Aristotle often explicitly invites us to think of non-uniform parts as instrumental, *organika*. The claim that the parts are what they are for the sake of certain activities is a pervasive theme in Aristotle's investigation of animals – but here he immediately infers a teleology of the entire body from the fact that each of its parts is for the sake of a specific action. However, Lennox, observes, this does not mean that we should see this inference in a sort of 'additive' way, something like: each part is for the sake of an activity, the whole body is the sum of its parts, hence the whole body is for the sake of the sum of its activities. That would be deeply mistaken.

In fact, in a *De Anima* passage, Aristotle first identifies soul as the form of a living body, but then, but then notes that in the case of living beings, form is to be understood as first realisation and then provides a general definition of soul as 'the first realisation of a natural, organic body."[162] By 'first realisation' he has in mind, as he makes clear, the distinction between an organism with a fully developed, integrated set of living capacities, *poised* for action, and the organism *fully* in action. That is, a rather importantly so, for Aristotle the idea of the whole organism as a functional unity is bedrock in much the same way that the idea of a way of life is. That the performance of its living activities requires distinguishable parts with their own specific functional capacities come second. In this lies an important functional aspect in the

[160] Aristotle, *De Anima*, II, 4.
[161] 645b 15-20.
[162] *De Anima*, II, 1, 412a20-b1.

formal cause and its priority in the unity and identity of living organisms. Contemporary scientific accounts have realised the centrality of the self-organising and self-maintaining powers of organisms in account for the integrated nature if the physiological and biochemical processes associated with their organ systems, organs, cells and sub-cellular processes. To re-orient biology in that direction is to steer it in the direction of a neo-Aristotelian biology – but only if this idea is integrated with some equivalent of Aristotle's concept of a way of life that itself serves to explain the coordination among the more or less differences in both structure and function in the different forms of animal.

Michail Peramatzis takes a metaphysically sharper approach to the hylomorphic account of living beings, including humans. His writings are of special interest to my project here because of his keen eye on the question I have been gradually underlining, that of the priority of form.[163] Peramatzis takes us back to the scientific project behind Aristotle's analysis and brings to the discussion a consideration which has featured in contemporary Aristotelian commentators and which he calls "the Modal Question" but which has also come to be known as 'Ackrill's Problem'. Peramatzis offers an interpretation of Aristotle's hylomorphism which is important to note since it offers a contemporary defense of the priority of the formal cause. The 'Modal Question' investigates the modal link between a compound's form and matter. Is the form just accidentally or essentially related to the matter? Flesh, bones, tissues and chemical constituents, or the hands, eyes, or heart of a human may not be functional parts of a living human being. However, the proximate matter or the functional organs of a living organism, are, in Aristotle's view, essentially and / or necessarily alive, ensouled, or enformed by the form of being a human. This is called the homonymy thesis, in which a dead, mutilated, or non-functional finger is a finger only homonymously: it bears the same name as a properly functional finger but is different from it in essence and definition and so, is an entirely different type of thing. On this interpretation, matter is essentially enformed by the relevant form.

Peramatzis takes the arguments in *Posterior Analytics* II, 1-2 as his inspiration for the "Causal-Explanatory Model" which lies at the bottom of Aristotle's hylomorphism:

> The things we seek are equal in number to those we understand. We seek four things: the fact, the reason why, if it is and what it is.[164]

[163] See for instance his articles, Michael Peramatzis, "Aristotle's Hylomorphism: The Causal-Explanatory Model" in *Metaphysics*, 1/1 (2018) 12-32. "Aristotle's Notion of Priority in Nature and Substance', in *Oxford Studies in Ancient Philosophy Volume 35*, edited by Brad Inwood (Winter 2008) 187-247.
[164] Aristotle, *Posterior Analytics* II, 1-2, 23-24, Translated by Jonathan Barnes Second Edition (Oxford: Clarendon Press 2002) 147.

There is clearly an interdependence between knowing the existence of a phenomenon and grasping that a certain fact obtains, and whether an attribute belongs to a type of object. More importantly, Peramatzis observes, Aristotle maintains that our knowledge of the essence of a type of process and our explanatory or demonstrative knowledge are similarly interdependent. He claims, then, that our definitional knowledge and practices are dependent on our explanatory grasp of things, and conversely. It should be emphasised that this it not merely an epistemic or pragmatic thesis about our knowledge or our explanatory and scientific interests. Rather, it is undergirded by a metaphysical interdependence thesis: in his view essence and cause are co-dependent or even identical. There is, therefore, an epistemic and metaphysical interdependence. Using the twin epistemic and metaphysical interdependence theses Aristotle offers a powerful causal-explanatory model for grasping the essences of such types of entity. Aristotle extends his discussion beyond the process examples as in the case of the artefact example of a house in *Metaphysics* VIII and offers the example of the kind 'human':

> We should say what, and what sort of thing, substance is, taking another starting-point […] Since, then, substance is a principle and a cause, let us attack it from this standpoint. The 'why' is always sought in this form – 'why does one thing attach to another'? And why are certain things, i.e. stones and bricks, a house? Plainly we are seeking the cause. And this is the essence (to speak abstractly), which in some cases is that for the sake of which, e.g., perhaps in the case of a house of a bed, and some cases is the first mover; for this also is a cause. But while the efficient cause is sought in the case of genesis and destruction, the final cause is sought in the case of being also […] Since we must know the existence of the thing and it must be given, clearly the question is why the matter is some individual thing, e.g., why are these materials a house? Because that which was the essence of a house is present. And why is this individual thing, or this body in this state, a man? Therefore, what we seek is the cause, i.e. the form, by reason of which the matter is some definite thing; and this is the substance of the thing.[165]

Aristotle avoids the circularity of having a definition say that "a human is a type of living body made of flesh, bones etc, with a certain arrangement because of being a human" by using the twin epistemic and metaphysical interdependence thesis already established in the Analytics. He relies on the metaphysical interdependence thesis, for he seems to identify the essence of being a human, with the final cause. This final cause is perhaps to be understood as being for the sake of realising a certain sort of rational life. To specify the essence in more concrete terms we should identify it with a cause. In some cases, those of processes such as thunder, eclipse, or sleep, this will be the efficient cause. In other cases, such as those of living beings, it will be

[165] Aristotle, *Metaphysics* VIII, 17, 1041a6-7; 26-27; 1041b4-10, Translated by W. D. Ross, edited by Jonathan Barnes, op. cit., Vol. 2, 1643-1644.

the final cause. What emerges from this line of reasoning in Aristotle, is that the claim that essence and cause are interdependent is confirmed, indeed they seem to be identified. Moreover, it shows that, in Aristotle's view, the 'what is it?' or essence-seeking question and the 'why is it as it is'? or cause/explanation-seeking question are answered at the same time. They have a single, common answer.

Peramatzis's project would be to relate his understanding of the Causal-Explanatory Model to hylomorphism, both accounts presumably belonging to Aristotle. The *definiendum*, in Aristotle's analysis, is typically a determinate substance-kind, such as a human or a horse. Aristotle understands this as a compound type-object, consisting of matter and form. It is the main target of explanation and definition: an explanandum and a definiendum. Compounds do not share the same essence or definition with their matter (they are not synonymous with it) btu are only called after it paronymously. Thus, Aristotle gives the example of prime matter, which is the ultimate thing that is not a 'this something' (*tode ti*) and is purely determinable. Form, by contrast is a 'this something', a determinate and makes matter determinate, by being said of, or essentially characterising it. Because of this dependence on form, the matter is indeterminate by itself, but determinable. Similarly, Aristotle characterises matter as what is potentially the bearer of a specific form [166]and also, that form is what is actually a specific type of entity, whereas matter could be either what is characterised by that form or what is deprived of it.[167] The priority of form is thus clear in that it bears a determination relation to the matter: as a determinant a form makes matter a determinate type of thing. Without a form, then, the matter is not a real entity at all but only an abstract and merely determinable feature or a thing with such a feature. On this account it seems nonsensical to ask the modal question 'is "it", the matter, contingently or essentially enformed by "its" corresponding form' since there does not seem to be any proper or robust referent for the pronoun 'it'; there does not seem to be a real 'it' which the matter, by itself, is. It is the form which renders matter an 'it', as it were, by making matter what it is. For a form is what-it-is-to-be for the matter, a principle and a cause in virtue of which the matter is some definite type of thing. A form itself is determinate, and a determinate-making entity: a 'this-something'[168]; 'precisely what a certain type of thing is'[169];

[166] Aristotle, *Metaphysics* XII, 4, 1070b10-13.
[167] Ibid., XII, 5, 1071a8-11: "For the form exists actually, if it can exist apart, and so does the complex of form and matter, and the privation, e.g., darkness or the diseased. But the matter exists potentially; for this is that which can become both the actual things. But the distinction of actuality and potentiality applies differently to cases where the matter is not the same, in which cases the form also is not the same but different, e.g., the cause of man is the elements in man (viz. fire and earth as matter, and the peculiar form)." Ibid., 1692.
[168] See for instance Metaphysics Bk. V, 8, 1017b24-26.
[169] Ibid., Bk. VII, 4, 1030a3-7.

and more to the point, a 'determinate' item'[170]. The matter, by contrast is a determinable, or like a determinable.

Where does this leave us with regard to the Modal Question about matter's relation to form? It seems to me that matter is just essentially enformed by specific form. If it were not thus-and-so enformed, it would not be that sort of matter. This is a different way in which to formulate the homonymy thesis mentioned above. For the enformed matter of a living human being is a separate type of matter from the corpse existing at the end of the process of passing away. The latter is a human body only homonymously: for it is not living, and so does not have the same essence or definition as a living human body. In the case of matter relating to form, the mutual relationship of 'fittingness' needs to be understood primarily in an abstract way since in reality there is no proper 'it' for the question to arise with regard to prime matter. This does not mean that predicates or terms corresponding to such material, determinable features or objects with such features are devoid of sense. But Aristotle's focus is not simply on language but on real-world features or objects as they have such features. Peramatzis suggests that "they serve an important role in our pre-definitional, non-explanatory, or non-causal understanding of things".[171] However, the explanation and the cause of a specific nature is codified or fixed by the relevant determinant, the formal cause. According to this model, what is fundamentally real, the form, makes the compound and the related matter the types of entity they are.

Apart from the questions raised initially by Peramatzis, Aristotle himself provides a clear direction in his *De Anima* where he claims that the unensouled body is only homonymously a body. It might be claimed that a dead body is not really a human body seems counterintuitive in the extreme, at least from a narrowly linguistic perspective.

> It has now been said in general what the soul is: the soul is a substance corresponding to the account; and this is the essence of such and such a body. It is as if some tool were a natural body, e.g. an axe; in that case being an axe would be its substance, and this would also be its soul. If this were separated, it would no longer be an axe, aside from homonymously. But as things are, it is an axe. For the soul is not the essence and structure of this sort of body, but rather of a certain sort of natural body, one having a source of motion and rest in itself. What has been said must also be considered when applied to parts. For if an eye were an animal, its soul would be sight, since this would be the substance of the eye corresponding to the account. The eye is the matter of sight; if sight is lost, it is no longer an eye, except homonymously, in the way that a stone eye or painted eye is.[172]

[170] Ibid., Bk. XI, 71049a34-b2.
[171] Michael Peramatzis, "Aristotle's Hylomorphism: The Causal-Explanatory Model" in Metaphysics, 1/1 (2018) 23.
[172] Aristotle, *De Anima*, 412b, 10-21.

This passage shows the limitations of the Modal Question as underlined by Peramatzis in his creative interpretation of Aristotle's hylomorphism.[173] There clearly is a difference in the way the homonymy principle applies to humans (or animals) from the way it applies to artefacts. The original example of a bronze statue will not be of much help, in fact, since the quantity of bronze is the same whether it is first cast in the shape and size of the Artemis, for instance, then melted and recast to represent the statue of Liberty. The same material quantity of bronze that underlies the form of Artemis in the first instance, is then reused in the creation of the statue of Liberty. The change is thus a contingent change and thus the quantity of bronze is not merely homonymously bronze but the very identical bronze as it ever was. That is not, however, the case with when a human body loses its soul and thus ceases to be a human body, as Aristotle rightly insists. The relationship of soul to matter cannot, then, be a contingent one and the human body must be essentially ensouled.

Among the possible avenues open to Aristotle at this point, namely, either, to change his mind about a body which has lost its soul being called only 'homonymously' a body (hence the term) – but Aristotle is committed to that very principle. Alternatively, he could say that in the soul/body composite, matter is not merely contingently ensouled. It is highly probable that, given the way he articulates his account of form and assigning it the robust character it has and which enables it to function as the source of essence and actuality of the entity whose form it is, Aristotle would choose the latter option.

It is equally important to note that, by the time we have come to consider the forms of living organisms, we see the need to think of forms as *prior* to the matter whose forms they are. On this interpretation, Aristotle has argued that a body provides diachronic continuity capable of sustaining material replenishment while its identity conditions are parasitic upon the formal cause, i.e., the soul whose body it is. This means that the claim that matter is only contingently enformed by form is overly generic and misleading stated charitably. For if it is correct to say that the body, which serves to guarantee diachronic continuity, is reliant for its identity conditions upon the soul whose body it is, then it will not even be possible to identify it independently of the soul.

The long-term achievement of Aristotle account of body and soul hylomorphism is to chart a reliable middle course between reductive materialism and substance dualism. This is

[173] For further discussions on this topic there is more to be learnt from Phil Corkum, "Critical notice for Michail Peramatzis's Priority in Aristotle's Metaphysics" in *Canadian Journal of Philosophy* 43 /1 (February 2013) 136-156.

only achieved by developing a progressively richer conception of form understood as an essence capable of providing the identity conditions of the proximate matter whose form it is, thus rendering the form essential to the matter understood as the proximate matter whose form it is.

3. The achievements of the Aristotelian account

Philosophical debates about human nature have largely followed one of either of two paradigms. Platonic dualism and Aristotle's account of human nature as one substance. Platonic metaphysics of human nature is prone to devolve into either idealism and or behaviourism or physicalism. This has been the main focus of the previous chapter. On the other hand, Aristotelian accounts are predominantly unified and have at the core some account of a human essence or other. It can be argued that Aristotle's account is primarily inspired by biological reflection. His concept of *psuche*, commonly translated as soul, is a biological as well as a psychological concept. Here the soul is conceived to be the source of the distinctive activities of a living thing – the 'principle of life' that makes it the kind of thing that it is. On this interpretation Aristotle's *psuche* is a set of powers the exercise of which is characteristic of the living organism. For this reason, not only human beings have a soul but all living creatures including plants.

Now, in *De Anima* II,1 Aristotle offers two definitions of the soul. One that it is the first *entelecheia* of a natural body potentially having life and, secondly, that it is the first *entelecheia* of an organic living body. These initial definitions of the soul are still quite vague and it is not immediately clear how the resolve the problems of earlier thinkers. However, a careful reflection on the soul's powers is also offered: a precise account of each power that is dependent on its *energeia* and in turn, this energeia depending upon an account of the correlative object, through sensation and to the sensible objects.[174] In other words, for Aristotle an account of sensation is a direct contribution to understanding what the soul is. However, the crucial point being made throughout – and this becomes increasingly clear in Aristotle's treatment – is that the bodies of animals and plants are organic. The use of the term *organikon* in Aristotle has been the subject of some extensive debate in philosophy.[175] The general consensus is that *organikon* here means 'instrumental'. The whole body of an animal is *organikon* because it is

[174] 415a16-22.
[175] See for instance Stephen Everson, *Aristotle on Perception*, (Oxford: Oxford University Press 1997) 64s.; and Stephen Menn, op. cit., 108.

an instrument or suited to for being 'used' as an instrument. An instructive passage which may confirm an eventual *teleological* reading contained in Aristotle's theory can be found in Aristotle's *De Partibus Animalium*:

> For if a piece of wood is to be split with an axe, the axe must out of necessity be hard; and, if hard, must of necessity be made of bronze or iron. Now exactly in the same way the body, since it is an instrument (*organon*) – for both the body as a whole and its several parts individually are for the sake of something – and if it is to do its work, must of necessity be of such and such a character, and made of such and such materials.[176]

There are some distinctive qualities about the human *psuche* in that it incorporates not only the vegetative powers of growth, nutrition and reproduction, and the sensitive powers of perception, desire and motion, but also the uniquely human rational faculties of will and intellect. Perhaps then it is safe to say that this is what Aristotle means when he says that the soul is the 'form' of the body. In one of his own examples he says that the soul stands to the body as the power of sight stands to the eye. However, Aristotle's account of body and soul as a powerful rejection of atomistic philosophy would not be completely successful had it not also addressed the problem of finality, or in more technical terms, that of *teleology*. As we have already observed in our discussion of *Physics II*, Aristotle is also keen to defend the finality of natures and not just their formal modes of being.

It would be helpful to summarise what we usually mean by teleological explanations, or explanations which refer to an end, goal or purpose (*telos*). When offering descriptions or explanations of the world around us, of living beings, bodies and activities, we often refer to their function and their purpose. We apply this in the natural world as when we discuss the function of bodily organs, also when referring to artefacts that are the fruits of human technological skills, as well as when describing social institutions like governments, political parties and civil departments. We inquire into their function and understand what it takes for them to operate well. An account based on the soul as form enables us to discuss animal morphology in terms of the scope fulfilled by shape, limbs and other characteristics. Here we explain what the organ or feature is for although our desire to explain in causal terms also leads us to ask how it evolved or came about as well as how it fulfils its function. The atomists dismissed the urgency of such an investigation by referring to the perennial success of the atomic constitution of all that is. However, teleological explanation enables us to understand

[176] Aristotle, *Parts of the Animals*, I, 1, 642a9-13, Translated by W. Ogle, in *The Complete Works of Aristotle*, Volume One, Edited by Jonathan Barnes (Princeton: Princeton University Press 1984) 999.

even animal behaviour by appealing to function or purpose, as we also do with intentions when inquiring about human action and moral responsibility.

However, when we explain why a particular person in specific circumstances acted in such-and-such a way, we appeal to the personally chosen reasons and judgments that are the fruit of his or her contingent activity of prudential deliberation. By contrast, when we try to explain phenomena such as morphology, physiology, anatomy, metabolism and digestion as well as stereotypical or standard patterns of animal behaviour, we can appeal to the general laws of recurrent phenomena in view of a specific *telos* that is to be served.[177] Explanation of the pattern often involves looking back at history and this serves to render the intelligibility of the purpose of an action. As Aristotle said, the main significance of a teleological explanation is to do so by reference to *that for the sake of which* something exists, occurs or is done, all of which we call purpose, end or aim.

One may distinguish two senses in which things may have a purpose: they may act for a purpose or they may exist for a purpose.[178] A subject, whether animate or inanimate, acting with a purpose, whereby purpose signifies that for the sake of which it does what it does: this is one form of teleological explanation. We can ask the question of machines, of bodily organs, for instance why does that object have ailerons and wings, or why do the muscles of the heart beat in a certain way? Higher animals and human beings may be said to adopt purposes of their own through their choice of will and their resulting behaviour. We could say that action typical of language-using animals is answerable to a reason-providing investigation. This is particularly true of human beings who form intentions, choose goals, desire value for their own sake such as personal fulfilment or satisfaction. When we ask an agent, "why did you do that?" he or she should be in a position to offer some kind of reason that would act as the explanatory – and final – cause of that action as event.

As we have seen earlier on in the second section of this chapter, finality and teleology may also be attributed to artefacts, organs and institutions when giving an account of something said to exist *for a purpose*. Asking what a thing – or part of a thing – is for is different from explaining how it came about that the object or its part exists. A functional description – and in this case – the final cause is an explanation rather than a causal description in disguise. Causal explanations and teleological explanations must be distinguished from each other. It is

[177] I owe this careful distinction between idiographic, nomothetic and teleonomic explanations to Peter Hacker's useful discussion in his *Human Nature: The Categorial Framework* (Oxford: Blackwell-Wiley Publications, 2010) 162.
[178] This distinction comes from the philosopher Anthony Kenny, cited in Hacker, *op. cit.* 163.

often the case that philosophers of biology and evolutionary theorists commit this mistake thinking that the description of the function – and hence teleology – of an organism or its parts is equivalent to an aetiological (causal) one. A case in point is Simon Blackburn who in the Oxford Dictionary of Philosophy says:

> In biology, the function of a feature of an organism is frequently defined as that role it displays which has been responsible for its genetic success and evolution.[179]

So, a functional or teleological characterisation of a thing is meant to explain the end served by that thing. To say that heart muscles are for pumping blood around the body, scissors are for cutting, legs are for walking, ears are for hearing, bulbs are for lighting, intestines are for digestion: in all these cases one specifies the ends or goals served by both artefacts and organs. Teleology does not aim to explain how things came about this way but serves to answer a different question: what is this thing – or part of a thing – for? What *telos* does it fulfil? Aristotle's philosophy of biology as well as his account of the soul are not committed to explain evolution or theological design but rather to provide an account of the intrinsic finality that aims at the fulfilment and flourishing of all capacities and ultimately of the individual substance – body and soul – as a unified whole. The finality instantiated by the soul, indeed any sort of authentic teleology should neither be conflated with other causal but haphazard relations that we find in nature or even in the world of artefacts. A fatal virus has no intrinsic finality comparable to the function of the soul or of bodily organs and yet because it is fatal it ends up killing its host. So there is much in nature as well as inanimate contexts that lacks a purpose. It is only where the beneficial good a thing is involved that one may say speak of purposive causal relations. A final cause signifies the accumulation of contributions towards the successful engagement of a set of activities that are characteristic of the particular subject's kind or nature. We will need to further develop these arguments at a later stage. This initial chapter served to offer an interpretation of Aristotle's account of soul in the context of form and finality as a powerful objection to the reductivist accounts offered by atomistic materialism.

Conclusion

My aim in this chapter has been to critically discuss Aristotle's theory of hylomorphism about human persons set within the framework of a powerful response against the influential materialism of his time and in seeking to provide a metaphysical account of identity and change

[179] Simon Blackburn, *Oxford Dictionary of Philosophy* (Oxford: Oxford University Press 1996) 149ss.

that would also be congruent to the information natural science offers us. What is the core difference between atomism and Aristotle on this? For one might argue that both rely on an account of a substrate and a principle of actual and potential change. Isn't the difference only I the way atoms are arranged? There is, however, an enormous difference between the analysis and philosophical method embraced by the Atomists and Aristotle. Reductive materialism as is the case with Democritean atomism rejects the view that entities exist as such, since there is nothing which has its own ontological integrity and completeness. Reality is not only composed of atoms but is *reducible* to it and thus questions about substance, essence, actuality and change can never be meaningfully referred to the entity in question but to its constituent parts.

The core operative principles in Aristotle's account of nature and change are matter and form and this enables him to support his claims about substance and identity, potency and act, which are emblematic of his philosophical system. Since I think his critique of atomism to be decisive and also defines the hermeneutics of his entire philosophical project I give detailed attention to the way Aristotle applies his hylomorphic account to the human person as a composite of body and soul, matter and form. I hope to show that materialism – especially in its atomistic versions – is a superficial analysis of life, identity whereas Aristotle has ample resources to defend both synchronic identity, thereby offering a meaningful defense of the ontological integrity of the human person as a rational animal while also offering a coherent account of the diachronic account of human nature since while being transcendent through intellectual abstraction and a uniquely human form of mental life, human persons are part of the natural world as well, engaging it through perception, cognition and language.

The overall intellectual tool which clearly emerges in Aristotle's metaphysics is the priority of form in guaranteeing the standards required for the integrity, unity, finality and compositeness of the human person. Prime matter is the ultimate material constituent which on a purely atomistic reading could be disposable and transformable into any other kind of loosely held entity. It is only with reference to the soul, i.e., the form that anything can be ascribed meaningfully, both philosophically and scientifically, to a subject which is also a substance. Thus, I show my preference for an Aristotelian hylomorphic account of human persons since it offers the philosophical resources which both substance dualism and atomism severely lack, namely, an account of intrinsic causality powerful enough to sustain an account of change on all levels a living substance is subject to. While dualism and atomism create more problems than they solve, the opposite can be said of Aristotle's hylomorphism.

CHAPTER 3

A MEDIEVAL EXPERIMENT: ST. ALBERT THE GREAT

In the past half century, St. Albert the Great's views on the soul and human nature have witnessed a refreshing wave of interest and research into his intellectual output. His method, which is an eclectic combination of commentary, digression and synthesis[180] has captured the attention of scholars to the extent that we have now learnt to read him with greater caution and respect as one would a truly valid contributor to the intense intellectual conversation that the young and flourishing medieval centres of research and teaching alone could boast of. From a systematic point of view, however, his views may be confusing to someone looking for clear conceptual commitments and analysis. Thus, one should keep in mind S. Vanni Rovighi's advice, namely, that the eclectic nature of the systems of the vast majority of medieval philosophers makes it practically impossible for us to offer a classification of their views or to adopt adequate criteria with the aim of offering them greater doctrinal clarity.[181] It is, on the other hand, also probably true that during the relatively early era of medieval thought such as that of Albert, each philosopher receptively shaped his own theory of the soul, thereby offering his own version of 'eclecticism'. In this chapter I intend to discuss this complex topic by highlighting the various conceptual tensions that may be discerned within his psychophysical account of human nature.

One may detect a clear shift that occurred in recent years with regard to the general interpretation of St. Albert's views on the human soul. As a result of É. Gilson's magisterial analysis it is now practically impossible to support P. Mandonnet's and F. Van Steenberghen's depiction of St. Albert's views as a sustained and coherent development towards an "Albertine-Thomistic Christian peripatetic philosophy".[182] Already in 1934, when comparing Albert's and Aquinas's views on the soul, G. Reilly wrote:

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[180] Isabelle, Moulin, "Albert the Great Interpreting Aristotle: Intimacy and Independence" in *The Journal of Medieval Latin*: Volume 18 (Proceedings of the Fifth International Congress for Medieval Latin Studies, Toronto 2008) 158-170.

[181] Sofia Vanni Rovighi, "Alberto Magno e l'unità della forma sostanziale nell'uomo", in *Medioevo e Rinascimento: Studi in onore di Bruno Nardi*, Vol II (Firenze 1955) 753-778.

[182] Cfr. Pierre Mandonnet, *Siger de Brabant et l'Averroïsme latin au XIIIe siècle* (Genève 1976) XLIII. A good amount of research has been dedicated to Albert's views on the soul in the past decades. Examples of such research are Étienne Gilson., "L'âme raisonable chez Albert le Grand", in *Archives d'Histoire Doctrinale et Littéraire du Moyen Âge* (18:1943) 5-72.; Alain de Libera, *Albert le Grand et la philosophie* (Paris 1990) and his more recent *Métaphysique et Noétique: Albert le Grand* (Paris 2005); Loris Sturlese, "Il razionalismo filosofico e scientifico di Alberto il Grande", in *Documenti e Studi sulla tradizione filosofica medievale*, 1 (1990/2), 373-426. J-M. Vernier, "La definition de l'âme chez Avicenna et S. Albert le Grand", in *Revue de Sciences Philosophiques et Theologiques*, 76 (1992), 255-279.; Dag Hasse, "Das Lehrstück von den vier Intellekten in der Scholastik: von

> Yet, in spite of the striking similarities of the results attained, there are differences that are still more striking; differences of approach, differences of method and of emphasis; which are of genuine value in uncovering the neglected riches of St. Albert's genius and incidentally, perhaps, of illuminating some new angle of St. Thomas's teaching, especially in regard to its origin. For this reason, it is not sufficient in our discussion of the soul to note that both men accepted without qualification the definition of the soul originally framed by Aristotle, nor to state that both followed the same general plan of treatment, proceeding from the nature of the soul itself to its powers or faculties, thence to its operations and functions.[183]

Moreover, A. de Libera's recent contributions, together with his rigorous slogan that "one must forget Thomas Aquinas"[184] and treat St. Albert as a valid philosopher in his own right present St. Albert as an irreducibly central and influential thinker whose thought cast the stage for subsequent generations of philosophers. De Libera's suggestion is that Albert needs to be placed between the ambiguous if towering figures of Plato and Averroës. This would also provide the key to the particular form of Neo-Platonic interpretation of Aristotle, along with numerous apocryphal and Arabian contributions, a complex narrative eventually distilled in Aquinas's arguably 'purer' Aristotelianism. This view is shared by other commentators, for instance, C. Pegis, É. Gilson and, more recently, B. Bazán[185], who underline the discontinuity rather than the affinity of Aquinas in relation to his celebrated master.

Another sophisticated interpretative key is proposed by I. Moulin when she observes that:

> Amazingly, Albert the Great's way of commenting on Aristotle will stay in the middle between a free appropriation of fundamental Aristotelian theses interpreted in the light of the philosophy of Al-Farabi (which was Avicenna's approach) and the closer explanation of the Aristotelian text (which was Averroes's approach).[186]

She also insists that Albert defies any facile labelling into 'Aristotelian' and 'Neo-Platonic'. His philosophical spirit was without doubt "peripatetic", while whatever affinity with Neo-Platonic metaphysics his system represents, it is profoundly influenced by the original thought of

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der arabischen Quellen bis zu Albertus Magnus", in *Recherches de Théologie et Philosophie médiévales* (66, 1999) 21-77.; "The Early Albertus Magnus and his Arabic Sources on the Theory of the Soul" in *Vivarium* (46, 2008) 232-252.; Henryk Anzulewicz, "Konzeptionen und Perspektiven der Sinneswahrnehmung im System Alberts des Grossen", *Micrologus* (10, 2002) 199-238.

[183] G. C. Reilly, "The Soul – Union of Body and Soul", Chapter 2 in *The Psychology of Saint Albert the Great Compared with that of Saint Thomas Aquinas* (Washington DC: Catholic University of America 1934) 10.

[184] Alain De Libera, *Métaphysique et Noétique. Albert le Grand* (Paris: Vrin Publications 2005) 17.

[185] Cfr. Anton Pegis, *St. Thomas and the Problem of the Soul in the Thirteenth Century* (Toronto 1976); Étienne Gilson, "L'Âme Raisonabble Chez Albert le Grand", in *Archives d'Histoire Dottrinale* 14 (1943-45); B. Carlos Bazàn, "La corporalité selon Saint Thomas", *Revue philosophique de Louvain* 81 (1983) 369-409.

[186] I. Moulin, op. cit. 160.

Dionysius and the *Liber De Causis*, two staunch endorsements of Neo-Platonism.[187] Nonetheless, there are serious challenges with attempting to establish a coherent understanding of St. Albert's theory of the soul. Some authors, for instance, S. Baldner [188] and B. Bazán[189] believe that Albert's metaphysics of the soul in its relation to the body remains inconclusive throughout his intellectual career. Others think that one can detect important developments in the later Albert as his familiarity with the Aristotelian corpus increased.[190] There are others, yet, who insist that the discontinuity between St. Albert and St. Thomas as regards the union of body and soul as well as to the soul's agency has been exaggerated and that their conceptual commitments may in fact be closer to each other than previously held.[191]

In this chapter I intend to investigate whether St. Albert's system ever fully embraced the implications of Aristotle's hylomorphism as constitutive of the human individual. In fact, his system relies on features that originally belong to mutually exclusive ontological paradigms. This is not to say that he was not sensitive to a vast number of thorny issues with respect to the various competing metaphysical accounts of the soul. It is probable that at certain points he makes a conscious effort to accommodate the demands of theological commitments while possibly hindered by an insufficient understanding of Aristotle's treatment of substance, particularly when applied to his account of the soul's agency. As a result, his systematic views on the soul and its relation to the body invite the charge of incongruence.

One of the more deeply confusing items in his theory of the soul is Albert's claim that the soul is a complete nature which belongs to the category of substance. According to this interpretation, the soul is not merely the perfection of a specific nature but *is itself* a perfect nature. This constitutes, according to Bazán, the typically eclectic psychology which characterizes the philosophical system of Albert.[192] The question we need to ask is: what do

[187] I. Moulin, op. cit. 162.
[188] Stephen Baldner,"St Albert the Great on the Union of the Human Soul and Body", *American Catholic Philosophical Quarterly*, Vol LXX, N. 1 (1996) 103-135.
[189] Op Cit.
[190] Dag Hasse: "Albertus Magnus' philosophy of the soul has received a good amount of scholarly attention. It has always been part of these efforts to understand Albertus' dependence upon Arabic sources in Latin translation. In his early works, such as the *De homine* and the *Commentary on the Sentences*, which he wrote when he first came to Paris in the early 1240s, Albertus incorporates an enormous range of philosophical sources, among them many of Arabic origin, with the result that his standpoint is coloured by Arabic theories. In later works, for instance in *De Anima* of the 1250s, Albertus distances himself from some of these philosophical traditions. It was his apparent motive to formulate a philosophical standpoint closer to Aristotle's […] Since the older Albertus changes his mind on several issues, it is important not to confuse his writings from different periods." In, "The early Albertus Magnus and his Arabic sources on the Theory of the Soul", *Vivarium*, 46 (2008) 233-4.
[191] For instance, see Massimiliano Lenzi, "Alberto e Tommaso sullo Statuto dell'Anima Umana", in *Archives d'Histoire Doctrinale et Littéraire du Moyen Âge*, 74 (Paris: Librairie Philosophique Vrin 2007) 27-58.
[192] Bazán, op. cit. 380.

we make of this apparent compromise in Albert's metaphysics of the soul? Does Albert's metaphysical anthropology ultimately hold itself together?

A selection of works from different phases in his intellectual career may help us trace a pattern that could be indicative of significant changes in Albert's positions and in his conceptual commitments on this matter. The main themes we need to look into will be, naturally, the ontological status of the soul and, consequently, its relation to the body and the human person as a whole.

1. First attempts at a synthesis in the early philosophy of St. Albert

In the 1240s Albert's works amply reflect his encyclopaediac awareness of a great variety of philosophical opinions on the metaphysics of the soul. Many of these sources were of Arabic origin, while in later works composed during the following decade, we can observe a shift that took him closer to Aristotle.[193] Nonetheless, in the relatively early work *De Homine*[194], Albert already showed considerable awareness in distinguishing between two very different ways of understanding the nature of the human soul and which he took to be emblematic of Platonism and Aristotelianism, respectively. On the one hand it is consoling to register that he was clearly aware of Plato and Aristotle on the nature of the soul to the extent that he shows them to be two somewhat *contrasting* stances. On the other hand, it is troubling for anyone attempting to decipher a systematic account of the way Albert thought the soul and the body to be related, especially when we are told that:

> We will agree with Plato when thinking about the soul according to its being. When thinking about it as the form which gives animation to the body, then we will agree with Aristotle.[195]

Systematically speaking, this statement is a *prima facie* representation of the conflict between the two traditional positions. On one hand, the Platonic view, or to be more exact, the Neo-Platonic view transmitted mostly by the Arab commentators and which admits of the subsistence of the soul as an intellectual and immortal substance. On the other, we have a more recognizably Aristotelian approach which views the soul primarily as *form and complement* of

[193] Dag N. Hasse, "The Early Albertus Magnus and his Arabic Sources on the Theory of the Soul" in *Vivarium*, Brill Publications, Leiden 2008, 233.
[194] Described as, "[…] still one of the most valuable pieces of secondary literature on the Peripatetic psychological tradition" by Dag, N. Hasse, *Avicenna's De Anima in The Latin West: The Formation of a Peripatetic Philosophy of the Soul 1160-1300*. London: Warburg Institute Studies and Texts, 2001, 62.
[195] St. Albert, *Summa Theologiae* II, Tr. 12, 1. 69, ad 1 (ed. Borgnet XXXIII, 14): "Animam considerando secundum se, consentiemus Platoni; considerando autem eam secundum formam animationis quam dat corpori, consentiemus Aristoteli."

the body and of which it is the primary principle of organization and life. From an interpretative point of view and in justice to St. Albert, the aligning of two conflicting ontologies reveals his insertion within the Neo-Platonist philosophical agenda which aims to defend a 'symphonic' reconciliation between the philosophy of Plato and that of Aristotle.[196] Moreover, after long years of neglect, the tradition of philosophical commentaries on the towering philosophical thinkers in the likes of Plato and Aristotle, is now being acknowledged as a medium of philosophical transmission in its own right. Thus, such a citation which expresses the two views in a concise form shows that they are viewed by St. Albert as two different ways in which he intends to tackle the problem of the soul and its role in the metaphysics of human nature.

Given this conceptual flexibility on Albert's part, we should expect the difference between the two positions to be also reflected in Albert's accounts on the union of body and soul, his version of hylomorphism and on his metaphysics of the human person in general. Later on, we will show the implications of Albert's theory of soul for his account of self-motion in animals and humans. First, we must understand the philosophical coordinates which set the context for the early Albert's discussion and the positions he saw himself as engaging with more fruitfully.

That the Aristotelian *corpus* in translation became increasingly available was a primary influential factor on the development of Albert's method and thought. The *corpus* was, in fact, completed a few years earlier, together with its rapid penetration in universities as from the second half of the thirteenth century. The *De Anima* was first translated by Giacomo da Venezia around 1150 while another translation was provided more than a century later by William of Moerbeke starting from around 1261.[197] With the momentous introduction of Aristotle's works, accompanied by the paraphrases of the Arab commentators, treatments on the soul underwent a true paradigm transformation. The dominating model so far was constructed largely on the Augustinian understanding of the inner self, broadly speaking, as well as on the immanent transcendence of God in the soul, the latter being a constantly resonating theme in medieval psychological theory with man as microcosm and image of God in his various faculties.[198] The new horizons which opened up in Albert's time were exciting and confusing at the same time, so an account of a philosophical psychology that was more systematically organized than the Augustinian model – and less laden with the symbolism that it bred – was urgently required.

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[196] Isabelle Moulin, "Albert the Great Interpreting Aristotle: Intimacy and Independence", op. cit. 160.
[197] Irven, M. Resnik, "Albert the Great: Biographical Introduction", in *A Companion to Albert the Great: Theology, Philosophy and Sciences* (Brill, Leiden / Boston 2013) 6-9.
[198] Edouard, H. Weber, "L'homme microcosme", in *La Personne Humaine au XIII^e Siecle* (Paris: Librairie Philosophique 1991) 61-73.

However, the fact that the *corpus aristotelicum* arrived in the West thanks to the mediation of Arabic philosophy also lent a Neo-Platonic flavour to its initial reception. This was the case not only because Neo-Platonic works like the *Theologia Aristotelis* and the *Liber de Causis* appeared under the patronage of Aristotle but also because the Arabic paraphrases and commentaries were the main reference-point for their Latin interpretation. The translation of Avicenna's treatise on the soul, for instance, arrived in the West during the same period of time as, if not before, Aristotle's works. It is only at a later stage that the Arab translations were compared to the Greek text. With these developments it became possible, later on, for Aquinas to cast doubts on the Aristotelian authorship of the *De Causis* and acknowledge its Neo-Platonic origin. Aquinas would then be better positioned to characterize the soul as a substance *only insofar* as it is a substantial form and not in an accidental relationship to the body:

> The soul is a substance as the form or species of a body, that is, of a physical body which has life potentially.[199]

1.1 Human nature and the status of the soul in the *Summa De Homine*

Although on different occasions Albert saw himself as a promoter of Aristotelian thought, his views on the soul's nature point us in a rather different direction reflected in the 'double' approach cited above. Commenting on the 'conciliationist' declaration from Albert cited above, É. Gilson concludes that despite his efforts to adopt the hylomorphism of Aristotle in his account of the human soul and its operations, Albert remained a Neo-Platonist who followed Avicenna and differed from Aquinas's true Aristotelian credentials.[200]

This deviation from Aristotle's thought on a number of issues is to be readily perceived in Albert's treatise *De Homine*, which is the second part of his monumental *Summa de Creaturis* composed in Paris during his stay in the early 1240s. The general layout of the *De Homine* follows closely Avicenna's *De Anima* who in turn had Aristotle's *De Anima* in mind, though it must be said that this work stands out as a more 'personal' project of Albert rather than a paraphrase of other famous philosophical writings.

The beginning of this section asks "*Utrum anima sit*?" Here the soul is taken to be the fundamental explanatory factor for all living bodily functions. We notice bodies that nourish themselves grow and reproduce their kind; we note that other bodies do none of these things. Corporeity alone, therefore, cannot explain these functions, which must have their source in

[199] St. Thomas Aquinas, *De Anima*, ed. Leonina XLV, lib. II, c. 1, 70: "Quod anima sit substancia sicut forma uel species talis corporis, scilicet corporis phisici habentis in potencia vitam."
[200] Gilson., '*L'Âme Raisonable chez Albert le Grand*', op. cit., 5-72.

something that is not mere body, since otherwise all bodies would possess them. We call this principle, whatever name we agree to use for it, the 'soul'. So far, that would appear to be a familiarly Aristotelian account of the soul.[201]

After the first question, however, we get a section spanning from Questions 2 to 7, which focuses exclusively on the essence of the soul. The following sections discuss the soul's faculties and are reminiscent of Avicenna: the vegetative faculties (in q. 8), the sensitive soul (questions 9-52) and the intellective faculties (qq. 53-74). The treatise concludes with a discussion on the soul's relation to the body, but an examination of this topic is conducted throughout the preceding arguments, most notably in Questions 2 to 7 dedicated to the essence of the intellective soul. One can also detect on Albert's thematic horizon concerns about the Christian faith, which is why the second Question of this treatise discusses the definitions of the soul offered by a variety of "*sancti*" ranging from St. Augustine to St. Bernard and St. John Damascene among others. Subsequently in the third Question, we are given the definitions provided by the Philosophers. The five articles of Question 4 are then dedicated to Aristotle's definition.

The collection of philosophical definitions of the soul borrowed from a number of authorities in Question 3 includes the opinions of Plato and Avicenna.[202] Aristotle is not included since he will be discussed carefully by St. Albert in the next question. In fact, in Question 4 Albert analyses the definition of soul as "first act of the body" while the following Questions treat the parts of the soul, namely the vegetative, sensitive and intellective faculties in relation to the soul's essence. As Weber rightly observes, throughout the discussion the main thrust is that of recognizing the intellective soul as the principal cause of the body's animation.[203]

The distinction between the soul's essence and its powers will form the basis for Albert's understanding of the soul as principal animator. His work on the *De Anima*, composed a decade later will retain the same approach as does the even later work, the *De Natura et Origine Animae*. For Albert such a distinction is not merely a logical one but refers to the real composition of the rational soul[204] allowing him to clearly mark out the Avicennian doctrine

[201] St. Albert, *De Homine*, Q. 1, a. 2: "Ex natura motum cognoscitur natura motorum, sed in plantis et hominibus inveniuntur quidam motus, qui non inveniuntur in aliquo alio corpore, sicut attractio nutrimenti et nutrimentum secundum rationem debitam magnitudinis est huiusmodi: ergo ista opera specialem habebunt motorem qui non erit in aliis corporibus, et istum vocamus animam: ergo illud quod vocamus animam, est: non enim disputamus de nomine, sed an hoc sit quod hoc nomine significare consuevimus."
[202] Cfr. Arthur C.A. Schneider, A., *Die Psychologie Alberts des Grossen*, Münster: Aschendorff 1903, 369.
[203] E. H. Weber, op. cit., 122.
[204] This distinction gets its inspiration from theological themes in relation to the soul viewed as an image of the Trinity as one can see, for example, in Albert's *Commentary on the Sentences*, *In I Sent*. D. 3, a. 34 Resp.

of the rational soul as substance from the Aristotelian definition which qualifies the soul as the actuality and perfection of the body.[205] It is, after all, a corollary of Albert's double thesis of the human soul already highlighted earlier.[206] With these preliminaries in mind we can examine more closely the problem of the status of the soul and of its relation to the body according to Albert.

The five articles in Question 4 which are all devoted to an analysis of Aristotle's definition of the soul establish that, the soul is the act of the body, which is to say, it is also an *actus primus* since it confers being and not just operation. Moreover, the body the soul of which it is the act is neither a metaphysically simple nor a celestial body. It is a body that has life in potency and finally, it has an organic nature since it has life in potency in relation to the powers of the soul. This *mare magnum* of definitions offered by Albert in succession is quite daunting. Yet, in the midst of this collected bundle of views we can observe a thematic line taking shape, namely that the claim that the human soul is a form must be understood in a very qualified way given that it is also the act of the body. The first article of Question 4 in the *De Homine* asks "*Utrum anima sit actus corporis"*. In this article Albert argues that the qualification of the term "soul" does not designate, strictly speaking, the essence of the rational soul and which remains unknown in itself, but determines, rather, what is discerned from its effects on the body, namely life:

> …and in defining the soul as Aristotle does, one does not affirm its essence or attribute any qualities emanating from it these not being identical (*unius modi*) and fall within the order of the voluntary. It is only in terms of its accidents that we may speak of the soul rather than of its being. Nevertheless this (*accidens*) is invaluable in aiding us to advance our knowledge of the soul's essence… Therefore, the soul may be defined according to two ways: taken as soul, that is, as act and mover of the body; and according to its substantial standing, as if it falls within the category of a substance.[207]

[205] Moreover, the insistence on the distinction between the essence of the soul from its relation to the body is clearly an Avicennian project; cfr. Richard Dales, *The Problem of the Rational Soul in the Thirteenth Century*, (Leiden: Brill Studies in Intellectual History, 1995) 90.

[206] St. Albert, *De Homine*, Tr. I, q. 4, a. 1: "anima…potest considerari duobus modis, sc. secundum esse quod habet in se, et sic non diffinitur in comparatione ad corpus, vel secundum comparationem ad corpus; *De anima* I, Tr. 1, c. 3: "unum istorum convenit animae secundum quod est forma, et alterum secundum quod est substantia incorporea."

[207] "Et ideo dicit Avicenna in VI De Naturalibus, quod hoc nomen, *anima*, non est hujus nomen rei ex ejus essentia, nec ex praedicamento in quo continetur: et cum anima diffinitur, sicut diffinita est ab Aristotele, non affirmatur esse ejus, nisi secundum quo est principium emanandi a se affectiones, quae non sunt unius modi et sunt voluntariae: et sic affirmatur esse ejus ex hoc quod habet aliquod accidens: quod tamen accidens valet ad certificandum ejus essentiam et ad cognoscendum quod sit…. Ita anima dupliciter potest diffiniri, scilicet secundum quod est anima, id est, actus corporis et motor, et secundum quod est substantia quaedam contenta secundum seipsam in praedicamento substantiae."

So here is clearly a principle that Albert adopts directly from Avicenna, namely, that what the soul is in itself must be distinguished from what it is in relation to the body. However, Albert also distances himself from Plato's definition of the soul as an incorporeal, self-moving substance which as such moves the body.[208] The essence which belongs to the intellective soul proper is to be discerned in the convergence between the two different definitions given. The first, owing its origins to Aristotle is known as the "common" definition since it applies in a general way to all cases of bodily life, including brute animals and plants, as well as humans:[209]

> It must be that soul is a substance as the form of a natural body which potentially has life, and since this substance is actuality, soul will be the actuality of such a body...the first actuality of a natural body with organs.[210]

The second definition Albert cites and the one he consciously borrows from Avicenna pertains specifically to human nature:

> Soul is the first perfection of an instrumental natural body having the vital functions.[211]

In Albert's view, the second definition is not significantly different from the first, since the term "first perfection" serves to explicate Aristotle's "act (or form) of the body". Missing some important information, Albert, like many of his contemporaries, did not know that the term 'perfection' was a translation of Aristotle's *entelecheia* signifying actuality and form.[212] With Avicenna, he understood its meaning as a principle of ennoblement and movement at the same time. Moreover, like Avicenna, Albert regularly used the terms *actus primus* or *perfectio*, rather than *forma*.[213] According to this preferred framework, where the soul functions as an external principle substantially characterizing the function of the intellective soul with the body qualified as an instrument, it increasingly appears to possess a nature of its own. Albert's conclusion to the same article is that the soul is a substance which is the *actus* of the body, immediately qualifying it as a definition of the soul with respect to the body. This is typical of Avicenna's apophatic approach to the nature of the soul. The soul as *perfectio*, Albert insists – citing Avicenna's *De Anima I, 1* – is not a definition of the soul *secundum esse* and thus the Aristotelian definition of the soul as *actus* does not, on its own, place the soul within the

[208] St. Albert, *De Homine*, Q. 3, a. 20, "Dicit enim Plato quod anima est substantia incorporea movens corpus." In the first article of the same question, other definitions, such as that of Seneca, are discarded because they do not define the soul with respect to the body.
[209] Aristotle, *De Anima* II, 1, 412a19 and b5.
[210] Ibid., (Ross translation); "Anima est primus actus corporis physici organici potentia vim habentis".
[211] St. Albert, *De Homine*, Tr. I, q. 4, a. 5: "Secundum Avicenna..anima est perfectio prima corporis naturalis instrumentalis habentis opera vitae."
[212] In this section I follow the exegetical study offered by Weber, *op. cit.*, 124-5.
[213] Ibid. 124.

category of substance. Albert accepted the first definition only with some reservation. He agreed that to be the act of a physical body is intrinsic to the nature of the soul. That is, after all, the characteristic that distinguishes the soul as a spiritual being from the angels.[214] The definition, on the other hand, attempts to understand the essence of the soul from the point of view of its substantial activity, without explaining the essence of the soul.

1.2 *Anima dupliciter potest definiri*

Within the context of the heterogenous definitions given by various masters, Albert's efforts at sifting through the tension between different conceptual commitments is remarkable. The theme gets progressively sharpened, namely, how can the soul both be a substance – as many of the *sancti* he cites held – as well as the act of the body? This leads Albert to work out a metaphysical system which allows for the human soul to be a *sui generis* form in that it is the act of the body, unlike the case of angels. St. Albert sees in Avicenna's dual approach to the soul a solution toward integrating Plato and Aristotle on the soul:

> The soul may be defined in two ways: namely according to what the soul is, that is, the act of the body and its motor, secondly as a substance that is in a certain way contained within the category of a substance.[215]

However, we are still faced with the resolving the problem of how the soul can both be a substance and a form. This is where Albert finds in Boethian metaphysics a handy distinction, which will also be the subject of the next section.

> In some cases, a form is that which is a perfection in nature of which it is both form and *usia*, and not a substance existing *per se* as a category, as are the substantial forms […] Some other forms are substances in both ways: for they are not only usia but also usiosis, as Boethius said in his Commentary on the Categories […].[216]

This distinction allows St. Albert to push forward his preference of the term *actus* or *perfectio* to the term *forma*, in the case of the soul, since form is implicated in matter and cannot exist without it. It becomes apparent that he wants to 'unhook' the intellective soul from any

[214] Ibid., q. 4, a. 4: "Dicendum quod supra determinatum est de Angelis, quod substantialis differentia animae et Angeli est in hoc quod anima inclinatur ad corpus ut actus, Angelus autem non."
[215] St. Albert the Great, *De Homine*, q. 4, art. 1, Solutio: "[…] Anima dupliciter potest deffiniri: scilicet secundum quod est anima, id est actus corporis et motor, et secundum quod est substantia quaedam contenta secundum seipsam in praedicamento substantiae".
[216] Ibid. " Quaedam forma est quae est perfectio in natura quae est tantum forma et usia, et non substantia per se existens in praedicamento […] Quaedam autem formae sunt substantiae utroque modo: non enim sunt tantum usia sed etiam usiosis, ut dicit Boetius in Commento super Praedicamenta […].

dependence upon the body and takes his position in favour of it being a subsistent form. This also seems to be his position in the Commentary on the Sentences written shortly after the De Homine:

> The rational soul may be spoken of in two way: namely in its being a soul and in its being rational. As a soul, it is the act of the body and has in it the powers which may or may not be affixed to the bodily organs and by which a man is a man […] If considered solely as rational, then it is the act of no body, and of no part of the body, since its powers are not attached to any organ.[217]

Within this context, we should note that Albert moves away from Aristotle on two accounts.[218] If we keep in mind Aristotle's passage in his *De Anima* where form and actuality are equated, there the soul is viewed as a substance insofar as it is the first actuality of a natural body. [219] Albert's view takes a different route in disassociating *ousia* from *entelechia*. Secondly, in the same Question 4 of the *De Homine*, he insists that "*anima melius dicitur actus vel perfectio quam forma*" because in some cases, the soul is separate from the body.[220]

In this departure from Aristotle, Albert also seeks to clarify Avicenna's notion of 'perfection' by referring to Averroës's theory of act, action and perfection: *entelechia*, *actio* and *perfectio*. In Albert the terms 'act' and 'perfection' serve to develop his understanding of motion and this means they are developed in terms of efficient causality.[221] He also justifies the description of 'act and perfection of the body' by appealing to the perfective role they have with respect to the body.[222] This is how Albert attempts to coordinate the status of "act of the body" with Avicenna's interpretation of soul as substance. "*Perfectio*" characterizes a qualified and emergent way of being perfect which, though accidental, is constitutive of that specific nature. This shows how the subordination of 'form' to 'perfection' evokes the idea of an extrinsic complement, as in the case of 'source of motion'.[223]

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[217] St. Albert the Great, I Sententiarium, D. VIII, art. 26, q. 2, ad 2um: "Dicendum quod rationalis anima duo dicit: scilicet quod est anima et quod est rationalis. Si accipiatur ut anima, tunc est actus corporis et habet a se potentias effluents quarum quaedam sunt affixae organis et quaedam non, et ab illa homo est homo […] Si autem accipiatur quod rationis est solum, tunc nullius corporis est actus, id est nullius partis corporis, quia illae suae potentiae non sunt affixae organo."

[218] This claim needs to be asserted with caution since unlike the more 'Aristotelian' Aquinas (and as shall be seen in the next chapters), the early St. Albert while commenting upon the Sentences, rules out the possibility of the soul being a *hoc aliquid.*

[219] Aristotle, *De Anima* II, 1, 412a10

[220] St. Albert, *De Homine*, Q. 4, a. 1, ad 6: "Cum igitur anima secundum aliquam sui speciem separetur, convenit ei magis secundum omnem sui partem dici perfectionem quam formam."

[221] St. Albert, *De homine*, q. 4, a. 1, Resp.

[222] Ibid., ad 2: "Ratio perfectionis est esse in perfecto"; ad 6: "…anima non est tantum perfectio corporis ut forma, sed ut motor et efficiens operationem animate corporis."

[223] Ibid.

The preference of soul defined as substance over that of soul as act and perfection of the body is of course still close enough to Avicenna's views. Does Albert wish to steer away from that form of dualism at all? In a move intended to connect the notion of *perfectio* with that of efficient cause, Albert will later on say that:

> This same form which confers being, which is its primary function, becomes in fact so that the powers emanate from it as principle of operation.[224]

Is Gilson's judgment of Albert on this point, then, too harsh after all? [225] Just before tackling the debate on the essence of the soul, Albert poses an important question related to method: Why should the essence and nature of the soul be discussed first rather than its parts or the body or the composite?[226] Two sets of arguments are juxtaposed: one set advocates taking powers and operations as a point of departure leading to the soul and its essence.[227] The other set takes the contrary approach, though not entirely, since this approach is only justified in the discussion which follows. The principal argument intends to show that the critical matter concerns Avicenna's viewpoint:

> According to being (*substantia*) and reason, all actuality precedes that which is in act. Now the soul is the act of the body. Therefore, it precedes it according to being and reason. Our investigation, commencing with that which is first according to being and reason, must begin with the soul…[228]

The response establishes that the two approaches – one proceeding from the soul's operations to its essence, the other in the opposite direction starting from essence to properties, are both necessary. However, that which takes its starting point from the soul's essence is given priority. The reason behind this primacy of actuality is taught in *Metaphysics* XII.[229] Albert adopts both methods. The section dealing with the essence of the soul proceeds in an *a priori* fashion, as

[224] St. Albert, *Super Ethica* I, Lect 8, Col.14;
[225] Gilson, op. cit., "Après plus encore qu'avant la Somme de théologie de son ancient élève, S. Albert le Grand conserve et defend, sous les couleurs d'Aristote, le platonisme et l'avicennisme que S. Thomas s'efforçait d'éliminer.", 32.
[226] *De Homine*, q. 1, a. 1: "Quare prius disputandum est de substantia et natura animae, quam de partibus ejus, vel de corpora, vel de conjuncto?"
[227] Ibid., the third argument.
[228] Ibid. Response to the first argument: "Omnis actus praecedit id cujus est actus, substantia et ratione: anima est actus corporis: ergo praeceditur corpus secundum substantiam et rationem. Cum ergo disputatio incipiat ab eo quod prius est substantia et ratione, debet incipere ab anima. Prima scribitur in XI Metaphysicae."
[229] Ibid. Then Albert continues: "Duplex est via in cognitionem animae, quarum una est, quod per cognitionem substantiae ipsius et naturae cognoscuntur causae accidentium, quae sunt passiones partium animae; omnis enim passio causatur a principiis substantiae: et haec via prior est."

Gilson describes it [230] since it proceeds from that which is primary, being and actuality. Albert's program is to study the soul from two perspectives: from its relation to the body, in which case it is *actus corporis physici*. The second perspective is to take the soul in itself *a priori*. From this point of view, the relation the soul has with the body is secondary or accidental to its essence, even though it is also permissible to define the soul *a posteriori* from the point of view of this relation:

> Si tamen attenditur id quod est anima, tunc potest considerari duobus modis, scilicet secundum esse habet in se, et sic non diffinitur in comparatione ad corpus; vel secundum comparationem ad corpus, et sic diffinitur.

The other section, which is by far the more developed, is concerned with vegetative, sensitive and intellective powers, and which accumulates a vast body of observations related to human action. This would then be Albert's second and *a posteriori* approach, which proceeds inductively and is more recognizably Aristotelian in method.

In order to know the soul, Albert writes in the very first question of *De Homine*, one needs two approaches. The first needs to consider aspects pertaining to both the level of universals as well as to particulars, what he calls the *consideratio rationis*, or, a dialectical method of investigation. This investigates what kind of thing or species the soul is, as well as being the source of vegetative, sensitive and rational life. The other approach is characterized by analyses that belong to the disciplines of physics and metaphysics respectively. The former treats the soul according to the kind of being it is within the order of nature. The latter studies the soul as a substantial reality in act and therefore in relative independence from its relation to the body which is subject to generation and corruption. This in Albert's view would fall under the scrutiny of the metaphysician. But can these distinctions save Albert from the problems his theory of soul seems to run into with respect to the body?

Where does this leave us with respect to Albert's alleged 'conciliationist' writings on the definition and status of the soul? For, in claiming that the essence of the soul cannot be the soul's function as the first act of an organic body, Albert was sharing the view of practically all the scholastics before him who endorsed Aristotle's definition but still operating within a Neo-Platonic metaphysic. It is within this pseudo-Aristotelian frame, that they found they too could utilize Avicenna's seminal attempt to mediate between Aristotle and Plato's psychological theory. This is, in fact, what Albert does, when turning to Avicenna to explain

[230] Gilson, Ibid., 24.

Aristotle's first definition. From him Albert borrowed the simile of the soul as a mover: whatever is moved has a mover. However, that bears a rather strong resemblance to the Platonic conception of the soul as a body-moving incorporeal substance. Is St. Albert being capricious about the soul? Massimiliano Lenzi proposes that we look at one of St. Albert's later works, the *De Divinis Nominibus*, written during his teaching in Cologne around 1249.[231]

1.3 Conflicting accounts of the soul and the Boethian solution

Reflecting upon St. Albert's philosophy can be intellectually exciting as well as challenging, especially when faced with the topic of the human soul and its relation to the body. The more one reads his writings the more tangible is his keen sense toward the philosophical issues arising from the natural sciences and of certain irreducibly *metaphysical* ways of resolving themes connected to what we rather shabbily refer to the mind-body problem. When discussing the 'essence' of the soul he is also interested in knowing how to reflect not only on the soul and its powers but also on the body and its component parts. He is also, therefore, sensitive to the metaphysical priority of the soul. He also knows there is more than one avenue into the issue. As Weber observes, a set of arguments take as their starting point the operations and operative powers in order to arrive at the essence of the soul.[232] The others go in the opposite direction. Although this is not a sign of indecisiveness, it is more of a mark of the eclecticism that characterises the thought of Albert as well as the methodological flexibility found in philosophers as are Avicenna. However, it is also a sign of openness towards a deeper understanding and eventually will lead him to assign priority to the essence of the soul in his analysis. Gilson refers to this as the *a priori* approach, whereas the analysis in the reverse and inductive direction – that from powers to the soul – he sees as *a posteriori*.[233] Albert apparently sees no conflict in endorsing a 'physical' account of the soul whereby it is viewed as a part of human nature and for this it is also a substance and is absolutely in act. This 'physical' definition of the soul sees it as the principle of bodily animation. This is to be contrasted with the soul viewed as an intellectual and subsistent subject. How is a conciliation between these powerful currents possible and how can Albert integrate his account with consistency?

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[231] M. Lenzi, op. cit., 29.
[232] E. H., Weber, *La Personne Humaine*, op. cit., 125. See also the discussion by Thérèse Bonin, "The Emanative Psychology of Albertus Magnus" in *Topoi*, 19 (Netherlands: Kluwer Academic Publishers, 2000) 45-57. For a helpful example of the way St. Albert interprets Aristotle's Prime Mover and its relationship to the soul within an emanative descent of created forms, see Ingrid Craemer-Ruegenberg, "The Priority of Soul as Form and Its Proximity to the First Mover: Some Aspects of Albert's Psychology in the First Two Books of His Commentary on Aristotle's *De Anima*", *The Southwestern Journal of Philosophy* Vol. 10/3 (1970) 49-62.
[233] Étienne Gilson, Op. Cit., 24.

Before attempting at a form of reply, we should take note of tensions in St. Albert's account of the soul that can be easily detected in other works and in rather different contexts. As just referred to previously, M. Lenzi directs us to another highly indicative text written in 1249, a year after St. Albert had founded the Dominican Studium in Cologne.[234] The question regards the possible – and very probable – dilemma that should arise from the thesis that the soul is both the act and the form of the body and is found in St. Albert's work, *De Divinis Nominibus IV, 2*, where he deals with the broader topic of the incorruptibility of the soul. A passage in this article deserves a close look for it shows Albert's own preferred assessment of the nature of the soul:

> However, they indeed say about this, that, the soul is this something and not just an act, like a certain thing in the category of substance, and it becomes for it an act of being. But this can be held by no author, since it expressly contradicts that of Aristotle, unless that seems to be derived from the words of Avicenna in the First Chapter of the book De Anima, where he says that 'When we know that the soul is a perfection, we do not yet know the substance of the soul, but we know it according to that which is soul. For this name 'soul' is not applied to itself from its own substance, but from that which rules bodies, and for that reason the body is received in the definition of soul, according to which is the soul, as is work in the definition of the worker, although not in his definition, but according to what is man.' And for this reason, he says he must compose another treatise on the soul, in order to know its essence, and then it will be known, in what category it is. This however seems to be impossible, because it has been proved by the Philosopher that from two substances there does not become anything, nor from two acts, nor from this something and an act, nor from this something and potency but only from act and potency, because that which is perfect in itself does not come to another to constitute some third thing, and thus if the rational soul were to be this something out of itself and the body it would not be reduced to one. Moreover, if being were to be an accidental act to itself, there would follow a serious inconvenience, that is, in that man would come to be understood by accident. For man does not have being except according to that soul which is the act of his body.[235]

In this passage Albert observes that a number of philosophers have considered the soul to be a *hoc aliquid*, that is, a substance of some kind or other, rather than a mere 'actuality.' *Hoc aliquid* translates the *τόδε τι* of Aristotle, literally, a '*this something'* which refers to a

[234] Massimiliano Lenzi, "Alberto e Tommaso Sullo Statuto dell'Anima Umana", op. cit., 30-56.

[235] "Circa hoc autem quidem dicunt, quod anima est hoc aliquid et non est tantum actus, sicut res quaedam in genere substantiae, et accidit sibi actum esse. Sed hoc a nullo auctore haberi potest, cum tamen Aristotelis expresse contradicat, nisi quod videtur haberi ex verbis Avicennae in I capitulo libri sui *De Anima*, ubi dicit quod 'cum scimus animam esse perfectionem, nondum scimus substantiam animae, sed scimus eam secundum hoc quod est anima. Hoc enim nomen anima non est inditum ei ex sua substantia, sed ex hoc quod regit corpora, et ideo corpus recipitur in diffinitione animae, secundum quod est anima, sicut opus in diffinitione opificis, quamvis non in diffinitione eius, secundum quod est homo. Et ideo dicit, quod oportet facere alium tractatum de anima ad sciendum essentiam eius, et tunc scietur, in quo praedicamento sit'. Hoc autem videtur esse impossibile, quia sicut probatum est a Prima Philosophia ex duobus substantiis non fit aliquid nec ex duobus actibus nec ex hoc aliquid et actu nec ex hoc aliquid et potentia, sed tantum ex actu et potentia, quia quod est perfectum in se non advenit alteri ad constituendum aliquid tertium, et ita si anima rationalis esset hoc aliquid ex ipsa et corpore non efficeretur unum. Praeterea si esse actum esset sibi accidentale, sequeretur gravissimum inconveniens, quod scilicet homo esset per accidens. Non enim habet esse homo, nisi secundum quod anima est actus corporis eius."

numerically distinct individual that is specifically determined by the genus of substance.[236] Albert adopts the scheme found in the *Categories* which treats the notion of *hoc aliquid* in its univocal reference as a "concrete nature" or *res naturae*. Already in his *Commentary on the Sentences* we find one representative passage on individuation which clearly indicates the ontological scheme of substance in relation to its mereological principles adopted by Albert:

> […] it should be pointed out that in the things of nature (*in inferioribus*) there are four things, namely, *res naturae, subiectum, suppositum, individuum*, to which also in things of a rational nature there is added a fifth, namely person. By the thing of nature, we understand that which is a composite from matter and form, or, from *quod est* and *quo est*, in nature and under a common nature, and this is a *this something* (a *hoc aliquid*) in nature. The *suppositum*, however, is added to the thing of nature in relation to the common nature to which it supposits as the incommunicable. The subject, however, as the Philosopher says, is a being which is complete in itself, and the occasion of another existing in it: this has a relation to accident, although it is not understood in its name by the habit of accident: And this is called "substance" by Aristotle…An individual, however, is that which has individuating accidents."[237]

For something to be a *hoc aliquid* – translating Aristotle's *τόδε τι* – is for something to be a numerically distinct entity or individual, a 'this something'. Following Aristotle, a *hoc aliquid* would belong to the genus of substance.[238] As Lenzi observes,[239] Albert adopts the scheme found in the *Categories* which treats the notion of *hoc aliquid* in its univocal reference as a "concrete nature" or *res naturae*. Already in his *Commentary on the Sentences* we find one representative passage on individuation which clearly indicates the ontological scheme of substance as adopted by Albert:

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[236] Cfr. Lenzi, ibid., 31; cfr. Aristotle's *Metaphysics* Z 3, 1029a 27-30 and the *Categories*, 5, 3b, 10-3.
[237] St. Albert, St., *I Sent.* D 26, a. 4, Jammay 14, 396a-b: "…ad hoc intelligendum, notandum quod in inferioribus sunt quator, scilicet, res naturae, subiectum, individuum, quibus etiam in natura rationali adiicitur quintum quod est persona: et rem naturae intelligimus compositum ex materia et forma, vel quod est et quo est, in natura et sub natura communi, et hoc est hoc aliquid in natura. Suppositum autem addit rei naturae respectum ad naturam communem, cui supponitur ut incommunicabile. Subiectum, autem, ut dicit Philosophus, est ens in se completum, occasio alteri existendi in eo: et hoc habet respectum ad accidens, licet non fit in intellectu sui nominis habitu accidentis: et hoc vocatur ab Aristotele substantia, et a Graecis hypostasis". Citation and translation by J. M. Hackett, in *Individuation in Scholasticism*, Ed. by J. E. Gracia, (Albany NY: New York State University Press 1994) 100.
[238] Cfr. Lenzi, ibid., 31; cfr. Aristotle's *Metaphysics* Z 3, 1029a 27-30 and the *Categories*, 5, 3b, 10-3.
[239] Ibid.

> not understood in its name by the habit of accident: And this is called "substance" by Aristotle…An individual, however, is that which has individuating accidents.[240]

If the soul is viewed as an *hoc aliquid* this means that it is a complete reality (*ens in se completum*) it receives nothing from the body, which remains extrinsic to it and is but an accessory to its essence. If Albert were to endorse this view, such a thesis could be summed up by saying that the soul is not essentially the 'act' of the body. In fact, this is precisely the interpretation given by Gilson, attributing this tension in St. Albert's philosophy to his support of Avicenna's theory of the soul.[241] This affiliation is expressly stated, after all by Albert himself in the *De Divinibus* passage cited earlier. According to Gilson and to Lenzi, Avicenna considered the notion of 'body' to be analytically contained in that of '*anima*', whereby the latter, that is, the soul, is seen both as a self-standing entity and subject to various considerations according to the diverse features that distinguish it as a nature pertaining to a certain genus – *substantia* – as well as the terminus of a certain relation – *perfectio*.[242]

St. Albert's remarks in the passage cited show that he is aware of the tension, in that we are dealing with a view that is unacceptable and rejected by Aristotle, who argued that the soul is not a 'concrete' reality or a *hoc aliquid sive compositum* but, rather, the form of something. According to Aristotle's ontology, it is impossible for a nature 'complete' in itself – *quod est perfectum in se* – to function as the complement of an ulterior nature. Paraphrasing St. Albert's text, if the soul were a *hoc aliquid*, its union to the body would not be the source of a single unitary life in anything. Moreover, if the soul were an 'actuality' in a merely accidental manner it would follow that the hylomorphic integrity of the human person composed of body and soul itself would be compromised and this would be absurd. Albert thus seems to be fully of aware of these problems. Where exactly, does he stand?

As both Gilson and Lenzi point out, this approach is not entirely novel in Albert for we have already seen that in the *De Homine* there is an analogous citation from Avicenna that

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[240] St. Albert, *I Sent*. D 26, a. 4, Jammay 14, 396a-b: "…ad hoc intelligendum, notandum quod in inferioribus sunt quator, scilicet, res naturae, subiectum, individuum, quibus etiam in natura rationali adiicitur quintum quod est persona: et rem naturae intelligimus compositum ex materia et forma, vel quod est et quo est, in natura et sub natura communi, et hoc est hoc aliquid in natura. Suppositum autem addit rei naturae respectum ad naturam communem, cui supponitur ut incommunicabile. Subiectum, autem, ut dicit Philosophus, est ens in se completum, occasio alteri existendi in eo: et hoc habet respectum ad accidens, licet non fit in intellectu sui nominis habitu accidentis: et hoc vocatur ab Aristotele substantia, et a Graecis hypostasis". Citation and translation by J. M. G. Hackett, in *Individuation in Scholasticism*, Edited by Jorge E. Gracia, (Albany NY: New York State University Press 1994) 100.
[241] É. Gilson, op. cit., 36.
[242] M. Lenzi, op. cit. 32.

supports the view that although its being an actuality is but one aspect of the soul, it is, nonetheless, a substantial – *substantiale* – aspect of its nature.

> Et intendit, quod sicut motor dupliciter diffinitur, scilicet penes proprietatem hanc quae est movens, vel penes suam essentiam: ita anima dupliciter potest diffiniri, scilicet secundum quod est anima, id est, actus corporis et motor, et secundum quod est substantia quaedam contenta secundum seipsam in praedicamento substantiae.[243]

Gilson's judgment of St. Albert clearly aligns him with a faithful adherence to Avicenna's views of the soul. Passages such as this one strongly suggest, that, Albert has adopted the idea that the soul *per se* is a substance in its own right qualified as a complete nature, even. Nevertheless, he is cautious enough not to suggest that the soul is the actuality of the body merely accidentally.[244] So, what is going on here? For there is an underlying tension in Albert's account between the stand-point just delineated and the other view that the soul is not *essentially* the form of the body. As Gilson pointed out, the very same article in which the soul is proven to be an essential form, concludes that it is in itself a complete substance and *consequently* not an essential form.[245] Is Albert not aware of such a glaring inconsistency? How could Albert have comfortably juxtaposed such incompatible elements of Platonic and Aristotelian anthropology and metaphysics?[246] For if that interpretation is right, in Albert we find a deep incongruence between the soul taken as an individual substance (*a hoc aliquid*), while also functioning as the complement of an ulterior individual, a position deeply repugnant to Aristotle. Is St. Albert aware of the problems this conceptual scheme is facing? Another passage from the same *De Divinibus* text also cited by Lenzi can further throw light on this dilemma:

> Ex altera parte si non dicamus animam esse hoc aliquid, tunc non habebit in substantia aliquid individuans, sed individuabitur tantum per corpus sicut aliae formae; remotis autem individuantibus non remaneret nisi una anima, ita scilicet quod remanerent animae rationales solum in intelligentia influente huiusmodi actum corpori; et secundum hoc dicunt plures philosophorum intellectum separari et ponunt exemplum de candelis multis, quae illuminantur ex uno igne, quod extinctis candelis non remanet nisi ignis communis, et hoc est contra fidem expresse. Et ideo, ad evitandum hoc inconveniens dicimus, quod anima est hoc aliquid. [247]

[243] *De Homine*, q. 4, a. 1, Borgnet, 34.
[244] M. Lenzi, op. cit., 33.
[245] Op. cit., 36.
[246] See for instance the assessment of R. C. Dales, *The Problem of the Rational Soul in the Thirteenth Century*, 90.s and B. Carlos Bazán, op. cit, 111.
[247] St. Albert, *De Div. Nom.*, IV, 29, p. 136. 57 – 137. 4

This passage reveals a number of metaphysical notions that are in tension towards each other as well and it helps us pointing out a few fundamental concerns of St. Albert. In fact three consequences may be drawn out:

(1) It is impossible that the soul be a *hoc aliquid* but this presents us with a difficulty for how, then, will the soul be individuated? Being a *hoc aliquid* would mean that it contained an autonomous principle of individuation but now it seems that we must accept the uncomfortable implication of an account of the soul that depends on the body for its singularity and identity like any other material form.
(2) Another equally unhappy consequence would arise here, as St. Albert observes in this passage. Given the demise of the human body, all souls would then fuse into one universal soul, similar to the consuming effect of the candle flame. To Albert's mind, the only way out of this is to say that the soul, in addition to be an actuality, is also a *hoc aliquid*.
(3) So, it seems that writers like Gilson, Bazán and Dales are right in saying that St. Albert's account is profoundly incongruent since, namely, you cannot have an incomplete entity that is individuated by the body yet also existing as a *hoc aliquid*, complete and transcendent individual.

Although a solution to this dilemma of Albert may not easily be found, an explanation given in terms of the metaphysical background he was operating in might show us why he thought it was a reasonable position to take. It was a generally held view that only God is metaphysically simple whereas the rest of creation is composite. This universality includes both humans and animals, in their material and spiritual compositions as well as angels taken metaphysically. The rationale of this view which St. Albert too held was that a radical divide must be drawn between God and the rest of creation. Material entities are composed of matter and form and angels too have an analogously composite nature. It is the view of many of Albert's commentators that we can understand better what Albert is saying about the nature of the soul if we keep this complex metaphysically rarefied discussion in sight.[248] Gilson and Ducharme both agree that Albert's account of the soul relies heavily on theory of 'spiritual matter' which

[248] Cfr. É. Gilson, E., "L'Âme Raisonable chez Albert le Grand", 42ss; L. Ducharme, "The Individual Human Being in Saint Albert's Earlier Writings", in *Albert the Great Commemorative Essays*, Edited by F. J. Kovach and R. W. Shahan (Oklahoma: University of Oklahoma Press 1980); M. Lenzi, M., "Lo Statuto dell'Anima", op. cit., 35.; S. Baldner, "St. Albert the Great on the Union of Soul and Body", in *American Catholic Philosophical Quarterly*, op. cit., 104-5.

allows us to give an account of composite natures that are immaterial, as is the case with angels. The consequence of this account is unavoidable, namely, that Albert treats the soul as if it were a complete substance. Boethius had distinguished between *quod est* and *quo est* (or *esse*) in material things. These correspond to matter and form, respectively, since that is how composite beings exist in the created world.

We need something analogous for angels, however, and St. Albert is very happy to apply these categories to the soul as well. Thus, in angels, a substrate exists that underlies motion and change and *quod est* is therefore the principle of individuation for the soul, analogous to the operation of matter in composite material things. The *quo est* is the form. Moreover, when St. Albert explains this position in plain terms,[249] he also reminds us that the form here is the *forma totius*, a form of the whole rather than of some part since the soul is incorruptible. Material things are corruptible, and forms of parts pass away when matter degenerates. However, in the case of the soul, the *forma totius* is not separable and as a result the soul is a *hoc aliquid*, that is, a particular substance. The adoption of this view on the form shows us, according to Ducharme and to Weber, that for Albert, the essence of the soul is a very different theme for Albert, from the consideration of the soul's relation to the body[250] and this shows how closely aligned to Avicenna St. Albert's account of the soul is. The *quo est* and the *quod est* in the soul are inseparable and the metaphysical outcome of this position is that the soul is to be seen as a complete substance. The next natural question, therefore, which commentators of St. Albert attempt to resolve is whether he was a substance dualist about human nature, for if that were the case, that would mean that the substantial unity of human nature would no longer be preserved and thus the soul and the body would be only accidentally related. Albert's view of the soul as a composite rather than a simple form – *"hoc modo dico animam esse substantiam compositam"* – is already endorsed in his early *Sentences Commentary*.[251] Moreover, his endorsement of the view that the soul is a complete substance is a view has not laid off since his writing of the *De Homine*.[252]

As is expected in such an eclectic and flexible framework of metaphysics such as St. Albert's, the natural instinct will be to identify what will make the account of the human soul stand out, what will guarantee that it is a truly special case that deserves all this adaptive approach. As Lenzi rightly observes, the issue was originally raised by Avicenna within the

[249] For instance, St. Albert the Great, *In I Sent*, 3.33, ed. Borgnet 25, 138a-b.
[250] See for instance, Ducharme, op. cit., 144.
[251] St. Albert, *Sent.*, I, D. 3, a. 33, 138b.
[252] *De Homine*, 5, 3, ad 5: "Anima humana non est tantum forma, sed etiam substantia completa in seipsa […]"

anti-Platonist context that surrounded the dispute on the pre-existence of the soul.[253] Souls are specific unities and as such, Avicenna claimed, they cannot in any way pre-exist before the body. This does not mean, on the other hand, that the soul derives a singularity from the body but is rather occasioned by the relation to its nature.[254]

Albert is sympathetic towards Avicenna "spiritualist" theory of individuation which respects the case of the human soul as a special and *sui generis* occurrence whereby the soul is understood as an absolute substance (*absoluta*) and which does not owe its existence to that of the body. In this, the human soul is incomparable to any other corporeal form.[255] The relation that subsists between the body and the soul, Avicenna proposed, is founded on a mysterious spiritual accident, an *affectio inclinationis* which moves the soul to take complete operational ownership of the body.[256] Following Gilson, Lenzi argues that Albert was aware of Avicenna's position and agreed to allow a *unique manner of being*, whereby the soul is in a special sense individuated *per se*, but this is so through its relationship with the body and, hence, is distinct and individuated not only specifically but also numerically.[257] This is the way how according to Avicenna – and Albert here follows suit – the soul preserves its singularity since it is individuated per se and does not confuse its identity with that of other souls. Albert develops this line of thought further making use of the Boethian distinction between *quod est* and *quo est*: the soul is not individuated by the body, but the *quod est* is itself the 'principle' of individuation and constitution. A theologically created composition of *quod est* and *quo est* is what qualifies the peculiar status of the individual substance, *hoc aliquid*.

If it thus becomes evident that Albert's notion of the soul as a subsistent subject is not any kind of ordinary form, analytically speaking, the major problem of assessing Albert's ideas about the alleged substantial nature of the soul remains. For him, the substantial status of the soul is founded upon a composition of both *quod est* and *quo est*. Albert persistently remarks that this is a *sui generis* condition, which also suggests it is a relative and qualified one. For if the soul derives its specific subsistence from the *quod est*, it only acquires its numerical individuality from the body. This is why Albert thinks that human souls, unlike angelic natures,

[253] Cfr. Albert, *Super Ethica* I, 14.80 for instance. See M. Lenzi, 35s.
[254] See the distinction between individuality and numerical divisibility highlighted by Jorge Gracia in *op. cit*., 17ss.
[255] Lenzi, Ibid., 35.
[256] Ibid. 35.
[257] Lenzi, 35.; On this point also, Druart refers us to Avicenna, *Liber de Anima* V, 3, vol. II, p. 105-106 and V, 4, p. 117-118, for example; cfr. T. M. Druart, "The Human Soul's Individuation and its Survival after the Body's Death: Avicenna on the Causal Relation between Body and Soul", in *Arabic Sciences and Philosophy* 10 (2000) 259-273.

enjoy a numerically distinct existence, rather than a mere specific one.[258] Yet, on the one hand, the soul is a composite implying some form of internal divisibility while on the other hand the singularity Albert ascribes to it allows it to transcend the contingency of the human body. Matter is always, of course, the principle by which identical things are numerically separate. In this the soul is similar to other substantial forms since it gets 'divided' according to the 'divisions' of the matter of which it is a form. However, unlike other forms and in virtue of the independence of its nature Albert argues that its nature as a complete substance enables it to surpass the limits of corporeal contingence.

This idea is developed in strict continuity with Avicenna's theory of the soul, whereby through its relationship with the body, the soul obtains a numerical singularity. Yet its 'absolute' nature also enables it to preserve this singularity independently of the body.[259] This singularity, however, precisely because it is rooted in the body and still, eschatologically speaking, refers to the body, remains essentially incomplete:

> Anima rationalis dependentiam habet ad corpus eo quod est unibilis ei et unitur ei in resurrectione novissima. Et ideo cum sic utrumque dependeat ad alterum ex eis fit unum per substantiam. [260]

We are now closer, I believe, to offering an interpretation of Albert's position about the soul and its relation to the status of a substance. For we now have the real reason why the status of the soul cannot be, strictly speaking, that of a concrete individual in the genus of substance (*hoc aliquid*):

> Quod anima sit hoc aliquid hoc est dictum a magistris, sed non a philosophis nec a sanctis. Et puto quod sit dictum falsum: quoniam in principio libri II De anima habetur, quod materia non est hoc aliquid, nec etiam forma, et quod anima non est hoc aliquid. Sed hoc bene concedo, quod anima est substantia composita. Sed ipsa non est composita ut hoc aliquid: quia secundum naturam dependentiam habet ad corpus, licet posset esse sine illo. Sed bene concedo quod perfectio sua non est omnino completa sine illo. [261]

Gilson summarized the point made in this passage in this way: the soul is not a *hoc aliquid* if considered in its animating role, but it is a completely determined *hoc aliquid* if acknowledged

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[258] Cfr. Henryk Anzulewicz, "Grundlagen von Individuum und Individualität in der Anthropologie des Albertus Magnus" in Jan A. Aertsen, & Andreas Speer, *Individuum und Individualität im Mittelalter*, *Miscellania Medaeva* (Berlin: De Gruyter Publications 1996) 132.
[259] Cfr. *De Homine* I, q. 5, a. 3 sed contra 3: "Anima enim in corpore incipit esse, quod tamen esse non habet a corpore et remanent sibi proprietates quas habet in corpore proprias non communicatas corpori, quibus differt ab alia anima etiam cum corpore erit absoluta", following an explicit reference to Avicenna; cfr. M. Lenzi, 36.
[260] Ibid., q. 4, a. 5.
[261] *In II Sentiarum*, D. 17, a. 2, ad. 2.

as a spiritual substance.[262] Other commentators already referred to above, however, have ignored Albert's reticence to refer to the soul as *hoc aliquid* and attributed to him the view that the soul is indeed a substance, simply. On this view Albert's system is seen as an incoherent and a-systematic deployment of this notion, and if Albert denied that the soul is a *hoc aliquid* he did so with the sole view of avoiding a hylomorphic account of substance.

The last passage cited from the *Sentences* Commentary ought to be read keeping in mind the other passage from the *De Divinis* where it is said that the thesis stating that the soul is a *hoc aliquid* does not enjoy the backing of the *auctoritates*. If Chenu was right, namely, that the term '*auctoritates*' refers to the philosophers or saints,[263] the *Sentences* passage denies that such thinkers considered the soul to be a *hoc aliquid*. Albert's position then seems to be that the thesis that the soul is an *hoc aliquid* is untenable because it lacks *auctoritas* and, secondly, the soul is not composed of matter and form. Most of all, the soul is simply not a straightforwardly composed nature as are other complete natures – "*sicut hoc singulare in natura*" – which belong to some genus.[264] In fact the soul is a complement or a part – albeit a subsisting one – of a nature belonging to a genus. Albert developed the appropriate distinctions which show he wasn't as conceptually negligent as some readers have made him. For instance, he says that strictly speaking the soul is not a a species but a *pars speciei* or, rather, a *differentia* in view of its essential dependence on the body of which it is, in fact, the actuality.[265]

It is true that in the *De Divinibus* commentary Albert seems to contradict this position when he allows himself to say that the soul is, after all, a *hoc aliquid*. A closer look at the text, however, will show that Albert strictly qualifies this way of speaking and is not entirely comfortable with the straightforward consequences of his affirmation:

> Et ideo ad evitandum hoc inconveniens dicimus, quod anima est hoc aliquid nec tamen est in praedicamento, sed esse actum est esse eius; non tamen hoc solum est esse eius, sed habet etiam aliud esse, secundum quod est hoc aliquid. Tamen hoc aliquid aequivocatur ad hoc aliquid quod est in genere; non enim ponimus eam esse hoc aliquid, nisi ut habere possit permanentiam in proprio esse.[266]

The soul can be said to be a *hoc aliquid*, Albert says, only on condition that it does not refer to a complete individual belonging to the genus of substance, i.e., *hoc aliquid in praedicamento*,

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[262] Op cit, 26, 43.
[263] Marie-Dominique Chenu, "Authentica et Magistralia. Deux lieux theologiques aux XIIe-XIIIe siecles", *Divus Thomas* 28 (1925), 257-285.
[264] *In I Sententiarum*, d. 8, a. 25, ad 4
[265] For instance, in *De Homine* I, Q. 2, a.1, ad 1: "…anima non est species in genere substantiae, sed differentia"; see also *In III Sent*. D. 5, a. 16; cfr. H. Anzulewicz, H., op. cit., 138.
[266] IV, 29.

since 'being / act' is constitutive of its very nature, *esse actum est esse eius*. This is an important text which sheds further light on Albert's theory of the soul since we can understand that the formal role of the soul is not determined by the alleged presumption of its being a substance. The contrary, rather, is true: the degree of substantial nature is only relative to the role of the soul as a form. This passage also shows Albert's cautious defence of his view: the soul is a *hoc aliquid* for in addition to its being an actuality it possesses a substantial feature which enables it to subsist apart from the body. 'This something', however, does not refer to a complete substance and is only equivocally a substance, that is, in virtue of its relation – typical of the metaphysics of participation and gradualness – to the First Cause: *propter propinquitatem ad primum motorem*.[267] What we have, therefore, is a hybrid account of form with a peculiar mode of existence and which is not reducible to or dependent on the body and yet cannot belong to any genus of complete substances.

2. The problem of self-motion

Does the mature Albert – and in a phase of greater exposure to the Aristotelian *corpus* – adopt a more 'streamlined' and internally coherent metaphysics for his theory of the soul? In order to find an answer, we now turn briefly to four works on biology which Albert wrote in a relatively short span, from 1257 to 1261. All share in an explicitly Aristotelian focus and all are interested in the topic of the soul and in the related problem of self-motion. His paraphrase on Aristotle's *De Anima* written in 1257 is followed by two original works, *De Motibus Animalium* – composed before Albert discovered Aristotle's *De Motu Animalium* – and the *De Natura et Origine Animae*. When in 1261 Albert laid hands on Aristotle's *De Motu Animalium* he set out to paraphrase it, a work he called *De Principiis Motus Processivi*.[268]

It is clear that Albert's paraphrase reflects faithfully Aristotle's views as we find them in *De Anima III, 10*, where the topic of self-motion in animals is addressed. The joint

[267] Also cited in M. Lenzi, op. cit., 39.

[268] In this section I have benefitted from the following works: David Furley, "Self-Movers", Ch. 1 in *Self-Motion: From Aristotle to Newton*, (Princeton: Princeton University Press 1994) 3-14., M. L. Gill, "Aristotle on Self-Motion", Ch. 2 in *Self-Motion*, Op. Cit., 15-34; T. M. Olshewsky, "Self-movers and unmoved movers in Aristotle's Physics VII", in *The Classical Quarterly*, N, 45 (1995); A. Laks, M. Rashed, *Aristote et le Mouvement des Animaux: Dix Études sur le De Motu Animalium*, (Presses Universitaires du Septentrion 2004); As well as from translations and comments found in the following scholarly works: "The Discovery and Use of Aristotle's De Motu Animalium by Albert the Great" in Pieter De Leemans, *Secundum viam naturae et doctrinae: Lire le De Motu Animalium et les Parva Naturalia d'Aristote au Moyen Âge*, most of all from Baldner, S., "St. Albert the Great and the Union of the Human Soul and Body", *American Catholic Philosophical Quarterly*, Vol. LXX, no. 1, (1996) 103-134.

contribution of two movers are necessary for animal self-motion to occur, namely intellect / phantasia for cognition and, secondly, desire. Motion can successfully occur in an animal through final and efficient causality. The cognitive part serves finality through a desirable good and efficient causality is served by the desire, that is, the appetitive part of the soul.

However, we notice a serious departure from Aristotelian doctrine in Albert's original works. The cognitive part of the soul acts as an unmoved mover and desire is a moved mover. Finality is exercised through cognition whereas desire moves the totality of the animal – a power that conjunctly belongs to body and soul – by way of efficient causality. On this account one could only say that the soul is a mover of the body in a strictly qualified way, avoiding any separation of mover and thing moved. The powers that bring motion belong to the whole animal, composed of body and soul. The soul can only be the mover of the body insofar as it is its form. In the *De Motibus Animalium*, however, Albert argues that mover and thing moved must always be distinct and for that reason, the soul as mover of the body is separate from the body:

> [...] if a soul causes motion, it does not do so insofar as it is the perfection of the matter of its body, because every form is the perfection of its matter and does not, nevertheless, cause motion. Moreover...it is clear that the soul does not cause motion insofar as it is the perfection of an organic, natural body that has life potentially, because this definition applies to every soul, and not every soul causes motion. The soul, therefore, does not at all cause motion through its being the perfection of the body or of part of the body. Now, about the soul we find nothing other than that it is the perfection and that it is separate in some way. It is necessary, therefore, that it cause motion insofar as it is separate and not as it is conjoined to the body.[269]

Albert moves on a step further in order to confirm this view to the extent that for him, the part of the soul that acts as mover must be separate and that *for it to be a mover*, it must be separate and cannot be the form or *perfectio* of the body:

> [...] form is not said to be locally separate from that which it is said to be separate. It is, rather, said to be separate because, although it is in some matter which belongs to a body, it is not bound to that same matter so that it is not subject in a body to material properties. Thus, that

[269] Full text is found in Albert's *De Motu Animalium*, I, 1, 4 Borgnet, IX, 264a-b, for English Translation, see S. Baldner, in Op. Cit., 109-110: "Dico igitur, quod si forma in quantum est forma, vel etiam si anima in quantum est forma quaedam corporis, moveret, tunc oporteret quod omnis forma moveret locale motum. Hoc autem ostendimus esse falsum in octavo *Physicorum*. Ex eodem autem sequitur, quod si anima in quantum est anima, moveret, oporteret quod moveret omnis anima: quod iterum falsum est, cum anima vegetabilis nullo modo moveat. Si igitur movet aliqua anima, hoc non habet in quantum est perfectio materiae sui corporis: quia omnis forma est perfectio suae materiae, et tamen non movet. Si autem sic, patet quod etiam non habet movere in quantum est perfectio corporis organici physici potentia vitam habentis: quia haec diffinitio convenit animae omni, et non omnis anima movet. Igitur anima nullo modo movet per hoc quod est perfectio corporis vel partis corporis. In anima autem nihil invenimus nisi quod est perfectio, et quod est separata secundum aliquid sui. Oportet igitur quod moveat in quantum est separata, et non conjuncta corpori."

> which is not divided by bodily division, not moved by bodily motion, and does not operate with instruments of the body is separate, not locally, but from being bound in any way whatsoever to corporeal matter. Now, all of this is true of the substances of the heavens; for this reason they are separate and movers....From all of this, therefore, it is certainly known that no substance which is form and act causes local motion except to the degree that it is in some respect like the first, separate, heavenly forms: that is, insofar as it is completely or partially separate and raised above the bonds of the matter of its body. [270]

Albert defends the view that in the case of humans, the mover is the intellect and this is immaterial and not corporeal. On the contrary, it is the power of a substance which is separate *per se*. He therefore could not commit himself to saying that the soul moves the body insofar as it is its form. In the *De Natura et Origine Animae* [271], Albert defends a similar position whereby the soul is said to be separate, to be the cause of human acts and operations and it does so by governing the body without the body exerting any influence on the soul. The implication that for the soul to be a source of agency it must be separate, once again seems to be an inevitable commitment of Albert's theory.[272]

Let us now take a closer look at the way Albert addresses the psychophysical account of agency in his Aristotelian paraphrase, the *De Principiis Motus Processivi*. In the *De Motu Animalium*, Aristotle had identified the heart as the first organ to cause motion in the animal body. Moreover, he thought that the heart is itself moved by the soul. For Albert, Aristotle's position settled the issue, for it showed that since the heart is moved by the soul, that could only mean that the soul is united to the body, not as form or act but precisely as mover. The soul is united to the body in this manner, that is, as a mover is united to every motion of the animate thing and not as a mere perfection or act of matter..."*sicut motor omni motu animate iungitur ei et non sicut perfectio vel actus materiae tantum*".[273] Later on Albert explicitly rejects the view that the soul is merely united to the body as the act or form of matter and that for *that same reason, or consequently*, the soul moves the body. He also considers the view that the soul is joined to the body as mover and as mover it is not present in the whole body but as one

[270] S. Baldner's translation of Ibid, IX, 265 a-b: "...forma non dicitur esse separata per locum ab eo a quo separata esse dicitur. Sed dicitur ideo separata, quia cum insit alicui subjectae materiae corporis, non est obligate eidem ut in aliquot subjaceat proprietatibus ejus. Et ideo quae nec dividitur divisione corporis, nec movetur motu corporis, nec operator instrumentis corporis, illa separata est, non per locum, sed a corporalis materiae quantumcumque simplicis obligatione. Haec autem omnia competunt substantiis caelorum: propter quod separatae sunt et moventes: et aliae substantiae formales eo magis sunt moventes, quo fuerint magis separatae".
[271] Albert, *De Natura et Origine Animae*, Ed. Coloniensis, XII, 25, 87-91.
[272] Cfr. Stephen Baldner, op. cit., 111.
[273] *De Principiis*, "Et ex hac demonstratione certissime scitur, qualiter anima iungitur corpori, et quod sicut motor omni motu animate iungitur ei et non sicut perfectio vel actus materiae tantum, et quod propter hoc diffinitur, quod est entelecheia corporis organici secundum potentias vitae, sicut in libro De Anima determinavimus." II, 6 Ed. Coloniensis XII, 66, 68-74.

power present in organ and another power present in another. Although the soul is defined as an "*actus*", Albert argues,

> It is the *actus* only as the mover which exercises its powers in the organs. For it is not possible that the soul be a simple act as a form which is nothing more than the form of matter.[274]

His position here seems to be that the exercising of various powers is a function of the soul's unity to the body. The soul is the mover of the body not insofar as it is the form of the body. The contrary is true, namely, that the soul is the form of the body only insofar as it is its mover. This brings Albert to what he considers to be a point of contact with Aristotle's line of reasoning. For if the soul is not united as a whole to the whole of the body because it is its mover, then that must be the reason why Aristotle had said that the soul is united to the principal organ of bodily motion, the heart. In his paraphrase on the *De Anima II*, Albert had already stated that there must be a point of unity and principle of origin in the body, since the animal is one substance with many powers. That point is the heart and the soul is essentially united to the heart, "*anima est in corde*" and not, as a whole, to the whole of the body.[275] The soul is united to the other bodily organs only insofar as the soul's particular powers are themselves united to the bodily organs.

The *Summa Theologiae*, however, a work written in the final phase of Albert's intellectual career, seems to present a rather different view. In it Albert says that the view of the soul as mover implies that it is something separate from the body and, to use Aristotle's image, is similar to the sailor who is separate from the ship. According to Albert that image is representative of Aristotle's psychophysical account. The objector might say that Aristotle's definition of the soul makes it impossible for the soul to survive bodily death. Albert's reply to the objection is based on the view that the soul

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[274] Op. Cit, II, 11, Ed. Coloniensis, XII, 72,83-73,5: "Sed cum anima dicitur actus, non est ipsa actus nisi motor potestates suas exercens in organis. Non enim possibile est, quod ipsa sit actus simplex sicut forma, quae nihil habet amplius, nisi quia forma est materiae. Differt enim ab ipsa et ideo dicitur anima et non forma naturae, et ideo animatio sua, qua animat corpus, est per potestates ipsius...Propter quod patet, quod anima non habet aliam unionem cum ipso nisi unionem potestates".

[275] St. Albert, *De Anima*, II, 1, 7, Editio Coloniensis VII, 1, 75, 34-39: "Thus the soul is not as a whole in the whole of the body but is in each part according to a few of its powers. Although the essence of the soul is present in every power of the soul, if the power is separated the essence is not necessarily separated, because its power and not its essence is joined to the organ. Rather, the essence is in the heart, which is the organ ordained for the essence of the soul." S. Baldner's translation, 110-111; "Dicimus, quoniam sicut anima est una et habet partes virtuales, ita corpus est unum et habet partes organicas, quae omnes continuationem habent ad unam, quae est cor. Et tunc dicendum, quod anima est in corde et inde influit potestates suas in totum corpus; et sic non est in toto tota ita, quod in qualibet parte sit tota, sed quod in qualibet parte est secundum aliquam suarum potentiarum; et si quae partes similes sunt in complexione et compositione, in illis est per similes potentias et operationes. Et licet essentia eius adsit cuilibet virtuti ipsius, non tamen virtute separata separator necessario essentia eius, quia virtus illa affixa est illi organo et non essentia animae, sed potius illa est in corde, quod est organum essentiae animae deputatum."

> [...] is the act as well as the mover of the body like the sailor of the ship rather than merely the act of the body. It is both substantially and essentially external to the body and distinct from it. Just as the sailor gives operative power to the naval instruments for the purpose of navigation, similarly, the soul is not in the body as form or as essential quality, but it is in it as that which gives it powers for its vital operation.[276]

Does this position compromise the substantial unity of the human individual? Is the human being one substantial unit or two separate yet connected entities? Although Albert drew on the image of the sailor and the ship in order to support his view of the soul as an immortally existing substance, in this same work Albert also says that the soul is *not* related to the human body as the sailor to the ship, precisely because that would compromise the unity of human nature. But we have already seen that Albert's metaphysics deploys richly varied resources and a recurring – if worrying – theme in his philosophy is that the soul is both separate and the form of the body:

> It ought to be said that, from the mover and a mobile thing, where it is not by nature (that the mover) is the perfection (of the mobile thing) but is related to it in the way a sailor is to the ship and the heavenly mover to the heavens, the result is never one being; when, however, the mover is by nature the perfection of the mobile, from the mover and the mobile being there always results one being constituted of both.[277]

We might still ask at this point, whether Albert really thinks that the soul is a separate substance or not. For his quite un-Aristotelian position seems to depend upon his view that the soul does not move the body by being related to the body as form to matter. Rather, the contrary is true, namely, that the soul is the form of the body by being its mover. Moreover, in his Aristotelian paraphrases, we are told that the soul is united essentially only to the heart and, to the bodily organs only through the operation of individual powers. The image of the sailor and the ship strongly suggests that the soul is the efficient cause of the body which appears thus to be its instrument. In fact, the instrumentality of the body is clear in a discussion on the separateness of the soul as such. Albert is certainly cautious to qualify his position, for the soul, in fact, is not immediately joined to the body. The medium is necessary for the soul not to alter its

[276] St. Albert, *Summa Theologiae*, II, 12 ,69, 2 ad 4 (Borgnet XXXIII, 16b) "...dicendum quod hoc omnino est verum de anima quae tantum est actus corporis, sed non de anima quae est actus et motor corporis ut nauta navis. Haec enim per substantiam et essentiam est extra corpus et distincta ab ipso, nec inest ei ut forma sive qualitas essentialis, sed inest ei ut influens ei potentias ad opera vitae, sicut nauta instrumentis navalibus potentias influit ad opera nautical."

[277] St. Albert, *Summa Theologiae*, II, 12, 77, 2, ad 5 (Borgnet XXXIII, 70b-71a), "...dicendum, quod ex motore et mobili ubi motor non est perfectio mobilis secundum esse naturae, sed ut nauta navis se habent, et motor coeli se habet, numquam fit unum: ex motore autem et mobili ubi motor perfectio est mobilis secundum esse naturale, semper fit unum constitutum ex utroque."

essential properties when preparing the sense organs to receive the sensible species and for these to be conveyed to the soul:

> There are two kinds of mover, a separate one, as is in the case of the sailor and the ship, and the conjoined, as are the soul of the body and celestial intelligences. The soul is a mover in both cases for it is substantially separate, especially in the case of the rational soul and it is also conjoined as the perfection of the body. It utilises a medium of fittingness (*medio congruentiae*) in its being separate and conjoined to the body through the communication of operations, but no medium is used insofar as it is conjoined to that which is perfected by its perfecting form.[278]

Even here, therefore, as Baldner observes,[279] we are reminded, therefore, of Albert's ongoing commitment to the view that the soul both is and is not a separate substance for it simultaneously the separate mover and the (conjoined) form of the body.

2.1 The soul as principle and cause of life

According to Aristotle, without a soul a thing would cease to be what it is. The soul could not, then, be separable from the body for the body. Albert resisted views of the soul which cornered him with what he would have judged a 'reductive' notion of the soul in relation to the body. It is easy to understand why he preferred the second definition: *anima est principium et causa hujusmodi vitae, physici scilicet corporis organici*. This definition tells us something about the nature of the soul itself over and above its function as first act of the body. In fact, Albert's logic points out that the first definition is no more than the conclusion that arises from the soul's nature as the principle of life. The determination of the soul as the act of the body is a function of its being the principle of life[280] and an account of the essential parts of the soul cannot be reduced to an account of the soul as the act of the body. This makes it possible for Albert to say that the soul is a separate essence even while admitting that as a body-bound spiritual substance it has a basic connection with the body. Thus, in the *De Homine*, Albert identifies

[278] St. Albert, II, 13, 77, 2, ad ob. 3 (Borgnet 33, 74a-b): "Dicendum, quod motor duplex est, scilicet separatus, ut nauta navis: et conjunctus, sicut anima corporis, et intelligentia coeli. Et anima est motor convenientiam habens cum utroquo modo motoris: est enim separata per substantiam, praecipue rationalis, et cojuncta, prout est perfectio corporis: et ideo ut est separata, conjuncta corpori per communicationem operum, utitur medio congruentiae, et dictum est: sed ut conjuncta perfecto perfectibili, nullo utitor medio..."

[279] S. Baldner, op. cit. 116.

[280] *De homine*, q. 4, a. 7: "Et quia conclusiones sunt ut incertae, certificatae tamen ex certioribus, ideo necesse est aliam diffinitionem reperiri, quae dicat causam propter quam anima est actus talis corporis vel substantia secundum rationem: haec autem est ista, quia anima est principium et causa vitae corporis physici potentia vitam habentis."

the agent intellect and the *intellectus adeptus* as parts of the soul which are separable and which do not serve as principles of life and activities in the body.[281]

In his *De Anima* we find a passage which shows clearly that Albert considered the soul to be an essentially separable substance, independent of the body. Here he gives reasons why he consistently opposed the conception of the soul as primarily form or perfection of the body. For him, the rational soul as a whole – not only the intellect – is separable from the body. The basic principle at work here is that a higher being embodies the perfections of the lower.[282] Hence, it is impossible that an essence that is not separable from the body should be the subject of a separate faculty. Moreover, from a separate spiritual power, operations can flow down to a corporeal being. We are given examples with reference to the prime mover and the arts. The separated prime mover is the cause of movement in the first mobiles, the movements of which is always linked with bodies. Similarly, art as such is not mixed with matter in the sense that it exists as knowledge in the mind of the artist, but the external manifestation of the knowledge is always linked with what is material.[283] Analogously, the separable rational soul can perform its normal functions in the body while remaining essentially an immortal substance. The reverse is impossible since an essence conjoined with the body, Albert reasons, cannot perform the operations of a separate essence.

The question has nonetheless stayed with us: how does Albert manage to reconcile this view of the soul as a subsistent entity with that of the soul as act of body in the sense intended by Aristotle? What additional features belong to the soul apart from being a form of the body and what is the real work done by the latter aspect? Albert is aware of the tension between the two powerful conceptions of the soul and begins by explaining how material and spiritual

[281] Q. 69, a. 3: "Anima rationalis secundum quasdam partes suas nec principium, nec causa est corpori operum vitae et accidentium per se, sicut secundum intellectum agentem et adeptum. Ergo secundum illas nec est actus, nec ratio, nec species alicujus corporis, sed separata et separabilis ab ipso."
[282] Thérèse Bonin, "The Emanative Psychology of Albertus Magnus", op. cit., 48.
[283] St. Albert, *De Anima* II, Tr 1, c.4: "Amplius autem manifestem est non solum de ipsa parte intellectiva, quod separatur, sed etiam de ipsa tota anima intellectiva, quod separatur. Cuius causa necessaria est, quia cum partes animae sunt naturales potestates eius, ab ipsa fluentes, impossibile est, quod ab essentia coniuncta cum corpore fluat potestates separata. Sed e converso possibile est, quod ab eo quo essentialiter est separatum, fluant potentiae operantes in corpora; quia omnis potestas superior potest, quidquid potest virtus inferior, et non convertitur; cuius probatio est, quod a primo motore simplici, qui maxime separata essentia est inter omnes essentias, fluit virtus motiva primi mobilis, quae nullo modo explet operationem suam sine corpora, eo quod nihil est localiter mobile nisi corpus. Similiter autem ars quaelibet separata est, prout est in anima artificis, et tamen potentias suas non explet sine corporeis instrumentis. Patet igitur quod ab eo cuius essentia separata est, fluunt potentiae operantes in corpore; sed ab eo quod essentialiter subditur corpori, et est virtus in corpore existens, nulla fluit potentia quae sit separata quia potentia naturalis et operatio sequitur essentiam. Et ideo essentia immixta corpori, magis erit immixta quam ipsa essentia a qua fluit. Adhuc autem naturalis potentia est proprietatis essentiae. Est autem subiectum principium passionis et cadit in diffinitione eius. Qualiter igitur posset esse, quod essentia conjuncta corpori causaret potentiam naturalem separatam?"

substances are composed.[284] Anything that is subject to generation and corruption is composed of matter and form. Human beings, for instance, are composed of body and soul. The soul is the form of the body, but in the state of composition the soul plays an additional role: it delineates the common nature of the composed substance: the nature of man. Albert's notion of *forma totius* plays an important role here. This category of another kind of form seems to take over in a comprehensive and globalised way the form that is habitually called the form of the body within the hylomorphic composition. This is the form of the human being. Consequently, Albert rejects all composition of matter and form in what is spiritual. On the other hand, only God is purely simple and thus, spiritual substances like the soul must be composed in some manner which is immaterial. So, Albert argues that the type of composition admitted in spiritual beings is that which arises from the existence of potency on account of the privation that is present in their beings.[285] The composition is explained in terms of *suppositum* and *forma totius*. The latter is the rationality of the soul. The soul is a substance because it is a subject – *suppositum* – determined by the *forma totius*, thus preserving the notion of composition as well as spirituality for the nature of the soul. To help him explain this Albert needs a metaphysical distinction that comes from Boethius, namely, that between *quod est* and *quo est*.[286] The simple subject is the *suppositum* of the soul and this is *quod est*. Rationality is the determining characteristic of the human soul and that is *quo est*. For Albert, this determining characteristic –what he refers to as the *principium intelligendi* – coalesces with what would stand as form in a material substance. The problematic consequence of this model is that matter is absent in the spiritual and thus the *forma totius* is indistinguishable from substantial form, contrary to what is found in corporeal beings.[287]

There is more conceptual work going on here, however: Albert puts forward a revised understanding of the notion of substantial form as well as a distinction between two ways of

[284] *De Homine*, Tr. 12, 1. 72, m.2, t. 18.
[285] *In II Sententiarum*, d. 1, a. 4, sol: "Unde dico non solum esse hoc aliquid, quod est ex materia et forma, sed quod est ex potentia et actu. Quia apud me omnis potentiae causa est privatio, et quod non subjacet privationi aliquot modo, ibi nulla est potentia…Spiritualem autem quae sunt hoc aliquid, nulla est materia meo iudicio, sed in ipsis est quod est, et quo est; quorum neutrum numquam separatur ab altero, ut quod est dicat hoc aliquid quod vere est in natura, quo est dicat principium intelligendi et subsistendi ipsum in tali esse."
[286] Rosa E. Vargas, "Under this reading of Boethius, then, quod est refers to the individual concrete subject, while esse or quo est is equivalent to the forma totius of material substances. In material substances, which are composed of matter and form, Albert distinguishes between the form that determines matter and that is a part of the composite (*forma partis*), and the "form" of the composite as a whole (*forma totius*), which is predicated of the composite. Thus, for a human being, the human soul is the *forma partis* and the form 'human' (*homo*) is the *forma totius*." "Albert the Great on Metaphysics" in *A Companion to Albert the Great*, Edited by Irven M. Resnick, Leiden / Boston: Brill Publications) 629.
[287] Ibid.: "In quibusdam autem non est talis compositio, sed ex quo est, et quod est, quemadmodum dicit Boethius: et quo est est forma totius, quod est autem dicit ipsum totum cujus est forma: et haec compositio est in incorruptibilibus et ingenerabilibus, in quibus forma totius non differt a forma materiae, quia non habet materiam."

understanding actuality. In the response to the second objection of the first article in Q. 4, he revives a notion that comes from Boethius, the distinction between *ousia* and *ousiôsis*.[288] The term *ousia* denotes the notion of form strictly in its relation to matter according to the standard Aristotelian interpretation. According to this meaning, the notion of "form" does not apply to the rational soul. By contrast, as Weber observes in his commentary on this text,[289] taken as *ousiôsis*, "form" adds the notion of a subsisting subject. It is this latter sense which applies to the human soul. Having introduced this meaning of self-subsistence and not merely in relation to matter, Albert then uses this new tool in his argumentation against Gregory of Nyssa. Gregory had argued against the Aristotelian conception of soul as act of the body saying that a definition ought to be founded on the noblest aspect of a being. Now the "act of the body" concerns the vegetative part, says Gregory, which in the case of humans happens to be the humblest. Albert answers saying that the Philosopher did not consider the vegetative power as the most distinctive of the human soul but only as an attribute of it in virtue of its kind. Moreover, Albert tells us, "*Gregorius enim iste Platonicus fuit valde*"[290] and in Albert's view he ignored the notion of form or entelechy of the body which can be taken to mean *ousia*, as the act of the body, as well as *ousiôsis*, as a self-subsisting entity.[291]

Taking advantage of the Boethian notion of *ousiôsis* which established a way of thinking about form as self-subsistent, Albert develops his own understanding of substantial form and applies it in an original way to the rational soul taken as act or perfection of the body. The soul is now seen as a perfection for the body as its first intrinsic perfection with regard to the vegetative and sensitive powers, and first extrinsic perfection as regards the "separated" intellective powers. In his response to the sixth objection Albert argues that "perfection" designates that which can exist apart from the material subject that it perfects, as the navigator can exist without the ship. Since the soul, taken as one kind within its species, that is, the rational soul, does not depend on the body, the term "perfection" is more apt than that of

[288] "Ad idem dicendum, quod quaedam forma est, quae est perfectio in natura quae est tantum forma et *οὐσια*, et non substantia per existens in praedicamento, sicut sunt formae substantiales elementorum, et corporum commixtorum tantum mineralium, et formae quorumdam complexionatorum, sicut sunt formae vegetabiles et sensibiles, quae non sunt substantiae nisi quia constituunt et faciunt substantiam in brutis et in plantis, nec etiam per se sunt in praedicamento substantiae. Quaedam autem formae sunt substantiae utroquae modo: non enim sunt tantum οὐσια, sed etiam *οὐσίωσις*, ut dicit Boetius in commentario super Praedicamenta: et illae sic sunt perfectiones, quod secundum esse substantiale non fundantur in perfecto." For fuller discussion on the two different kinds of forms see Albert's *De Anima*, II, Tr. 1, c. 3.

[289] Edouard, H. Weber, *La Personne Humaine*, op. cit. 127-128. I rely on Weber's interpretation and research throughout this section on this point.

[290] *De homine*, Q. 1, a. 5 ad 2.

[291] Ibid., q. 4, a. 1, ad 8.

form.[292] Through the specification of *ousiôsis* as a self-subsistent principle, the notion of form or perfection of the body is itself further clarified when seen in the light of another axiom from Boethius, namely, that "form confers being" and that "all being results from form."[293]

The philosophical model behind this segment of Albert's anthropology evidently brings us back to the all too familiar grammar of a Neo-Platonic system of flux and emanation flowing from an original source as discussed above.[294] The life that is given to the human body is a form or effect emanating from the essence of the rational soul. Together with Boethius, Avicenna supports this doctrine of the flux of powers originating from the essence of the soul. On that account, the sensitive soul, for instance, would be an ulterior definition (in relation to the vegetative life) and thus confers an *esse* that is further defined. This is "sentience" which is a special modality of life. In this way, *esse* is "sentience" for sensitive beings. Progressing forth in the hierarchy of modes of living, the exercise of intellectual thought is the *esse* of being endowed with intelligence. That is why Aristotle is right in asserting that intellect resides uniquely in the latter kind of living beings.

Form *qua* form confers *esse*, both in its pairing with matter as well as in its separated form. When separated, however, it is closer to the first Cause and in this case it confers a more noble *esse* than when in relation to matter. The essential act which it confers is (*esse vitae*), the *esse* of life which is how the soul is defined: *actus corporis organici physici potentia vitam habentis*".[295] The same theme is found in Albert's commentary on *De Anima* where the *esse* of life is the emanating effect to the body from the essence of the soul.[296] According to this scheme, one gets the impression that life is some sort of intermediary between the soul and the

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[292] "Ad aliud dicendum, quod etiam duplex est ratio quare melius dicitur actus vel perfectio quam forma. Quarum una est, quia forma proprie secundum naturalem philosophiam est illa quae habet esse in hac materia, et non est sine ea. Perfectio autem quaedam bene est sine perfecto secundum suam substantiam, sicut nauta sine navi. Cum igitur anima secundum aliquam sui speciem separetur, convenit magis ei secundum omnem sui partem dici perfectionem quam formam…et cum sic anima comparetur ad corpus, melius dicitur perfectio quam formam."

[293] Boethius, *De Trinitate*, c. 2, PL64, 1250B: "omne esse a forma".

[294] For an extensive treatment of Neo-Platonic emanative metaphysics in St. Albert see, Isabelle Moulin, "Causality and Emanation in Albert," in *A Companion to Albert the Great: Theology, Philosophy, and the Sciences.* Edited by Irven M. Resnick (Leiden, NL: Brill Publications 2013) 694-721.

[295] St. Albert, *De morte et vita*, Tr. 1, c. 1: "…Cum ergo anima sit quaedam formarum specificantium, sibi essentialiter convenit dare animato corpori specificatum et determinatum esse… Et hoc esse vocatur vita in viventibus: et ideo egregie dictum est, quod vivere viventibus est esse. Sensibilis autem anima cum dicat ulteriorem determinatum esse donat: et hoc est sentire quod est quoddam vivere specificatum. Et sic sentire sentientibus est esse, et ulterius intelligere per eumdem modum intelligentibus est esse. Propter quod Aristoteles bene dixit, cum dixit quod est solus intellectus. Quia nihil dat esse hominis in quantum est homo, nisi solus intellectus. Omnis enim forma dat esse in eo quod est forma, sive sit concepta cum materia…Et quia sic essentialis animae actus est dare esse vitae, propter hoc dicitur esse actus corporis organici physici potentia vitam habentis…"

[296] St. Albert, *De Anima* II, Tr. 1, c. 6: "Est enim actus animae vitae continuus, et esse dans corpori vivo: sicut enim esse generaliter est actus essentiae in eo quod vere et secundum actum est, ita vivere est actus animae in eo quod animatum est."

body, where flux or emanation transmit form, as L. Geiger has rightly observed.[297] We find in Albert less a development of his theme on life communicated by the rational soul than his willingness to integrate it with hylomorphic theory. In the *De homine* the problem is clearly felt: the Aristotelian notion of form as act is substantial form only in so far as it is the form of matter in a *hoc aliquid*. Albert is aware of this throughout his discussion of the essential act emanating from form.[298]

> Act can be understood in two ways: first, according to the term itself, it is that which is produced by the efficient cause that mediates movement and the transformation of matter. Thus, form is called act…In the second way, act is what is accomplished by form in matter and composed of both, which is *esse*. The objection arises with the first meaning of act being applied to the soul. Moreover, the second meaning is suggested by the Philosopher himself when he affirms that the form is that according to which a subsistent subject (*hoc aliquid*) exists. [299]

In the *De Anima* commentary, however, we find a further explanation of this double meaning of act: [300]

> Specific and substantial act…is double, but one follows the other. There is first act, essential *esse*. There is second act, which is the essential action according to essential *esse*. This is what is meant when we say that the light at home is *esse* and first act and lighting up is second essential act which is the action, having an essential diffusion of its own form.[301]

A passage from Albert's *Commentary on Metaphysics* brings the concept out more clearly and forcefully:

> *Esse* is the act of an essential cause… Now such a cause cannot be relative to be and not-being at the same time, as that is the proper disposition of the power that belongs to matter. Therefore, *esse* is not the act or the effect of matter. It must be affirmed, then, that the form possesses another esse independent of matter or of its effect.[302]

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[297] L. B. Geiger, "La vie, acte essentiel de l'âme, l'esse, acte de l'essence, d'après Albert le Grand", in *Études d'Histoire Litteraire et Doctrinaire* XVII, (Montréal-Paris 1962) 49-116. The author identifies four instances which Albert formally discerns: life of the soul in itself; life attributed to the soul as a cause of life; life as an emanating act of the soul; life received by the body and which provides its form.

[298] *De homine*, Q. 4, a.1, arg. 10.

[299] Ibid., ad 10: "Ad aliud dicendum, quod actus duobus modis dicitur. Uno modo dicitur secundum proprietatem nominis, scilicet secundum id quod actus est ab efficiente per motum et transmutationem materiae, et sic forma natura ultima dicitur actus, et ad similitudinem etiam hujus in artificiatis dicitur forma artificialis actus. Dicitur etiam actus illud quod actum est a forma in materia et composito, et hoc est esse. Primo ergo modo dicitur anima hic esse actus. Secundus modus tamen innuitur in verbo Philosophi, ubi dicitur, quod forma est secundum quam est hoc aliquid."

[300] St. Albert, *De Anima* II, Tr. 1, c. 1: "Species autem est entelechia: hoc autem Latine sonat actus vel perfectio, quae dat esse specificum substantiale, secundum quod homo vel asinus dicitur aliquid. Et hoc est duplex, quorum unum sequitur alterum: unum est enim actus primus qui est esse; et aliud est actus secundus, qui est actio essentialis secundum illud esse: sicut si dicerem quod lux lucentis est esse et actus primus, et lucere est actus essentialis ejus secundus, eo quod haec est actio ejus, quae suae formae diffusio quaedam est essentialis…"

[301] St. Albert, *De Anima* II, Tr. 1

[302] St. Albert, *Metaphysicorum* III, Tr. 3, c. 10: "Esse etiam perit ab existentibus si non sit forma: esse enim actus est alicujus essentialis causae: non autem est actus causae illius quae se habet ad esse et non esse: ad esse autem

Albert's application of the distinction *quod est / quo est*, the distinction between *ousia* and *ousiôsis* and his refinements on act and *esse*, all sum up to form a robust argument for the unity of the soul and for the mode of its unity. The powers of the soul taken individually are reduced to accidents, with the implication that what affects the accidents will leave the substance intact. The notion of *forma totius* –the form of the human being – discussed above enables him to preserve both the autonomy of the soul's act as well as its indispensable role in delineating the common nature of the composed substance, the nature of man. So there are not three souls in man, but only one, the rational soul, which contains immanently the vegetative and sensitive souls as potential parts.[303] Moreover, the soul is a substance because it is a *suppositum*, that is, a subject, determined by rationality, or, the *forma totius*. As a consequence of applying the notion of form or substantial perfection to the rational soul, Albert introduces the terms *totum potestativum* – potential whole – and, *totum virtuale* – virtual whole, in order to explain the unity of the substantial soul.[304] These terms are also found in Albert's *Commentary on the Sentences*.[305]

Albert's anti-reductivist approach to the soul is also clear in the first article of Q. 61 where he asks *utrum virtutes animae rationalis sint corporeae*. From the ten arguments he brings against the claim that the powers of the rational soul are bodily, the following two stand out as the principal ones: (1) the cognitive power which perceives intelligible forms is indivisible and incorporeal; (2) the object of intellectual knowledge is separate from matter and engages in two relations: with the intellect and with the object known where the object of intellection is the intelligible form (species). This process is characterized by a separation from matter and a relation with the intellect which is simple, immaterial and incorporeal.[306]

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et non esse se habet potentia: materiae igitur esse non est actus sive effectus materiae. Oportet igitur ponere formam praeter materiam, cujus effectus sit esse."

[303] St. Albert, *De homine*, Q. 6, *solutio*: "Et sic est in partibus animae: vegetativum enim est in sensitivo non proprium esse, sed ut virtus et potentia ipsius. Sicut enim dicit Boetius in Divisionibus: Quidquid potest potentia inferior, potest et superior, sed non convertitur; quandoque enim separatur vegetativum a sensitive. Ex his patet, quod divisio animae per vegetabile et sensibile et rationale, est divisio totius potentialis, quae media est inter divisionem totius universalis et totius integralis."

[304] Weber, op. cit., 131.

[305] St. Albert, *In I Sent*, D.3, a. 31 and a. 34, for example.

[306] Ad 9: "Nonum est intelligere abstractum quod est separatum a materia et appendiciis materiae et consequentibus ipsam, ut supra probatum est. Cum igitur intelligibile non habeat nisi duplicem comparationem, scilicet ad intellectum, et ad rem, cujus est species, separatio haec fit in intelligibili ex altera istarum comparationum, non autem fit ex ea quae est ad rem: res enim saepe est cum materia et appendiciis materiae et consequentibus eam: ergo relinquitur, quod fit ex illa comparatione quem est ad intellectum. Cum igitur hujusmodi separatio est simplex et immaterialis et incorporea, intellectus per se et primo erit simplex et incorporeus. Similiter anima rationalis."

I cannot conclude this chapter without placing Albert's complex theory of the soul within the context of his faithful adherence to the *Liber de Causis*, since its metaphysical order of reality provides the ultimate paradigm for his psychophysical account as well. As we have already seen in the first chapter, that scheme which distinguishes four levels of being remains essentially unaltered in Albert's own commentary.[307] The relationship between being and becoming, of identity and change are thereby viewed in terms of intellectual emanation, *fluxus*, characteristic of Neo-Platonic ontology. Operating between the various orders of reality is a type of causality that is not contemplated by Aristotle, namely, essential causality, belonging to intellectual substances. These substances operate according to a principle of emanation in the manner of a *fluxus*, which directs itself outwardly while remaining in itself unchanged. This form of causality operates through the essence of the originating principle itself which 'precontains' the effect in a particular way.[308] The product, so to speak, maintains in this way a priviledged relationship of affinity with the origin.

According to this theory, celestial intelligences, which are an emanation from the First Intellect, act in a productive way on matter through the *virtus formativa* in such a way that matter is already a function of the form to be achieved or completed. The theory of *incohatio formae* plays a central role in the evolutionary progress that gives rise to the various faculties of the soul which ultimately culminate in the intellectual powers. Each form contains, as well as perfects, the preceding one and this is the way Albert understands the passage from potency to act. The *virtus formativa* becomes the vegetative soul through the help of natural agents. That is also the sensitive soul, *potentially* and in view of organising the relevant bodily organs. The sensitive soul is, in turn, educted from the *virtus formativa* and is potentially the rational soul which is the ultimate perfection. Unlike the sensitive soul, however, the rational soul is introduced *ab extrinseco* through the intervention of the First Intellect which operates directly and without the mediation of the celestial intelligences. Such movement thus integrates the preceding functions without interruptions, unlike Aquinas's account, which viewed generation as a sequence of successive stages rather than as a homogeneous process, where the highest form substitutes the preceding one with the cessation of the operation of the latter.[309] In the

[307] St. Albert, I, 1, 2: "causa prima, intelligentia, anima nobilis et naturae".
[308] Cfr. A very helpful guide through the complexities of this aspect of Albert's thought can be found in Philipp W. Rosemann, *Omne Agens Agit Sibi Simile* (Louvain: Louvain Philosophical Studies1996) 210.
[309] St. Thomas Aquinas, *Summa Theologica*, I, q. 118, a. 2, Solutio ad 2: "Et ideo dicendum est quod, cum generatio unius semper sit corruptio alterius, necesse est dicere quod tam in homine quam in animalibus aliis, quando perfectior forma advenit, fit corruptio prioris: ita tamen quod sequens forma habet quidquid habebat prima, et adhuc amplius. Et sic per multas generationes et corruptiones pervenitur ad ultimam formam substantialem, tam in homine quam in aliis animalibus."

development of various forms the preceding one is an essential and natural power in which the successive form is *inchoatively* present: one stands to the other as genus to species, or as triangle to tetragon.[310]

According to this account, it would seem that the soul evolved in a way that guaranteed a natural homogeneity between human nature and all the preceding forms. This is radically qualified by the teleology that guides the entire process. In fact the final end of this evolutionary sequence transforms all the preceding forms in such a way that even the organs held in common by humans and other animals are informed by the intellectual soul and serve it. A paw and a hand are different not only in terms of their function but also of their structure.[311] The emphasis here is on human nature and its distinguished place within creation, rather than the evolutionary process per se, for the continuity of the process is safeguarded by the intellectual principle and not by the permanence of inferior forms. Such a development happens gradually and without 'leaps' as a kind of progression from what is not yet distinct to something that is, because right from the beginning, the intellect operates through the celestial intelligences that exert influence on the forms according to the axiom "*opus naturae est opus intelligentiae*."[312] This explains why in Albert's system, the definition of the soul gives priority to the substantial nature of the intellectual soul rather than to the soul as act and form of the body. Albert also shows interest in the Aristotelian definition of the soul but connects it intimately to function: from the point of view of the body the soul is essentially form, but from the point of the view of the soul, this is only a function which does not capture the full nature of the soul, (but only) insofar as it is a substance that can subsist independently of the body.[313] As an intellectual substance, the soul lies above nature and impinges upon and exerts influence on the nature of the body through its own impressions and powers, without itself being subject to any influence by that nature.[314]

The emanationist metaphysics professed by Albert's version of Neo-Platonism revolves around his famous doctrine of the *triplex universal*.[315] Now we are in a position to understand better the way St. Albert sees his theory of soul fit within this metaphysical picture. The doctrine is based on the notion that there are three distinct kinds of forms. First, there are those

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[310] Philipp W. Rosemann, op. cit., 213.
[311] St. Albert, *De natura et origine animae*, I, 5.
[312] Cfr. James A. Weishepl, "The Axiom *Opus Naturae est Opus Intelligentiae* and its Origins" (Matthias-Grünewald-Verlag, 1980) 441-461.
[313] St. Albert, *Summa Theologica*, II, Tr. 12, q. 69, a. 2, 2, 17: "Animam considerando secundum se, consentiemus Platoni, considerando autem eam secundum formam animationis quam dat corpori, consentiemus Aristoteli."
[314] St. Albert, *De Anima*, 1, II, Tr. 4, c. 12, 164, 2-5: "Anima est super naturam totam, et ideo imprimit et influit in totam naturam corporis suas impressiones et suas vires, absque eo quod imprimatur sibi aliquid a natura."
[315] St. Albert, *De Anima* 1, I, Tr. 1, C. 4, 8.; See Alain De Libera, op. cit., 1999, 186-191 and P. Rosemann, op. cit., 213. See also Timothy Noone, "Albert and the Triplex Universale", in Irven M. Resnick, op. cit., 619-626.

preceding reality, that is, those forms that are a cause of the formation of things and that pre-contain simply and immaterially all diversity. Secondly, there are the forms that the agents of the *fluxus* in matter and thereby bringing it to perfection. Thirdly, there are forms that are separated from things through intellectual abstraction according to genus and species. The first mode thus precedes reality, the second is currently found within reality and the third is successive to it. The third kind of form Albert calls '*intentio*' in his *De Anima*.

It is worth taking a closer look at forms of the second type within Albert's classification in order to understand better the distinction that emerges between nature and soul. In fact, as would be expected, forms falling within this category are distinguished according to their proximity or otherwise in relation to the first original principle.[316] How do these forms relate to nature? There are types of 'natural forms – material forms as we might call them – which follow the nature of a body without in any way being elevated above that nature, as is the case with minerals and such purely material bodies. Such bodies lack the light and agency of the first moving intellect and thus are deprived of life and all the features associated with life, such as movement sensation and intellect.[317] Such forms 'possess' a body that is simple and homogeneous, since it has no natural *telos* and no potential for development, growth or agency.[318] There are forms, however, that belong to a second type of natural forms and these are closer to the first and universally moving cause which also produces all forms. This is the incorporeal essence that confers movement and perfection to the body and operates on a level that lies above the merely material nature of the body. This is called soul[319] and its capacity for agency is not derived from the body but from that first cause from which it derives its nature. As a consequence of this it possesses many essential operations and the body too, being the space where such operations are executed, must be complex and heterogeneous. Albert says that the soul is to be found between nature and intellect: "*ante naturam et post intelligentiam in horizonte aeternitatis et temporis*" for its intellectual form is emanated directly from God, of whom it is an image.[320]

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[316] Cfr. *De Anima*, 1, II, Tr. 1, C. 3, 67, 46-62.
[317] St. Albert, *De natura et origine animae*, I, 3.
[318] *De anima*, 1, II, Tr. 1, C. 3, 68, 14-16.
[319] Ibid., 67, 57-62.
[320] St. Albert, *De Anima* 1, I, Tr. 2, C. 4, 26, 77-78; there are other such descriptions of the soul in Albert's Commentary on the soul, for instance, 1, II, Tr. 1, C. 8: "in horizonte aeternitatis et temporis"; Ibid., 76, 28-30: "supra naturam existens et infra intelligentiam"; Ibid., 76, 58-61, 64-65: "sic patet, qualiter anima rationalis est creata in umbra intelligentiae et est imago quaedam aeternitatis et supra tempus existens et anima sensibilis est umbra animae rationalis…Vegetabilis autem est in umbra sensibilis." The Neoplatonic and emanationist pedigree of such statements is confirmed by their occurrence in Proclus' *Elementatio Theologica*, Prop. 191, "anima substantiam quidem eternalem habet, operationem autem secundum tempus", Ed. Boese, Leuven 1987, p. 94, 15-16; *Liber de Causis* II, 22: "esse vero quod est post aeternitatem et supra tempus est anima, quoniam est in

Conclusion

To conclude: Albert could not deny that the soul is a form. He moved away, however, from any position which defined the form in terms of its matter. According to Aristotle's theory, to say that the soul is united to the body as its form could only mean that the soul's nature is identified with the essence of the body.[321] In Aristotle's account, for a form to exist it must the form of matter. Conceiving of an Aristotelian form independent of the empirical thing would thereby usher in the restored existence of a Platonic form. A subsisting form is, thus, a separate form, for Aristotle. When he identifies the essence of the human being with his soul, Aristotle certainly did not suggest that man could exist without his body. That could only mean that such a property, namely, that of being in possession of a functional structure as is the 'human' is the property of a certain type of living organism. Albert rejects that view, namely, that the soul is conjoined to the body essentially, for he thought that would restrict the soul to a merely bodily structural function. That position could not, on its own, give an account of the *sui generis* nature of the human soul as viewed by Albert. A merely hylomorphic account of the psychophysical constitution of the human being simply could not fulfill that requirement. Or, in other words, Aristotelian form as act could not fulfill the requirements needed by Albert's theory of the human soul. That is why Albert gives a predominant role to Avicenna's theory of form as the source of *esse*, to Neo-platonic emanation, as well as to a nuanced application of the Boethian distinction between *quod est* and *quo est*. Form and matter are in this way, given a new role. They no longer serve as purely explanatory factors but they acquire a 'new' dynamic and causal relationship. In this way, the life of the human being is not viewed as the emergent property of a certain configuration of bodily organization but as the effect of the uninterrupted flow of being from an essential principle into a body that participates in that flow. The soul is a separate being insofar as it has an intellectual nature and the cradle of intellectual operations[322] but it is also incomplete in itself insofar as its nature is to be the soul of a body.

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horizonte aeternitatis inferius et supra tempus", Edited by A. Pattin, *Tijdschrift voor Philosophie*, 28 (1966), 50, 8082

[321] Aristotle, *De Anima* 412b11: "What is soul? It is substance in the sense which corresponds to the account of a thing. That means that it is what it is to be for a body of the character just assigned" Translated by Smith, J.A., in *The Complete Works of Aristotle*, Vol. 1, Edited by Jonathan Barnes, 657.

[322] St. Albert, *Super Ethica*, VI, 2, 478, Ed. Col, p. 408, 60-66: "Est enim anima secundum esse et intelligentia secundum essentiam, quia essentia remanet separate ad modum intelligentiae".

CHAPTER FOUR

AQUINAS ON THE ONTOLOGY OF SOULS AND BODIES

Aquinas thinks human beings are hylomorphic substances. So, in this chapter we need to closely study this claim and to view its significance, implications and coherence overall. Since his account is strongly metaphysical and engages an elaborate ontological system, we need to take a look at what counts as a substance in his account and then move on to explore his human ontology.

First, we need to see why substances are so central to his account, which should not be a surprise given his commitment to Aristotle's analytic method. Things will get more complicated when viewing his account of human nature which he treats to be both material and incorporeal, physical as well as intellectual, while defending the substantial unity of human nature. For us to get there we need to discuss the metaphysical scaffolding of his thought, how he reads and interprets Aristotle's account of the soul while keeping in mind the hotly debated discussion on the rational soul in the thirteenth century. While depending on Aristotle's main insights, Aquinas's metaphysics goes beyond since it seeks to wed together Aristotelian views on substances and properties with his own convictions about essence and *esse*, which is best translated as 'being'.

Recently E. Feser wrote that, "The biggest obstacle to understanding Aquinas's account of the soul may be the word 'soul".[323] However, the reasons he gives for this obscurity are not primarily philosophical but rather cultural, one could say, due to conceptual confusion and lack of familiarity with the core of Aristotelian thought and conceptual inaccuracy, such as confusing soul with Descartes's notion of *res cogitans* and, hance, as just stated above, with his views on being and existence.

In the following sections I intend to avoid this possible confusion by giving light to most salient features of Aquinas's philosophy and their crucial link to what we have come to call the mind-body problem. We shall first take a general look at his views on substance, accident and *esse* before offering an interpretation of his metaphysics of persons.

[323] Edward Feser, "Aquinas on the human soul", in *The Blackwell Companion to Substance Dualism* (Oxford: John Wiley & Sons, Blackwell Publications 2018) 88.

1. What is a substance?

This section spans across three foundational steps. The first takes a look at Aquinas's general views on substance. The second takes a look at his hylomorphic theory. The third will examine the relation between essences and their *esse*.[324]

Stated casually – and hopefully in a way that is faithful to Aquinas's mind – substances are arguably the foundation blocks of anything that exists whereby something has being (*esse*) and exists with a firm identity of its own and which could be a nature, an essence or an identifiable and subsistent item within a category or genus classifiably as such.

> […] Thomas following Aristotle, regards substance as the prime referent of being, even though both thinkers acknowledge that the term "being" is used in different ways. Aristotle accounts for this by his theory of the *pròs hén* equivocation of being, and Thomas uses this same notion as part of his justification for developing his doctrine of analogy of being.[325]

1.1 A look at the Metaphysics Commentary

Perhaps the best to get to the heart of Aquinas's understanding of substance is by taking a brief explanatory look at three central claims that may be found in his Commentary on Aristotle's *Metaphysics IV*:

(i) *Sed tamen omne ens dicitur per respectum ad unum primum*[326]

The context of this text is an important discussion on analogy, that is, on the very senses of being. "Yet every being is called such with respect to one first thing". Substance is the prime referent of being even though there are various, different modes in which it can be predicated.

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[324] I do not intend to offer a fully blown exegesis of Thomas Aquinas's metaphysics of substances as that would not only be a gigantic task in itself but it would also require extensive conceptual and exegetical preparation as is evident from current literature on a still open and widely disputed semantic and philosophical field, for instance in Elliot Polskys' article, "Secondary Substance and *Quod Quid Erat Esse*: Aquinas on Reconciling the Divisions of "Substance" in the *Categories* and *Metaphysics*", in *American Catholic Philosophical Quarterly*, Vol. 96, No. 1 (2022) 21-45.

[325] John F. Wippel, *The Metaphysical Through of Thomas Aquinas – From Finite Being to Uncreated Being* (Washington DC: Catholic University of America Press 2000) 199. Much of what is being discussed in this section relies on the masterly guidance of this monumental work cited. Not much has been written about the Thomistic account of substance and this is possibly due to the influence of E. Gilson in certain circles who focused on Aquinas independently of Aristotle. On his interpretation Aquinas closely aligns his account of substance with form resulting in a largely Neo-Platonist reading. Other interpreters like L. Dewan and R. McInerny have shown that Aquinas increasingly departs from the Neo-Platonist views on form and follows Aristotle on substance and additionally develops his theory of substance as form + act of being. I shall be taking a closer look in the subsequent sections with reference to Aquinas's *Commentary on Aristotle's Metaphysics*; cfr. Lawrence Dewan, *Form and Being. Studies in Thomistic Metaphysics* (Washington DC: Catholic University of America Press 2006) and Ralph McInerny, *Preambula Fidei*, (Washington DC: Catholic University of America Press 2006).

[326] St. Thomas Aquinas, *In IV Metaphysicorum, Lect. 1*, n. 539 (Turin: Marietti, Spiazzi Edition 1954) 152.

Within this context of referential multiplicity every being answers to a referred name which is one and first and in a mode according to which it is properly said to exist.

(ii) *Sed hoc primum non est finis vel efficiens sicut in praemissis exemplis, sed subiectum*[327]

"By this primary referent or principle is not meant the final or efficient cause – as is the cause of the previous examples, but rather, the subject for other and secondary instantiations of being." Substance are the primary ontological subjects which exist and this is the fullest sense in which anything could be possibly said to have being and exist. By contrast, accident and properties have a secondary and dependent form of existence which is rooted in the subject and without which it could not exist. To be horse or a stone is a substance, but blackness or ruggedness are accidents inhering in them, respectively. So, substance have a mode of existence that is "*firmum et solidum*"[328], hence substantial existence as opposed to accidental modes of being.

(iii) *Alia enim dicuntur entia vel esse, quia per se habent esse sicut substantiae, quae principaliter et prius entia dicuntur*[329]

Those things are substances which have being in themselves, *per se*. Therefore, to be a substance is to be in a principal and primary way. While attributes or accidents exist in a thing, substances – the thing which has a firm and solid per existence – does not inhere in anything else. Within his discussion on Aristotle's categories of being, Aquinas says that a "first substance" is precisely that particular or individual substance of which all other accidents and attributes are predicated.[330] The notion of a substance as something which has a *per se* existence needs further clarification. Aquinas has established so far that substances exist have "per se" existence because they serve as a foundation or subject for attributes and not vice-versa, hence there is a certain ontological priority a substance enjoys with respect to accidents, properties and anything inhering in the substance. In a helpful discussion we find in his Disputed Questions *De potentia Dei*, where he discusses persons compared to essences and hypostasis. Although the framework is explicitly theological an impressive amount of philosophical

[327] St. Thomas Aquinas, *In IV Metaphysicorum, Lect. 1*, n. 539 (Turin: Marietti, Spiazzi Edition 1954) 152.
[328] Aquinas, St. Thomas, *In Metaphysicorum IV*, 1, Marietti, 52.
[329] St. Thomas Aquinas, In IV Metaphysicorum, Lect. 1, n. 539 (Turin: Marietti, Spiazzi Edition 1954) 152.
[330] Ibid., *In Metaphysicorum V*, 9: "Et hoc praedicatum dicitur signficare substantiam primam, quae est substantia particularis, de qua omnia praedicantur".

background is typically entailed by the outcome the discussion eventual achieves. So, in one of his replies Aquinas distinguishes between two senses in which we may understand substance, in one sense as the individual indicated also in the Metaphysics Commentary just cited involving a primary or ultimate subject which "is not predicated of another and this is the individual in the genus of substance". The second sense of substance refers to "the form or nature of a subject".[331] The idea behind this reply is that natures are commonly shared by all the individuals instantiated within that specific genus, as Socrates within the genus of human nature.

> So that this common nature is called the essence or quiddity. Wherefore whatsoever a thing contains pertaining to the common nature is included in the signification of the essence, whereas this cannot be said of all that is contained in the individual substance.[332]

In his *Metaphysics Commentary* we find that Aquinas does distinguish existence per se from existent in alio as is the case with attributes and accidental forms. We find this in the *De Potentia* text cited as well:

> Now that which is in the individual substance besides the common nature is individual matter (which is the principle of individuation) and consequently individual accidents which determine this same matter.[333]

The argument then continues to explain why essences can be compared to the form of an individual substance as is the case of human nature in Socrates. In composite matters, the essence cannot be reduced to the subject qua individual since that would refer to a nature that is commonly shared by many. We are then reminded of the definition of a substance that is closely reminiscent of the one we saw in the *Metaphysics Commentary*:

> Now two things are proper to the substance which is a subject. The first is that it needs no external support but is supported by itself: wherefore it is said to subsist, as existing not in another but in itself. The second is that it is the foundation to accidents by sustaining them, and for this reason it is said to substand. [334]

[331]St. Thomas Aquinas, *De Potentia Dei*, Q. 9, a. 1, translated by the English Dominican Fathers (Maryland: Westminster, Newman Publications 1932) available online at https://Thomas Aquinas: *Quaestiones Disputatae de Potentia*: English (isidore.co)
[332] St. Thomas Aquinas, Ibid.
[333] Ibid.
[334] Ibid.

Accidents, properties and qualities do not exist or have being in themselves since their existence entirely depends on that of the substance. So, in the eighth reply in the same *De Potentia* question he says precisely this:

> Accidents are not individualised save by their subjects. Substance alone is individualised by itself and its proper principles; hence it is fitting that only in the genus of substance should the particular have a special name.[335]

1.2 Substance and hylomorphism

Our preliminary sketch of Aquinas's account of substance would not be complete without an overview of his hylomorphic theory based on matter and form composition, which will be central to his account of the unity of the body and soul in human nature. Aquinas makes use of Aristotle's theory of causality firstly, since this fulfils his desire to highlight the shortcomings of both materialist and dualist accounts of the world and of human nature and, secondly, because he finds it suitable to determine more clearly the sort of order one finds in the universe.[336]

As with Aristotle's powerful anti-atomistic philosophy Aquinas's account of causality offers a much broader account than modern reductivist accounts in contemporary science which tend to reduce causality to efficient and material causality. In the coming spaces I will present a layout of his general views, then show how form and finality enjoy priority in his analysis and finally, we shall examine his views on the ontology of persons.

Aquinas's hylomorphism is meant to address two misconceptions[337] which result from what he considered to be strongly erroneous interpretation of the relationship of the material and formal causes to efficient causation. On hand, excessive extrinsicism, which stated that sensible forms were given to nature from an external source outside of nature, the *dator*

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[335] Ibid., *De Potentia*, Q. 9, a. 1, ad 8

[336] Aquinas, St. Thomas, "From every cause, there is derived some order in its effects since every cause has the idea of a principle; therefore, orders are multiplied according to the multiplication of causes and of these orders one is contained under the other just as one cause is contained under another cause", *Summa Theologiae*, I, Q. 105, a. 6c.

[337] His discussion may be found in *Quaestiones Disputatae De Veritate*, Q. 11, a. 1, c: "For some have held that all natural forms are in act, lying hidden in matter, and that a natural agent does nothing but draw them from concealment out into the open. In like manner, some" hold that all the habits of the virtues are implanted in us by nature. And the practice of their actions removes the obstructions which, as it were, hid these habits, just as rust is removed by filing so that the brightness of the iron is brought to light. Similarly, some also have said that the knowledge of all things is con-created with the soul and that through teaching and the external helps of this type of knowledge all that happens is that the soul is prompted to recall or consider those things which it knew previously." Translated by James V. McGlynn, S.J. Chicago: Henry Regnery Company, 1953.

formarum or separate agent intellect while inferior natural agents prepared matter to receive these forms. This rendered natural agents rather ineffective and passive causes of what came to be. The other error, excessive intrinsicism, according to which all form were actually in things yet hidden, which needed only some exterior action to bring them to light rather than another cause exterior to themselves, the implication being that nothing new happens apart from the unfolding of what already existed, latently. To this bifurcated debate, Aquinas replies:

> Therefore, in all that has been said we ought to hold a middle position between these two, according to the teaching of Aristotle. For natural forms pre-exist in matter not actually, as some have said, but only in potency. They are brought to actuality from this state of potency through a proximate external agent, and not through the first agent alone, as one of the opinions maintains.[338]

Aquinas's philosophy of material substances consists in a matter-form ontology whereby things are composites of prime matter and substantial form. Both form and matter are principles, one of actuality the other of potency, respectively. His contribution to a very lively debate about this topic was to speak, right from the start, of 'designated' matter as the principle of individuation on the one hand and of form as the actuality of matter on the other, whereby this ontological relationship accounts for all the modalities relevant to the existence of this matter, i.e., shape, weight, within a given identity or essence, hence form within space and time.[339] Prime matter – that is, matter devoid of the formal cause – is a pure potentiality and cannot exist. Aquinas was clear and consistent about this throughout his career. Form is the source of existence and consequently prime matter cannot be the principle of individuation, for two reasons. Pure potentiality is common and therefore multiply instantiable wherever there is actuation by a substantial form. It is, however, a hallmark of individuality, including that of material substances, that it is incommunicable.[340] Analytically speaking, *x* is an individual if

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[338] Aquinas, Ibid.

[339] In Chapter 2 of the early work *De Ente et Essentia,* Aquinas distinguishes between designated (*signata*) and undesignated (*non signata*) matter: "We should notice, therefore, that the principle of individuation is not matter taken in just any way whatever, but only designated matter. And I call that matter designated which is considered under determined dimensions. Such matter is not placed in the definition of man as man, but it would be placed in the definition of Socrates, if Socrates had a definition. Rather, it is non-designated matter which. is placed in the definition of man; for this bone and this flesh are not placed in the definition of man, but bone and flesh absolutely. These latter are man's non-designated matter." Thus, dogs are composed of flesh and blood and bones arranged in a particular way. This 'arrangement' is specified in the form of the 'dog' and on this somewhat general level of 'doghood' matter is, according to Aquinas 'undesignated'. For distinct individuals such as Fido or Rex which are individuals within the species, these individuals are distinguished by Fido having this flesh and blood and bones, whereas Rex has that flesh and blood and bones. This is what qualifies as designated matter, according to Aquinas, namely, its particularity, as opposed to matter included in the universal definition of a substance.

[340] "*Est … de ratione individui quod non possit in pluribus esse*." *Summa Theologiae* III, q. 77, a. 2 and I, q. 3, a. 2 ad 3.

and only if *x* is an instance of something *y* (other than itself) and *x* itself can have no instances (other than itself).[341] Secondly, since prime matter is pure potentiality, it is indivisible and thus cannot serve as the basis of division of a species or nature into individuals. It is not possible to say, "Here is some prime matter, and there is some more", but we can say, "Here is James, and there is William", or in other words, "Here is prime matter informed by Jameseity, and there is prime matter informed by Williameity". It is clear that Aquinas always defended the view that prime matter includes no form or actuality within its nature.[342] Frequently enough, he refers to prime matter as 'in potency' only, or as pure potency. In both cases he means that it neither is nor contains any actuality in and of itself, and yet that it is neither sheer nothingness, nor is it reducible to privation.[343]

Of course, it may can be asked whether Aquinas's account of matter as a principle of individuation is circular. Can matter understood as possessing such-and-such determinate quantity – taken broadly to include location as well as size, shape, volume and all dimensionality – be the principle of individuation? An objector might say, no, since determinate quantity is a contingent property. Contingent or accidental properties presuppose the existence and hence, the individuation, of the individual substance in which they inhere. It would be circular to argue for the individuation of substance by accident, though further qualification for this argument is needed. The other objection would be simply that a change in a substance's determinate quantity would change the individual, which is absurd.

Nor can matter as disposed for the possession of such-and-such determinate quantity function as the principle of individuation, even if such a disposition were not accidental but essential to a thing's nature. Although some micro-physical particles or micro-organisms might plausibly be said to have matter disposed to a determinate quantity, in the most of most substances matter is disposed to a range of quantities. Moreover, a disposition to quantity is consequent upon the possession by matter of substantial form: it is because William is human that he is disposed to a height greater than six inches – William would not be so disposed if he were an ant. It follows that, even if a disposition to quantity were the principle of individuation,

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[341] Jonathan Lowe, *Kinds of Being: A Study of Individuation, Identity, and the Logic of Sortal Terms - Aristotelian Society Series* (Oxford: Blackwell Publications, 1989) 38.

[342] For instance, in his *De Principiis Naturae*, 2: Sed per se nunquam potest esse, quia cum in ratione sua non habeat aliquam formam, non habet esse in actu, cum esse in actu non sit nisi a forma, sed est solum in potentia. Et ideo quicquid est actu, non potest dici materia prima."

[343] For instance, in his early Commentary on Peter Lombard's Sentences, he writes that prime matter does not include any form as part of its essence *(....et quamvis materia prima sic accepta non habeat aliquam formam partem essentiae suae*), *In IV Libros Sententiarium*, , d. 12, q. 1, a. 4.

form would have to play a role in individuation by giving otherwise indifferent prime matter whatever it is that enables matter to individuate.

Now there is of course a special sense in which the substantial form is the primary factor in individuation. According to Aristotle form is the cause of being. Aquinas likewise considered form to function as cause in its own realm of formal causality, shaping and determining the existence appropriate to the nature of the thing brought into being. From such a perspective the form is the cause of thing's existence, which helps explain the well-known statement of Aquinas in regard to existence and individuation: "Each being possesses its act of existing and its individuation in accordance with the same factor".[344] Commentators have recognised that here the causality is meant to bear on both the things' existence and the things' individuation; the same cause is assigned to them both.[345]

The substantial form is a primary factor in material individuation. Does it enjoy any priority in the matter? It is a primary factor because of what has been more recently described as sortal-dependency of identity.[346] However, the principle of individuation has to be formulated in terms of substances of the same species: two substances of the same species are identical if and only if…; or, taking F to be a substantial kind, we can say that object A is the same F as B if and only if… The sortal-dependency of identity ontically means that the grounds for numerical identity and diversity are laid by an informing specific form. It is not surprising that, if an individual substance is composed of prime matter and substantial form, then substantial form plays a role in individuation. Aquinas recognises this point when he says that "Form is that by which a 'particular thing' actually exists".[347] In other words, substantial form is a primary factor of individuation because it makes individuation possible in the first place. Is form common, however, to many since it is communicable to many whereas individuality is not? Furthermore, matter is an essential part of the material substance, which is a composite of matter and form. Now, individuality must take account of the individual's essential parts and this is a function form on its own cannot do.

So what role, precisely, is form playing here? So far, we have seen that prime matter is inconceivable without form. This means that when I say that a statue is made of marble, or a

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[344] Aquinas, *Quaestiones Disputatae De Anima*, 1, ad 2: *"...unumquodque secundum idem habet esse et individuationem"*.
[345] Joseph Owens, "Aquinas", in *Individuation in Scholasticism*: *The Later Middle Ages and the Counter*-Reformation, edited by Jorge Gracia (Albany: New York State University Press 1994) 177.
[346] As is often famously found in the metaphysical theories of Quine, Strawson, Geach and Wiggins, for instance see, David Wiggins, "The Individuation of Things and Places", in *Proceedings of the Aristotelian Society, Supplementary Volume XXXVII* (1963) 163. *Sameness and Substance* (MA: Harvard University Press 1980).
[347] Aquinas, Commentary on *De Anima*, n. 215.

horse is made of living flesh or this diamond is made of carbon, hydrogen and oxygen, in these examples we have sensible and proximate matter which is actualised by the form. Prime matter is a pure passive potentiality – it is not something in the sense of being some thing or another and hence it can never exist as prime since substances are hylomorphic composites as are material substances. Aquinas cannot deny that form enjoys a primary role in the individuation of material substances and he is aware of the priority of form over matter with respect to the "haecceity" or thisness of the complete composite substance. Matter as such in inchoative, and of itself no more inchoative of this rather than that substance. Form is responsible for the perfection and determination of the substance, turning what is wholly indifferent into something determined and singular.

> Accordingly, in things composed of matter and form neither the matter nor the form nor even being itself can be termed that which is. Yet the form can be called that by which it is, inasmuch as it is the principle of being: the whole substance itself, however, is that which is. And being itself is that by which the substance is called a being.[348]

1.3 Aquinas on substantial form

The third and final point do be brought forward in this preparatory section on substances in Aquinas is the central notion of the substantial form which is causally responsible for the existence of substances. We need to understand what substantial forms are, what their role is and why – as I wish to argue – they occupy a role of priority over all other forms of causality while being intrinsically connected to finality in the living creatures and a fortiori in the ontology of human persons. In his monumental work on the metaphysical thought of Thomas Aquinas, John Wippel distinguishes a number of senses of the term 'substance' in Aquinas. The primary sense is that of the first substance which is the concrete particular or individual substance, that of which accidents and all else is predicated, as we have seen above. Importantly, there is a second mode on this list of senses whereby something is called a substance insofar as it is "the intrinsic formal cause of such substances, that is to say, the substantial form of the same".[349]

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[348] *Summa Contra Gentiles*, II, 54, 6, Translated by Anderson, pg. 157. "Unde in compositis ex materia et forma nec materia nec forma potest dici ipsum quod est, nec etiam ipsum esse. Forma tamen potest dici quo est, secundum quod est essendi principium; ipsa autem tota substantia est ipsum quod est; et ipsum esse est quo substantia denominator ens."

[349] Wippel, op. cit., 201. Citing *Aquinas Commentary on the Metaphysics*: "Dicit quod alio modo dicitur substantia quae est causa essendi praedictis substantiis…non quidem extrinseca sicut efficiens, sed intrinseca eius, ut forma."

Let us take a closer look at the kind of primacy Aquinas accords to the substantial form by also noting the way he treats of other kinds of substances while developing an analogical approach to substance and its occurrence in different modes of being or categories, while keeping in mind that God would not fit into any one of such categories since he is the one absolute and primary cause of being. If being, ens, is primarily predicated of substance and the being of accidents is a mode of being that is caused by the very being of substance then we have already, as we have seen above a gradient, so to speak, of being:

> In view of the fact that all accidents are forms of a sort superadded to the substance and caused by the principles of the substance, it must be that their being is superadded to the being of the substance and dependent on that being. [350]

Moreover, the metaphysical structure according to some senses of substance implies an order of priority which Aquinas describes as follows:

> Accordingly, he says, first (569), that a subject in the sense of a first or particular substance is divided into three parts, i.e., into matter, form, and the thing composed of these. This division is not one of genus into species, but of an analogous predicate, which is predicated in a primary and in a derivative sense of those things which are contained under it. For both the composite and the matter and the form are called particular substances, but not in the same order; and therefore, later on (573:C 1291) he inquires which of these has priority as substance.[351]

From such passages cited it becomes clear that for Aquinas form enjoys a kind of substantial priority because it is in act while matter is merely in potency and this priority is on both the chronological as well as on the ontological level. One could say it meets the standards of both diachronic and synchronic priority:

> He accordingly says, first (570), "that the specifying principle," i.e., the form, is prior to matter. For matter is a potential being, and the specifying principle is its actuality; and actuality is prior to potentiality in nature. And absolutely speaking it is prior in time, because the potential is brought to actuality only by means of something actual; although in one and the same subject which is at one time potential and at another actual, potentiality is prior to actuality in time. Hence it is clear that form is prior to matter, and that it is also a being to a greater degree than matter; because that by reason of which anything is such, is more so, but matter becomes an actual being only by means of form. Hence form must be being to a greater degree than matter.[352]

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[350] Aquinas, "Quia enim omnia accidentia sunt formae quaedam substantiae superadditae, et a principiis substantiae causatae oportet quod eorum esse sit superadditum supra esse substantiae, et ab ipso dependens." *Summa Contra Gentiles*, IV, 14, n. 12

[351] Aquinas, "Subiectum quod est substantia prima particularis in tria dividitur; scilicet in materiam et formam et compositum ex eis", *Commentary on the Metaphysics, Bk. VII – Z, n. 1276*, English translation by John Kenny, Chicago 1961.

[352] Ibid., n. 1278: "Species id est forma prior est materia. Materia enim est ens in potentia, et species est actus eius. Actus autem naturaliter prior est potentia. Et simpliciter loquendo prior tempore, quia non movetur potentia ad

To sum up this position, hence, Aquinas is saying that the priority of form over matter has the consequence that form is also prior within the composite. The composite participates in something that enjoys a special kind of ontological priority and which is other than matter. The formal cause establishes the identity or 'whatness' – the 'quiddity' – of a thing. For this reason Aquinas says it is permissible to say that this sense of usage of the term of 'substance' coincides with the form, for when we ask, what is (x)? we answer by referring to its quiddity. This is whatever is predicated of and is not predicated of anything else. Moreover, this is not a merely explanatory or heuristic exercise but an analysis of substance as an immanent cause. We also have here the elimination of Platonic universals as substances:

> He accordingly says, first (682), that, since it has been shown that no universal predicate is a substance, as the Platonists claimed, let us state what the real truth of the matter is about substance, viz., that which is essence, "and what kind of thing" this substance is, i.e., whether it is form or matter or something of this kind.[353]

There is no doubt that Aristotle is pursuing an Aristotelian project when developing his theory of hylomorphism and substances. When we ask about the origin, nature and purpose of things we are inquiring along four possible lines of investigation, namely, the material, formal, efficient or final cause. Moreover, whenever we ask such questions the logical or dialectical ordering of such questioning reveals an ontological order that is intrinsic to the substances.

> But sometimes we are asking about the cause of the form in the matter, either the efficient cause or final cause; for when we ask "Why are these materials (bricks and stones) a house?" the question concerns one thing as predicated of something else, namely, bricks and stones of a house. Hence the Philosopher did not say without qualification that the question is "What is a house?" but "Why are things of this kind a house?" It is evident, then, that this question asks about a cause.[354]

The stone, in this example, is not merely located in the vicinity of other stones, for it is formally and functionally integrated within the house as an ontological fact which make this assembly of stones not merely stones but a house. Aquinas insists that this entails a real articulation of

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actum nisi per ens actu […] unde patet quod forma est prior quam materia, et etiam est magis ens quam ipsa; quia propter quod unumquodque et illud magis. Materia autem non fit ens nisi per formam. Unde oportet quod forma sit magis quod materia."

[353] Ibid., n. 1648: "Et ad hoc etiam ostendendum praemittit quod substantia quae est quod quid erat esse, se habet ut principium et causa […] ex quo ostensum est quod nihil universaliter dictorum est substantia, ut Platonici posuerunt, dicimus quid secundum veritatem oportet dicere substantiam […] sciamus quod in ipsa substantia est principium quoddam, et causa quaedam"

[354] Ibid., 1657.

substances and their causes since they are questions about things which exist. The philosophical analysis of such existing things reveals the kind of relation that guarantees the way form, matter, efficiency and finality are integrated within a substantial whole. When we ask "why?" the response is ultimately a cause, as in, what is the cause which makes it so that the stone is not merely a stone but a stone which makes the wall? This requires further logical clarification. For Aquinas, as for Aristotle, a cause is the logical response to a question "why?" and a middle term between two extremes of a syllogism. In the example Aquinas gives, the stone is stone in a wall because the form of the wall signifies that it is a middle term between he wall and the stone. But as we have seen, for Aquinas and for Aristotle this is not merely a point of logical signification but of physical and ontological truth. The stone is a part of the wall, it is a wall-stone which is quite different from the stones on a pile in the builder's construction shed. It is the form and the 'quiddity' of the wall which guarantee the special ontological character acquired by the stone once it becomes an integral part of the wall. The effectiveness of this ontological dependence is clear when the wall-stone is compared to the other stones lying in the shed. These lack the qualification of "wall-stone" since, Aquinas concludes, the substance in the sense of quiddity and form is lacking in them for matter depends ontologically on form and quiddity on substance in analogical way.[355]

The ensuing passages in Aquinas's *Commentary on Aristotle's Metaphysics VII* are highly instructive since they display a sophisticated and analytically sensitive way forward in the method of studying the theory of causality. They also have some implications directly relevant to our topic here, namely the full status of the formal and final cause and how they are or are not related to the other modes of consideration. In *Paragraph n.1658* a scheme is developed in this section where different genres of causality are identified: intrinsic ("concerning matter and form) vs extrinsic (concerning agency and finality) causes, for example. There are also 'logical' and 'philosophical' causes, the former connected to the mode of predication and the latter concerned with the being and existence of things. Pursuing the example of the house, Aquinas then says:

> If we say, then, that a house is something which protects us from cold and heat, the quiddity is signified from the viewpoint of logic, but not from that of the philosopher. Hence, he says that the thing which is being investigated as the cause of the form in the matter is the quiddity, logically speaking. Yet according to the truth of the matter and from the point of view of natural

[355] Cfr. *Commentary on the Metaphysics*, n. 1656: "In quaerendo autem propter quid de aliquo, aliquando quareritur causa, quae est form in materia"; Now in asking the why of something, sometimes we are asking about the cause taken as form in matter.

> philosophy, in the case of some things (for example, a house and a bed) this cause is “that for the sake of which a thing exists,” i.e., its goal [or end]. [356]

This is important since it is clear that inquiring about the quiddity is not the same thing as asking after the intrinsic of philosophical cause, as Thomas calls it. The final cause can be, in fact, a purely abstract claim as is the house "built for shelter from heat and cold". This may sound satisfactory to the logician, but it is unsatisfactory to the 'philosopher' who is interested in the realist ontological explanation of things. We need to find, Aquinas is saying, an account of the final cause that is rooted *in natura rerum*, which is to say, in the intrinsic and actualised relationship of matter and form, i.e., in the hylomorphic structure of substances. In this case we would need to give an account of the house itself inasmuch as it is a real source of shelter, an truly existing and actualised house.

This brings us to yet another conceptual milestone in understanding Aquinas's theory of causes and which comes up in the following paragraphs of the same Commentary. We are warned not to confuse the efficient with the final causes since efficient causality is found uniquely in moving things like when the craftsman transmits and communicates his product through art and skilful technology. In all that there is a clear motion of what we could call an intended movement. When the thing is accomplished, however, it carries within it an immanent end and finality, organised in a such a way by its form and which does not imply generation or movement. The following statement is, to my mind, the central part of Aquinas's position on this point: "*In quantum vero res, per suam formam ordinatur in finem, est etiam causa in essendo*":

> But the other cause (the final) is investigated not merely as the cause, of the process of generation and corruption but also of being […] And inasmuch as the thing is directed to its goal by means of its form, it is also a cause of being.[357]

In n. 1672 Aquinas tackles the different ways in which composites may be understood. This is important because it is representative of both his anti-materialist as well as anti-dualist ontology. It will lay the foundations for a clear understanding of his theory of substantial form. There are at least two ways in which composites may be understood. In one they are a composite which constitutes an unum simpliciter, characterised, hence by unity taken in an absolute sense. In a second sense a composite may be an arbitrary conglomeration of elements which have no intrinsic relation apart from the chance statistical factor that brings them in some

[356] St. Thomas Aquinas, ibid.
[357] St. Thomas Aquinas, *Commentary on the Metaphysics*, par. 1660: "In quantum vero res, per suam formam ordinatur in finem, est etiam causa in essendo"

adjacent proximity of each other, as in a pile of stones, to use Aquinas's example. Contrast this, he says to a constructed building such as a house. Aquinas says the difference between these two examples of 'compositeness' lies in the presence or absence of a unifying factor. In an unqualified or absolute sense the composite is a unity. In a qualified and weaker sense it is no real unity at all. This answer, he says in the next paragraph lies in the presence of form which causes order and composition to be in act as simply 'one'. In the second case we only have a haphazard collection of elements "*ab ipsa multitudine elementarum collectarum*".[358] Both materialist reductionism is avoided – since the mere collection of elements does not constitute a unity and cannot be cited as a reliable cause of identity or agency or finality – as well as Platonist dualism, since the unity which is sought after is not an abstract or 'other-worldly' unity but a unity that is rooted in the very structure of things, that is, in the natural determination of elements. However, we have not yet arrived at a decisive position on this last point. For, where or what shall we look for as singular cause of this unity? Matter alone cannot provide the necessary causality to guarantee the metaphysical unity in things that we need. Aquinas is aware that Aristotle knows of this problem – given the nature of this particular work of Aquinas – and to look for a cause in matter, as in the elements themselves would result in a hopeless circularity. If we skip to n.1680 Aquinas is eager to show how closely aligned Aristotle saw form and substance to be and for this reason ruled out the possibility that matter could fulfill the role of form. Form and substance are not material but formal – understood as metaphysical – principles:

> Therefore he says that, since some things are not substances, as is clear especially of artificial things, but just those are true substances that are "according to nature," with reference to being, "and are constituted such by nature," with reference to becoming, it will be made clear that this nature which we are investigating is substance "in some cases," i.e., in that of natural beings, and not in all. And it will also be made clear that this nature is not an element but a formal principle; for that is called an element into which something is divided and which is "intrinsic" as matter; for example, the elements of the syllable ba are b and a. Hence, since the principle in question is not a material principle but a formal one, it will not be an element. And thus it is evident at the same time both what kind of principle substance is, and that it is neither an element nor composed of elements. The foregoing problem is solved in this way.[359]

[358] Aquinas, *Commentary on the Metaphysics*, n. 1673: " Now it is characteristic of the notion of this kind of diversity that the composite sometimes derives its species from some one thing, which is either the form (as in a compound) or combination (as in a house) or arrangement (as in a syllable or in a number). And then the whole composite must be one without qualification. But sometimes the composite derives its species from the very multitude of collected parts, as in a heap of things and a group of people and so forth; and in such cases the whole composite is not a unity in an unqualified sense but only with qualification."

[359] *Commentary on Metaphysics*, n. 1680.

This preparatory journey brings to a foundational conclusion in Aquinas's metaphysical analysis. The intrinsic and formal principle of things is not something which can be numerically counted by looking at the elements since it is not on the same level as they are and yet is nonetheless intrinsic to the same thing in question. Moreover, this principle is the primary cause of being of the thing. Aquinas is thus in a position to conclude that the substance is the quiddity and the formal cause as well as the primary cause of being:

> *Et iterum videbitur quod haec sit substantia uniuscuiusque, quae est quod quid erat esse. Substantia enim quod est quod quid erat esse, est prima causa essendi.*[360]

The achievements of this passage in the Commentary on the Metaphysics are central to Aquinas's account. While decisively ruling out the possibility of matter being a cause of substantial being even though it is part of the composite, the form must numerically be an individual in act. For matter to be a relevant part of the composite it must be actualised by the form which also determines its finality. My proposal is that it is this understanding of Aristotle which provide the necessary conceptual framework for Aquinas's views on *substantial* form and which make this particular dimension of his account of causality accounting for a substance's very existence and being the primary factor in his ontology of persons.

2. *Esse* and hylomorphism in Aquinas's account of persons

Aquinas thinks human persons are rational animals. Like Aristotle he acknowledges three different and basic modes of living: the vegetative, the sensory and rational or intellective. Every state carries with it proportionate operations, nutrition and self-preservation, for instance, are among the operations of the vegetative state, while reproduction and the processing of information through the senses as well as locomotion, for the sensory level. The third state is the human level which is the highest among earthly creatures since on top of the sensory and vegetative operations is capable of intellection and willing. The rational capacities of the human include the ability to abstract and form universal concepts, use symbolic communication and expression, most notably in language and music and art and form communities that are in themselves highly distinctive of a rational-linguistic entity typically

[360] Ibid. n. 1678: "He accordingly says, first (689), that the thing which is present in composites over and above their elements would seem at first glance not to be something composed of elements, but to be an element and cause of the being of flesh and a syllable and similarly of other things. Moreover, it would seem that it is the substance of each of them in the sense of their quiddity; for substance in the sense of quiddity is the first cause of being."

exhibited in the *homo sapiens* species. The reason for this highly distinguished and specific set of capacities and operations characteristic of the human is the presence of a human substantial form, the soul. In very significant ways, the soul as substantial form fulfils the rich metaphysical universe briefly sketched in the earlier sections of this chapter while keeping in mind the important causal nexus between form, identity and finality that is the inheritance of an Aristotelian metaphysics of biology. In fact, the human kind of life is inclusive of the basic functions of animal and sensory as well as vegetative life. That is what enables Aquinas to describe the human as a rational animal.

Now animals are complete substances. They owe their unity and ontological singularity to that which is the common source and principle of that convertibility between 'being' and 'one':

> In the first place, an animal would not be absolutely one, in which there were several souls. For nothing is absolutely one except by one form, by which a thing has *esse*: because a thing has from the same source both existence and unity; and therefore, things which are denominated by various forms are not absolutely one; as, for instance, "a white man." If, therefore, man were 'living' by one form, the vegetative soul, and 'animal' by another form, the sensitive soul, and "man" by another form, the intellectual soul, it would follow that man is not absolutely one. Thus, Aristotle argues, *Metaph*. viii (Did. vii, 6), against Plato, that if the idea of an animal is distinct from the idea of a biped, then a biped animal is not absolutely one. For this reason, against those who hold that there are several souls in the body, he asks (*De Anima* i, 5), "what contains them?"—that is, what makes them one? It cannot be said that they are united by the one body; because it is the soul rather which contains the body and make it one, than the reverse.[361]

The first claim in this passage concerns Aquinas's clear commitment to the unity and ontological primacy of substantial forms in times of great controversy about this matter.[362] A

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[361] *Summa Theologiae*, I, q. 76, a. 3, translated by Fathers of the English Dominican Province, 1947, with some alterations of mine. ""Primo quidem, quia animal non esset simpliciter unum, cuius essent animae plures. Nihil enim est simpliciter unum nisi per formam unam, per quam habet res esse, ab eodem enim habet res quod sit ens et quod sit una; et ideo ea quae denominantur a diversis formis, non sunt unum simpliciter, sicut homo albus. Si igitur homo ab alia forma haberet quod sit vivum, scilicet ab anima vegetabili; et ab alia forma quod sit animal, scilicet ab anima sensibili; et ab alia quod sit homo, scilicet ab anima rationali; sequeretur quod homo non esset unum simpliciter, sicut et Aristoteles argumentatur contra Platonem, in VIII Metaphys., quod si alia esset idea animalis, et alia bipedis, non esset unum simpliciter animal bipes. Et propter hoc, in I de anima, contra ponentes diversas animas in corpore, inquirit quid contineat illas, idest quid faciat ex eis unum. Et non potest dici quod uniantur per corporis unitatem, quia magis anima continet corpus, et facit ipsum esse unum, quam e converso."

[362] Although my concern in this thesis is not primarily historical, we cannot not mention the wide-ranging thirteenth century debate Aquinas found upon his arrival in Paris on the plurality of substantial forms in one substance. According to one interpretation represented most famously by Daniel Callus OP in his "The Origin of the Problem of the Unity of Form", *The Thomist* 44 (Washington DC, 1961) 257-285, the doctrine of substantial forms originated with Dominicus Gundalissalinus; see also J. Wippel 'Thomas Aquinas and the Unity of Substantial Form", op. cit., 117-154. According to another school represented by Graham McAleer, this was due largely to a Neo-Augustinian and Latin pluralism in general, "Who were the Averroists of the Thirteenth Century?", in *The Modern Schoolman* 76, n. 4, (1999).

lot is actually densely packed in one paragraph and much of what he says needs especially as regards *esse* requires further explanation. *Esse* is the act of being and is the hallmark of Aquinas's departure from Platonic dualism as well as his strong anti-materialistic stance. Form is the answer to the question "what is it" but is also the responsible agent – the primary cause – of the nature of the being-in-reality for any given substance. I think a clearer explanation can be found in other areas where Aquinas discusses this at greater length, most notably his *Quaestiones Disputatae De Anima*. In what follows I shall comment on a number of salient features that are central to his position and which arise in Articles 8 through 11 of the *De Anima* and where the implications of a hylomorphic understanding of the mind-body problem is developed. The richness and extent of the discussion in these Disputed Questions is impressive and I shall first give a synopsis of a few central claims that emerge overall. It is noteworthy to see how Aquinas sticks to the Aristotelian metaphysical line of thought while steering clear of Platonic dualism mostly as well as to a reductivism about the body, at least indirectly, through his treatment of it as matter. So, in Article 8 the question is raised, "Whether the rational soul should be united to a body such as man possesses". A number of aspects that result from Aquinas's hylomorphic position should be here underlined.

First of all, the order of priority that form enjoys over matter is clear throughout. "Matter exists for the sake of form"[363] This is an opportunity to remind us of what Aristotle said in De Anima about the soul's finality with respect to the body:

> It is manifest that the soul is also the also the final cause. For nature, like thought, always does whatever it does for the sake of something, which something is its end. To that something corresponds in the case of animals the soul and in this it follows the order of nature; all natural bodies are organs of the soul.[364]

Aquinas develops this direction of thought in the Article 8 to explain how the soul needs the matter of the body it informs for it to achieve this finality, namely, intellection, which depends upon the functioning of the sensory organs and which provide the intellect with its intelligible species. The soul would thus not be able to achieve its own finality without the rightly disposed material cause that the body is in relation to its substantial form. We are also told that, "the nature of a disposition of the human body must be determined in relation to the particular dispositions proper to man". As we shall see in the next and final chapter, this will prove an

[363] QD *De Anima*, in the main response, English Translation by John, Patrick Rowan (St. Louis & London: B. Herder Book. Co. 1949), available online at Thomas Aquinas: Quaestiones Disputate de Anima: English (isidore.co).
[364] Aristotle, *De Anima*, II, 415b15.

crucial commitment in Aquinas's metaphysics of human life which offers hopeful connections with what contemporary scientific knowledge reveals about the human brain. The idea is that there is a lot that is specific and proper and unique to man and thus one would expect that the material disposition of that constitute the human body that is informed by the soul as a substantial form fulfill that causal dependence suitably and that this be reflected in the way matter is configured.[365]

It is with Article 9 that the metaphysical core of Aquinas's hylomorphism, namely, the form's act of substantial being, *esse*, is discussed within the context of human nature as a matter-form composite. While Article 8 had its focus on the specific contribution of form and nature to the hylomorphic unity that constitutes a substance, Article 9 examines what in reality, brings about such a substantial identity into existence. The position is stated in the response to numerous – nineteen to be precise – objections that are raised:

> Among all principles the act of existing is that which most immediately and intimately belongs to things […] Hence the form which gives matter its act of existing, must be understood to come to matter prior to anything else, and to be present in it more immediately than anything else, because matter receives its act of existing pure and simple, because it is through its form that a thing is the very thing that it is.[366]

The question being addressed is whether the soul is united to corporeal matter, i.e., the body, through a medium. The answer is clearly in the negative since the form, which is an intrinsic principle of actuality, actualises the corporeal matter which is the human living body. This is what Aquinas means when he says that the form gives being and existence to a substance understood as the most fundamental entity, a thing. The form is a single act which actualises – hence gives existence to – something that exists as a substance. It is the principle *quo* that gives a substance its existence and unity and it would be superfluous and incorrect to look for any other source or medium that would accomplish the metaphysical work that is done in the hylomorphically unified substance. Within the same article Aquinas also attributes to the ontological role played by the form, the cumulative incorporation of the vegetal, sensitive and ultimately the rational capacities within the one substance which is human nature. For this to be achieved, there must also be the right disposition of matter "befitting a human soul, inasmuch as the soul gives the body its ultimate perfection. Yet the soul retains its priority even as the main "principle of operation, for a thing acts so far as it is in act, then the soul like any other form must be a principle of operation". This operation of the soul as the substantial form

[365] Aquinas, ibid. Cfr, Article 8, main answer.
[366] Ibid., Article 9, Resp: "*Dicendum quod inter omnia, esse est illud quod immediatius et intimius convenit rebus*".

of the body includes the operation of all the parts included in a living human body. Although Aquinas does not state this so casually, since he scrupulously adheres to his metaphysical language, organs are alive and relevant within the 'ecology' of the human body that is alive, thanks to the substantial existence they receive from the substantial form of the body that includes the parts of the body as well. Death – the loss of a substantial form – immediately dissolves the operation and very existence of the parts of the body qua parts of the body and they can only be said to a exist within a radically different trajectory and with not traceable finality to the original existence of the hylomorphically constituted human person:

> Furthermore, the one soul performing these operations confers substantial existence in a manner befitting the operations of the parts themselves. An indication of this fact is that, when the soul ceases to animate the body, neither flesh nor eye remains except in an equivocal sense […].[367]

The absolutely central role played by substance in Aquinas's hylomorphic account of human nature, or, to put it differently, the irreducibly hylomorphic constitution that is achieved in the substantial integrity of a human person, cannot be ignored or downplayed within his metaphysical thought.

> Consequently, since the soul is a substantial form, because it places man in a determinate species of substance, no other substantial form intervenes between the soul and prime matter. But man is perfected in different grades of perfection by the rational soul itself, so that he is a body, a living body, and a rational animal.[368]

In an apparently fleeting statement within a long article, we have here all the ingredients of Aquinas's philosophical position: the nature of the soul as a substantial form, every human individual being qua individual as being a complete substance belonging to a genus while not letting the metaphysical framework obstruct the unique character of the human soul giving rationality – the highest of operations – to a biological and animal substance. Quite the contrary, what makes the incremental powers that peak in the rational intellect human is precisely the integrative power that is conferred by the soul as a substantial form. This is directly opposed to Plato's views on the soul and its uncomfortable and deeply problematic relationship with the human body – where the soul is essentially hindered and not capacitated by the body – and to the materialists where the soul has essentially no integrative or ontological role which guarantees the metaphysical unity and purpose of a human person it does in Aristotle and Aquinas. Aquinas upgrades the classical metaphysics with his own account of *esse* and which

[367] Ibid, Response in Article 9.
[368] Ibid.

we may here refer to as the *ontological irreducibility factor* par excellence that coincides with the human being as a hylomorphic substance.

Aquinas's hylomorphic account establishes grounds for the claim that the human being qua substance is an *unum per se*.[369] Thus a robust and unqualified unity is achieved by the singular operation of the soul as a substantial form. We have already taken a look at Aquinas's arguments in his *Metaphysics* commentary on the difference between substantial and accidental modes of belonging. A pile of stones or a heap of boxes would constitute not a substantial but an accidental or *secundum quid* unity. This point is tackled again in his Article 10 within the same *Quaestiones Disputatae de Anima*. The official inquiry is whether the soul exists in the whole body and in each of its parts and at the core of his arguments are his views about are the criteria for a substance *in its own right*. The soul functions as a direct and immediate cause of substantial unity causing the living human body – which is thereby ontologically identical to the human individual – to be not a mere aggregate or disjointed set of artificially assembled parts but an ontologically unified whole.

> […] Since the body of a man or that of any other animal is a certain natural whole, it will be said to be one because it has one form whereby it is perfected, and not simply because it is an aggregate or a composition, as occurs in the case of a house and other things of this kind. Hence each part of a man and that of an animal must receive its act of existing and species from the soul as its proper form. [370]

In an earlier work, *De principiis naturae*, composed around ten years before the *Quaestiones Disputatae De Anima*, Aquinas discussion on the relationship between substantial form and prime matter leads him to distinguish further between two kinds of matter. The context is, the difference between "essential or substantial existence" (*esse simpliciter*) and accidental existence (*esse secundum quid*).[371]

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[369] Ibid.,"Ad tertium dicendum quod ex motore et mobili non fit unum per se in quantum huiusmodi; sed ex hoc motore qui est anima et ex hoc mobili quod est corpus, fit unum per se, in quantum anima est forma corporis."

[370] Article 10, the Response: "Cum enim corpus hominis, aut cuiuslibet alterius animalis, sit quoddam totum naturale, dicetur unum ex eo quod unam formam habeat qua perficitur non solum secundum aggregationem aut compositionem, ut accidit in domo, et in aliis huiusmodi.

[371] *De Principiis Naturae*,c. 1, in S. Thomae Aquinatis, opuscola omnia, Vol. 1, ed. Mandonnet, Paris 1927: "Ad utrumque esse est aliquid in potentia. Aliquid enim est in potentia ut sit homo, ut sperma et sanguis menstruus; aliquid est in potentia ut sit album, ut homo. Tam illud quod est in potentia ad esse substantiale, quam illud quod est in potentia ad esse accidentale, potest dici materia, sicut sperma hominis, et homo albedinis. Sed in hoc differt: quia materia quae est in potentia ad esse substantiale, dicitur materia ex qua; quae autem est in potentia ad esse accidentale, dicitur materia in qua. Item, proprie loquendo, quod est in potentia ad esse accidentale dicitur subiectum, quod vero est in potentia ad esse substantiale, dicitur proprie materia. Quod autem illud quod est in potentia ad esse accidentale dicatur subiectum, signum est quia; dicuntur esse accidentia in subiecto, non autem quod forma substantialis sit in subiecto."

> Moreover, for each existence there is something in potency. Something is in potency to be man, as sperm or the ovum, and something is in potency to be white, as man. Both that which is in potency to substantial existence and that which is in potency to accidental existence can be called matter: for example, sperm is the matter of man and man is the matter of whiteness. But these differ, because that which is in potency to substantial existence is called the matter from which, but that which is in potency to accidental existence is called the matter in which. Again, properly speaking, that which is in potency to substantial existence is called prime matter, but that which is in potency to accidental existence is called the subject. Thus, we say that accidents are in a subject; but we do not say that the substantial form is in a subject. [372]

Matter, being potentiality, can also itself be so in two ways, depending on whether something is potency to a substantial kind of existence – matter from which – or else can be in potency to an accidental kind of existence – matter in which. Aquinas is aware that this is a rather non-technical way of speaking since prime matter alone is what can be in potency to the substantial form through which it has existence and by which the essence of an *hoc aliquid* is established. This passage should, I think, be read as a preparatory introduction to more precise discussions about matter and form in his later and more mature *Quaestiones Disputatae De Anima* or the *Summa Theologiae*. It points to, however, both ontological and biological precision. If the gametes – here specifically mentioned as sperm and ovum or literally, menstrual blood (*sanguis menstruus*) are not a human being but rather matter from which, that shows the ontological relativity of matter to form, as well as the biological correctness of saying that a human being is clearly not reducible to the gametes – or their content – since the human being (we now know) begins with the formation of a monozygotic cell which is not a mere agglomeration of the gametes but something new, even though it derives matter-from-which provided by its progenitor cells in the respective gametes. By contrast, matter in which refers to all the biological and bodily material that is informed substantially by the soul qua form and shows that Aquinas was always consistent about the metaphysical and biological implications of his hylomorphism.

I have preferred to adhere to Aquinas's more explicitly metaphysical works such as the Disputed Question currently under examination. However, one finds other places where Aquinas tackles the concepts and terminology with perhaps greater ease, even though the context is not strictly metaphysical. For the sake of completeness and clarity, therefore, I am also going to consult with a text from a section in the *Summa Theologiae* which is not primarily concerned with ontology but with the psychology of human action and is written at the same time as the disputed questions. Yet the clarity of the terms used are universally adopted in

[372] English Translation by R. A. Kocourek and edited by J. Kennedy OP, found online at https://Isidore.co/Aquinas/English/DePrincNaturae.htm.

Aquinas's system and are directly related to our analysis of Aquinas's arguments in the Disputed Questions on the mode of union of the human soul with the body.

> A difference is to be observed in this, that some are simply many, and one in a particular aspect (*secundum quid*): while with others it is the reverse. Now "one" is predicated in the same way as "being." And substance is being simply, whereas accident or being "of reason" is a being only in a certain respect. Wherefore those things that are one in substance are one simply, though many in a certain respect. Thus, in the genus substance, the whole composed of its integral or essential parts, is one simply: because the whole is being and substance simply, and the parts are being and substances in the whole. But those things which are distinct in substance, and one according to an accident, are distinct simply, and one in a certain respect: thus many men are one people, and many stones are one heap; which is unity of composition or order. In like manner also many individuals that are one in genus or species are many simply, and one in a certain respect: since to be one in genus or species is to be one according to the consideration of the reason.[373]

To be a substance is to be an *unum simpliciter*. Thus, 'Jennifer is a woman' indicates a substantial unity that is irreducibly and unqualifiedly one, an *unum simpliciter*. A human soul qua substantial form is causally responsible for something to be a substance in its own right – given the necessary conditions in matter as that kind of potential that is appropriately actualised by the substantial form which is the causally prior and uncontested guarantor of *esse* as observed by Aquinas in articles 8 and 9 discussed here above. Aquinas is keen to distinguish this mode of being – esse simpliciter – from a weaker or accidental form of unity – an *ens / unum secundum quid*. Thus, Jennifer is black is an accidental qualification which does not impinge upon what the nature of thing is, namely, qua substance, i.e. a human being. It is Jennifer's humanity that constitutes the primary sense of being a substance since Jennifer constitutes a hylomorphic unity, a form-matter composite, whereby the ontological work done by the formal cause confers *esse* to her as an individual substance in the most numerically and ontologically concrete sense.

Returning to Article 10 then, the arguments show Aquinas's explicit consistence on his views on the human being as a hylomorphic unity of soul and prime matter. We are told that the form is "an intrinsic principle of the things whose act of existing it is responsible for, because form and matter are the intrinsic principles constituting the essence of a corporeal

[373] *Summa Theologiae*, I-II, q. 17, a. 4 corpus: Est tamen differentia attendenda in hoc, quod quaedam sunt simpliciter multa, et secundum quid unum, quaedam vero e converso. Unum autem hoc modo dicitur sicut et ens. Ens autem simpliciter est substantia, sed ens secundum quid est accidens, vel etiam ens rationis. Et ideo quaecumque sunt unum secundum substantiam, sunt unum simpliciter, et multa secundum quid. Sicut totum in genere substantiae, compositum ex suis partibus vel integralibus vel essentialibus, est unum simpliciter, nam totum est ens et substantia simpliciter, partes vero sunt entia et substantiae in toto. Quae vero sunt diversa secundum substantiam, et unum secundum accidens, sunt diversa simpliciter, et unum secundum quid, sicut multi homines sunt unus populus, et multi lapides sunt unus acervus; quae est unitas compositionis, aut ordinis. Similiter etiam multa individua, quae sunt unum genere vel specie, sunt simpliciter multa, et secundum quid unum, nam esse unum genere vel specie, est esse unum secundum rationem."

being".[374] Once again, the contrast between Aquinas and Platonic dualism as well as reductivist materialism is clear, since the soul is a spiritual power culminating in the rational faculties while also being the cause of hylomorphic unity with matter. Admittedly, little has been said so far on the rational soul *per se* and that will be the content of our next sections in the current chapter. Article 8 to 10, however, eliminate any comparison with Platonic or Cartesian ways of describing the way the body and soul are related. The point being made is a sharp and central ontological one, namely, that the soul is the principle of actuality and the principle of existence, *esse*.

Some further philosophically interesting points emerge from a consideration of the remainder of Article 10 as well as Article 11. The increasingly significant role of the of the soul as a substantial form giving unity to the totality of the human person becomes clearer. In the thought of Aquinas on hylomorphism, the soul is the cause of (1) *esse simpliciter* whereby a thing "is the very thing that it is" – in the *QD De Anima* – as well as the cause of an *unum simpliciter* – in the *Summa Theologiae* I-II text cited above. Although related, these ontological commitments are also distinct, whereby, it seems to me, the former is foundationally prior to the latter. In fact, in that case, Aquinas clarifies,

> For a thing is not given an act of existing pure and simple through accidental forms, but only a relative one (*esse secundum quid*), such as to be large or coloured, and so on.[375]

Then he goes on to say that a giver of merely *secundum quid esse* cannot be a substantial form and moreover that excludes the need of any intermediary forms that guarantee hylomorphic unity to the substance and "makes it to be a substance (*hoc aliquid*)". This ontological immediacy is pervasive, that is, it gives "to all parts of the body their substantial and specific mode of existing". This position is what seems to Aquinas the defining distinction from Platonic mind- body dualism. This latter position is further developed in Article 11 which inquires into whether the soul exists in the whole body and in each of its parts.

I conclude this important section on Aquinas by showing how Article 10 tackles positions that go against both Plato's dualism as well as materialist reductivism. In fact, the answer given in the corpus of the article is rich enough to merit a closer look on its own. In

[374] *Quaestiones Disputatae De Anima*, Article 10, Respondeo.
[375] Ibid., Article 9, "Non autem per formas accidentales habet esse simpliciter, sed esse secundum quid: puta esse magnum, vel coloratum, vel aliquid tale. Si qua ergo forma est quae non det materiae esse simpliciter, sed adveniat materiae iam existenti in actu per aliquam formam, non erit forma substantialis.

fact, four steps and four claims are established in this article and which are important not only because they are a synthesis of his views on the matter under discussion but also because they open up promising avenues in conversation with current science and contemporary philosophy of nature. The first part of his response connects his metaphysics of substantial form with natural philosophy: forms define and cause natures. The term nature is the correlative of a substance viewed from the perspective of natural philosophy. While sounding trivial, this hermeneutical boundary is central to Aristotelico-Thomistic philosophy. Numerical singularity of a thing or nature is defined and established by the singularity of the one substantial form which confers *esse* to it.

> And this must be maintained, for, since the body of a man or that of any other animal is a certain natural whole, it will be said to be one because it has one form whereby it is perfected, and not simply because it is an aggregate or a composition, as occurs in the case of a house and other things of this kind. Hence each part of a man and that of an animal must receive its act of existing and species from the soul as its proper form.[376]

The comprehensive conferral of resources to a nature by its substantial form cannot be undervalued. So, Aquinas reminds us that "each part of a man and that of an animal must receive its act of existing and species from the soul as its proper form". The next step is for Aquinas to rule out Plato's views on how soul and body are related, as we have seen in the first chapter of our discussion here, namely, the arguments in the *Phaedo* based on 'affinity' or 'harmony'. There is a clear break from an appeal to the 'participatory' metaphysics of forms in order to support the mind-body relationship when Aquinas says that the "form must be an intrinsic principle of the thing whose act of existing (*dat esse*) it is responsible for, because form and matter are the intrinsic principles constituting the essence of a thing (*constituentia essentiam rei*".

Having underlined the first two steps in the argument which are principally metaphysical in character, Aquinas then signals the relevance of these steps to the philosophy of nature. Let us remember that the general character of this article is to show how the form is present as a form in each part of the body and thus has an all-encompassing presence while causing the whole to be as such, a whole. Aquinas wants us to appreciate the appropriate fittingness of this ontology to the way things truly are in nature: "*Et haec definitio animae convenit.*" Why does Aquinas think that this hylomorphic configuration of natures – in this case applied to human nature – fulfils both the demands of metaphysics and of natural science?

[376] St. Thomas Aquinas, *Quaestiones Disputatae de Anima*, Article 10.

The reason is that "the soul is the act of an organic body".[377] The importance of this point lies in its capacity to reveal the anti-atomistic approach to biological life and to nature in general. Plants, animals and of course humans are not seen as an arbitrary collection of bundles of matter but they are organisms, displaying both a metaphysical as well as a biological unity rooted in an intrinsic principle which is responsible for their existence, as well as their operation and their essential identity, a principle which we call substantial form. Biological species do not exist in a haphazard or loosely interconnected way but rather, their identity, operation and finality can only function in them as organic wholes. Thus, they do not grow, mature and flourish as a set of parts but as organisms. It is to this factor that Aquinas pays homage in this point. Being an organism also includes the parts, of course. Yet the parts are relevant and productive only inasmuch as they serve a role within the organism as a whole. Moreover, intellection and sensation too can only be achieved for the human soul if we recognise that the substantial form confers a 'nature' – in this the rational nature – in a hylomorphic union to the organism qua substance.

Aquinas then raises the question of how form guarantees totality to the living human body and given the density of the text, understanding it requires some interpretation. He distinguishes three ways in which we can understand form and totality depending on how we view the way aspects of a thing to be parts in relation to the whole. The first way would be a quantitative or numerical totality, such as magnitude divided into smaller parts. Or else, secondly, dimensions of reality such as matter and form can form parts of a whole when the whole is viewed from a purely metaphysical point of view, i.e. *ad partes essentials speciei*, or else simple forms achieving a greater perfection within their own category. Thirdly, there is the totality can be viewed as the comparative collection of all its powers and faculites, according to their operation. When applying the first case – quantitative totality – the soul exists as whole in relation to the body which is the same whole informed by it and this entails that every part is included in the form yet not the whole form is present in every smaller part of the body. If we apply totality in the second sense, then the whole form exists in each part of the body for that is what makes this hand a human hand and not a cat paw, insofar as humanity can be predicated of the hand as well as of the eye and ear insofar as they belong to the same

[377] "Et haec definitio animae convenit; est enim anima actus corporis organici. Corpus autem organicum est constitutum ex diversis organis. Si ergo anima esset in una parte tantum ut forma, non esset actus corporis organici; sed actus unius organi tantum, puta cordis, aut alicuius alterius, et reliquae partes essent perfectae per alias formas. Et sic totum non esset unum quid naturaliter, sed compositione tantum. Relinquitur ergo quod anima sit in toto corpore et in qualibet parte eius."

species. Of course, it would be unreasonable to say that such parts of the human body enjoy the fullness of the soul qua substantial form as the human body viewed as whole, but only proportionately to them as parts, though there is nothing less human about them as a result of them being just so, namely parts. Finally, Aquinas concludes, in none of these two cases do we need to accept that the soul gets carved up into smaller parts.

> Therefore, in the case of the human soul of man and of any perfect animal, it follows that totality can be considered only so far as the soul's species and its passive or active power are concerned. Hence, we say that the soul by its very essence is the form of the body, and that it exists as such in each part of the body, as has been shown, because the perfection of the species comes from the soul in virtue of its very essence. Consequently, the whole soul exists in each part of the body according to the whole of its specific perfection.[378]

The final step of the article, however, is of singular importance and shifts the line of attack against reductivism about consciousness, will and mind. Aquinas is keen to show that his arguments to establish the powerful ontological bond there is between the soul as substantial form and the body as prime matter informed by it as well as the totality of the soul's presence in the *esse*-conferring role that it enjoys with respect to the totality of the body and its parts, does not exclude or limit the operation of the soul in other ways that exceed and go beyond the body itself. In fact,

> […] the human soul possesses the power of performing certain operations without communicating in any way with the body, that is, the acts of understanding and willing, as it exceeds the capacity of the body. Hence the intellect and will are not the acts of any bodily organ.

This reveals another aspect of the human soul which goes beyond its identity and role as a substantial form but also as the subject of intellection and as an operator or agent per se with respect to the exercise of cognition, intellection and willing. It is to the peculiarity of the human soul which makes it unique with respect to other animal souls that we now must turn for closer examination.

2.1 Beyond hylomorphism? The immateriality of the rational soul

There is no doubt that Aquinas takes his commitment toward the ontological constitution of human nature as a unity that is akin neither to dualist nor to materialist accounts, extremely seriously. That is what the soul as substantial form achieves and that is the core of his hylomorphism. However, it is also significant that when he says that the soul is incorporeal –

[378] St. Thomas Aquinas, *Quaestiones Disputatae De Anima*, ibid.

and this in an especially important sense, the rational soul – he wants to distinguish it from other kinds of forms whose purpose and identity is to *just be* the form of prime matter as would be the case with a marble statue. This is not the case with the human rational soul which has the purpose not only of actualising prime matter, for it also enjoys an operation of its own which cannot be reduced to an ontological form-matter configuration. The incorporeal nature – and the possibility of its subsistence as affirmed by Aquinas – of the rational soul is a rather controversial aspect of Aquinas's hylomorphic ontology of persons and it is not my primary intention to examine its coherence within his broader *theological* outlook. Rather than raising the issue of the incompleteness of the post-mortem 'separated soul' – and the consequence that has for the (in)completeness of persons after bodily death – I will here limit myself to examine some of Aquinas's claims in their relation to his views on the constitutional ontology of persons.[379] As a result I hope to ask whether his views on the *incorporeity* and *incorruptibility* of the soul can still be coherently held within both his anti-dualistic as well as anti-materialistic philosophical beliefs.

So, first let us examine a few central claims that Aquinas develops in support of his view on the soul as incorporeal. We have seen in the previous sections of this chapter that Aquinas reaffirms his views on the form as having priority over matter in that form gives being to a substance. If it gives being to a substance, might there be a special sense in which the soul and not matter also functions as the principle of the individuation? We can, actually, refer to an early text from Aquinas which explains how this may be clarified. It come from the final arguments defended in his *De Ente et Essentia*:

> And this is why, as has been said, there is not found among such substances a multitude of individuals in one species, with the exception of the human soul on account of the body to which it is united. And although its individuation depends on the body as upon the occasion for its beginning because it does not acquire its individuated existence except in the body of which it is the actuality, it is not necessary that its individuation be lost when the body is taken away because that existence, since it is absolute, always remains individuated once the soul acquires it by being made the form of this individual body. And this is why Ibn-Sînâ says that the individuation and multiplication of souls depends on the body as regards its beginning, but not as regards its termination.[380]

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[379] For examples of recent discussions of this aspect in Aquinas's theory, see, Daniel De Haan & B. Dahm, "Thomas Aquinas on Separated Souls and Incomplete Persons", in *The Thomist*, n. 83 (Washington DC: 2019) 589-637 and Kendall Ann Fisher, "Saint Thomas Aquinas on the Incompleteness of the Human Soul", in *The Thomist*, n. 86 (Washington DC: 2022) 53-89.

[380] *De Ente et Essentia*, n. 93: "Et ideo in talibus substantiis non invenitur multitudo individuorum in una specie, ut dictum est, nisi in anima humana propter corpus, cui unitur. Et licet individuatio eius ex corpore occasionaliter dependeat quantum ad sui inchoationem, quia non acquiritur sibi esse individuatum nisi in corpore, cuius est actus, non tamen oportet ut subtracto corpore individuatio pereat, quia cum habeat esse absolutum, ex quo acquisitum est sibi esse individuatum ex hoc quod facta est forma huius corporis, illud esse semper remanet individuatum. Et

This passage shows that Aquinas critically *understood materia signata* as the principle of individuation at the origin of a human individual (*ad sui inchoationem*). From then onward the substantial form has its own *esse*, and individuation while also being the ontological source of operation within the human hylomorphic substance. On this point Gyula Klima is probably right to say that,

> [….] even if designated matter primarily individuates the substantial form of a singular substance, and then the singular substance can exist in its singularity on account of the actuality of this individualised form, this does not render the form the principle of individuation. For the principle of individuation is supposed to be that on account of which two individuals of the same species are primarily distinct, meaning that they could not be distinct if they were not distinct at least in that principle in the first place.[381]

It is Aquinas's vocabulary of his theory of cognition within the rational soul that now needs to be explained since that is one of the principal argumentative forces behind his philosophical belief that the soul is incorporeal. The human intellect cognizes and understands through two powers, one agent or active and another possible or passive. The agent intellect operates by generating intelligible forms based on data and images acquired through the senses. Understanding in the rational soul occurs when these forms actualise the possible intellect. The grammar of Aquinas's theory of cognition is highly metaphysical, as ought to be expected and is guided by the axiom given to us, for instance, in the *Quaestiones de Anima*:

> A power as such is spoken of in relation to an act. Hence a power must be defined by its act, and powers in turn distinguished 'from one another inasmuch as their acts are different. Now acts derive their species from their objects, because, if they are acts of passive powers, their objects are active.[382]

At times the possible intellect is compared to prime matter since both are actualised in a radical way by their objects. This analogy is, however, misleading, since the outcomes are very different, understanding in the former, substantial existence in the latter. The technical term Aquinas uses to refer to the actualised state of an intellectual power through a form is *esse intentionale*. Thus, the actuality of an act of cognizing will not result in the possible intellect

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ideo dicit Avicenna quod individuatio animarum vel multiplicatio dependet ex corpore quantum ad sui principium, sed non quantum ad sui finem." English translation by John Kenny OP, 1965 found online at https://Isidore.co/Aquinas/English/DeEnte&Essentia.htm.

[381] Gyula Klima, "Reply to Robert Pasnau on Aquinas's Proofs for the Immateriality of the Intellect." *Proceedings of the Society for Medieval Logic and Metaphysics*, Vol.1 (2001) 37-44.

[382] *Quaestiones de Anima*, A. 13, Response.

becoming the object cognised in a material or natural way but rather, says Aquinas, in an intentional way. In fact, *esse intentionale* is the standard mode of cognition that also includes the senses, not only the possible intellect.[383] The idea is fairly straightforward once we familiarise ourselves with the intuition namely that cognition implies a spiritual or 'intentional' transaction which is other than the object itself being cognized, whichever the faculty of the soul it is that does the cognizing. Another term for forms received through *esse intentionale* would be the intelligible *species*. Of course, I am summarising here, but the *esse intentionale* and the intelligible species have a fundamentally mediatory role between the rational soul and the external world in such a way that the intellect cognizes the things 'in the world' – understood as that which is beyond or fall outside the senses – through the forms, also known as intelligible species, which actualise the possible intellect and understanding of the things being cognized is achieved.

How is this relevant to our topic? When the human intellect understands through its rational and sensory capacities, it understands through images and concepts and other sensory data, which is intelligible because forms do just that, they promote intelligibility. However, this understanding comes in different grades and through different filters. So, when I see a bright-blue butterfly in a specialised zoo, my sensory faculties take note of the specific characteristics that belong to this particular butterfly. In the meantime, while observing it I may form a mental picture of what it is for a butterfly to be blue, coloured and indeed for a butterfly to be instantiated in this particular specimen that is gracing my senses. Sensory experience can only provide me with singular things: I am watching this butterfly, here and now. While my senses provide me with *esse intentionale* as I take in all the information derived from the identity and its properties that constitute this butterfly, the intelligible species that is generated activates the passive intellect and I understand. However, there is a crucial step that is required for this process to happen: cognizing the individual object – hereby individuated by its matter and actualised by its form or quiddity, as Aquinas would say – is not enough for understanding to occur. There is a process of abstraction that is necessary for the intellect to acknowledge the nature of this singular specimen being cognized. I cannot rely on the senses for this to happen since the senses alone give me singulars and understanding will only happen through abstraction, namely, through the formation of a universal. This is important because Aquinas

[383] Cfr. Robbie, Moser, "Thomas Aquinas, esse intentionale, and the cognitive as such" in *The Review of Metaphysics* Vol. 64 / 4, 763; Anthony, J. Lisska, "Aquinas on Intentionality" in *Aquinas's Theory of Perception – An Analytic Reconstruction* (Oxford: Oxford University Press 2016) 32-63.

is clear that a full grasping of knowledge happens when we understand the nature of a thing apart from its individuating markers in the here and now contingent singularity. The following text explains this in Aquinas's own words:

> Nor need we follow Plato in holding that, because science is about universals, universals are self-subsisting entities outside the soul. For, although the truth of knowledge requires the correspondence of cognition to thing, this does not mean that these two must have the same mode of being. For things united in reality are sometimes known separately; in a thing that is at once white and sweet, sight knows only the whiteness, taste only the sweetness. So, too, the intellect understands, apart from sensible matter, a line existing in sensible matter, although it can also understand it with sensible matter. Now, this diversity comes about as a result of the diversity of intelligible species received into the intellect, the species being sometimes a likeness of quantity alone, and sometimes a likeness of a quantitative sensible substance. Similarly, although the generic nature and the specific nature never exist except in individual things, the intellect nevertheless understands those natures without understanding the individuating principles; and to do this is to understand universals. Thus, there is no incompatibility between the fact that universals do not subsist outside the soul, and that in understanding universals the intellect understands things that do exist outside the soul. The intellect's understanding of the generic or specific nature apart from the individuating principles is due to the condition of the intelligible species received into it, for the species is immaterialized by the agent intellect through being abstracted from matter and material conditions whereby a particular thing is individuated. Consequently, the sensitive powers are unable to know universals; they cannot receive an immaterial form, since whatever is received by them is always received in a corporeal organ.[384]

This text represents a watershed moment as well as profound synthesis in Aquinas's philosophical position. Firstly, the very nature of the passive intellect is witness, Aquinas remarks, to the realism of primary substances that are individual objects, rather than universal forms. Secondly, the relationship of correspondence that constitutes truth-making and epistemological veracity is not contingent on the existence of forms in the Platonic sense. Thirdly, both the senses and the intellect are capacitated to receive intelligible species, proportionate to their mode of acquiring data, thus in different ways. The intellect understands conceptually what is acquired through the senses from sensible objects, a process mediated by the species, as we have seen. By contrast, the sensible powers are the actuality had by bodily organs. For example, when the eye qua sensible organ is actualised the powers of sight is activated. Fourthly, Nevertheless, the intellect understands natures – whether generic or singular – because it understands universals. The heart of the matter in this process is the 'immaterialisation-through-abstraction' principle which is the competence of the rational soul and which precludes the material and, hence, individuating factors in singular objects. That is what, finally draws the line and shows that something *meta-sensorial* is now being operated by the rational soul with the soul's cognition of universals.

[384] *Summa Contra Gentiles*, II, Chapter 75, n.8, translated by James F. Anderson, New York: Hanover House, 1955-57, available online at https://Isidore.co/aquinas/ContraGentiles2.htm.

So, now, we need to examine this route which Aquinas adopts in order to defend the immaterial nature of the rational soul on the basis that it is incorporeal, that is, it goes beyond the nature of any bodily organ. The question is addressed rather assertively and summarily in the *Summa Contra Gentiles*, whereby the reader is encouraged to acknowledge that, "The intellectual substance is not a body".[385] The arguments tackle a number of what are in my view quick points that are made in defence of the incorporeal nature of the intellectual soul. These points revolve mostly around the non-physical and hence metaphysical nature of intellectual cognition as well as the virtually infinite scope of understanding which goes beyond anything a material body could achieve. The intellect cannot be compared to a body containing other objects within it, spatially, like smaller parts in a larger whole since understanding involves a totality of a power that understands both parts and wholes.[386] Since understanding involves a process of reception, for a physical body to be received, that would involve a substantial form replacing another and this would be an instance of loss. However, understanding is not the loss of any substantial form but rather a perfecting activity that could not, therefore, be achieved if the intellect were a body.[387] Many other steps go along the lines of this argument, including references to matter taken as the principle of individuation and which would necessarily play a central role in cognition if the intellect were a physical body engaging in the kind of causality material bodies are exposed to. Evidently, it is not, for cognition does not involve the reception of materially individuated particulars within the same species for understanding relies on the formal causes which are the causes of identity and essence in anything known.[388] Moreover, the virtually infinite scope of the intellect goes beyond anything a body could potentially achieved since its extension would be radically limited by its materiality and particularity. The intellect has a potentially infinite capacity whereby it can extend over entire species, numerically, something inconceivable if the intellect were a body.[389] Another different point is made with reference to self-motion. Any self-moving body moves itself because there is another principle of self-motion which moves it as part to the greater whole, as Aristotle had famously said in his *De Anima*. The intellect, however, is not subject to any further principle of motion but moves itself as a totality which is only possible because it is entirely incorporeal.[390]

[385] *Summa Contra Gentiles,* Bk II, C. 49.
[386] Ibid., n. 2.
[387] Ibid. n. 3.
[388] Ibid. n. 4 and n. 5.
[389] Ibid., n. 6.
[390] Ibid., n. 8.

These are, admittedly, a synthesis of arguments and convictions that Aquinas presents in the form of an elenchus within this particular questions. A more intellectually satisfying treatment may be found in the *Summa Theologiae* where he discusses the very ontological nature of the soul arguing against it being composed of matter and form within itself. Since the arguments for the incorporeity of the rational soul are embedded in that discussion, we will need to take a careful look at this text and see whether we can extract a few principles and find the reasons he adopts for them. The text is found in the Prima Pars where an entire Treatise on Man is found spanning from Questions 75 to 102. In Question 75, where the composite nature of the substance 'man' is examined, Article 5 asks "Whether the soul is composed of matter and form?". In the first part of the argument Aquinas argues that the soul cannot be material because it is of the nature of the soul to be a form that actualises matter, which is pure potentiality, rather than the other way round. Whether taken in a generic sense or in a partial sense, the soul is never material for it always actualises and animates, whereas matter is the "primum animatum" in the case of a living being. What concerns us more directly here, however, is the arguments Aquinas makes in favour of the non-physical nature of the intellective soul:

> Secondly, we may proceed from the specific notion of the human soul inasmuch as it is intellectual. For it is clear that whatever is received into something is received according to the condition of the recipient. Now a thing is known in as far as its form is in the knower. But the intellectual soul knows a thing in its nature absolutely: for instance, it knows a stone absolutely as a stone; and therefore, the form of a stone absolutely, as to its proper formal idea, is in the intellectual soul. Therefore, the intellectual soul itself is an absolute form, and not something composed of matter and form. For if the intellectual soul were composed of matter and form, the forms of things would be received into it as individuals, and so it would only know the individual: just as it happens with the sensitive powers which receive forms in a corporeal organ; since matter is the principle by which forms are individualized. It follows, therefore, that the intellectual soul, and every intellectual substance which has knowledge of forms absolutely, is exempt from composition of matter and form. [391]

We can notice the analogous arguments found in the other *Summa* underlined above, only that here it is easier to spot the principles that Aquinas is systematically linking together in order to defend the immateriality of the intellect since they are stated out quite clearly. The general framework recapitulates a theory of cognition in the rational soul. This is located between two principles that are central to his position. The first is the famous principle that *quidquid recipitur ad modum recipientis recipitur*, or, whatever is received, is received according to the mode of the receiver. While cognition occurs when the form of a thing exists in the one who is

[391] St. Thomas Aquinas, *Summa Theologiae*, Prima Pars, Q. 75, a. 5, Translation by the English Dominican Province (Benzinger Brothers Edition 1947) available online at https://isidore.co/Aquinas/summa/index.html.

receiving it and understands as a result, we have already seen earlier that this happens through the important mediatory role served by the intelligible species and this is what actually exists in the one who is knowing. This is then combined with a second claim which is, I think, what successfully establishes the point Aquinas is trying to make, namely, a view about the intellectual soul knowing "a thing in its nature absolutely". I propose to interpret the term 'absolutely' here as referring to the *universal* nature of a thing as opposed to it featuring a number of accidental features. Through abstraction cognition receives a nature absolutely, namely, it sees an object as being or having a particular kind of nature which makes it identifiable as this kind of thing. This reasoning is supported by other passages of Aquinas where the topic is discussed, for instance the following:

> *Manifestum est etiam quod huiusmodi intellectivum principium non est aliquid ex materia et forma compositum, quia species omnino recipiuntur in ipso immaterialiter. Quod declaratur ex hoc quod intellectus est universalium, quae considerantur in abstractione a materia et a materialibus conditionibus.*[392]

Thus, in the *Summa* text under consideration a nature considered or received absolutely would be an abstracted object minus the accidental features that are not essential to its nature, which is how Aquinas intends the cognition of a nature "absolutely" to be. Both here as well as in the *Quaestiones De Anima* which run parallel on many points, Aquinas affirms the incorporeity of the rational soul because a bodily organ – or the sense organs, in particular – could not receive such universal forms and the intellective soul most evidently does not receive individual singulars. It is the reception of incorporeal species which afford to represent natures taken absolutely, i.e. universally because they have been abstracted from their non-essential accidents which distinguishes the capacity of the rational soul from that of any other bodily organ. This is a reductio ad absurdum argument which is why he appeals at the outset to the *quidquid recipitur* principle which is omnipresent throughout his metaphysical anthropology and ontology in general. The rational soul must be wholly immaterial and incorporeal – and that is why it cannot be a matter and form composite as he argues in the *Quaestio De Anima* – because the intelligible species cannot be received in the way Aquinas's theory of cognition states it does – by a bodily but only an incorporeal organ. Hence, a spiritual or incorporeally abstracted

[392] *Quaestiones Disputatae de Anima,* A. 14, corpus: It is also evident that an intellective principle of this sort is not a thing composed of matter and form, because the species of things are received in it in an absolutely immaterial way, as is shown by the fact that the intellect knows universals, which are considered in abstraction from matter and from material conditions." Translated by John Patrick Rowan (St. Louis and London: Herder Publications, 1949), available online at https://isidore.co/Aquinas/English/QDdeAnima.htm.

nature as is the intelligible species can only be cognised by a wholly immaterial organ or faculty.

2.2 The achievements of Aquinas's account of the soul

Thomas Aquinas's account of the soul is a philosophically audacious exercise which achieves a synthesis that has remained unique in avoiding the problems of both substance dualism on the one hand and of reductionist materialism on the other. This success is achieved due to his views on the soul as a form. Supported by Aristotle's account of hylomorphist metaphysics as well as by Aquinas's own developments on it and in response to the challenges coming from the philosophical and theological milieu of his own time, he defends the integrity of human nature as a composite of body and soul on hand and the immaterial nature of the intellective intellect that belongs to an individual human being on the other. Perhaps the best summary of his views on these themes may be found in the *Summa Theologiae* I, q. 76, a.1. His account in the *respondeo* here is comprehensive and sensitive to multiple philosophical challenges which we may take a look at now, keeping in mind the previous passages cited from his works earlier on in our chapter. I shall organise his response around the principal theses that can form a conclusive analysis of Aquinas's position on the ontological constitution of human nature.

(i) We must assert that the intellect which is the principle of intellectual operation is the form of the human body. For that whereby primarily anything acts is a form of the thing to which the act is to be attributed: for instance, that whereby a body is primarily healed is health, and that whereby the soul knows primarily is knowledge; hence health is a form of the body, and knowledge is a form of the soul. The reason is because nothing acts except so far as it is in act; wherefore a thing acts by that whereby it is in act. Now it is clear that the first thing by which the body lives is the soul. And as life appears through various operations in different degrees of living things, that whereby we primarily perform each of all these vital actions is the soul. For the soul is the primary principle of our nourishment, sensation, and local movement; and likewise of our understanding. Therefore, this principle by which we primarily understand, whether it be called the intellect or the intellectual soul, is the form of the body. This is the demonstration used by Aristotle (*De Anima* ii, 2).[393]

[393] St. Thomas Aquinas, *Summa Theologiae*, I, q. 76, a. 1, op. cit.

This *Quaestio* asks whether the intellectual principle is united to the body as its form. This passage is a closely Aristotelian interpretation of the soul and its relation to the body and Aquinas explicitly acknowledges this affinity with the arguments found in *De Anima* II, 2. We are told that that, that by which something first operates is a form for the subject operating and that the intellective soul has precisely this identity, namely, that by which we first operated and first perform vital operations. The initial moves follow closely Aristotle's approach based on examples of knowledge as a form in the soul analogously to the way health is a form in the body. Aquinas offers his own explanation of this, saying that the soul only knows insofar as it receives and possesses knowledge just as health is that by which the body is first health because this is possible only insofar as the body receives and possesses health. On this account, health and knowledge are forms inhering in the body and the soul, respectively. However, then Aquinas goes further by supplying an ontological principal which is central to his account of form and its role in the hylomorphic account of human nature:

> "(A) The reason is because nothing acts except so far as it is in act; (B) wherefore a thing acts by that whereby it is in act."[394]

This is a crucial thesis in Aquinas because it is consistently representative of his interpretation of form. Although in claim-(A) here it is expressed negatively, one can find numerous other instances where Aquinas affirms it in a positive way [395] and the term 'act' also often coincides with 'operates' this he intends to include under the concept a variety of kinds of activities that are all related to agency and agents. A thing cannot operate unless it is in act, so agents *qua* agents must be in act. One may ask, what does it mean for an agent to be in act? In the Quaestiones de Anima, Aquinas specifies that to operate, an agent must be in act in that respect which corresponds to its operation. He says,

> First indeed, since everything acts inasmuch as it is in act, namely, as it is that which it produces. For fire warms, not insofar as it is something bright, but insofar as it is actually hot.[396]

This means that an agent's actuality corresponds to its operation. Fire heats insofar as it is hot, not insofar as it is bright (or insofar as it exists simpliciter). We ought to understand this

[394] "Et huius ratio est, quia nihil agit nisi secundum quod est actu, unde quo aliquid est actu, eo agit." On this point I have benefitted from the following article by Kendell, A. Fisher, 'Thomas Aquinas on hylomorphism and the in-act principle', *British Journal for the History of Philosophy*, 2017, vol. 25, n. 6, 1053-1072
[395] For instance, in the next article within the same *Quaestio.*
[396] *Quaestiones Disputatae De Anima*, Article 12, corpus.

principle of being 'in act' in light of this qualification: agents act insofar as they exist in that respect relevant for their operation. At the core of this Aristotelian and Thomist account is the principal that something in passive potency can only be brought into actuality by an already actualised agent. Therefore, for an agent to act it must be actual in the relevant sense to actualise its patient. In contrast, to suffer, a patient must be in potency to the act of the agent so as to receive it. Although agent and patient must both exist simpliciter, the agent can only act insofar as it is in act and the patient suffer as it is in potency. This is why this opening paragraph within the article in discussion is so important to his metaphysics of persons for it locates his views consistently with his broader metaphysical framework.

Claim-(B) establishes the link with Aquinas's views on form as an operative principle. This is a consequential inference from Claim-(A) based on the view that agents act through their actualities. Now he also wants to underline their numerical identity, namely, that the principle by which a thing exists in some way is also the principle by which it operates in the corresponding way. Given Aquinas's hylomorphic ontology that by which something acts is its form. Material composites are hylomorphic composites of form and matter, whereby form corresponds to act and matter to potency. Form is, therefore, that by which a material composite is in act. Thus, in accordance with the principle 'in act', material composites act by means of their forms.[397] Here, Aquinas maintains that every operation is carried out through some form, either substantial or accidental, because form is that through which the agent is in act. Significantly, Aquinas specifies that the form by which an agent acts must be a form that inheres in the agent. Apart from the challenges coming from substance dualism and reductionist materialism, Aquinas also had Averroism and its own idiosyncrasies in mind. Thus in his Commentary on *De Anima*, we catch a glimpse of that concern as well while deploying the same metaphysical principles he has developed throughout his academic career:

> Now that by which something operates as by an active principle can be separated in existence from that which operates – e.g. if we say that the bailiff operates by the king because the king moves him to operate. But it is impossible for that by which something operates formally to be separated from it in existence. That is so because something acts only insofar as it is in act.

[397] Cfr. *Summa Contra Gentiles*, III, 69, n. 26: "It is clear that a body cannot act in its entirety, since it is composed of matter which is potential being, and of form which is act. Indeed, each thing acts according as it is in act. And because of this, every body acts in accord with its form; and related to it is another body, namely, the patient, which is a subject by virtue of its matter, because its matter is in potency to the form of the agent." See also an equally clear text from *De Spiritualibus Creaturis*: "Now no activity belongs to any given thing expect through some form which exists in the thing itself, either as substantial or an accidental form, because nothing acts or operates except insofar as it is in act. Now each individual thing is in act through some form, either substantial or accidental, since a form is an act; thus, for instance, fire is actually fire through 'fireness', and actually hot through heat., a. 2, corpus.

> Therefore, something operates formally by something as it is made actual by it. But a thing is not made a being in act by anything if it is separated from it in existence. That is why it is impossible that that by which something acts formally be separated from it in existence. It is impossible, therefore, that the possible intellect by which a human being has intellective cognition – sometimes potentially, to be sure, but other times actually – be separated from that human being in existence.[398]

Thus, in this way Aquinas has established his claim that the soul is the form of the body (i.e., the act of body) because it is its operative principle of sensation, understanding, and nutrition. As such, it must be that by which the human being is in act in the relevant respect to sense, understand, and nourish itself. The success of his argument, depends, therefore on his account of being in act as a principle which applies to all operations, including sensation and understanding. Before explaining how this is possible – where we are given yet again an account of the way rational soul cognises as discussed earlier on our chapter – he draws a few important conclusions on the ontological integrity that is achieved from his account of soul as substantial form:

(ii) But if anyone says that the intellectual soul is not the form of the body he must first explain how it is that this action of understanding is the action of this particular man; for each one is conscious that it is himself who understands. Now an action may be attributed to anyone in three ways, as is clear from the Philosopher (Phys. v, 1); for a thing is said to move or act, either by virtue of its **whole self**, for instance, as a physician heals; or by virtue of a **part**, as a man sees by his eye; or through an **accidental** quality, as when we say that something that is white builds, because it is accidental to the builder to be white. So, when we say that Socrates or Plato understands, it is clear that this is not attributed to him accidentally; since it is ascribed to him as man, which is predicated of him essentially. We must therefore say either that Socrates understands by virtue of his whole self, as Plato maintained, holding that man is an intellectual soul; or that intelligence is a part of Socrates. The first cannot stand, as was shown above, for this reason, that it is one and the same man who is conscious both that he understands, and that he senses. But one cannot sense without a body: therefore, the body must be some part of man. It follows therefore that the intellect by which Socrates understands is a part of Socrates, so that in some way it is united to the body of Socrates.[399]

[398] *In De Anima* III, 7. n. 20.
[399] St. Thomas Aquinas, Summa Theologiae, I, q. 76, a. 1, op. cit.

In this passage Aquinas clarifies his view based on a hylomorphic account of human nature where the soul as substantial form established the unity and identity of a human person who is composed of both soul and body, form and matter and it is thanks to the intellective soul as the first act of the whole substance that it can be said that "Socrates sees" or "I see". Moreover, the strictly composite nature of human beings guarantees that (A) consciousness and cognition belong to the person as an individual substance, (B) neither an account of the body alone, nor an account of the intellect alone would guarantee an exhaustive account of human nature since both are parts of the composite that form the essence that his human nature; (C) soul and body are substantially united in a hylomorphic composite since neither of the two, alone, represents the essence of a human individual.[400] As we have just seen above, what makes this line of argument possible for Aquinas is his account of the principle 'in act' through which every operation is carried out by means of some form since no creature acts or operates except by means of a form inhering in it. This form accounts for the operator's being in act in the requisite way and thereby serves as its operative principle. Since human beings understand, and they understand by means of a principle in potency to intelligible forms or species, this principle must be united to them formally. In creatures, forms serve as operative powers because they render their subjects in act so as to operate. Whatever serves as the subject of such a form is that which is rendered in act by it. Accordingly, whatever serves as the subject is that which has the capacity to operate. This brings us to the greater detail offered by Aquinas in the next paragraph of his response, this time highlighting the role of phantasms and intelligible species in his account of a hylomorphic based theory of intellective cognition:

(iii) The Commentator held that this union is through the intelligible species, as having a double subject, in the possible intellect, and in the phantasms which are in the corporeal organs. Thus, through the intelligible species the possible intellect is linked to the body of this or that particular man. But this link or union does not sufficiently explain the fact, that the act of the intellect is the act of Socrates. This can be clearly seen from comparison with the sensitive faculty, from which Aristotle proceeds to consider things relating to the intellect. For the relation of phantasms to the intellect is like the relation of colours to the sense of sight, as he says De Anima iii, 5,7. Therefore, as the species of colours are in the sight, so are the species of phantasms in the possible intellect. Now it is clear that because the colours, the images of which are in the sight, are on a wall, the action of seeing is not

[400] Cfr. Robert Pasnau, "Mind and Hylomorphism", Chapter 22, in *The Oxford Handbook to Medieval Philosophy* (Oxford: Oxford University Press 2011) 487.

attributed to the wall: for we do not say that the wall sees, but rather that it is seen. Therefore, from the fact that the species of phantasms are in the possible intellect, it does not follow that Socrates, in whom are the phantasms, understands, but that he or his phantasms are understood.[401]

The concern here is clearly anti-Averroistic and falls outside the primary interest of this thesis. Yet it still shows how Aquinas takes Aristotle's characterisation of the possible intellect as 'that by which the soul understands' as definitive proof that the possible intellect, and not some other power or principle, is the operative power through which we understand. What interests me here is to show that for Aquinas, having the capacity for intellective cognition involves having a formal principle by which we understand and this formal principle must be the possible intellect because it must be a principle that renders us in potency to and receptive to the intelligible forms. Once again, this is possible because of the primary role played by the formal cause as that by which a thing first operates in that to which the operation is attributed.

(iv) Some, however, tried to maintain that the intellect is united to the body as its motor; and hence that the intellect and body form one thing so that the act of the intellect could be attributed to the whole. This is, however, absurd for many reasons. First, because the intellect does not move the body except through the appetite, the movement of which presupposes the operation of the intellect. The reason therefore why Socrates understands is not because he is moved by his intellect, but rather, contrariwise, he is moved by his intellect because he understands. Secondly, because since Socrates is an individual in a nature of one essence composed of matter and form, if the intellect be not the form, it follows that it must be outside the essence, and then the intellect is the whole Socrates as a motor to the thing moved. Whereas the act of intellect remains in the agent, and does not pass into something else, as does the action of heating. Therefore, the action of understanding cannot be attributed to Socrates for the reason that he is moved by his intellect. Thirdly, because the action of a motor is never attributed to the thing moved, except as to an instrument; as the action of a carpenter to a saw. Therefore, if understanding is attributed to Socrates, as the action of what moves him, it follows that it is attributed to him as to an instrument. This is contrary to the teaching of the Philosopher, who holds that understanding is not possible through a corporeal instrument (De Anima iii, 4). Fourthly, because, although the action of a part be attributed to the whole, as the action of the eye is attributed to a man; yet it is never attributed to another part, except perhaps indirectly; for

[401] St. Thomas Aquinas, *Summa Theologiae*, I, q. 76, a. 1, op. cit.

> we do not say that the hand sees because the eye sees. Therefore, if the intellect and Socrates are united in the above manner, the action of the intellect cannot be attributed to Socrates. If, however, Socrates be a whole composed of a union of the intellect with whatever else belongs to Socrates, and still the intellect be united to those other things only as a motor, it follows that Socrates is not one absolutely, and consequently neither a being absolutely, for a thing is a being according as it is one.[402]

In this next principal move made by Aquinas in the Article, we have the rejection of an instrumentalised view of the body. He does this by drawing on his important distinction between two kinds of powers that belong to the soul while also functioning as the substantial form of the body. According to his view the powers of the soul are accidental forms that flow from the soul and serve as the actuality of the part of the human being responsible for their respective operation. They are the immediate formal principles of operation. The first kind of powers are intellective and these cannot inhere in something corporeal. In other words, they belong in some part of the soul that is not itself constitutive of the body. This means that they must inhere in the soul alone, apart from matter. In a subsequent article within a later *Quaestio*, Aquinas locates the intellective and volitional powers in the soul alone:

> The subject of operative power is that which is able to operate, for every accident denominates its proper subject. Now the same is that which is able to operate, and that which does operate. Wherefore the "subject of power" is of necessity "the subject of operation," as again the Philosopher says in the beginning of *De Somno et Vigilia*. Now, it is clear from what we have said above, that some operations of the soul are performed without a corporeal organ, as understanding and will. Hence the powers of these operations are in the soul as their subject. But some operations of the soul are performed by means of corporeal organs; as sight by the eye, and hearing by the ear. And so it is with all the other operations of the nutritive and sensitive parts. Therefore, the powers which are the principles of these operations have their subject in the composite, and not in the soul alone. [403]

In this passage, Aquinas explains that the powers of the intellect and will are in the soul alone, that is in the form as a subject. In contrast – and this is the second kind of power – the powers of sense and nutrition are in the conjoined being, that is, in the form-matter composite, the body of a living human being. Finally, Aquinas also directs us to the incorporeal dimension of the human soul and which is diametrically opposed to all reductionist materialist views of the mind.

[402] St. Thomas Aquinas, *Summa Theologiae*, I, q. 76, a. 1, op. cit.
[403] St. Thomas Aquinas, *Summa Theologiae*, I, q. 77, a. 5, corpus.

(v) There remains, therefore, no other explanation than that given by Aristotle—namely, that this particular man understands, because the intellectual principle is his form. Thus from the very operation of the intellect it is made clear that the intellectual principle is united to the body as its form. The same can be clearly shown from the nature of the human species. For the nature of each thing is shown by its operation. Now the proper operation of man as man is to understand; because he thereby surpasses all other animals. Whence Aristotle concludes (Ethic. x, 7) that the ultimate happiness of man must consist in this operation as properly belonging to him. Man must therefore derive his species from that which is the principle of this operation. But the species of anything is derived from its form. It follows therefore that the intellectual principle is the proper form of man. But we must observe that the nobler a form is, the more it rises above corporeal matter, the less it is merged in matter, and the more it excels matter by its power and its operation; hence we find that the form of a mixed body has another operation not caused by its elemental qualities. And the higher we advance in the nobility of forms, the more we find that the power of the form excels the elementary matter; as the vegetative soul excels the form of the metal, and the sensitive soul excels the vegetative soul. Now the human soul is the highest and noblest of forms. Wherefore it excels corporeal matter in its power by the fact that it has an operation and a power in which corporeal matter has no share whatever. This power is called the intellect.[404]

For the intellective powers to inhere in the soul apart from the body, there must be more to the soul than its being the actuality of matter. there must be some part of the soul that is not exhausted by the potency of matter to serve as the intellective part of the human being. So although the soul remains the substantial form of the human being, and is therefore the actuality of prime matter, Aquinas maintains that it is not fully immersed in matter. As we have seen earlier, the part of the human substantial form that extends beyond matter is the intellective part of the human being which is incorporeal. That part of the soul transcends the body and serves as the subject for the intellective principle and by means of it, is able to receive forms, that is species, that are intelligible and not material. For Aquinas, substantial unity is provided by a single substantial form which is the actuality of each part of the substance and the source of being that renders it a unified whole. The rational soul is the single substantial form of the human being. Although the soul has certain powers that are not actualities in the body and is therefore not fully exhausted by the matter of which it is actuality, it is nevertheless inseparable from matter insofar as it is the actuality of the body. The fact that the soul is the single substantial form of all the corporeal parts of the human being means that these are all parts of

[404] St. Thomas Aquinas, *Summa Theologiae*, I, q. 76, a. 1, op. cit.

a single substantial whole. The incorporeity of the intellective powers of the soul simply tell us that the corporeal parts of the human being, taken together, do not add up to a complete substance.

Finally, the intellective powers share in the same act of existence brought to the body through the soul. Aquinas's commitment to the immateriality of the intellective powers and accordingly to the immateriality of the rational part of the human soul mark the first significant ontological difference between the human substantial form and the substantial form of all other material substances. The human substantial form is not fully immersed in matter but extends beyond matter. Insofar as the soul extends beyond matter it serves as the subject of the intellective powers so that the powers may be exercised without being exercised by corporeal organs. Nevertheless, the soul remains the form of the body, that which makes it to be, to be nutritive and to be sensitive. As such, the soul is the principle of existence of the body as well as the source of all the powers of essential human operation.

Conclusion

In this chapter I have explored the rich and highly balanced philosophical synthesis offered by St. Thomas Aquinas. While faithful to the rigours of Aristotle's analytical method in his philosophy of nature and especially in his metaphysics, Aquinas develops further this hylomorphic account on a number of important conceptual fronts which eventually yield a highly evolved and sophisticated theory of human nature which has the resources not only to counteract the negative challenges that come from substance dualism and reductivist materialism but also to safeguard the rich ontological integrity that unifies and undergirds the identity (and dignity) of the human person.

When reading Aquinas on the metaphysics of the human person one must always remember that he was dissatisfied with the accounts provided by the atomists as well as the Platonic dualists. Having said that, the decisive developments of his philosophical position on the nature of the human composite of matter and form – these can be detected in his mature works like the *Disputed Questions on the Soul* – show that he *also* wants to move away from the Platonic and Avicennian influences on the soul as is found in St. Albert together with a related eclectic interpretation which would directly lead to an instrumentalist form of soul / body dualism.

He achieves this project with success through his endorsement of Aristotle's views on hylomorphism as well as by enriching his metaphysical account of the soul as a subsistent

substantial form. The synthesis is powerful enough to withstand the limitations and defects of his predecessors because while respecting the uniquely human mode of intellectual life achieved through the operations of the human soul – and which is irreducible to a merely corporeal analysis for it transcends it – he also keeps a fruitful causal relation with the hylomorphism that takes note of all the scientific wisdom that is offered to metaphysical anthropology, while receiving and developing further Aristotle's pivotal concepts of cause, being and essence applied to the unity, integrity and ontological criteria that the human person is.

CHAPTER FIVE

BRAINS, SENSATION AND THE HYLMORPHIC UNITY OF PERSONS

In the third chapter of his classic work *Methodical Realism*, Etienne Gilson observed that,

> Among the reasons for the low esteem in which scholastic philosophy is held today, the most profound, and the one containing most truth, is the scientific sterility of medieval thought and the difficulty there is now in reconciling it with the conclusions of positive science. […] The whole question boils down to determining whether its philosophical essence is such that it is incompatible with positive science, as the majority believe to be true, in which case I would not myself hesitate to sacrifice it, or whether on the contrary, as I believe to be true, it only has to become more faithful to its own essence than it was in order to harmonise with science and even help it to develop.[405]

While it is commonly held that the shift of focus in favour of mechanistic explanations in contemporary science signals the end of hylomorphism, especially in its Aristotelian versions, in line with the lament expressed by Gilson here above, this chapter attempts to offer a modest response taking up the invitation to harmonise hylomorphism of the Aristotelian and Thomistic kind with the scientific world of empirical research which brings not only its discoveries and new data but also its own philosophical assumptions and claims. Although such judgments about the aversion toward hylomorphism or to 'scholasticism' in general may be historically true, here I would like to argue that contemporary versions of Aristotelian hylomorphism and new models of explanation and analysis in contemporary biology, neuroscience and psychology share significant commitments to Gilson's realism, particularly about the organised and causal components of systems. I hope to show that it is not fair to say that hylomorphic and scientific ontologies are fundamentally incompatible, but a careful ontology needs to bridge the two. Gilson, goes on to say, instructively,

> In each order, the reality of the form should be preserved, since without it one cannot account for structures, and it remains the principle of reality's intelligibility. Insofar as it determines the end to which energies are directed and the conditions of their processes, it everywhere requires mechanics, imposing on physical or chemical forces structural laws which diversify bodies and maintain a real distinction between those energies. There is more reason still for the reality of the form to fulfill this role in botany and zoology, where types are even more manifestly facts and laws.[406]

[405] Étienne Gilson, *Methodical Realism*, (San Francisco, Christendom / Ignatius Press 2011) 60.; original French edition, *Le réalisme methodique*, (Paris 1935).
[406] Gilson, op. cit., 75.

In what follows, I shall first outline the core arguments that belong to materialist and reductionist views that claim to be based on contemporary scientific accounts. Then I shall need to revisit the arguments for the main claims of hylomorphism on the one hand in conversation with contemporary biology, neuroscience and mechanistic philosophy on the other. I shall then offer an example, namely, the case of sensation as a way of establishing credible grounds for the pivotal role hylomorphism plays in the guaranteeing the metaphysical unity and ontological integrity of the human person. In a brilliant article written two decades ago, John O'Callaghan debunks Anthony Kenny's interpretation of mind in Aquinas arguing that Kenny fails to recognise the major shift in Aquinas from an Augustinian philosophy of mind toward a more explicitly Aristotelian hylomorphic account of human nature and its intellectual life. The challenge O'Callaghan puts to students of the topic is that, "this Aristotelian emphasis on the soul is perhaps the most important contribution that Thomists can make to contemporary philosophy of mind".[407] On those lines, I finally hope to show how the Aristotelico-Thomistic ontological account of hylomorphism not only contributes to this conversation but also offers an irreducible component which is central to the metaphysics of person while remaining faithful to the updated scientific account of nature which that tradition of philosophy has never failed to esteem.

1. Contemporary challenges: consciousness and neuroscience

Recent scientific accounts of human nature, cognition and behaviour have been heavily influenced by outstanding achievements in the fields of biology, especially in its interface with physics and with direct implications for neuroscience. This has raised the question for some people who ask whether there is any difference between philosophy and science. Part of the aims of this thesis is to defend the irreducible nature of philosophical paradox, in the context of human nature, cognition and the transcendence of the human person. Not only does philosophy reveal such paradoxes but it also inquires into paradoxes that may be unseen by science, since scientists tend to focus on empirical data within a given framework at some point in time. Since philosophy operates at a different level and order of thought it highlights this risk faced by the natural sciences whenever they assume uncritically such paradigms. Philosophy is highly sensitive to these paradigms as well as to their underlying assumptions and hidden motivations.

[407] John O'Callaghan, "Aquinas's Rejection of Mind, Contra Kenny", in *The Thomist* 66 (Washington DC 2002) 15.

> What have been the drivers pushing the neurosciences forward? For the neuroscientists themselves it has been the pursuit of biology's last frontier – to understand the human brain, and through the brain, the mind itself […] Neuroscience, its advocates believed, would not merely conquer psychiatric and neurological disease, it would tackle the last great mystery of life that Neo-Darwinism had not resolved - that of human consciousness.[408]

One of the main philosophical lines defended in this thesis – in a varied number of both explicit and implicit ways – is that the realm of the mental, the intellect and of its related phenomenon, that of consciousness, is a mystery that biology can never solve, for the simple reason that it is not a biological mystery. One way of ignoring the challenge to provide an account of mental life *while also* attempting to safeguard the unity of persons is to say that everything is physical, mind included. According to this view the belief that the mind is nonphysical is a false belief and hence, physicalism, must be true. This is not quite the way Aristotle phrased it but given that he was aware of the challenges coming from the atomists he was fully aware of the implications of a physicalist philosophy which denied the *hylomorphic* account of soul, intellectual and bodily life. Faced with the question about how it comes about that, brains, which are complex networks of purely physical particles give rise to something apparently nonphysical as are thoughts, feelings, dreams, intentions and images, the physicalist will just say that the mind is a physical thing and one need not inquire about the mind, apart from its phenomenological or behavioural manifestation.

Our familiarity and ownership of 'mental' states prevents most philosophers from endorsing a raw kind of physicalist behaviourism which rules out the existence of a mental sphere and focuses exclusively on behaviour. Moreover, the unity of mind and body and the issue of interaction persists even if ignored. The more prevalent version within philosophers sympathetic to physicalist or behaviourist stripes would be to adopt a purely empirical stand typical of the natural sciences and say that we should not be concerned with studying the mental sphere since it is something, if anything where it exists or not, which cannot be directly, i.e., empirically, observed. This would, of course, open a major debate on what truly counts as empirical evidence within the natural sciences – since there is a lot which is not directly observable, such as the electron and yet epistemically credible through inference – and whether this is a mere reaction to the religious inclinations of dualistic approaches to the mind and body debates in the history of philosophy.

[408] Hilary Rose and Steven Rose, *Genes, Cells and Brains: The Promethean Promises of the New Biology* (London and New York: Verso Publications 2014) 245, 247.

There have been, for the record, more refined versions of behaviourism, such as, for instance, that expounded by Rudolf Carnap[409] and Gilbert Ryle. In his *The Concept of Mind*, Ryle wrote that,

> When we describe people exercising qualities of mind, we are not referring to occult episodes of which their overt acts and utterances are effects; we are referring to those overt acts and utterances themselves.[410]

According to this position, one can refer to the philosophy of mind exclusively in forms of behaviour since propositions about the mind and propositions about behaviour are translatable into each other, as it were. The descriptive content of a proposition such as "I am happy" reports nothing that is an inner feeling of joy or elation or a state of happiness, but merely a tendency to smile and display a generally positive demeanour. However, no matter how sophisticated this form of 'logical' behaviourism can be, it still cannot avoid the drive to reduce the mind to matter, consciousness to physical sensations, while attempting to solve the mind-body problem by denying the existence of the mind, nonetheless. This approach became popular in certain circles in the middle of the twentieth century and Ryle was not the only major proponent of such a view. The logical behaviourist treats all statements about sensations or feelings as statements about behaviour and not as a description of some mental state typically taken to be private, personal and in that sense, 'inner'. Focusing on the fact that we configure the world – including the private world of sensation – rather accurately in linguistic form, language maps faithfully the sphere of behaviour and the latter is faithfully reflected by our linguistic utterances which habitually, but mistakenly, are taken to report inner states the mind. Without denying the existence of mental states per se, the behaviourist reduces the account of the mental to 'open' and empirically accessible behaviour and is thus not at all far from a materialist account of the mind. Psychological or mental states are just, in fact, physical states as are bodily forms of behaviour.

Another form of reductionism is known as 'eliminative materialism', which is probably the most radical and straightforward kind of materialism. If behaviourism was the view that a mental state is just the disposition to behave in this or that way, eliminative materialism denies the existence of mental states tout court since anything which had been typically attributed to the mind can now be fully explained in terms of the brain. Ordinary statements about our psychological states, such as sensation, are radically misguided and fundamentally wrong

[409] Rudolf Carnap, "Psychology in Physical Language", in *Erkenntnis* 3 (1933) 107-142.
[410] Gilbert Ryle, *The Concept of Mind* (London: Hutchinson Publications 1949) 14.

because of the comprehensive accounts offered to us by neuroscience. Behaviourism is, however, intrinsically tautologous, if what explains human behaviour is a disposition to behave in that way. What about such a radical physicalist account of the mind and body relation in terms of eliminative materialism?[411] According to the latter, accounts of the cognitive – and hence the mental – are fully reducible to account of the brain, hence in neuroscientific terms. Whether a person is making descriptive statements about sentience and sensation, such as pleasure or pain, or whether one finds a person interesting or attractive or ugly, all such statements are radically false since all such claims are reducible to neurological states, whereby an increasingly comprehensive account of brain-states has successfully eliminated accounts of mental-states.

Such a version of reductionist materialism about the mind is based on the belief that talk of mental states must be scrapped in favour of neurological descriptions. There are irresolvable problems that the eliminative materialist has to face, however, since thoughts and sensations are not merely explanatory devices to explain behaviour but phenomena that themselves require explanation by a robust theory of mind and body constitutional ontology. Even though such materialist reductionist philosophers very often argue that accounts of mental states are based on an illusion, akin to superstitious beliefs that have been proverbially disproven by scientific evidence and with direct reference to neurologically based facts, the privileged and direct inner access to our minds shows that there is more to mental states than merely being a covert way of explaining behaviour. In fact, the materialist critic's position is itself contradictory since it cashes in on the very existence of beliefs, conceptual and intentional states, all of which are a function of the mental rather than neurological forum. The claim that psychological descriptions are illusory because they are exhaustively absorbed refence to the brain – or to empirically observable behaviour - is contingent upon the existence of illusory intentional states which are, in effect, states that belong to the mind. This self-refuting quality of eliminative materialism is even more clearly seen that since mental states are propositional and thus truth-apt, to deny their existence and substituting them with a physicalist account of the brain would itself pull the rug out of the materialist's own feet. Thus, not only is reductionist materialism incoherent but to affirm it would be to entail its falsehood.

Physicalist accounts of the mind-body relationship became more insistent with an increased sympathy toward the view that what people do and experience can be fully explained

[411] Cfr. Richard Rorty, "In Defense of Eliminative Materialism", in *The Review of Metaphysics* Vol 24/1 (Philosophy Education Society 1970) 112-121; Carol Donovan, "Eliminative Materialism Reconsidered" in *The Canadian Journal of Philosophy* Vol 8/2 (Cambridge: Cambridge University Press 1978) 289-303.

by describing what happens in the brain. The came to be called "mind-brain identity theory" or "the identity theory" for short.[412] This view, as its name suggests, is the claim that mind and brain, or anyway the relevant bits of the central nervous system, are identical, one and the same. Here too, the mind-body problem is solved at a stroke, by physicalism, by the continuous reminder that the mind is a nonphysical thing. Every mental event is a physiological event within the nervous system. Accordingly, the theory that the mind is the brain has sometimes been known as "central-state" materialism, a materialism making the mind into the central nervous system, distinguishing it from the "peripheral-state" materialism of the behaviourists. Once again, in its favour, the theory can be said to be common-sensical, given the facts of neurology such as the effects of brain damage, and it makes a great simplification in the philosophy of mind. Moreover, the mind is the brain and the brain is a physical thing, so the mind can interact with the rest of the body without difficulty.

Against this, however, the following can be said. Firstly, we miss the essential thing needed for a solution: how has the physical, which has physical properties, turned into the mental, which has properties incompatible with being a part of the physical? What do neurons have when they fire that produces mind rather than electrical signals, or soap bubbles, for that matter? A closer look at this fallacy will be taken in the next section of this chapter. There are, however, also certain logical and philosophical difficulties. The central-state materialists do not claim and are bound not to claim that the word "mind" means "brain" which is fortunate for them, as "mind" as a matter of fact does not mean "brain". If it did, the claim about the meanings of the words would make the main claim of central-state materialism (that the mind is the brain) into a necessary truth generated by the meanings of the two words. Its truth could have been discovered simply by looking in the dictionary. However, what the mind is was taken by the central-state materialists to be an empirical and factual question, not one of meaning. As we shall see in the next section, central-state materialists, like Crick, took the question to be scientific, in just the same way as the question of what the gene or unity of heredity is empirical and factual, to use the central-state materialists' own favourite example. The gene turned out to be DNA, but this could not have been known from the meanings of words "gene" and "deoxyribonucleic acid".

[412] An extensive discussion of the background, nature, phenomenology and causal analysis offered by this theory is provided by J. J. C Smart, "The Mind/Brain Identity Theory", in *The Stanford Encyclopaedia of Philosophy*, available online at https://plato.stanford.edu/entries/mind-identity, 2007. See also Jaegwon Kim, “Multiple realization and the metaphysics of reduction” in *Philosophy and Phenomenological Research* 52/1 (1992) 1-26.

For the sake of completeness, we also need to remind the materialist of another proof from the world of logic. Identity, as it turns out, is always necessary. Suppose $a = b$. Moreover, a has the following interesting property. It is necessarily identical with itself, a. If, then, we substitute b for the a, given that $a = b$, now it follows that a is necessarily identical with b. Accordingly, if central-materialism is going to claim that the mind and the brain are not necessarily identical, it must itself be false, for what other sort of identity could there be?[413] Furthermore, the claim that the mind is the brain also turns out to be equivalent to the claim that the brain is the mind, since identity is what logicians and mathematicians call "commutative". If $a = b$, then obviously $b = a$. But the claim that the brain is really at bottom of the mind could hardly be expected to appeal to convinced central-state materialists, since it makes a claim more suggestive of idealism than of materialism. Thus, I will anticipate something that will be developed later on – and which has been already amply prepared in the chapters on Aristotle and Aquinas earlier on – namely, that we can postulate the following causal and explanatory claim: the brain is a necessary yet not sufficient condition for the mind. I shall call this one 'modest' conclusion in our investigation into the mind-body problem. While fully aware that willy-nilly applying the term "mind" to philosophers like Aristotle and Aquinas may constitute an anachronism, I am still doing so with great flexibility with the proviso that the brain is a hylomorphic condition for the cognitive powers that both philosophers vigorously claim belong to the human person and which are not reducible to physicalist terms.

1.1 Category mistakes about brains

In this section I would like to show how one aspect of a carefully and critically applied hylomorphic account of the human person to contemporary physicalist accounts of the mind and the brain that are, hence, predominantly materialistic and atomistic show that a whole class of claims are based on a fallacy. Inspired by the criticism developed by P. Hacker and M. Bennett, the so-called 'mereological fallacy' reveals radically flawed claims on the level of logic, epistemology and metaphysics when it comes to accounts of the mind, brain and with direct implications for the mind-body problem.[414] Their own views recall earlier views

[413] This proof was published by Saul Kripke, in lectures given in 1970, and he developed extraordinarily interesting, related arguments in the same work. Proofs of this sort rely on the fact that the terms on either side of the identity sign, here a and b, are fixed names, or "rigid designators" as Kripke calls them and as we have already seen in our first chapter earlier on.

[414] Maxwell R., Bennett, and Peter M., Hacker, *Philosophical Foundations of Neuroscience* (Oxford: Blackwell Publishing 2003) and Harry Smit, and Peter M. Hacker, "Seven Misconception about the Mereological Fallacy" in *Erkenntnis* 79 (2014) 1077-1097.

proposed by Anthony Kenny's 'homunculus fallacy'[415] which operates on similar lines. However, this powerful line of critique – together with an account of potential problems that must be avoided – can already be found in Aristotle's *De Anima* itself:

> We speak of the soul as being pained or pleased, being bold or fearful, being angry, perceiving, thinking. All these are regarded as modes of movement, and hence it might be inferred that the soul is moved. This, however, does not necessarily follow. We may admit to the full that being pained or pleased, or thinking, are movements (each of them a being moved), and that the movement is originated by the soul. For example, we may regard anger or fear as such and such movements of the heart and thinking as such and such another movement of that organ, or of some other; these modifications may arise either from changes of place in certain parts or from qualitative alterations (the special nature of the parts and the special modes of their changes being for our present purpose irrelevant). Yet to say that it is the soul which is angry is as if we were to say that it is the souls that weaves or builds houses. It is doubtless better to avoid saying that the soul pities or learns or things, and rather to say that it is the man who does this with his soul. [416]

The central claim of this critique is that it is a logical mistake to attribute psychological attributes to animal parts – whether they are psychological, biological, epistemological or medicinal in nature – since such ascriptions can only coherently be made to the animal as a whole. Kenny referred to this fallacy as the 'homunculus fallacy' whereby the brain is described as a subject that sees or remembers and to which is attributed an agency that is only intelligibly attributable to the person as a whole. Other authors have preferred the term 'mereological' fallacy in order to avoid reference to the 'homunculus' as if it were a feature or part of the brain and to invite us instead to think in terms of parts and wholes as Aristotle seems to be indicating. Thus, this fallacy is not concerned with discussing the relation between the brain and the person but rather aims at determining the status of the brain viewed as a constitutive part of the human being in the way other organs, vital as they may also be, are said to be part of the human being.

Since the mereological fallacy is concerned with part and whole relations and is particularly interested in claims that come from the area of neuroscience, one might worry that the intention is to downplay or ignore the importance of the brain for understanding phenomena related to the mind. This is not the case, however, since part of the strength of the arguments brought in support of the mereological standards highlighted by the fallacy have the effect of precisely guaranteeing the integrity of the neurological order by 'purifying' it, as it were, from

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[415] Cfr. Anthony Kenny, "The homunculus fallacy", Chapter 6 in *Investigating Psychology: Sciences of the Mind After Wittgenstein* (London: Routledge Publications 1991) 155-165 and "Myths of the Mind and Myths of the Brain" in *Philosophical Inquiries,* Vol. 1 / 1, (Edizioni ETS 2003) 63-72.

[416] Aristotle, *De Anima*, Bk. 1, 4, 408b2-14, Translated by J. A. Smith in *Aristotle: The Collected Works*, edited by Jonathan Barnes (Princeton: Princeton University Press Bollingdon Series 1988) 651.

attributes that belong another order and thus helps clarifications within the mind-body problem debate. Thus, the causally conditional order established by the neurological foundation of mental phenomena is not in doubt. It is coherent with the commitment to the priority of form in this thesis to say that the mental is causally dependent on the brain in such a way that it is true to say that the brain is a necessary though not sufficient condition for the mind. For instance, the entire discipline of developmental neuroscience will remain untouched: it is logically and empirically sound to say that a new-born infant's neural network is rather loose, flimsy and that it will be the rapid consolidation of newly formed attachment between neurons, synapses – millions which are formed in a baby's brain every second – that will, given the right conditions, form the basis for the brain as it develops, selects and takes more consistent shape. Similarly, as a child develops into his or her teens, the role of the medial prefrontal cortex assumes a central role within the chemical and biological basis of emotional response that accompanies humans developmentally through adolescence, youth to adulthood. The point being made here is that this is *not* what the mereological fallacy is about. As Smit and Hacker observe, "the normal functioning of brain structures and processes are a causal condition for mental phenomena, it is interesting to study these causal conditions".[417] Thus, serious damage to a brain's hippocampus may lead to a resultant loss in memory retention or other cognitive abilities. However, although such neurological conditions are a prerequisite for the cognitive performance of the memory or knowledge retained, this does not show that the cells, neural networks, synapses etc, are able to retain information. The agency predicated of such biological conditions needs to be proportionate not only to the order of such conditions – in this case biological / physiological – but also to the specific activity and function of such organs. Thus, it is incoherent to say that the higher brain cortex possesses wisdom and understanding, or that the medial prefrontal cortex feels anxious as is in fact exhibited by the manifestations of teenage anxiety.

The first observation to make is a matter of logic and semantics. Bennett and Hacker distinguish between empirical propositions and conceptual propositions. The former are truth-apt and they can be verified or falsified with reference to empirical data. Thus, for instance, The Shard building in London is 310 metres high while the Burj Khalifa in Dubai is more than double its size at a staggering height of 828 metres currently making it the tallest building in the world. Unlike empirical propositions, conceptual claims do not have the duality based on truth or falsity available from the brute facts of an empirically verifiable statement. That 'every

[417] Ibid., 1079.

building has a height' or that 'no human could exist without a body' are conceptual propositions that could not be false. Conceptual statements are essentially grammatical possibilities that rule out a form of words that is senseless. One of the core claims of the mereological fallacy is that some scientists and philosophers "are misled by the fact that (some) grammatical propositions look as if they are descriptions of states of affairs, whereas they are actually rules for description which we use to form empirical propositions which are descriptions of states of affairs".[418] Conceptual statements express a rule and hence cannot be tested for truth or falsity. That 'St. Peter's Basilica is not the tallest building in the world' or that the 'St. Petronius's Basilica in Bologna is the only type of Gothic architecture in the region' are both claims that bear the scrutiny of truth or falsehood and do not represent a rule. There are conceptual propositions which may appear similar to empirical ones, and this may be one likely cause of confusion in the mind-body problem. Although it is possible to ask what the relation between the mind and brain is, the apparent empirical character of such a proposition is misleading for it gives the wrong impression that we are inquiring into the relationship between two similar entities or kinds of thing.

How does this distinction help us with pursuing the objectives laid out by the mereological fallacy critique? First of all, it reveals a trap that many authors fall into when they attribute a broad range of cognitive, perceptual and volitional capacities to the brain. This is coupled by a wide-reaching stretch of optimism and blind hope in the explanations that neuroscience promises to provide. For instance, Francis Crick claims that,

> […] all the different aspects of consciousness, for example, pain and visual awareness, employ a basic common mechanism or perhaps a few such mechanisms. If we could understand the mechanism for one aspect, then we hope we will have gone most of the way to understand them all […] The general nature of consciousness may be easier to discover than more mundane operations, such as how the brain processes information so that you see in three dimensions, which can, in principle, be explained in many different ways.[419]

Moreover, according to Crick the brain seems to be proactive in the compilation of information and in the mapping out of meaning-laden pockets which enable us to make sense of things:

> It seems as if the brain needs to impose some global unity on certain activities in its different parts so that the attributes of a single object – its shape, colour, movement, location and so on – are in some way brought together without at the same time confusing them with the attributes of other objects in the visual field. This global process requires mechanisms that could well be

[418] Smit and Hacker, op. cit., 1080.
[419] Francis Crick, *The Astonishing Hypothesis: The Scientific Search for the Soul* (London and New York: Simon & Schuster Publications 1994) 20.

> described as attention and involves some form of very short-term memory. It has been suggested that this global unity might be expressed by the correlated firing of the neurons involved. [420]

Finally, we are also told that,

> What you see is not what is really there; it is what your brain believes is there. Your brain makes the best interpretation it can according to its previous experience and the limited and ambiguous information provided by your eyes […] the brain combines information provided by the many distinct features of the visual scene and settles on the most plausible interpretation of all these various clues taken together […] what the brain has to build up is a many-levelled interpretation of the visual scene […] Filling-in allows the brain to guess a complete picture from only partial information – a very useful ability.[421]

Not only does Crick, as do many other authors such as Gerald Edelman, adopt a reductionist view of consciousness and mental life claiming to provide a full account by mere references to neural functioning. He also claims that we can fully explain human behaviour by looking closely at the behaviour of neurons, both individually and in groups. The way into this hypothesis is through our interpretation of visual information. A similar approach is clearly adopted by Stanford neuroscientist David Eagleman:

> About a third of the human brain is dedicated to the mission of vision, to turning raw photons of light into our mother's face, or our loving pet, or the couch we're about to nap on.[422]

At face values all such claims appear innocent when read uncritically. It is only when we realise that these claims attribute to the brain experiences, beliefs, interpretative judgments and intuitive guesses that enable it to discern and categorise while "mapping" out in a *quasi* rule-like hermeutical programme a view of the world.

> The signals coming into the brain can only be made sense of by training, which requires cross-referencing the signals with information from our actions and sensory consequences. It's the only way our brains can come to interpret what the visual data actually means […]"[423] The brain

[420] Ibid., 22.
[421] Ibid., pg. 30s
[422] David Eagleman, *The Brain: The Story of You* (Edinburgh: Canongate Publications 2015) 41. Eagleman practically repeats verbatim what Crick said almost thirty years earlier (cfr. 23 in Crick, op. cit.) when he says that "One of neuroscience's unsolved puzzles is known as the 'binding problem': how is the brain able to provide a single, unified, picture of the world, given that vision is processed in one region, hearing in another, touch in another, and so on? While the problem is still unsolved, the common currency among neurons – as well as their massive interconnectivity – promises to be at the heart of the solution." Ibid. 43.
[423] David Eagleman, op. cit., 47.

> doesn't really care about the details of the input; it simply cares about figuring out how to most efficiently move around in the world and get all it needs.[424]

The first argument that needs to be made with regard to the defense of the mereological fallacy goes against what I shall call "the privileged status" objection whereby one could object that this is all misplaced worry, since humans are seen as being rather different from other animals – for instance they are responsive to normativity and ethics – and there is no fallacy at all. If anything, it resembles Hume's strong objection against deriving an 'is' from an 'ought'. However, this is not what the mereological fallacy shows to be wrong, for although brute animals are not moral, they have appetites, and they display quite sophisticated sensory powers as humans do. Although they may not form intentions since their thought is not linguistic and propositional, what is said in the case of human psychology, sensation, cognition and perception may also be analogously said of other sentient beings as well. Thus, it is not the owl's brain that hunts and pursues a hibernating squirrel or a squirrel's brain that is afraid of the predatory grip of the owl. This will be the topic of our next section whereby we will argue in favour of a hylomorphic account of animal sensation.

The principal claim of the mereological fallacy proponents is to flag a profound confusion which lies behind statements that attribute psychological agency to the brain with the same epistemic confidence manifested for common observations as when we say that we know what it means for Tom to be happy, for Jackie to analyse a mathematical problem and for William to be anxious the day before a challenging examination. We do know what such statements mean because it is possible for us to experience joy and anxiety, to perform logical and mathematical computations, to compose complex fugues in music and to counteract the strategy of a legal or footballer opponent. But we do not know – and could not, in fact, ever know – what it is for a brain, a neuron firing network, a synapse to reason, sense, react, analyse and behave in this or that way. I know what I mean when I say that I am hearing my neighbour practise at the piano or my son chatting on the phone, but I cannot grasp what it means for my brain to hear anything at all. The impression that contemporary advances in neuroscience – and this is reinforced through the hopeful optimism expressed as mentioned above – indicate a linguistic or conceptual innovation is false and is based on a fallacy.

The role of philosophy is to highlight the contours of this fallacy, to show the limits of philosophy and of science but also to investigate into the reasons which lead to such a description as that chronically contained in mereologically illicit claims. Since it is nonsensical

[424] Ibid., 49.

to seriously ascribe psychological predicates, whether positive or negative, to the brain – for such attributions apply essentially to the whole living person who senses, cogitates and wills – it is safe to say that the probable cause of such a fallacy is a problematic ontology of persons that lurks behind and is accepted uncritically within such scientific views. The philosophical preference of such scientific perspectives is clearly physicalism, materialism and atomism. It can be seen when such writers talk about the constitution of human beings, of their psychological and sentient powers, not to mention all that should belong to the mental sphere and which would be presumably reducible to an account of the 'magic' worked by neural networks. For instance, in his discussion of human freedom, Eagleman unhesitatingly affirms that,

> Your brain makes thousands of decisions every day of your life, dictating your experience of the world. From the decision of what to wear, whom to call, how to interpret an offhand comment, whether to reply to an email, when to leave – decisions underlie our every action and thought. Who you are emerges from the brain-wide battles for dominance that rage in your skull every moment of your life […] each neuron is connected to thousands of others, and they in turn connect to thousands of others, and so on in a massive, loopy, intertwining network. They're all releasing chemicals that excite or depress each other.[425]

There is a list of arguments, which are all more or less, connected to the core principles enshrined in the critique against the mereological fallacy and which may be schematically stated as principles. I shall briefly argue for a justification of each. (1) Views that treat the brain as a tool, rather than as part of the human being, rely on an ontology that instrumentalises the body. On this view the brain is a tool used to accomplish cognitive tasks, for instance, the mother uses the hypothalamus in the brain in order to be maternally affectionate towards her child or I use the hippocampus in order to memorise what I'm studying. The brain is an organ and this is different from being a tool for a number of reasons. Firstly, it is an organ that is part of an organism in the way the heart and kidneys are organs and are parts of the organism. Moreover, whether bodily organs fulfil their functions independently from volitional initiatives of the person or not, they are all fully intelligible in terms of their teleological and functional relationship with the whole organism, the human body. Thus, we can see that lower systems serve higher systems, and the heart is a muscle because it acts as a pump which circulates blood to the extremities of the body. similarly, although we cannot do anything without the brain the brain is not something we use as a tool for it serves a finality, absolutely pivotal as that may be, that makes it a crucial part of the whole body.

[425] Eagleman, op. cit., 112.

In relation to this argument, the hylomorphist ought to keep an eye on a quick rallying of arguments from evolutionary intuitions which are often brought to explain questions related to purpose and fit. Thus, to questions like, 'why does a tiger have a set of carnivorous teeth', or 'why does the Mozambique cobra spit venom?' too often, the answers provided refer to evolution as the explanation behind it all. The mereological fallacy, however, shows that this too, lies on a conceptual mistake. For I do not need an evolutionary, hence chronological or diachronic account in order to explain the relationship of fit that exists between the cobra and its spitting venom or between the tiger and its set of carnivorous teeth. Rather, we ought to appeal to the overall reality of an animal's nature – which may be carnivorous and predatory – and which is efficiently served by its possession of suitably and organically related capacities, faculties and powers. This might be called the synchronic account, or in hylomorphic analytical terms, a relationship based on a teleological understanding of nature. Upon refusing to step into a hungry tiger's cage, a man would not find satisfaction in appeal to evolutionary reasons but, rather, to the typical behaviour of such and such a kind of animal, or in other terms, by appeal to its nature. Such teleology may be explained in terms of (a.) organic unity (parts within the whole and unintelligible as parts, without the whole), (b.) organs as distinct from organisms, which is why the comparison with tools, which could qualify as substances, does not hold and (c.) organs are clearly purposive and depend on an internal relation to the good of the organism as whole and which is how it can flourish. Tools, clearly, do not have a good they are serving of their own nature: in fact, they do not have a nature but are intrinsically passive.[426]

Secondly, (2), the mereological fallacy is committed whenever we do not distinguish between the body meant as the manifestation of a person's somatic features and the body as a living organism. We loosely say that Tom *has* a frail body and that Jenny's body is agile and athletic or that Simon's body is ageing, etc. In this sense to 'have' a body may be a legitimate way of speaking, but this should be carefully distinguished from the body as an organism which is identical to the person that *I am*.[427] As Smit and Hacker argue, "whatever is true of the body I have is true of me".[428] Thus if "my body is ageing", it is accurate to say that "I am ageing" and that if "Jenny's body is agile", that "Jenny is agile." But it does not follow that the converse is true, such that not everything that is true of Jenny is true of the body she has. She may be disappointed or excited about her body, but the body is not and cannot be disappointed or

[426] Arguments on similar lines are proposed by Smit & Hacker, "Seven Misconceptions About the Mereological Fallacy: A Compilation for the Perplexed", *Erkenntnis*, 79 (2014) 1082.
[427] Such a claim is made mereologically and in a nonreductive manner, without prejudice to the transcendence of the human person.
[428] Smit & Hacker, ibid., 1083.

excited about Jenny or itself. I may be guilty, but there's nothing my body is or could be guilty of and, I believe in God, but it cannot be said that my body believes in God.

> However, everything true of *the body*, the living organism, the human being, *that I am*, is also true of me, since I am *that* living body.[429]

Thus, it is coherent to state that the brain is a part of the human being, since it is a part of the human body which constitutes the human person. One could argue that the brain is not a part of a person just like the Vatican City is not part of the European Union. For the sake of the mereological fallacy one could say that the Vatican City is, despite its autonomous sovereignty, part of Rome which is the capital of Italy, and it is not a contradiction or even inaccurate to say that the Vatican City is part of Italy. The mereological fallacy – whereby it is a logical and categorical mistake to apply psychological attributes to parts of the human being – still holds.

Thirdly, the mereological fallacy may also be exemplified through views on gnoseology where questions of an epistemological nature are clearly reduced to brain neuroscience, just as accounts of the mind are reduced by physicalists to an analysis of 'brain-states'. Not only do physicalists like Daniel Dennett have considered accounts of neural states to be sufficient to account for knowing and the possession of knowledge, but this has had extensive influence on neuroscientists themselves. Thus, for instance, we are told not only that it is the brain to "decide to shift a limb" in daily cases of physical mobility[430], but also that,

> It's a great trick of Mother Nature, allowing the brain to learn languages, ride bicycles, and grasp quantum physics, all from the seeds of a small collection of genes.[431]

And moreover, clearly implying that neuroscience has taken over philosophy and is now in a position to resolve the problems of philosophy (as philosophers like Quine, have, after all stated):

> Almost twenty-four hundred years ago, Aristotle made a first attempt at describing this process, in his manuscript *De memoria et reminiscentia*. He used the analogy of pressing an imprint onto a wax seal. Unfortunately for Aristotle, he had not data to draw on, so the neural magic by which an event in the world becomes a memory in the head would remain enshrouded in mystery for millenia. Neuroscience is just now beginning to unlock the puzzle. We know that when you *learn a new fact* – say, your new neighbour's name – there are physical changes in the structures of your *brain*. For decades, neuroscientists have slaved over laboratory benches

[429] Ibid.
[430] David Eagleman, *Livewired: The Inside Story of the Ever-Changing Brain* (Edinburgh: Canongate Publications 2021) 124.
[431] Ibid., 20.

> to understand what those changes are, how they are orchestrated across *vast seas of neurons*, how *they embody knowledge,* and how they can be read out decades later.[432]

However, such a line of reasoning as exemplified by neuroscientist David Eagleman – as well as his philosophical physicalist mentors – is based on a mistake since no amount of CT-scanning or MRI-ing of the brain will reveal what a person knows and how such knowledge has been obtained. Knowledge is a potential that persons possess as a capacity and brains are, evidently, a necessary cause for our natural acquisition of data and eventually of knowledge. However, they are not sufficient, for a study of the neurological state of one's brain reveals absolutely nothing about his gnoseological powers, that is, the extensive range of things related to information, logic, conversation and argument, artistic creativity and memory, even. That, evidently, requires a different order of thinking which belongs to philosophy and Aristotle's case would not be helped by the ocean of scientific revelations that current neuroscientific research is able to offer.

1.2 Form as a guarantor of unity: the case of sensation

In the remaining parts of this chapter, I would like to sharpen the focus favouring a hylomorphic account of the ontology of persons showing its conceptual superiority to both dualist and materialist theories. This will be done by appealing to the views endorsed by Thomas Aquinas, specifically by showing that his account has the potential to enter into a fruitful conversation with the most recent accounts that come from the natural sciences while also supported by the philosophical background developed by neo-Aristotelian authors. A central principle for Aquinas is that operations are specified by their objects and operations specify powers which ultimately specify the nature of a living entity. In the light of this principle, in this section I defend the position that human beings are composed of a psychophysical unity *of the kind* that is shared by all animals qua living, bodily entities. Since I consider this to be a development of the Aristotelian-Thomistic argument against Plato's position on the relation of the soul to the body, especially as seen in Aquinas's *Summa Theologiae*, I, q. 75, a. 1 and q. 76, a. 1. I argue that it may also be used as an argument against physicalist and eliminative materialist accounts of the mind-body problem. I do not intend to imply that the soul of the human animal is generic because it is also had by other animals as well. The human soul is species-specific, yet this does not mean that when we say that the soul is the form which generates organic unity,

[432] Ibid. 209.

organisation and finality, there is always a sense in which the statement may *not* be said equally of humans and other animals. The relationship between sensation and understanding is a feature peculiar to human beings, no doubt and Aristotle and Aquinas are in agreement on this.

The argument may be developed in three steps. Sensation is a naturally physical occurrence and is intimately rooted in our bodily nature and, hence, it is non-controversial to say that it is a bodily act, i.e., an act performed by the body making use of a bodily organ. A hylomorphic account argues that there is an organic identity between the thing which senses and the entity which cognizes and consequently, the one doing the understanding must be a bodily entity rather than an exclusively spiritual substance 'using' of the body (which would be the instrumentalised picture of the body typical of substance-dualism). Analogously and for the same ontological reasons, sense-perception in living beings cannot be explained exclusively in terms of neurological networks (this would be atomistic /materialist view with a reductive approach to all cognitive phenomena, including understanding and perception). *Quod est disputandum*, so let us take a closer look at each one of these claims.

Let us assume, to begin with, that there are two kingdoms of living organism as has been classically recognised, namely the plants and the animals. Although the highly specialised discoveries of organisms which are harder to classify in either one or the other because of their smallness needs also to be acknowledged, this distinction is still largely held to be an accurate one and accepted as such. It is also in line with Aristotle's general views on life and on how vegetative powers are shared by all organisms at the basic level, while animals share a higher level of functioning proper to them which is namely sensation through their bodily organs. Another term, 'sentience' is at times used and because it refers to "the capacity and tendency for awareness of stimuli" whereby "appetition is the capacity and tendency for seeking after and avoiding stimuli consequent upon awareness of them."[433] Sentience is that power which animals have that enables them to mobilise in the face of threats and to pursue beneficial rather than harmful scenarios and that is why it is taken as their distinguishing mark. That background set, we can also say that sensation in animals is thus an organic, bodily act. This essentially means that when it is performed by an animal, a bodily organism is activated and that such an act is intrinsically ordered to the flourishing of a bodily organism. Sensation in human beings, at least considered from a structural and physiological perspective, is the same sort of act as that found in other animals. It will follow as with sentience in other animals, sensation in human beings is also an organic bodily act.

[433] Cfr. David Oderberg, *Real Essentialism* (New York and London: Routledge Publications 2007) 184.

The proposition that a general account of sensation in animals views the sense-powers as rooted in an organism and that, sensation is for that reason an organic act, has been challenged by a number of philosophical views. When we see an owl attacking its oblivious prey on the ground or a security-dog sniff out narcotic substances at an airport, we have not doubt that these highly accurate and effective operations are possible because animals have physiological mechanisms and biological systems that are similar – at least in their operative purpose – to human senses, that include vision, hearing and smelling. We have already seen, however, that some philosophers and scientists may not accept the view that sensation is a unitary action but rather an aggregate of electro-chemical networks that function in a mechanistic way without appealing to the organic nature of the animals as substantial whole. A combination of behaviourism and empiricist verificationism might insist that there is nothing mysterious or mental about sensation and that viewing it as an organic event will not help us since, at best, all that sentience refers to is a mental episode that is associated with the body; and given that the study of the mind should be replaced by what is immediately observable, namely, behaviour alone. A hylomorphist of the Aristotelian type would closely relate sensation in animals to their cognitive powers. However, Descartes would relegate sensation to the mind and, while famously denying that animals have a mind, thereby rejecting any sentience in non-human animals given his views of them as merely *automata* and a mere *res extensa*. On the other hand, Platonic substance-dualism would dismiss sensation as a primarily bodily event while what matters more for identity and cognition is the substantially distinct mind that we have.

The view I am defending here, supported by the Aristotelian and Thomistic views of organic life is that animals are enduring entities. Such unity and endurance is guaranteed by the substantial form and which goes beyond mechanistic, reductionist as well as dualistic views since it is the animal which senses and that sensing is a unitary event which is common to animals and humans and shows them to be organic substances, for sensation is real and is fully accountable only in a psychophysical way.

The Cartesian position is the easiest to disprove since animal movements are clearly specified by the information obtained through a kind of interaction with the environment that can only be mediated through the highly evolved sensory equipment that characterises their bodies as a whole. They turn their heads when stimulated in some way or other or in order to obtain sensations, as in the example of hunting for a prey. The express pain by crying out and animals may retain and remember images or recollections of pain associated with certain persons or situations. So, it is not a point of controversy to assert the genuine presence of

sensation in non-human animals whether it is associated 'with' animals or perhaps 'occurring in' the minds associated with them.

Aristotle's theory of form addresses not only the immediately biological account of sensation but also metaphysical questions about synchronic and diachronic identity, persistence through change and of course individuation. He also says that there is something beautiful about all this:

> If someone has considered the study of the other animals to lack value, he ought to think the same thing about himself as well; for it is impossible to look at that from which mankind has been constituted – blood, flesh, bones, blood vessels, and other such parts – without considerable disgust […]. One should consider the discussion of nature to be referring to the composite and the overall substantial being rather than to those things which do not exist when separated from their substantial beings.[434]

There is a level, according to Aristotle, in which nature, upon careful reflection, is self-explanatory. However, there is crucial hermeneutical key to this explanation and this that "nature does what is best for the substantial being of each kind of animal."[435] The account of sensation that I am trying to give here clearly falls within a wider etiological account of nature, one which is deeply teleological since the "overall" good of the animal is ontologically captured with some reference to the final cause that one pervasively observes in animal structure and behaviour. A hylomorphic account defends the view that such a logical intelligibility of sensation in view of the flourishing of the animal qua sentient being can only be possible if we acknowledge the overall operation and constitutional power of the substantial form.

Aristotle's account of form in nature rules out the view held by materialists whereby a horse, for example, is nothing more than an aggregate of smaller parts and kinds of matter, perhaps molecules, atoms and neural connections, etc. As already discussed earlier on the second chapter, on this atomistic view, the actions of animals like lions and owls are not guided by any intrinsic unitary principle but are phenomenal and rather arbitrary aggregates of smaller entities and the way they constantly coincide with each other and with smaller units and parcels of matter. A Humean of sorts might add that we conveniently conjecture that such objects are unitary substances but that is not in any way indicative of how things in the world *truly are*.

A hylomorphic theorist of the Aristotelian kind has the resources to show that it is not mere convenience that drives us to see animals as real substantial units rather than mere *entia*

[434] Aristotle, *Parts of the Animals*, I, 645a, 25-36 in *Aristotle's Collected Works*, Edited by Jonathan Barnes, (Princeton: Princeton University Press 1988)
[435] Ibid., 639, b 19-21.

per accidens. Just as we judge a house as a *unified whole*, even though it is composed artificially of smaller entities and accessories such as boards and bricks, we similarly understand a shark's actions, when responding to stimuli provided by the presence of some prey or another as the action of an organic whole. We do not apprehend an aggregate of parts but a biological and metaphysical unity that constitute the shark, for example, as a whole, acting with a view to an end that is desired – fully explicable in terms of natural instinct in the case of non-human animals and such, unconscious – as an end to be pursued. Of course, the house is an artificial object and for that reason, as we have already seen earlier on, the unity is extrinsic since it is caused by human agency from the outside.[436] The constitutional presence and operation of the form in living animals explains the overall body plan and pattern of behaviour that shape its life and inclinations and the manifestation of sensory responsiveness clearly serves such an overall unitary function as well. Thus, even while the great grey owl is asleep, it is still possible to say that the concave shape of its face, the concentric layering of thousands of feathers that amplify its hearing, its keen sense of auditory direction allowed by asymmetrically placed ears, etc, all serve the purpose of hunting through sensation and are all unified within an organic whole and are served by the form of the matter but also serve to protect and promote the very same form.

> Aristotle rightly thinks that most animal activities, and therefore most of an animal's anatomy and physiology, are oriented around [nutrition and reproduction], which in the end […] are the activities of self-maintenance and, as he would put it, form-maintenance – for the processes involved in generation and development, including mating, nest or den building and maintenance, and the raising of young after birth are all, as Aristotle sees it, engaged in the process of formal replication, the producing of off-spring who are like parents in form.[437]

In a material world where nature can be viewed as the sum total of organic beings that are essentially causes of change and are themselves subject to change and, given that it is evidently true that animals adapt in such a way or other that is conducive to their survival and propagation of the species, it is more than plausible to argue that animals are a type of enduring agents and that the powers of sentience that they exhibit through all sorts of behaviour and movement point toward some metaphysical continuity and endurance across time. Viewed as a reliable source of regular, recurrent and predictable actions and reactions, to be an animal is to be a source of such agency. Appealing to the random motion of particles as the true underlying

[436] Cfr. Aristotle, *Parts of Animals*, I, 1, 639b15-640a10; *Metaphysics* VII, 17
[437] James Lennox, "An Aristotelian Philosophy of Biology: Form, Function and Development", *Acta Philosophica*, 1. 26 (Pisa and Roma: Fabrizio Serra Editore 2017) 39.

cause of motion and sensory behaviour cannot meet the high standards of organic life and behaviour as that manifested even by non-human animals. The only way we can understand and anticipate the events of the 'materials' which taken together respond to the label 'owl, 'dog' or 'owl' is by considering such entities as unified units that are the unitary source of action. The quasi-premeditated behaviour of an owl as it silently but lethally glides down from back, behind an innocent squirrel and thus unseen and unheard, can only be fully explained if we view the owl as a substantially unified source of action, more precisely, as an animal in pursuit of a prey. The scientific fact that the owl's agile movement can be explained on lower and biologically sophisticated levels – with reference to all the neuro-chemical systems that are at work and lining up all the other parts of its aerodynamic body – does not sufficiently level up to the account of the organism operating as a single agent. The unity here is from within, unlike the case of a building and this is why it is best explained causally in terms of hylomorphic unity and most of all, with reference to the substantial form. This principle applies, for Aristotle, as with contemporary scientists, across the board to include the intrinsic organisation that is found in botanical life as well as in the higher and animal forms of life where we can observe agency in terms of sensory powers.

The operations that are associated with animal life, namely hunting and chasing after prey, feeding and nutrition as well as reproductive mating are all activities that cover a span of time. It is not reasonable to suppose that a mechanically or atomistically strung series of aggregated experiences and chemical links suffice to explain what is going on and what is sustained through such phenomena. By contrast it is only if we treat animals as agents that are numerically the same throughout stretches of time this would suitably satisfy the rich catalogue of phenomena registered by both ordinary as well as scientifically specialised observation. Thus, even though it is logically conceivable that a world whereby such entities existed for a very short time, all the evidence strongly suggests that the contrary is true. A shark will hunt on other fish and any mammal inhabiting the sea within a rather wide range whereas a squirrel will not. Naturally, this variation is explicable in terms of "ecological morphology" whereby "an understanding of the overall bodily organisation of an organism [is viewed] as a function of its complex relationship to its environment"[438] and hence, to whether an animal is a carnivore or a herbivore. Nonetheless, the most reasonable interpretation of such overwhelming evidence is that a shark is a certain type of substance which is a source of agency that is, a stable source

[438] James Lennox, Ibid. 49.

of regular and predictable behaviour such that animals of its type will interact and react to a given type of environment in certain ways and not in others.

The next step will be to defend the view that sensation is essentially an organic act. Though this may sound trivial, both St. Augustine and Descartes held that in human beings, sentience is a function of consciousness and not of our bodily nature, since something happens in the soul when the body is 'hit' by external stimuli. Animals are ruled out since for Descartes they do not have a mind and hence do not sense.[439] However, as just argued, the undeniable evidence of body parts moving in response to stimuli or in pursuit of a target is only explicable – indeed only intelligible – in terms of the functional unity exhibited by animals as wholes that are organically unified and that coherently respond or react to stimuli that are cognised through the senses or pursued out of natural instinct. Keeping in mind what has been established in the previous section on the mereological fallacy, the operations of animal body parts are most reasonably and logically explained as a causal participation within the intrinsically defined pattern of life that is established by the formal cause as prior, since it is definitive of the nature of any particular animal, and which makes the very existence of our scientific accounts even possible. Such acts of sensation are not haphazard or mere improvisations but rather, they are ordered toward the servicing and pursuit of the survival and flourishing of the organism. So it is right to say that the animal senses as an organism and this is because its senses are deeply rooted – not sporadically or loosely or accidentally – organically, for sensing is an organic act. Accounts such as those provided by Descartes do not have the resources to defend the intrinsic unity of an animal and such non-unified accounts of sensation and behaviour would rely on a purely extrinsic account of bodily movement and action with the body reduced to a mere instrument driven accidentally by a mind. Consequently, the animal would not be intrinsically one at all but reduced to a mere aggregate lacking the overall unity that so keenly qualifies our scientific understanding of animals and their behaviour.

Hylomorphism enables us to analyse animals in all their physiological and psychological complexity while providing reasonably defensible accounts of their behaviour

[439] This claim is the cause of much heated discussion among scholars of Descartes for it is widely held that he viewed animal nature as a "bête-machine". Perhaps this judgment is inaccurate in places and Descartes scholar John Cottingham breaks down the various claims into seven premises: "(1) Animals are machines; (2) Animals are automata; (3) Animals do not think; (4) Animals have no language; (5) Animals have no self-consciousness; (6) Animals have no consciousness; (7) Animals are totally without feeling." Cottingham argues that textual evidence can be found in Descartes for the first five of these premises but not for the remaining two. Cfr. John Cottingham, "Descartes' Treatment of Animals", in *Descartes*, Edited by John Cottingham (Oxford: Oxford University Press 1998) 225-226; see also similar arguments made in Cecilia Wee, "Animal Sentience and Descartes' Dualism", in *British Journal for the History of Philosophy*, 13 / 4 (Routledge, Francis and Taylor 2005) 611-626.

as sentience-mediated responses in view of their survival and flourishing. The way cells, systems, tissues and neurological networks function in an integrated way support the way of life and the very being of the organism only if they operate *as a whole*. It is clearly evident in the case of the life of wild animals (by contrast to domesticated animals where the sharpness may or may not be slightly obscured through artificial conditioning) where hunting and mating cannot be successfully achieved without sensation and perception. The sensory functions of a shark or a tiger are inextricably bound up with its life in a way that the rest of the systems in all their physiological and psychological richness whether the digestive, circulatory or reproductive, would be unintelligible without them. This is why it is safe to claim that sensation in non-human animals is a bodily and hence an organic act.

What about sensation in human beings? It is true that in humans, sensation often is subordinated to the higher theoretical or speculative levels of understanding, that is, rationality and dialectic pursued for their own sake. There is, however, no outstanding reason to imply that sensation in humans is radically different from sensation in brute animals. Through scientific observation we can discern generally the same types of bodily structure underlying the organic operation of sensory powers, from nerve cells to brain organisation and electric impulses relevant to a successful interaction with the natural and material environment. It is reasonable to claim that there is available a class of human behaviour which may be accurately specified by sensory information similar to the case with animals. Of course, such classes of actions are dictated by the species-specific conditions that define the ecology and nature of the animal, as we have seen. This applies to the human animal as well where an account of the good pursued for well-being and flourishing in humans is not quite satisfied by an account of sensation in animals. However, the principle still applies, namely that sensation is an organic act and that this applies to both non-human and human animals. As one might suspect, however, there is more to the story. Let us take a look at a passage from Aquinas, where he discusses the distinction of the interior senses of the soul:

> Now, we must observe that as to sensible forms there is no difference between man and other animals; for they are similarly immuted by the extrinsic sensible. But there is a difference as to the above intentions: for other animals perceive these intentions only by some natural instinct, while man perceives them by means of coalition of ideas. Therefore, the power by which in other animals is called the natural estimative, in man is called the "cogitative," which by some sort of collation discovers these intentions. Wherefore it is also called the "particular reason," to which medical men assign a certain particular organ, namely, the middle part of the head: for it compares individual intentions, just as the intellectual reason compares universal intentions. As to the memorative power, man has not only memory, as other animals have in

> the sudden recollection of the past; but also "reminiscence" by syllogistically, as it were, seeking for a recollection of the past by the application of individual intentions.[440]

What makes that human understanding which is possible as a result of sensation *different* from that of non-human animals is its syllogistic nature, which refers to the inferential, deductive and inductive organisation of human thought and which we characterise now as fundamentally 'propositional' thought. This is what renders the cognitive aspects of the human soul amenable to an account of form and finality and which make it peculiar even if we had to defend the view that *that which senses is the same thing as that which understands* applies to humans as well. The analysis of the formation of singular judgments in human thought provides evidential justification for this view. Let us consider, for example, the affirmation, "that is a red car". Cognitive apprehension in humans spreads itself out in two directions, so to speak. The first intellectual act apprehends what is meant by "red car" and the second apprehends a kind of object which is identifiable under the heading car as a machine that is architecturally unified to serve as a locomotive vehicle for transportation. The subject-predicate structure that is definitive of propositional thought reveals that the predicate of some intellectual judgment is that (x) which is semantically grasped by one's act of understanding. What is referred to by the ostensive "that", however, is apprehended by sense-perception and is, namely, the subject of the said judgment. Through sensory operation and in this case, perception, "that" refers to whatever is empirically accessible and available through seeing, hearing and so on. This establishes for our purposes that, clearly, the same entity apprehends the subject *as well as* the predicate of a unitary judgment. We have, thus another way of expressing the hylomorphic unity of the soul and body composite, whereby it is the same substance or agent who perceives and who understands.

2. Aquinas on mereology, form and the irreducibility of the mind

After having discussed the diagnostical benefit of the mereological fallacy when applied to brains and bodies, as well as arguing for the formal cause in terms of sensation let us see whether there are any critical contributions further to be made, this time from Thomas Aquinas. When discussing some of the confusions that arise from the mereological fallacy, we noted that one is due to a conflation of conceptual and empirical truths. An example of such a confusion could be that one argued against substance-dualism of the Platonic and Cartesian type on the

[440] Aquinas, *Summa Theologiae*, I, q. 78, a. 4, Translated by the English Dominican Province (London: Burns, Oates and Washbourne 1920).

basis that an immaterial mind could not possibility have a causal effect on the body – including the brain – for the law of the conservation of momentum needs to be respected. The confusion here would lie in the pretence that a philosophical problem has been resolved by looking at physics and hence it is correct to say that conceptual aporias may be dissolved into empirical ones.

However, that is not why hylomorphists of the Aristotelian-Thomist vein think that substance dualism is wrong. Firstly, the Platonic-Cartesian dualist might say that there exists no empirical argument or evidence to disprove a non-empirical claim such as that in favour of the immaterial mind since there is no such empirical statement available for testing. How could one empirically test for a non-physical mind? Secondly, when Aristotle speaks about the soul, *psuche*, he intends it (as we have amply seen) not as a distinct or separate entity or part but the *form of the body*. On this point, there is a foundational commonality between the ontology of humans and other animals and one could say that the mereological fallacy applies to both. In both cases, the hylomorphic account is clear that mental and psychological features and actions are attributable to the animal or the person as a whole. This is why dualism is wrong since it essentially instrumentalises the body and views it as a possession, an objectified property. That position is based on a contradiction since it is not at all clear *who* the subject having the body is, whether the mind – and this case we face the other problem of deciding we are minds or bodies – or some other mysterious entity and moreover, when dualists speak of "having" a body or "having" a mind, a relation is posited which requires some other justification rather than having powers and attributes as is postulated by the account of the soul as form. Thirdly, dualism has a problematic account of human behaviour, which is seen as a mechanical flow caused by the mind whether in Platonic or Cartesian causal correlations or neurological electrical transmitters. Hylomorphism views the soul as the animating principle of the substance which is the human being and thus, behaviour is informed by the soul which is the totalising cause of integrity, sensation, intellection as well as agency on all levels. This what Aquinas seems to be saying in the following passages where we appreciate how acutely sensitive he was to the Aristotelian hylomorphic account of persons, sensation and ontological integrity as well as weary of mistakes committed by mereological confusions of parts and wholes:

> […] we may reply that to operate "per se" belongs to what exists "per se." But for a thing to exist "per se," it suffices sometimes that it be not inherent, as an accident or a material form; even though it be part of something. Nevertheless, that is rightly said to subsist "per se," which is neither inherent in the above sense, nor part of anything else. In this sense, the eye or the

> hand cannot be said to subsist "per se"; nor can it for that reason be said to operate "per se." Hence the operation of the parts is through each part attributed to the whole. For we say that man sees with the eye, and feels with the hand, and not in the same sense as when we say that what is hot gives heat by its heat; for heat, strictly speaking, does not give heat. We may therefore say that the soul understands, as the eye sees; but it is more correct to say that man understands through the soul.[441]

Moreover, in his *Commentary on Aristotle's De Anima*, 408a34–408b31, psychological attributes are to be made with reference to the soul:

A. as the prime cause of a nature as well as of agency:

> Even if feeling pain or being glad or understanding are in the fullest sense movements, and each of these is a 'being moved' (e. a. being angry or fearful occurs by some movement of the heart), this being moved is from the soul. But as for understanding, it is either of such a nature or perhaps something other.[442]

B. while respecting the chronological precedence of empirical data through the senses:

> Of these, however, some occur with a change of place in that which moves; others with an alteration: of what sort or how is another question. To say that the soul is angry is like saying it builds or weaves. For it is perhaps better to say, not that the soul is compassionate, or learns, or understands, but a man by his soul. These modifications occur by movements not so much in the soul as, in some cases, proceeding to it, and in others, proceeding from it, as sensation proceeds from things, whilst remembering proceeds from the soul to the motions or rests which occur in the sensitive organs.[443]

C. An account which is compatible with the physical integrity of the brain as bodily part which is a necessary though not sufficient cause of understanding and intellection:

> For it would corrupt [if it did], principally through the debility accompanying old age. But in fact, what happens is similar to the case of the sensitive powers. If an old man could acquire the eye of a young man, he would see as a young man; hence, senility is not an affliction of the soul, but of that which it inhabits, like drunkenness or disease. Understanding and thinking, then, decay with the decay of something else within. Understanding itself cannot be affected. But reasoning and loving and hating are not affections of the intellect, but of that which has it, precisely in so far as it has it. Wherefore, when this decays, the soul ceases to remember or love. For these proceeded, not from it, but from what was common, which has disintegrated.[444]

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[441] Aquinas, *Summa Theologiae*, I, q. 75, a. 2, ad 2.
[442] Aquinas, *Commentary on Aristotle's De Anima*, Book I, Chapter IV, n. 147-50. Translated by Kenelm Foster and Sylvester Humphries (New Haven: Yale University Press, 1951). Available online at https://Isidore.co/Aquinas/English/DeAnima.htm.
[443] Ibid., n. 151-62.
[444] Ibid., n. 163-7.

D. The temptation to offer a purely 'behaviourist' account of human agency ought to be resisted and confuted on the basis of the hylomorphic unity established by the human being as a compound of body and soul and which is why psychological attributes, including perception and artistic initiatives must all be attributed to the soul, as form of the whole:

> Hence just as any animal's bodily activities spring not from its soul alone but from its body, or from the compound of soul and body, so too sense-perception and joy and so forth should not be attributed to the soul alone, but to body and soul together. To say that the soul gets angry and is thereby moved is like saying that the soul weaves or builds or plays the harp. The soul indeed is the cause of these activities; for the acquired ability to build or weave or play the harp is in the soul, and the exercise of the ability in each case springs from the soul. But, as it is better to say that the builder, not the art of building, builds, though the builder builds by his art, so perhaps it is better to say that it is not the soul that feels pity or learns or thinks, but the man who does these things with his soul.[445]

So, where does all this leave us with regards to Aquinas's hylomorphic commitment to the priority of form and to the irreducibility of the intellect to the brain? In what follows I wish to draw out some foundational conclusions and this will be done in conversation with a few of his interpreters who, I humbly suggest, may not always read Aquinas correctly. In his chapter entitled, 'Problematic Dualisms', for instance, William Hasker tackles a number of thinkers who he treats as variants of dualism.[446] He also dedicates a subsection to 'Thomistic Dualism' and initially juxtaposes Aquinas against Cartesian forms of mind and body dualism. He rightly describes Aquinas's position as one which, "provides an account of the lower forms of life, expresses the continuity between these forms and the human race (humans share the "vegetative soul" with all living things, and the "sensitive soul" with the animals), yet stresses the uniqueness of human beings as rational, moral and above all immortal creatures".[447] He also defines Aquinas's hylomorphism as "a sort of halfway house between dualism and materialism".[448] Instead of discussing Aquinas's own passages, Hasker deliberately relies on the exposition given by Eleonore Stump and on her interpretation of the soul as substantial form in Aquinas and which she defines as "an essentially configurational state".[449] In Aquinas's metaphysical hierarchy with God and the angels on top and forms that "configure matter but don't exist as configured things in their own right […] the human soul is a configured

[445] Ibid., n. 152.
[446] Hasker, W., Chapter Six in his book, *The Emergent Self* (Ithaca: Cornell University Press 1999) 147-170.
[447] Ibid., 161.
[448] Ibid.
[449] Ibid., 163.

configurer".[450] In fact Stump treads on a dangerous path when she insists that the soul as form couldn't interact causally with the body as its informed matter. More worryingly, Stump suggests that Aquinas would be sympathetic to the views held by Patricia Churchland, famously known for her reductive materialism and physicalist philosophy mind who said that "mental states are implemented in neural stuff". Stump follows on her lines and suggests that Aquinas's view is that "mental states will be implemented in matter".[451] Although Stump's ultimate intentions were to eliminate the materialism vs dualism dichotomy, the metaphysical price Aquinas is made to pay is completely unreasonable and goes against his thought. Hasker is right in objecting to Stump's views of the human soul as a configured configurer since a configurational state must be *of something*, and according to him, this would rule out the cases of God and the angels in Aquinas's hierarchy. Moreover, the alleged affinity of Churchland's views of mental states "implemented" in neural stuff is problematic since, as Hasker rightly observes, "For Aquinas, mental states are implemented in the brain *together with* the immaterial, subsistent mind."[452]

However, Hasker then brings forward his own objections against Aquinas's alleged dualism based on the argument that the Thomistic account of mental life radically differs from his account of that of other animals. Thus, he says that,

> If the apparently rich mental and emotional lives of dogs, dolphins and chimpanzees can be fully explained in terms of the function of the 'organised matter' of their bodies, where is the plausibility of arguing that the cognitive activity of human beings requires an immaterial soul? Especially when the principal argument for such an immaterial soul has rested on the contention, now scientifically discredited, that there is no neural correlate for the higher rational processes? This is not merely a problem for the dualist polemic against materialism; it raises serious questions about the internal coherence of Thomistic dualism. Consider the account which is to be given of sense perception for humans and other animals. In the case of animals, the subject of perception is the organized matter of the brain and nervous system. For humans the subject is the composite consisting of the brain and nervous system *and the immaterial soul*. This contravenes what seems to be strong evidence that perception works in very much the same way in humans and in animals. And it means that the metaphysical analysis of perception in the two cases is going to have to be radically different, in spite of the empirical similarities.[453]

There are a number of reasons which lead us to believe that Hasker reads Aquinas incorrectly and offers a misleading account of his hylomorphism. As expected, we first need to rehearse the ontological foundations of Aquinas's view, aspects which have already been discussed in

[450] Ibid., 166.
[451] Ibid., pg. 167; cfr. Patricia Churchland, *Neurophilosophy: Toward a Unified Science of The Mind/Brain* (Cambridge Massachusetts: MIT Press 1990) 352.
[452] Ibid., 168.
[453] Hasker, W. Ibid. 169.

some detail in the previous chapter. Hasker's position rests on four claims. The first asks why Aquinas needs an account of the intellective soul for humans if we are evidently physicalists when it comes to the mental life of other animals. Secondly, he says that Aquinas does not accommodate for the neurological basis of thought in his account of higher rational processes. Thirdly, Hasker implies that all this is highly indicative of an incoherent logic in Aquinas's position. Finally, he makes his case by referring to sense-perception in order to exemplify the chasm between animal and human perception.

So, let us address briefly each one of these four steps in Hasker's argument. Can the rich mental and emotional lives of animals be fully explained in terms of matter, that is, the brain? After our treatment of various examples of the mereological fallacy, we can easily see why Hasker is wrong about this line of argument. That humans have a unique soul in virtue of their species qua human does not imply that (i) the possession of an intellective soul renders metaphysical appeals to the soul of other animals obsolete nor that (ii) the ontological role played by the soul as form and first actuality in humans is different from that fulfilled in the case of other animals. This strikes at the core of Aquinas's critique of both substance dualism as well as of materialism. The human individual is not to be identified with his soul for as we have seen actions, thoughts, perceptions and judgments are not attributed to the soul but to the individual person. The soul is not the true subject and Aquinas steers clear of this form of dualism in all cases including sensation, saying that it is the composite of body and form which is the subject:

> […] this principle by which we primarily understand whether it be called the intellect or the intellectual soul, is the form of the body. […] So, when we say that Socrates or Plato understands, it is clear that this is not attributed to him accidentally; since it is ascribed to him as man, which is predicated of him essentially. We must therefore say either that Socrates understands by virtue of his whole self, as Plato maintained, holding that man is an intellectual soul; or that intelligence is a part of Socrates. The first cannot stand […] for this reason, that it is one and the same man who is conscious both that he understands, and that he senses. But one cannot sense without a body: therefore, the body must be some part of man. It follows therefore that the intellect by which Socrates understands is a part of Socrates, so that in some way it is united to the body of Socrates. […] If, however, Socrates be a whole composed of a union of the intellect with whatever else belongs to Socrates, and still the intellect be united to those other things only as a motor, it follows that Socrates is not one absolutely, and consequently neither a being absolutely, for a thing is a being according as it is one.[454]

This argument ultimately established that the intellective soul is the form of the body while also showing that an individual human cannot contain two radically distinct subjects within

[454] Aquinas, *Summa Theologiae*, I, q. 76, a. 1.

himself as that would undermine the ontological unity and integrity of the human nature of an individual. Moreover, we have already seen in Section 4 of this same chapter why the priority of form guarantees the view that human beings are organic, living and bodily and hence, hylomorphic substances like animals. The upshot of that argument was that it is the same individual who senses, perceives and who understands whereby the body is not instrumentalised in the way it is as featured in substance dualist accounts. Hasker cannot be right in implying that Aquinas would accept a merely physicalist account of animal sensation and perception. The subjects of sense-perception would be, yes, the brain and the entire nervous system but his commitment to hylomorphism would require that the soul would need to be 'included' in such an account as well. In fact, the soul would be the first actuality which guarantees the substantial unity of the composite in both being as well as in operation. From Aquinas's point of view, to add an account of the brain and the nervous system in animals (or humans) as a result of scientific research would change nothing with respect to the role played by the form qua form of all the prime matter by which the living being is constituted. Hasker's critique stems from a suspiciously dualistic viewpoint and forgoes the key characteristic in Aquinas's hylomorphism whereby one cannot subtract the soul from the human composite and expect to find matter existing on its own. It is axiomatic for Aquinas that there is no such thing as prime matter, or a self-standing brain or nervous system. We shall return to this point very shortly in our discussion of another view Aquinas considers to be seriously flawed, that of the plurality of forms. A substance dualist might want to cordially 'shake-hands' with contemporary neuroscientific accounts and postulate a self-standing soul or mind co-existing or being paired up with a collection of neurological or biological stuff or sub-atomic quarks which would not be a single composite entity. That is certainly not Aquinas's view. His hylomorphism prevents his position from committing the mereological fallacy and it is not any neurological subsystem that sees, hears or feels or judges but the whole animal or human.

A more focused objection from Hasker against Aquinas is that he denies that higher rational processes have "a neural correlate". Nothing, however, could be farther from the truth. As has been observed in point (C.) above, Aquinas is clear that a degeneration of a bodily organ, including the brain, leads to experiential, cognitive and intellectual deficiencies. There are, however, other reasons which show Aquinas to acknowledge and value the brain as part of the material and instrumental disposition forming part of the material cause informed by the soul as its substantial form. His rich account of the external and internal senses depends causally on the brain. This is especially true with the process which engenders phantasms, which are images acquired through the senses and which are retained for future reference at

will and which are indispensable for knowledge. Hasker interprets Aquinas's view that our higher intellectual processes have no bodily organ as meaning that they have no "neural correlate". But these two positions are different and if it were not so Hasker would be right in saying that science "discredits" Aquinas's views. Aquinas, however, is aware that humans and animals are on the same level when it comes to sensation – and hence to all the neurological back up which makes that possible – and differ when it comes to the nature and content of human mental states. Let us take a look at the text:

> Aristotle held that of the operations of the soul, understanding alone is performed without a corporeal organ. On the other hand, sensation and the consequent operations of the sensitive soul are evidently accompanied with change in the body; thus, in the act of vision, the pupil of the eye is affected by a reflection of colour: and so, with the other senses. Hence it is clear that the sensitive soul has no "per se" operation of its own, and that every operation of the sensitive soul belongs to the composite.[455]

What Aquinas means is that from a purely empirical and hence neurological perspective, there are no radical differences between the mental life of humans and that of other animals. That difference lies in the mode and content and, most of all in the formation of universal concepts and abstraction that characterise understanding in humans. This view is compatible with the influence that changes in the body have on mental life and hence, on human cognitive powers.

> The relation of the sensitive faculty to the sensible object is in one way the same as that of the intellectual faculty to the intelligible object, in so far as each is in potentiality to its object. But in another way their relations differ, inasmuch as the impression of the object on the sense is accompanied with change in the body; so that excessive strength of the sensible corrupts sense; a thing that never occurs in the case of the intellect. For an intellect that understands the highest of intelligible objects is more able afterwards to understand those that are lower. If, however, in the process of intellectual operation the body is weary, this result is accidental, inasmuch as the intellect requires the operation of the sensitive powers in the production of the phantasms.[456]

The way Aquinas discusses the different powers of the soul with reference to memory and imagination shows us how serious his commitment to hylomorphism is and how the priority of the substantial form in the operation of these powers means that thought always involves the brain and that a change in an organ's matter generally brings about a change in informed matter. This is very noticeable in Aquinas's account of phantasms which are the brain's scripting of images or codification of information received through the sensory organs,

[455] Aquinas, *Summa Theologiae*, I, q. 75, a. 3, c.
[456] Ibid., Ad. 2.

the function of which would not be possible without the nervous system reaching its peak in the brain.

> […] The possible intellect, before possessing the intelligible species, is related in one way to the phantasms which it needs, and in another way after receiving that species; before, it needs that phantasm in order to receive from it the intelligible species, and thus the phantasm stands in relation to the possible intellect as the object moving the latter; but, after the species has been received into the possible intellect, the latter needs the phantasm as the instrument or foundation of its species, so that the possible intellect is then related to the phantasm as efficient cause. For by the intellect's command there is formed in the imagination a phantasm corresponding to such and such an intelligible species, the latter being mirrored in this phantasm as an exemplar in the thing exemplified or in the image.[457]

Here let us note Aquinas's consistency in his views, a consistency that is transported into his account of the beatific vision in an eschatological context. The soul, as we have seen, does not operate through a bodily organ in its act of understanding. Thus when – according to the Christian faith – the soul will be reunited with its resurrected body, it is not the case that this outcome would consist in the soul understanding more, but rather in that the antagonizing effect of a previously corruptible body impeding the soul's act of understanding is now eliminated. In his discussion in the *Summa Theologiae*, the objector compares the disembodied soul to a tabula rasa since it lacks innate species, concepts and phantasms and hence cannot abstract and understand anything as it habitually did when previously informing the body. Moreover, to attribute knowledge to a divine cause would be unnatural and would not belong to us but to grace. "Therefore, the soul apart from the body understands nothing".[458] In his response to this objection, Aquinas continues to hold on to his view that the human soul's acts of understanding do not depend in any essential manner on *any* bodily organ to the extent that the knowledge of disembodied human souls is possessed or retained not on the basis of whatever is provided by the sense organs or through innate concepts, but rather through concepts supplied by God. As an unfailing sponsor of his good creation and wisdom, God communicates to disembodied souls all the desired determinable concepts, together with the power of understanding them

> The separated soul does not understand by way of innate species, nor by species abstracted then, nor only by species retained, and this the objection proves; but the soul in that state understands by means of participated species arising from the influence of the Divine light, shared by the soul as by other separate substances; though in a lesser degree. Hence as soon as it ceases to act by turning to corporeal (phantasms), the soul turns at once to the superior things;

[457] Aquinas, *Summa Contra Gentiles*, II, 73, n. 38; see also *Summa Theologiae* I, q. 85, a. 1.
[458] Aquinas, *Summa Theologiae*, I, q. 89, a. 1, obj. 3.

> nor is this way of knowledge unnatural, for God is the author of the influx of both of the light of grace and of the light of nature.[459]

The dependence on the bodily organs, particularly the brain, of both external and internal sensory operations is clearly asserted in Aquinas's account of the common sense, imagination, the estimative powers in animals and the cogitative powers in humans. In these powers there is a retention of data which is received through the external senses and necessary for epistemological ownership and routine recognition in an individual.[460] That such a kind of causal involvement, contra Hasker and contra Stump is evident from affirmations such as the following:

> Therefore, if the human soul is capable of being united to a body, because it needs to receive intelligible species from things through the intermediary of the senses, then the body, to which the rational soul is united, must be one which can most adequately present to the intellect those sensible species from which are derived the intelligible species existing in the intellect […] Moreover, if anyone also wishes to examine the particular dispositions of the human body, he will find them ordered to this end, that man may have the best sense. Therefore man, in proportion to his size, has a larger brain than any other animal, because a good disposition of the brain is necessary for the good condition of the internal sentient powers, namely, the imagination, the memory, and the cogitative power.[461]

From these passages and others, it becomes clear that a more careful reading of Aquinas's position is required than that summarily provided by Hasker and other authors. It seems to me that although Hasker argues against substance dualism of the Cartesian type, his treatment of Aquinas displays a discernible Cartesian methodological dualism which relegates the theory of the mental to a sphere that is set apart from the scientific account of everything that is relevant to it, the organic life of the human body included. That intellectual operations have no organ is not equivalent to saying that the soul's thinking processes have no neural correlate. Let us re-examine carefully Aquinas position by laying out three important moments in his argument.

The first is a metaphysical principle that has its roots in Aristotle's *De Anima* and which we can find a clear endorsement of at a rather early stage in Aquinas's philosophical career, namely when he wrote the *Quaestiones Disputatae De Anima*. Question 10 is dedicated to a rather sensitive dispute namely, whether the mind (as containing within itself the image of the Trinity) is the essence of the soul or one of its powers. The discussion is of crucial importance

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[459] Ibid., Ad 3.

[460] Extensive discussions of the internal senses may be found in *Summa Theologiae*, I, q. 78, a. 4, and *Commentary on De Anima*, III, Lect. 6.

[461] Aquinas, *Quaestiones Disputatae De Anima*, Q. 1, a. 8, corpus. A similar statement is found in Summa Theologiae, I, q. 91, a. 3, ad 1: "Man needs the largest brain as compared to the body for his greater freedom of action in the interior powers required for the intellectual operations".

because we can see a clear departure from an Augustinian account of the mind as found in the *De Trinitate* and a declaration in favour of Aristotle's metaphysics of mind. Aquinas's position is clear, the mind is not the essence of the soul but only one if its powers, the highest of them all, yet a power still. What I wish to highlight here are the principles Aquinas uses in establishing this position. He says,

> For understanding knows about things only by measuring them, as it were, according to its own principles. But, since it signifies reference to act, understanding designates a faculty of the soul. Since, however, the essences of things are not known to us, and their powers reveal themselves to us through their acts, we often use the names of the faculties and powers to denote the essences. But, since knowledge of a thing comes only from that which is proper to it, when an essence takes its name from one of its powers, it must be named according to a power proper to it.

This is a principle that is found throughout Aquinas's mature works, namely, that powers are distinguished by their acts and acts are distinguished by their objects. Souls, in their own right are distinguished by their powers.[462] Thus the mind can only be known through its powers and if we consider Aquinas's commitment to the principle that the proper object of the human intellect is the understanding of material things, namely that,

> […] mind denotes a certain class of powers of the soul, the group in which we include all the powers which withdraw entirely from matter and the conditions of matter in their activity.[463]

then, we can only know the mind from the manner in which it engages with the material world, an activity which clearly presupposes sense-perception and thus an engagement with all that is bodily. This is a clear departure from an Augustinian understanding of the mind which can be known through introspective alienation and turning away from the body which is essentially considered as a hindrance. For Aquinas a study of our intellectual life and operation not only acknowledges but *integrates* into it an account of sense-perception and thus bodily organs, including the necessary scaffolding offered by their "neural correlate":

> Through its essence the soul gives being to such and such a body; by its power it performs its proper operations. Accordingly, if an operation of the soul is carried out by means of a bodily organ, then the power of the soul which is the principle of that operation must be the act of that part of the body whereby such an operation is performed; thus, sight is the act of the eye. But, if the soul's operation is not affected by means of a bodily organ, then its power will not be the act of a body. And this is what is meant by saying that the intellect is separate; nor does separateness in this sense prevent the substance of the soul of which the intellect is a power

[462] See the extensive discussion in the *Summa Theologiae*, I, q. 78, a. 1.
[463] *Quaestiones Disputatae De Veritate*, Q. 10, a. 1, ad. 2.

> (namely, the intellective soul) from being the act of the body, as the form which gives being to such a body.[464]

The powers of sensation are clearly located in the sense organs which are organically part of the living body enformed by the soul. His faithfulness to a hylomorphic ontology of human nature is never far away from his discussion, especially when it comes to intellection and to sense-perception. In an article which discusses the subsistence of the souls of brute animals and hence inevitably discusses the rational processes that do not have a bodily organ, he appeals to his favourite example, that of vision. The eye is the organ of sight, and it can be said without controversy that certain changes in the eye can be correlated with vision:

> Aristotle held that of the operations of the soul, understanding alone is performed without a corporeal organ. On the other hand, sensation and the consequent operations of the sensitive soul are evidently accompanied with change in the body; thus, in the act of vision, the pupil of the eye is affected by a reflection of colour: and so with the other senses. Hence it is clear that the sensitive soul has no "per se" operation of its own, and that every operation of the sensitive soul belongs to the composite.[465]

Thus, every operation of the sense-powers belongs to the *composite*, in this case the eye as the organ of sight which undergoes a change and such change is causative of vision. The complexity of the human brain and its role in human temperament reveals the composite operating as a whole even in the experience and manifestation of the passions like joy and anger. Hylomorphism has the philosophical resources to cater for the psychosomatic foundations of such emotions and Aquinas knew this very well. As expected, such a 'higher-level' analysis can be found in his Treatise on the Virtues where one finds elaborate discussions of how good habits become deep-seated qualities in human nature and that the physical, biological and hence neurological dimensions are a necessary condition for the acquisition and 'inscription' of such ways of life. How would this be articulated in contemporary empirical and scientific language? Let us take the example of anger and its neurological and cognitive aspects:

> Is anger a response to perceived threat? Certainly, reactive aggression is a consequence of perceived threat; when a threat is very close and escape is impossible, reactive aggression will be displayed. It appears that the same can be said about anger. […] As mentioned above, the amygdala-hypothalamus-periqueductal gray is thought to mediate the basic response to threat.

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[464] Aquinas, *Summa Contra Gentiles*, II, chapter 69, n. 5, translated by James F. Anderson. I change "a psychic operation" to "operation of the soul" based on the Latin which says "*Si igitur operatio animae*".
[465] Aquinas, *Summa Theologiae*, I, q. 75, a. 3

> If this circuit is implicated in anger, we should see perturbations in these systems following exposure to threat that might be causally related to anger.[466]

Aquinas is fully aware of the reciprocal interdependence of the soul / body composite and which offers a psychosomatic framework around which to shape his account. Thus, for instance, after discussing the natural inclinations that are found in humans and animals which are for the greater good and flourishing of every living individual, in another context discussing the relation of the virtue of continence and its relevance to desires of touch, Aquinas uses the term 'nature' in a slightly different sense, referring to the *natural basis* or congenital disposition toward the passions and which can vary among individuals:

> The strength or weakness of concupiscence may proceed from two causes. For sometimes it is owing to a bodily cause: because some people by their natural temperament (*ex naturali complexione*) are more prone to concupiscence than others; and again, opportunities for pleasure which inflame the concupiscence are nearer to hand for some people than for others.[467]

One could say that the example of concupiscence is not sufficiently convincing since it is situationally linked to the lower sensitive appetites of a living being. However, Aquinas carries on the line to the passion of anger, which is a kind of mental proposition whereby I am angry about something. Moreover, bodily change is part of Aquinas's definition of anger, which means that we have a mental proposition which is *also* by nature a bodily change.

> […] the organs of the soul can be changed in two ways. First, by a spiritual change, in respect of which the organ receives an "intention" of the object. And this is essential to the act of the sensitive apprehension: thus is the eye changed by the object visible, not by being coloured, but by receiving an intention of colour. But the organs are receptive of another and natural change, which affects their natural disposition; for instance, when they become hot or cold, or undergo some similar change. And whereas this kind of change is accidental to the act of the sensitive apprehension; for instance, if the eye be wearied through gazing intently at something or be overcome by the intensity of the object: on the other hand, it is essential to the act of the sensitive appetite; wherefore the material element in the definitions of the movements of the appetitive part, is the natural change of the organ; for instance, "anger is" said to be "a kindling of the blood about the heart. [468]

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[466] R. J. R. Blair, "Considering anger from a cognitive neuroscience perspective", *Wiley Interdisciplinary Revue of Cognitive Science* 3 /1 (New York: John Wiley and Sons 2012) 65–74. Aquinas also has references to psychopathology that result from brain lesions: "Thomas verwendet amentia als Oberbegriff fur Geisteskrankheit und stellt diesen mitunter dem furor gegenuber […]", in "Amentia ex aegritudinis cerebralibus", by Gottfried Roth, in *L'Anima Nell'Antropologia di S. Tommaso d'Aquino* (Milano: Massimo 1987) 599.: "Videmus enim, quod impedito actu virtutis imaginativae per laesionem organi, ut in phreneticis, et similiter impedito actu memorativae virtutis, ut in lethargicis, impeditur homo ab intelligendo in actu etiam ea, quorum scientiam praeaccepit", *Summa Theologiae* I, 84, a. 7, corpus.
[467] Aquinas, *Summa Theologiae*, II-II, Q. 155, a. 4, ad 2.
[468] Aquinas, *Summa Theologiae*, I-II, q. 22, a. 2 ad 3.

The contrast between physical events or changes with the operation of the intellective soul is now clearer since Aquinas often argues that in its higher rational processes, the soul has a "per se operation" of its own[469] and does not require an accompanying bodily change or event. This is not because there is no "neural correlate" as Hasker charges but only that such processes are not necessarily dependent upon a physical event as their pre-conditional or accompanying cause. In a crucial article, Aquinas elaborates in some detail what he means:

> There are five kinds of power that belong to the soul, and they are enumerated above. Three are called souls (animae), whereas four are called ways of being alive (modi vivendi). The reason for this difference is that the different souls are distinguished by the fact that there are diverse ways in which the soul's operation exceeds the operation of corporeal nature; for the whole of the corporeal nature is subject to the soul (*tota natura corporalis subiacet animae*) and is related to it as its matter and instrument. Thus, there is a certain operation of the soul that exceeds corporeal nature to the extent that it is not even exercised by means of a corporeal organ (*per organum corporale*); and this is the operation of the rational soul.[470]

The reference to different souls is not an argument in favour of the plurality of forms, of course, but rather a way of describing the "diverse ways" in which the operation of the soul "exceeds" (*supergreditur*) physical nature. In fact, Aquinas immediately affirms that the "whole of the corporeal nature is subject" to the soul as a unique form of the totality which is constituted by it. Then we are told that,

> There exists, therefore, an operation of the soul which so far exceeds the corporeal nature that it is not even performed by any corporeal organ; and such is the operation of the "rational soul."[471]

Also, when discussing the nature proper to the will which is an intellectual appetite, to be contrasted with the nature of passions, he clarifies that,

> […] passion is properly to be found where there is corporeal transmutation. This corporeal transmutation is found in the act of the sensitive appetite, and is not only spiritual, as in the sensitive apprehension, but also natural. Now there is no need for corporeal transmutation in the act of the intellectual appetite: because this appetite is not exercised by means of a corporeal organ.[472]

So, this is why Hasker is wrong when he says that the scientific account of the brain discredits what Aquinas says about the incorporeal soul and its operations. There is no confusion in

[469] Aquinas, *Summa Theologiae*, I, q. 75, a. 2.
[470] Aquinas, *Summa Theologiae*, I, q. 78, a. 1.
[471] Ibid.
[472] Aquinas *Summa Theologiae*, I-II, q. 22, a. 3.

Aquinas's systematic principles when it comes to powers, acts and operations which are applied not to a mind that is separate from the body – that objection reveals the hidden dualistic biases of such a critique against him – but rather is rooted in the hylomorphic unity of the body and soul composite which guarantees that, although intellectual operations do not have a bodily organ, his account of sensation and cognition shows they are fully embodied *not* because Aquinas is a materialist but because of his acknowledgement of the role of the brain's generation of phantasms that are encoded and retained by the sense-powers of the soul. In the case of sense perception, as in sight for instance, the power of sight is in the eye which is the bodily-organ for sight: when the animal sees the organ changes. On Aquinas's account, seeing is to be a in a particular cognitive state which is the result of the forms received by the bodily organ. That is precisely what counts as seeing, the reception of information that are received and encoded in bodily states of the sensory system. Now when it comes to the intellectual operation of the soul and where he arguing for the subsistence of the human soul, Aquinas says,

> […] by means of the intellect man can have knowledge of all corporeal things. Now whatever knows certain things cannot have any of them in its own nature; because that which is in it naturally would impede the knowledge of anything else. Thus, we observe that a sick man's tongue being vitiated by a feverish and bitter humour, is insensible to anything sweet, and everything seems bitter to it. Therefore, if the intellectual principle contained the nature of a body, it would be unable to know all bodies. Now every body has its own determinate nature. Therefore, it is impossible for the intellectual principle to be a body. It is likewise impossible for it to understand by means of a bodily organ; since the determinate nature of that organ would impede knowledge of all bodies; as when a certain determinate colour is not only in the pupil of the eye, but also in a glass vase, the liquid in the vase seems to be of that same colour.[473]

What I take Aquinas to be saying here is that for the brain to have been the organ of intellectual thought would have required it to have an infinite potential able to accommodate or the semantic and ontological definitions and forms that are constantly available through linguistic communication, abstract reflection, conversation, learning, translation and creation. That sort of information is processed and generated intellectually but it is not possible for it to be adequately encoded physically, for the determinate nature of the brain is empirically restricted whereas the immaterial nature of the intellect is not. For this reason, Aquinas argues that the intellectual content of our mental operations cannot be spatio-temporally located or observed at any site within the body, nor even in the body as a whole. That does not, however, imply that mental process do not have a neural correlate. The brain's role as a necessary, instrumental

[473] Thomas Aquinas, *Summa Theologiae*, I, q. 75, a. 2.

yet not sufficient condition understood as an agent cause for the operation of the intellect remains.

2.1 Further remarks

While this chapter has been a varied and laborious journey, the following remarks will help us conclude in a coherent manner with reference to the principles defended and clarified in the arguments presented above. The medievals considered human nature as the microcosmos of the universe, which in turn represents the macrocosmos.[474] Thus, they reflectively pictured the constitution of human persons in terms of their world view which was often irreducibly transcendent and systematically connected. Before that, however, Aristotle and the Atomists had already offered an analysis of human nature in terms of purely natural categories, lining up with the scientific intuitions of their times. That conversation, in particular, generated an ontology which has an undying potential to enter into a fruitful conversation with any current scientific age including our own. Moreover, what Aristotle started was enhanced and developed into a more comprehensive and no less rigorous account by Aquinas. Like Aristotle, Aquinas was attentive to the philosophical challenges of his own time and found in his philosophical system ample resources with which to unravel the disorienting confusion that may arise from a fallacious philosophical model which can be enshrined, often unofficially, but divulged nonetheless, through other current and problematic philosophical views. What has been achieved, I modestly hope in this chapter, is the acquisition of a sharper focus on those lines of philosophical engagement between philosophy and contemporary science which directly impact upon the accounts defending the unity, integrity and accurate account of human nature, viewed both through its being as well as through its operations.

Firstly, it is important to note the developments that have been achieved from the areas of neuroscience and to register not just the data and new information that we have about the complex nature of the bodily organ that supports mental life from a bodily point of view as well as, naturally, providing a biologically integrated system covering most operations that occur from a biological point of view. My primary concern, naturally here, is not scientific but philosophical, specifically to take note of those philosophical accounts which seem to have naturally 'fit the glove' of the natural sciences. Since, unfortunately, many have assumed – both

[474] Edouard, H. Weber, "Le caractère indiscutablement dominant du dualisme de l'âme et du corps chez tous les auteurs qu'on vient de consulter se double d'une doctrine complémentaire qui a reçu, dès le XIIme siècle et jusq'a la Renaissance, un developpement significatif: celle de l'homme microcosme, résumé et condensé de tout l'universe physique." *La Personne Humaine au XIII^e Siècle* (Paris: Sorbonne, Librairie Philosophique Vrin, 1991) 61.

from the sciences as well as from philosophy – that a physicalist account of the mind and body problem is the most obvious choice for our contemporary scientifically-dominated cultural and intellectual milieu, it is the urgent role of philosophy to shed a critical light on the mistaken starting point and method of physicalist accounts of the human person that make such accounts reminiscent of the atomistic metaphysics and reductionist materialism, once again. While aware of the fact that the problem of 'consciousness' entered the world of philosophy after Descartes and found a happy host in physicalist accounts – only to downplay its importance or to explain away its strangeness – it is not necessarily an obstacle to the hylomorphist who attempts to enter into conversation with such interlocutors since the aim is to broaden the metaphysical horizon into an overarching and comprehensive account that aims to give a coherent account to more, not to less, features that may be captured by the scientific account, whether in the sphere of cognition, sensation or intellectual abstraction. As Daniel de Haan has recently observed,

> Many contemporary Thomists protest that either consciousness is irrelevant, or there is no need to investigate it, or it is an aberration of Cartesianism. But all these dodges are profoundly mistaken, for Aristotelians could not even commence the task of analysing our unified conscious cognition of objects into the different proper objects of distinct operations and powers without the primordial unity of our conscious experience of reality.[475]

This debate, however, comes at a cost since the first step is to disentangle the conversation from its conceptual confusions. Critical diagnosis should always be, after all, one of the primary roles of philosophical analysis. So, we have seen how easy it is for contemporary neuroscience – taken as a special candidate since that is a particularly rapid evolving area of empirical scientific research the relevance of the brain cannot be overstressed when it comes to cognition – to convey inaccurately philosophical paradoxes and events and of course to offer a fallacious account of the features of mental operations by characterising them in terms of the brain. This is symptomatic of physicalist and materialist ontologies and it has been systematically tackled by a number of philosophers who developed the mereological fallacy framework against which to disclose and sharpen the misleading nature of such claims. Moreover, it has been of particular philosophical interest to our purpose here to show how such fallacies are rooted in either dualist or reductionist accounts of the mind and body problem, as it has traditionally come to be known.

[475] Daniel De Haan, "A Heuristic for Thomist Philosophical Anthropology: Integrating Commonsense, Experiential, Experimental, and Metaphysical Psychologies", in the *American Catholic Philosophical Quarterly*, Vol. 96 / 2(Spring 2022) 171.

Within this general project, a methodological choice has been that to promote the enrichment of Aristotelian and Thomistic hylomorphism by facilitating the philosophical grammar that allows such a longstanding tradition to enter into a fruitful conversation with the contemporary sciences, namely biology and neuroscience, in the context of human nature and on how to accurately configure its ontology. Having laid out the fundamental background coming from such accounts, I then pick out one central case scenario as a hermeneutical route into the long-term and superior achievements of hylomorphic theories, namely, sensation. Accounts of sensation and sensory perception pervade accounts of philosophy in every phase of its development as well as the sciences in their endeavour to capture and describe the phenomenology of it all. Moreover, it is a sensitive common ground that views humans as part of the natural world as rational animals. The eventual upshot would be, here, that, hylomorphism is the best account that caters for humans not because of their humanity but, in this section, because of their *organic unity*. Most of all, I show how the priority of form in this account helps us organise the order of causality in the right ontological direction and also builds upon the theoretical wisdom resulting from the preceding discussion on parts and wholes, natures and operations.[476] As already stated, one philosophical ambition of this thesis has been to highlight the ongoing threat in current thought that is an analogous transposition of atomism through contemporary physicalist accounts of the mind, brain and sensation, hence to the body as well. The next challenge was to see whether a Thomistic account of hylomorphism can cater for such a challenge to be overcome. This section on sensation and how form is prior because it guarantees unity in being and in operation in animals, including humans, was the first step.

It is, however, also reassuring to note that Aquinas has vast resources not only to identify the pitfalls of the mereological fallacy and of physicalist and dualist accounts of human nature, but also to offer a solid conceptual framework that is a more credible alternative to such reductionist accounts. By further elucidating the explanatory and causal mechanism behind the claim that the form is prior Aquinas offers a rich account of mind, brain and body through his account of the soul as form. This theme was already introduced and discussed within its own metaphysically natural habitat in Aquinas's system but in this chapter, it is addressed toward challenges that occur within the current philosophical and scientific debates. And thus, two scopes are highlighted, namely, to show how Aquinas's hylomorphism cumulatively avoids the pitfalls mentioned and, secondly, it promotes in one overall account the unity and integrity of

[476] For a recent introduction and endorsement from a Neo-Aristotelian current of thought embracing the unsurpassed advantages of hylomorphism, see Robert Koons, "The Ontological and Epistemological Superiority of Hylomorphism", University of Texas at Austin, available online at The-Ontological_And_Supe.pdf, 1-43.

the human person in a way that is coherent with the pressing questions of both analytic philosophy as well as modern accounts of the brain.

A central contribution of Aquinas's account and which, I ardently believe, one of his crucial ones, is that his account of hylomorphic unity, integrity and operation is compatible with the rich occurrence that is constantly reported by the empirical sciences while also offering an account to the transcendent and intellectual operation and activity of the higher rational powers of human nature and which can only be accounted for by an account of the soul, i.e., of the form in its metaphysical priority. I avoid going into the more exegetical nature of the historical debate, since I think it has been amply shown that to keep the mind as central would be more akin to Augustine's account of mens, whereas Aquinas develops and defends an account of the soul. That is, indeed, as John O'Callaghan has shown, part of the problem which could lead to a misreading of Aquinas. For that reason, my emphasis here has been on the causal account of the hylomorphic nature of humans, prior among which is the substantial form. The irreducibility of mental life and intellectual abstraction is defended together with Aquinas's claim that such higher levels of operation do need a bodily organ but are not reducible to its operation within the context of Aquinas's readers. This is important since it demonstrates that one need not be a substance dualist in order to account for higher mental operation and abstraction which is immaterial in nature because it is incorporeal, while it also steers away from reductionist materialism since no account of the neurologically complex and intricate nature of the brain could explain the phenomenon of mental life per se. Thus, in this section, I defend hylomorphism as the best theory that account for the unity and integrity of human nature not only because of human animality but also in view of what human nature so unique, namely their mental life.

Conclusion

In this fifth and final chapter I started off with a reference to the rather provocative judgment passed by E. Gilson on the inability of medieval metaphysics to fruitfully engage the sciences. Although he is right on the urgency to strike such a critical and mutually enlightening connection, I hope to have shown that his judgment may, in fact, have been too harsh, at least within a contemporary perspective, since my primary aim has not been historical but thematic and analytic.

One main contribution of this chapter has consequently been to show that Aristotelian and Thomistic hylomorphism has the unique resources to achieve the following pivotal targets:

(1) to reveal to philosophy itself the fallacies committed by atomistic reductivism applied to the problems of consciousness and the brain; (2) to reveal to the natural sciences the conceptual fallacies committed within its own activities especially in biology and neuroscience; (3) to recover an intelligibly coherent account of hylomorphism while recognising the priority of form within contemporary metaphysical interpretations of Aristotle and Aquinas; (4) to show the compatibility of such accounts with the current data available in the field of natural sciences; (5) to rehabilitate the notion of the irreducibility of the rational intellect and the mind in a philosophically charged milieu which is keen to eliminate the cogency of the immateriality of the intellect and devolve into a purely materialist and physical account of the mind and body relationship.

The hermeneutical key throughout this chapter – in areas implicitly in others less so – was to seek to establish a philosophically critical conversation between contemporary versions of the Aristotelian and Thomistic accounts of hylomorphism applied to human person and the knowledge we have about the human brain, aware of the fact that certain philosophical traditions do not help but rather hinder such a meaningful exchange. Thus, one must choose that conceptual system and that philosophical framework which not only is compatible and makes sense of even the best account of the phenomena within the mind / body relationship, but which also does justice to the irreducibly philosophical questions of the rational soul and the immateriality of thought.

Additionally, I sought to apply the richness of the hylomorphic account of the priority of form, both in its explanatory as well as its causative dimensions, thus showing a way forward that meets the five benchmarks just highlighted. Aquinas's account of substantial form and actuality show the deficiency of new forms of atomism that come up in metaphysical anthropology and contemporary philosophies of mind as are physicalism and behaviourism. As we have seen, such theories are ultimately self-refuting. Secondly, the autonomy of philosophy and the sciences is respectfully preserved since in this exercise, not only do the explanatory models of the natural sciences meet their limits, but Aristotelian-Thomistic philosophy has the logical, epistemic and metaphysical resources to reveal fallacies as are the category mistakes and the mereological fallacy that entrap and compromise many important yet misleading statements made by evolutionary biologists and neuroscientists about the constitution of the human person as well as of our mental life.

Thirdly and as a consequence, in recovering the core concepts of Thomistic hylomorphism, especially those categories that guarantee the integrity, unity and endurance of the human person, it becomes possible to coherently defend the causative and constitutive

priority of the substantial form, the soul. Here we have taken sensation as that interface between matter and form, body and soul, which shows unity and natural consistency with the empirical sciences and experiences, while never surpassing but always supporting the higher operations of the rational intellect toward which it is ordained in terms of finality. Through the persistence of the organism, we can discern and establish the powers deployed by the soul as substantial form. Finally, having shown how this version of hylomorphism – with a crucial understanding of the formal cause as prior – and after providing an account of psychophysical unity through the example of sensation, I examined arguments from Aquinas which show not only the compatibility of his metaphysical narrative of the rational soul with contemporary neural understanding of the brain as part of the physical conditions for mental life but also that his account remains intact when it comes to the exercise, operation and contents of the mental life.

This chapter opened with a reference to two kinds of vocation. The first, coming from Gilson, namely, that scholastic thought needed to be refurbished in such a way that it could engage respectably with the current scientific paradigms that dominate philosophy itself. The second, coming from O'Callaghan challenges anyone interested in the philosophy of mind to recover an account of the soul. It would be desirable to say that this chapter – in continuity with the preceding ones – attempts to explain what Aquinas meant when he insisted that, "*Magis anima continet corpus quam e converso*"[477] and that " *Cum forma non sit propter materiam, sed potius materia propter formam*"[478] and to show that there are strong philosophical grounds to defend the priority of substantial form in both philosophy and science today.

[477] *Summa Theologiae*, I, q. 76, a. 3.
[478] Ibid., q. 76, a. 5.

GENERAL CONCLUSION

The principal claim of this thesis has been that the priority of form guarantees the unity of human beings both in the aspect of existence as well as of action. Consequently, the priority of form in the ontic structure of human beings means that the soul enjoys priority in the constitution of the human person. This has direct implications for the priority of person in the world of beings that have a hylomorphic structure. The considerations carried out within this thesis, which had a strictly metaphysical character, primarily concerned the constitution of the human person. Different metaphysical profiles have been explored and assessed and the cumulative emerging view has been that hylomorphism is the analytical tool which does most justice to provide the conditions required for all that is central to the metaphysical account of human nature where this is not dismissed, ignored or even undermined, but given the logical credibility and justification it deserves. The novelty of this approach lies in the articulation of a philosophical grammar which is both historically and exegetically reliable while also updated in such a way that it meaningfully enters into an enlightening and critical conversation with current paradigms pushed forward by the natural sciences. The resultant upshot will favour and confirm the analytically prior order of metaphysics and its irreplaceable role in philosophical anthropology.

After discussing the general views offered by three major philosophers, the overall outcome of chapter one was that if taken seriously, substance dualism faces problems it cannot adequately resolve and hence make it unacceptable. Partial yet unsatisfactory and incomplete answers offered by Plato, Augustine and Swinburne to the following questions show that despite the richness of their philosophical systems and the long-lasting influence dualism has had in the history of metaphysics and in culture and other disciplines at large show that something is deeply wrong about the most fundamental starting points of such a position: Are we bodies or souls? Is there any metaphysically defensible connection between the soul which is immaterial and the body which is physical? How should we conceive of the mutual causal relation between the soul and body without an account of a unified identity and without a reductivist and instrumentalist consequence of either or both dimensions?

Thus, the question remains, *what are we* when we say that we are human persons? The undying heritage of Greek philosophy has provided metaphysics with the central concepts of substance, nature and essence. So, the answer to the question could be provided precisely in these terms, despite the questions that are left unresolved – and oftentimes multiplied – by substance dualism. The study carried out in this thesis shows that the concepts of substance,

nature and essence are crucial to the metaphysics of human persons. They remain the unrivalled standards against which we can conceptualise and converse about the kind of thing that human beings are in a way that does not disqualify such a question from the various starting points, assumptions and semantic frameworks of disciplines both internal as well as those external to philosophy. Since the long-term consequence of this project must generate a trustworthy conversation with empirical sciences who are often alien to the order of philosophical thought, an almost a priori preference is given to those philosophies who are not blind to the realism of the natural sciences taken to as an empirical activity (I make this distinction to sharpen the passage which certain scientists make from their empirical realm into making claims that are more abstract and principled-driven in nature and thus, akin to philosophical discourse). Thus, I retain the language of substance, essence and nature throughout the thesis without the need to apologetically explain such a need given that these are the concepts which make an investigation into the most important conceptual vectors such as causality, necessity versus contingent existence, time, identity and change, among others, intelligible. Chapter Two chooses a philosopher who in my view is the best candidate to fulfill this 'philosophical office', namely, Aristotle.

One could argue – and this is an important conclusion from the second chapter – that Aristotle's theory of the soul is a conclusive expression of both irrepressible critique as well as deep intellectual humility. In fact, I hope to have shown that both traits prevail throughout the formation of the arguments contained within the remaining chapter.

It is a powerful *critique*, primarily, against the atomistic currents of his time showing that theory to be an intellectually unsatisfying one. It is so because it is based only on a compromise, rather than philosophical solution. The compromise is that on one hand, change is explained in terms of sporadic and blind movements of atoms viewed as the bedrock of both intellectual and scientific analysis. Thus, there is no *terminus a quo* or *terminus ad quem*, stated traditionally, that make a coherent account of a process of change even possible. It is surprising how easily atomism has been, in fact, assumed to be true. On the other it downplays the importance of questions of ontological identity by offering a very shallow and arbitrary account of fluidity and derivativeness, whereby identity is relegated to a rather unimportant level of meaning. Aristotle's rich account of substance, nature and essence show how impoverished and

dangerously misleading an analysis of the world would be if it were to be founded on an atomistic ontology.[479]

An atomist would have no trouble equating an assembled robot with a living animal or a living human. Aristotle showed how deeply flawed such an approach is by offering an account of the soul as the intrinsic principle of unity, life, organisation and identity, all integrated hylomorphically and thus compositionally yet hierarchically structured in ways that are even validated empirically through science. All this is covered by his account of form. Chapter Two thus is a modest journey into exploring what I consider to be a successful account of the priority of form is achieved with reference to his works on metaphysics of life. Assisted by the secondary literature the chapter sheds light on the formal cause as a causal and explanatory factor which shows how the soul as form serves as a determining role in the ontology of living beings seen as unified organisms, which is why the notion of substance here becomes a crucial cut-off point from both atomism as well as substance dualism.

Aristotle's views on substance and form are also an expression of intellectual humility for it is open to realistically receive the way nature presents itself to us, so to speak. Being a natural scientist himself and writing extensively on the biological nature and behaviour of species, Aristotle quickly realised that for philosophy to meaningfully determine the ontology of things it required a realist metaphysics that was sensitive to the *phainomena* as he famously stated. This is what I mean by him showing intellectual humility. This also provides a hopeful openness to a truthful exchange with the empirical sciences even today. The account of the priority of form remains and always will be, an exclusively philosophical criterion. As David Oderberg recently stated in his defense of a biologically informed Aristotelian hylomorphism,

> Biologists have not and could not discover the existence of form any more than a physicist could discover, or ever did discover, the existence of matter. it is through a properly philosophical reflection that we know such things must exist.[480]

[479] Cfr. Robert, C. Koons, "The Ontological and Epistemological Superiority of Hylomorphism", University of Texas at Austin, available online at The-Ontological_And_Supe.pdf, 1-43; William Jaworski, *Structure and The Metaphysics of Mind. How Hylomorphism Solves the Mind-Body Problem.* (Oxford: Oxford University Press 2016). The strength of the contribution of the latter author is to articulate what he calls "structural realism" which serves as a detailed application of the theory of the formal cause and its relation to *organisation* through three notions, namely, that: (i) formal organisation matters since it is belongs to an irreducible ontology, (ii) formal organisation makes a difference since explanatory accounts are possible with reference to it alone and formal organisation counts (iii) since the hylomorphic unity of composite substances that are alive derive their persistence from it.

[480] David Oderberg, "The Great Unifier: Form and Unity of the Organism" in *Neo-Aristotelian Perspectives on Contemporary Science* (New York: Routledge, Taylor & Francis 2018) 189.

With Aristotle's hylomorphic account of body and soul viewed as matter and form, whereby the form is decisive and entitative with regard to prime matter and to the substance itself, it becomes possible to say confidently that living beings exist as substances, that is, as a unity and not as some other external substance inhabiting the body. This is especially true of humans who – stated in naturalistic terms Aristotle would feel comfortable with – as human animals is how we experience life and related to others and to the world. It is incorrect to say that we are moved in a certain direction by our body or that we related to others using our body, but that we take initiative, act and move as animated bodies, that is, a wholly unified and ontologically integrated substances composed of body and soul. While fully harmonizable with scientific explanations of movement as well as general and particular biological phenomena, Aristotle's account of substance and form goes beyond. Science can offer only mechanistic explanation identity and change and if it goes beyond that it is only because it decides to interpret nature using the metaphysical category of substantial form. In fact, patterns of behaviour and identity follow the direction of substantial form, through the operation of other dimensions of causality as is, most importantly, the case with finality. How natural substances develop, act, live and grow within the natural world is fully determined by the substantial form which guarantees a vast array of options that lie within that more or less broad field defined by a particular species and interpreted metaphysically in terms of form.

This applies in a unique way to human persons who are a very special kind of 'animal' in Aristotelian jargon and who are defined by that which makes them so unique, namely their intellectual life. Hence, Aristotle has the merit of bridging his scientific and metaphysical categories by using the realism of formal causality and applying it to the human person as rational animal. A close look at the consequences of hylomorphism applied to human persons soon reveals it to be probably the only account which satisfies the aforementioned conditions of ontological consistency that are required for an account of the human person. A philosophically hylomorphic scaffold helps us make sense of the realism entailed by the human person as a rational animal who part of the natural world – hence the necessity of an ongoing conversation with the empirical sciences – while also safeguarding a species-specific kind of priority, the irreducibility of the rational intellect that belongs to human persons alone. What makes this possible the soul, conceived of as the primary cause of life and the highest principle of unity, identity and agency.

This achievement from Aristotle is crucial for philosophy itself for it shows that the claim that contemporary scientific accounts of the world have replaced the Aristotelian account is false. It would be correct to say that the empirical sciences examine physical entities in terms

of their constitutive parts and their constitutive matter, thus limiting themselves to an account of the material and perhaps the efficient causality that we study in nature. This is why the mechanistic explanation of the world is dominant in contemporary scientific accounts, just as the atomistic method is widely accepted by professionals in biology and neuroscience, for example. On this point I have one reservation with regard to that which is stated in what I consider to be an otherwise wholly laudable book, where it is stated,

> I don't think that the scientist should avail himself of anything more than material causes and laws of efficient causality, but that is not to say that substantial forms and final causes do not have much to contribute to our philosophical understanding.[481]

This claim, is, I believe unwarranted, since as discussed earlier on – and just as is consistently confirmed by the biological, evolutionary and medical sciences – a conscious and explicit consideration of substantial form present through the nature of living beings is inevitable for our scientific narrative of living beings to even make sense. It is the carnivorous nature of a tiger – hence a reference to its form – which determines that every anatomical, psychological and physiological is responsive to this finality of it being a carnivore. This truth has not become outdated and that is a metaphysical truth where the philosophy enlightens the science in a prior way. Aristotelian hylomorphism offers a way forward which unhinges our consideration of the human person from the extreme reductivism of atomism and the misleading and ultimately also reductivism that ensues from substance dualism. The key to this unified understanding based on the real powers of causes in nature comes from the identification of the soul as the substantial form.

A third chapter is offered in the manner of an interlude which is also an important passage which bridges the Aristotelian synthesis right up to modernity in the context of a richly charged medieval philosophy. The complex and interlaced traditions which converge together in different doses and with varying levels of conceptual completeness are very competently examined by St. Albert the Great, himself a lover of nature and keen philosopher and theologian. One could surmise that St. Thomas Aquinas would not have achieved the synthesis of his philosophy without the challenges, mistakes and achievements of his master. In my introduction, reference was made in favour of the opinion that every metaphysics of the human person is intimately connected to other views that are representative of one metaphysical worldview and cosmology or other. The study of St. Albert the Great is important, for one sees

[481] Madden, J. D., 'The Philosophy of Nature', in *Mind, Matter and Nature*, Catholic University of America Press, 2013, pg. 246

what happens when the Aristotelian 'horizontal' metaphysics of nature is allowed to clash head-on with the 'vertical' emanationist accounts of causality of the Neo-Platonists. It is difficult to say – and most exegetes of Albert say he does not – accord any preference of priority of one over the other. While Aristotle's philosophical account of natures, substances and essences adopts a clearly horizontal account of causality including teleology, Albert was misled to think that Aristotle had also embraced the content of the *Liber de Causis* which was offered an essentially Neo-Platonic account of causality. Moreover, St. Albert may not be sufficiently sensitive to the syncretistic quality of claims as the following:

> You should know that man cannot reach perfection in philosophy except through the knowledge of the two philosophies of Aristotle and Plato.[482]

When we realise that he considered both Aristotle's *Metaphysics* and the *Liber de Causis* to have been composed and defended by the same author one can understand the particular challenge in facing a coherent and systematic account of ontological categories that form the backbone of a fully-fledged metaphysics. One consequence of this eclecticism is that St. Albert considers the human soul to be a complete substance without the body while also being the form of the body and is treated simultaneously as a substantial whole as well as a substantial part. Moreover, his emphasis on the soul as a mover not only views the soul as a passive instrument but brings his account close to the problems faced by substance dualism, where the soul does not move the body by being related to the body as form to matter – he emphasises this point for he believed that the moving 'part' of the soul must be separate in order to be a mover – and thus required a medium that connects the soul to the body. His account thus overall tends to emphasise the substantially dualist nature of human persons, rather than the ontologically unified account that is achieved by Aristotle's account of the substantial form.

One of the targets of St. Thomas Aquinas, therefore, who is discussed in the fourth chapter is to offer a sustained critique of the eclectic nature of the theories offered by his predecessors. In doing so he also further develops upon Aristotle's account of hylomorphism when applied to the human person. His question whether the soul can both be a form as well as a thing offers decisive clarifications which enrich the already crucial idea of the soul as substantial form. His intention is not to reconcile the conception of the soul as a complete Platonic substance with the other view of the soul as a substantial form as Aristotle had said

[482] St. Albert the Great, *Metaphysica*, Lib. 1, Tract 5, c. 15, (Munster: Aschendorff, ed. Coloniensis, XVI, 2008) 85-87

but to criticise the self-contradictory account offered by those who came before him and to go beyond that impasse by offering a richer account of *esse* and substance as well as a defence of the uniqueness of the human soul without falling into the trap of dualism. The emphasis in Chapter Four, thus lies in determining the core concepts of Aquinas's metaphysical teaching on substance, his account of hylomorphism which includes the important teaching on matter as that by which a thing is individuated and, most of all, the ontological priority of form which conveys being, *esse* to any particular entity that exists as a substance.

In Aquinas's treatment of the human person the priority of form emerges with even greater clarity since the soul understood as the act of substantial being is also the cause of unity and ontological irreducibility, which frees itself from the fallacies of substance dualism and also shows how reductivist materialist accounts of the mind / body problem are wrong. The human being is a complete substance and thus is an *unum per se*. When Aquinas examines whether the notion of *hoc aliquid* applies to the human soul, the first theory to be ruled out is the materialistic conception of the form as a mere effect or emergent result of the organisation of matter. We must not forget that for Aquinas hylomorphism is understood in a teleological way which means that matter is for the sake of the form (materia est propter formam) and not vice-versa. As we have seen this principle was first proposed by Aristotle in his *Physics* II.[483]

It is this teleological understanding of hylomorphism which enable Aquinas to assign to form ontological priority over matter and when applied to the constitution of the human person thus also results in the transcendent qualities of the soul, specifically in its operational qualities over matter. This is the highest form of transcendence available to composite creatures and it is found in the human rational soul, the highest operation of which does not need a bodily organ. Since the rational soul can fulfill this operation per se, independently from matter, it must also be able to exist *per se*, since *agere sequitur esse*. There must be a special sense, therefore, whereby the human soul must possess a qualification as an *hoc aliquid* and this, Aquinas proposes, is in its act of being, which does not depend upon from the body. Thus, Aquinas proves that the soul is self-subsistent while not being, however a complete substance. The soul is also a substantial form, exercising ontological precedence and priority over matter, even though it is also its hylomorphic correlate within the composite substance that is the human person.

The Thomistic teaching on the immateriality of the human intellect, and which is discussed in the last part of the Fourth Chapter, provides the bridge to the Fifth and Final

[483] Aristotle, *Physics II*, 194a15-b15.

Chapter which attempts to conduct a philosophical conversation with contemporary thought both from philosophy as well as a few important frameworks that belong to the natural sciences. This engagement with the contemporary sciences has a fourfold aim: *firstly*, to defend the irreducible role of philosophy with respect to other orders of thought, science included; *secondly* to enable scientists to be aware of certain unclaimed yet professed philosophical fallacies; *thirdly*, to offer a cautionary sign to philosophy itself when it risks being assumed into a materialist and physicalist account of substances and of the mind; *fourthly* to show how the argument for the immateriality of the intellect developed by Aquinas in his metaphysics of the soul is still valid and offers a way forward in sharpening the distinction between mind and brain while always invoking the need to refer to the primacy played by the soul as a substantial form.

The first target is hopefully achieved through our discussion on consciousness and neuroscience as contemporary challenges and which show how philosophy should not be reduced to science since philosophy enounces paradoxes unseen to the science and if they are seen, they are tendentiously dismissed and dissolved into materialistic categories. A classic case in point is consciousness and the mind reduced to behaviourist or physicalist accounts of the mind-body problem in ways that are ultimately self-refuting. The second challenge focuses on category mistakes about mereology when it comes to brains and minds. This issue had already been discussed within Aristotle's treatment of the problem of homonymy. Aquinas has an even more explicit treatment of it and is discussed in Chapter Five as well. This treatment proves why philosophical analysis is able to reveal commonplace fallacies that are promoted to official doctrine within neuroscience. Moreover, it is through an appreciation of the substantial form and of hylomorphism that the fallacies of attributing agency that belongs to the form, to parts instead, to be clearly unacceptable and mistaken. The temptation to be atomists is still active and this thesis has hopefully argued against that risk that is faced since it is not only a scientific belief but also a philosophical method, namely, to give an account of an entity by offering an account of its constituent parts. Thus, we need a metaphysical approach which meets the standards of ontological unity and identity as that which belongs to the human person.

One way to meet this risk with success has been by offering an account of sensation since it crosses the interface of the mind/body composite. The way Aquinas argues for sensation offers another important tool in support of the primacy of form that is served by the soul. Since hylomorphism enables us "to analyse animals in all their physiological and psychological complexity while providing reasonably defensible accounts of their behaviour

as sentience-mediated responses in view of their survival and flourishing" (pg. 165) the Thomistic account of sensation is an ideal point of engagement between metaphysics and the science which will avoid substance dualism and reductionist materialism. Aquinas's account of sensation shows that although sentience cannot occur without a body, and hence it is causally dependent upon its neurophysiology, it is not a strictly physical state or event but is in some sense, 'spiritual', hence immaterial. Neuroscience can only observe from an external viewpoint what mechanistic processes are necessary and which are activated whenever sensation occurs. They cannot, however, give an account of sensation per se since this involves a kind of change which is immaterial and hence meta-empirical, as one could say. Aquinas would say, it is an immaterial change[484] which is possible due to the immateriality of the operations of the intellectual soul which functions as the substantial form of the body.

Fourthly, while the tendency in neuroscience – and in the philosophy of neuroscience and the mind – is preponderantly inclined toward materialism and physicalist accounts, it is important to inquire whether Aquinas has the conceptual resources to sustain a contribution even in this field. This chapter concludes with arguing for a positive reply to this challenge by identifying the salient points of contact between the metaphysics of the rational soul and the 'new' necessities that result from our greater awareness of the neuroscientific world.

Finally, the implications of this debate are profound and the further research that needs to be carried on is extensive. Alasdair MacIntyre has recently commented upon a few implications of the metaphysics of human persons to ultimate existential questions:

> We need to carry our enquiries to the point at which we can understand how human beings are at once historically situated in the contingent circumstances of this or that time and place and yet can become directed in both thought and desire beyond historicity, finitude and contingency, so that they understand the givenness of their existence and desire, and how both point beyond themselves to a first cause and a final end.[485]

That is a reflection that points beyond metaphysics and philosophy since it carries within it a theological scope. Yet, the coherence between the hylomorphism of the Aristotelian and Thomistic metaphysics of the soul, with philosophically supported views on the post-mortem survival of the human individual also needs to be examined philosophically within the light of contemporary scientific accounts of the brain and of biological life in general. The

[484] St. Thomas Aquinas, *Summa Theologiae*, I, q. 78, a. 3, Translation by the English Dominican Province, London: Burns, Oates and Washbourne, 1920

[485] Alasdair MacIntyre, "Philosophical Education against Contemporary Culture," *Proceedings of the American Catholic Philosophical Association* 2013, 50. Cited in Daniel De Haan, "A Heuristic for Thomist Philosophical Anthropology", op. cit. 212.

hylomorphist account developed and defended here has the potential to support in a constructive and hopeful way such a possible conversation. Moreover, questions about ultimate finality as the one raised by MacIntyre also remind us of the origins of human life and of the need for metaphysics and the specialised sciences to collaborate in order to show with greater clarity the uniqueness of every human person from conception while also employing hylomorphic categories.

The critical conversation between Aristotelian / Thomistic hylomorphism and the contemporary sciences must continue. The result is, on one hand, the enrichment of Thomism while pursuing the complementarity of Aristotelian hylomorphism with better-informed accounts of biology, evolution and neuroscience. On the other hand, it also helps us sharpen our understanding of human mental life and its causal relationship, one of dependence and not of reduction to the brain, while defending the transcendent quality of the mental content and the ultimate transcendence and ontological uniqueness of the human person.

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Abstract

This dissertation offers a critical examination of the metaphysical constitution of the human person, with a particular focus on the mind and body problem, adopting the relevant hylomorphism developed by the realist metaphysics of the Aristotelian-Thomistic tradition. The primary role of the formal cause is examined in order to highlight the philosophically advantageous results of a hylomorphic account as well as to show as far as is possible that this is really how facts are with the ontological constitution of the human person, hence the commitment to realist metaphysics. This research project, therefore, intends to defend the priority of form, understood in terms of both metaphysical and explanatory priority. In order for this examination to be a systematic one, contrasting accounts are also discussed, these being, primarily, dualistic theories as well as materialist approaches. A balance is struck between a historical and classical investigation into the way these theories accounting for the body and soul relationship were developed, on the one hand, and a more contemporary and scientifically informed approach to this widely discussed theme.

Since Aristotle's and St. Thomas's accounts of the human soul and its metaphysical relation to the body were the result of a critical response to theories that do not guarantee the ontological unity, integrity and completeness of the human person, such views are first examined in both their expression in classical philosophy as well as in their contemporary versions within the context of philosophy and of science.

Plato did not accept that true substances could be physical, unlike the eternal Forms which give intelligibility and meaning to the world. The classical formulation of substance dualism that is found his *Phaedo* is based on an affinity with the Forms is presented. The soul is almost magnetically drawn to separate from the body and dwell with the Forms it apprehends. Another position is then presented from early Christianity and that was heavily dependent upon Neo-Platonist metaphysics, namely, St. Augustine. His complex anthropology reflects the different stages of his developing ideas. He saw his ontological dualism on minds and bodies as a response to materialism, the soul treated as an immaterial and Platonic substance exerting control over the body which is corporeal and fatally compromised by its fallen nature. Thirdly Richard Swinburne's theory of substance dualism is discussed since he is a representative of the analytic philosophical tradition and is a minority in embracing with elaborate consistency the view that soul and body are two distinct substances. While always having professed deep sympathy for substance dualism, he embraces this position with even greater commitment in the recent works discussed in this thesis. By applying realist

metaphysics as the main methodological tool, this research project shows why in each of these philosophical positions, substance dualism fails at some providing answers to many central questions, about the ontological unity of the human person, the causal interface between thought and physical movement and most of all the subjective identity of individuals.

This research project then examines how Aristotle's account of soul merges his realism from the philosophy of nature as well as from his metaphysical analysis in order to provide an account of the soul and the body in terms of his hylomorphism, his views on act and potency and his account of the substantial unity of the human person. His achievements are pluriform, some on the negative side, in demonstrating why atomism is false, and others positive, in showing how realist metaphysics establishes the philosophical coherence found in viewing the human person as a composite of matter and form, body and soul united within one substantial individual human person.

This thesis then devotes attention to the system of St. Albert the Great who attempts to blend Neo-Platonic with Aristotelian accounts of the world, nature and of the human person. The result of this analysis is that St. Albert's philosophical work is eclectic in nature and while he appreciates, at least partially, the novelty of the Aristotelian hylomorphic account, he still does not draw all the important results and consequences necessary to guarantee the ontological criteria of unity, identity and completeness of the human person.

The main focus then shifts to the analysis given by St. Thomas Aquinas in providing a critical analysis of both substance dualism as well as materialism. He achieves this with his theory of the soul as substantial form which is the principle of organisation and unity while also *qua* rational soul, an irreducible part of the human being. The peculiarity of Aquinas's realist metaphysics of persons is studied with reference to his work in the *Commentary on the Metaphysics* and his *Disputed Questions on the Soul*, in particular. The results of this metaphysical investigation analyse how Aquinas defends his view that the human person is an *unum simpliciter*.

The results of this analytical defense of hylomorphism within the aforementioned traditions are also engaged in a philosophical conversation with contemporary philosophical view of the mind and its relation to the body, applied to certain fallacies committed by scientific accounts of the brain as well as to the crucial matter of the irreducibility of the rational soul to an account of matter. This research project ultimately argues that while substance dualism and atomism fail to give a fact-based defense of the unity, integrity and identity of the human person, the Aristotelian and Thomistic realist metaphysics of form achieves such a

philosophical critique and a coherent account even within the context of contemporary philosophical and neuroscientific theories of the human person.

Abstrakt: Priorytet formy w metafizyce ludzkiej osoby. Współczesna obrona arystotelesowsko-tomistycznego hylemorfizmu.

Rozprawa przedstawia krytyczne spojrzenie na metafizyczną konstytucję osoby ludzkiej, ze szczególnym uwzględnieniem problemu umysłu i ciała, w świetle klasycznego hylemorfizmu rozwijanego przez realistyczną metafizykę tradycji arystotelesowsko-tomistycznej. Analizie poddana jest naczelna rola przyczyny formalnej, celem uwydatnienia filozoficznej doniosłości ujęcia hylomorficznego, jak też wykazania, na ile to możliwe, że tak właśnie mają się fakty z ontologiczną konstytucją osoby ludzkiej, czego wyrazem jest metafizyczny realizm. Niniejszy projekt badawczy ma więc na celu obronę pierwszeństwa formy, rozumianego zarówno w kategoriach pierwszeństwa metafizycznego, jak i eksplanacyjnego. Systematyczność badań wymagała również omówienia stanowisk przeciwnych, sprowadzających się przede wszystkim do teorii dualistycznych, a także materialistycznych. W analizach zachowana została równowaga, z jednej strony między historycznym i systematycznym aspektem dociekań nad rozwijanymi teoriami wyjaśniającymi związek ciała i duszy, z drugiej zaś bardziej współczesnym i naukowo uzasadnionym podejściem do tego szeroko dyskutowanego tematu.

Z tego względu, że koncepcja duszy ludzkiej i jej metafizycznego stosunku do ciała w ujęciu Arystotelesa i św. Tomasza z Akwinu była wynikiem krytycznej odpowiedzi na teorie, które nie gwarantują ontologicznej jedności, integralności i kompletności osoby ludzkiej, stąd najpierw rozpatrywane są te ostatnie poglądy, zarówno w wariantach obecnych w filozofii klasycznej, jak również we współczesnych wersjach w kontekście filozofii i nauki.

Platon nie uznawał, że prawdziwe substancje mogą być fizyczne, w przeciwieństwie do wiecznych form, które nadają światu inteligibilność oraz sens. Najpierw przedstawiono klasyczne sformułowanie dualizmu substancji znajdujące się w jego *Fedonie*, oparte na pokrewieństwie z formami, gdzie dusza jest niemal magnetycznie skłaniana do oddzielenia się od ciała i przebywania z formami, które pojmuje. Następnie przedstawiono inne stanowisko z wczesnego chrześcijaństwa, mianowicie św. Augustyna, które było silnie uzależnione od metafizyki neoplatońskiej. Jego skomplikowana antropologia odzwierciedla różne etapy rozwijanych przez niego idei. Swój ontologiczny dualizm dotyczący umysłów i ciał postrzegał on jako odpowiedź na materializm, stąd duszę traktuje jako niematerialną i pojętą po platońsku substancję sprawującą kontrolę nad materialnym i śmiertelnie obciążonym swoją upadłą naturą ciałem. Jako trzecią, omówiono teorię dualizmu substancji Richarda Swinburne'a, przedstawiciela tradycji filozofii analitycznej, należącego do niewielkiego grona filozofów,

którzy z wyrafinowaną konsekwencją przyjmują pogląd, że dusza i ciało to dwie odrębne substancje. Wprawdzie zawsze wyrażał on głębokie uznanie dla dualizmu substancji, niemniej stanowisko to zajmuje z jeszcze większym zaangażowaniem w ostatnich pracach, które omawiane są w rozprawie. Stosując realistyczną metafizykę jako główne narzędzie metodologiczne, niniejszy projekt badawczy pokazuje, dlaczego w każdym z wymienionych stanowisk filozoficznych dualizm substancji zawodzi w udzielaniu odpowiedzi na wiele centralnych pytań dotyczących ontologicznej jedności osoby ludzkiej, przyczynowej interakcji między myślą a fizycznością, a przede wszystkim subiektywnej tożsamości jednostek.

W kolejnym kroku w projekcie badawczym poddaje się analizie to, w jaki sposób Arystotelesowska koncepcja duszy łączy jego realizm z filozofią przyrody, jak również z analizą metafizyczną, aby następnie przedstawić ujęcie duszy i ciała w świetle jego hylemorfizmu, poglądów na akt i możność oraz ujęcia substancjalnej jedności osoby ludzkiej. Osiągnięcia Arystotelesa są różnorakie, niektóre od strony negatywnej pokazują dlaczego atomizm jest fałszywy, inne zaś pozytywnie wykazują, w jaki sposób metafizyka realistyczna stanowi filozoficzną spójną interpretację, którą można odnaleźć w postrzeganiu osoby ludzkiej jako połączenia materii i formy, ciała i duszy zjednoczonych w jedną substancjalną indywidualną osobę ludzką.

Następnie badania poświęcone są systemowi św. Alberta Wielkiego, który próbuje połączyć ujęcie neoplatońskie z arystotelesowskim w zakresie rozumienia rzeczywistości, przyrody i osoby ludzkiej. Wynikiem tej analizy jest to, że twórczość filozoficzna św. Alberta ma charakter eklektyczny i mimo że docenia on, przynajmniej częściowo, nowość arystotelesowskiego ujęcia hylemorficznego, to nadal nie wyciąga wszystkich ważnych wniosków i konsekwencji niezbędnych do zagwarantowania kryteriów ontologicznych jedności, tożsamości i pełni osoby ludzkiej.

Dalsze rozważania skupiają się na analizie przedstawionej przez św. Tomasza z Akwinu, zawierającej krytyczne spojrzenie zarówno na dualizm substancji, jak i materializm. Św. Tomasz realizuje to za pomocą swojej teorii duszy jako formy substancjalnej, która jest zasadą organizacji i jedności bytowej, a jednocześnie duszą rozumną, nieredukowalną częścią człowieka. Specyfika realistycznej metafizyki osoby Akwinaty jest badana w szczególności na bazie jego *Komentarza do Metafizyki* oraz *Kwestii dyskutowanych o duszy*. Wyniki tych metafizycznych dociekań ukazują, w jaki sposób św. Tomasz broni swojego poglądu, że osoba ludzka jest *unum simpliciter*.

Rezultaty analitycznej obrony hylemorfizmu w ramach przywołanych tradycji są zaangażowane w filozoficzną dyskusję ze współczesnymi poglądami filozoficznymi

dotyczącymi umysłu i jego stosunku do ciała, zastosowane do pewnych błędów popełnianych przez naukowe opisy mózgu, jak również do kluczowej kwestii, jaką jest nieredukowalność rozumnej duszy do jakiejś postaci materii. Ten projekt badawczy dowodzi ostatecznie, że podczas gdy dualizm substancji i atomizm nie zapewniają opartej na faktach obrony jedności, integralności i tożsamości osoby ludzkiej, arystotelesowska i tomistyczna realistyczna metafizyka formy uzyskuje filozoficzną zasadność i koherentność nawet w kontekście współczesnych filozoficznych czy neurobiologicznych teorii osoby ludzkiej.