

The Concept of the Soul

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The Concept of the Soul:
Scientific and Religious Perspectives

Edited by

Michael Fuller

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P U B L I S H I N G

The Concept of the Soul: Scientific and Religious Perspectives,
Edited by Michael Fuller

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INTRODUCTION

THE CONCEPT OF THE SOUL: SOME SCIENTIFIC AND RELIGIOUS PERSPECTIVES

MICHAEL FULLER

Are human beings composed of two parts, a material body and a nonmaterial soul? Or are humans purely physical beings? ... Many Christians, and believers of other faiths as well, hold (or at least assume) a dualist account. ... However, many scientists and philosophers today suppose that the person is but one substance – a physical body (Murphy 1998, p. 1).

This quotation neatly sums up two common assumptions held today regarding the nature of human beings, and of that entity which is known as the soul. For some Christians, a dualist perspective runs deep, heightened in some quarters by interest in so-called ‘Near-Death Experiences’ which have been widely studied in recent decades (for two contrasting accounts of such experiences, see Zaleski 1987 and Marsh 2010). Although theologians have noted for some time that ‘The Bible looks on body, mind and spirit as aspects of a personal unity’ (c.f. Barbour 1998, p. 270), there yet remains a popular assumption that religious outlooks support dualistic understandings of humankind, whilst scientific outlooks prefer monist ones; and this perception can in turn reinforce the still-popular belief that religion and science are ineluctably opposed to one another.

But how did these contrasting perspectives arise? To what extent are dualist and monist perspectives *necessitated* by religious or other beliefs? Are alternatives possible: can traditional views regarding the soul perhaps be re-framed so as to replace dissonance with consonance? Or are we better off leaving aside soul-language, despite its deep embeddedness in much religious thought and writing, as a hangover from pre-modern

thinking with little or no contemporary relevance? These are some of the questions which are explored in the pages which follow.

The papers gathered together in this volume were presented at, or derive from, the conference of the Science and Religion Forum in September 2012, which was held at Regent's Park College, Oxford. (The original title of that conference, 'Can the concept of the soul have any meaning?', has been revised to 'The concept of the soul: Scientific and religious perspectives' in order to reflect more accurately the overall theme of the papers presented here.)

This collection begins with a specially-commissioned historical overview of ideas about the soul from Louise Hickman. Hickman reviews the roots of dualistic and monistic thinking about human beings, surveying sources from the Bible, classical Greek philosophy, and the Fathers of the Early Church; and she examines the development of these ideas in the work of two key subsequent thinkers, Thomas Aquinas and René Descartes. She cautions against too-glib divisions between 'Greek' and 'Hebrew' origins for this dichotomy in ways of thinking about humanity, teases apart the richness which is inherent in both these strands of thought, and urges us to be careful in reading earlier writers through the lenses of later ones. She thus sets the scene admirably for the range of discussions which follow.

There follow three papers which stem from plenary presentations at the Oxford conference. Peter Hunter explores a particular strand of this historical narrative further through his discussion of the ways in which the idea of the Soul in Roman Catholic theology has been developed within that tradition, from the early Church *via* Thomas Aquinas to the present day. He tackles head-on two 'keystone' doctrines which might be seen as problematic in drawing together Catholic and scientific worldviews, namely the immortality of the soul and the direct creation of the human soul by God. Hunter urges strongly that idea of the soul is not an antiquated concept, and that, moreover, Thomist views of the soul can still make sense in the twenty-first century.

Nancey Murphy offers some fascinating reflections on the question of the soul from her perspective as a philosopher of science. She notes the persistence of dualistic thinking amongst religious believers, despite its large-scale rejection amongst biblical scholars; and she seeks to find a path between the Scylla of dualism and the Charybdis of 'neurobiological reductionism'. After exploring the idea of 'downward causation' propounded by Arthur Peacocke and others, she turns to complex systems theory, using an ant colony as an example of such a system in which emergent, holistic properties may arise. She finally argues for a physicalist

understanding of human nature, coining the expression ‘multi-aspect monism’ for such an understanding.

Chris Frith brings the viewpoint of a contemporary neuroscientist to bear on the key question, ‘Is the brain all there is?’. He explores factors such as unconscious processes and the feeling we have of responsibility for our actions; and drawing on the latest research in functional magnetic resonance imaging of the brain, his considered – and resonant – conclusions are that ‘understanding the brain is necessary, but not sufficient, for understanding the human person’, and that ‘the human soul ... emerges from the interaction of the brain with cumulative culture’.

A number of shorter papers then shine spotlights on the concept of the soul from a rich variety of different perspectives. Mark Harris revisits the Apollinarian controversy of the fourth century to explore a question with profound theological ramifications: did Jesus have a soul? Harris draws from his considerations the conclusion that this debate has something to feed into modern thinking about the soul, suggesting as it does that the soul is irreducible to biological considerations, yet emerges from them. Peter Colyer’s essay also sets out by exploring a strand within traditional Christian thinking: that of hymnody. He notes the ways in which hymns, especially those of the eighteenth and nineteenth centuries, make reference to the soul in both dualistic and monistic terms – either as that part of the human person which ascends to the heavenly realm at death, or as standing for the ‘inner personality, the real “I”’. Colyer then contrasts this use of soul language with the materialism which underpinned the growing science of psychology through the latter part of this period.

The next two papers explore our understanding of the soul through the writings of two influential twentieth century authors: Wolfhart Pannenberg and Martin Heidegger. George Medley explores Pannenberg’s theological anthropology in the light of his juxtaposition of the activity of the Spirit with field theory. Medley fascinatingly traces the roots of Pannenberg’s thinking in the philosophers Schelling and Herder, and he concludes that, for Pannenberg, the soul is to be understood not in material or physicalist terms, but rather in psychological and relational terms, as the identity of the individual expressed in loving relationship with God in Christ. Mehdi Nassaji uses Heideggerian philosophical categories to distinguish between the religious world and the scientific world (both being instances of Heidegger’s world2), and maintains that it is possible to defend the soul as a real entity that may be discovered in one world, if not in the other. Nassaji makes the thought-provoking comparison of these two worlds with the worlds of Western and Chinese medicine, as systems of thought which

are coherent for those who practice them, yet which each have their own, incompatible, conceptual schemes.

A paper by Aemen Javairia and Asma Hussain Khan contributes an important set of insights on the soul from an Islamic perspective. Drawing on medieval writers, and on the modern Muslim psychologist A. H. Almaas, they point to the Islamic tradition as offering a rich set of resources with which to tackle both theoretical and practical (psychological) questions regarding the soul.

Finally, SRF Secretary Jeffrey Robinson offers by way of Epilogue a short history of the Science and Religion Forum. As the present collection of essays serves to exemplify, the topics which the Forum exists to explore remain as important to our understanding of ourselves, our environment, and the interactions between the two as they ever did. The formerly popular understanding of science and religion as opposing factions engaged in endless debate may be on the wane (except, perhaps, in certain controversialist quarters); but the positive, mutually-enriching dialogue between the two continues to bear much fruit. It is our hope that the conferences and subsequent publications of this Forum may contribute to that ongoing journey into deeper mutual understanding.

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CHAPTER ONE

THE NATURE OF THE SELF AND THE CONTEMPLATION OF NATURE: ECOTHEOLOGY AND THE HISTORY OF THE SOUL

LOUISE HICKMAN

During the last century it became a general trend for Christian theologians to make a sharp distinction between belief in the immortality of the soul and a supposedly more biblical belief in the resurrection of the body (Barr, 1992: 2). This dichotomy was usually framed in terms of a division between Greek and Hebrew thought, with the concept of the soul and its immortality seen as a Greek (usually Platonic) import, alien to the more holistic and embodied idea of the self identified in Judaism and early Christianity. This dichotomy is still pervasive today. It is not uncommon to read of two definitions of ‘soul’: one that identifies it as something immaterial, with independent existence from the body (a tradition of substance dualism, which starts with Plato and continues with Augustine and Descartes), and another that sees the soul as that which reflects the ‘deepest core of living entities’, part of a more holistic tradition identified in the Hebrew Bible, Aristotle and Aquinas (Oomen 2003, p. 380; Jeeves 2002, p. 23). Caution is needed, however, in carving up intellectual history in this way. This chapter will argue first that such a dichotomy does not sit well with a study of either the Greek or Hebrew traditions (such as they can be distinguished). The biblical understanding of soul is ambiguous and does not favour one particular understanding of self. There are also far more complexities than are commonly appreciated in the philosophies of Plato, Aristotle, Plotinus, Augustine and Aquinas. Second, I will argue that the predominance given to a perceived dichotomy between a Platonic tradition and a more holistic Aristotelian one eclipses the important ethical

and ecotheological implications of the concept of soul. Different conceptions of soul involve different ways of looking at the world, not just at the individual self. It is with Descartes that we see a crucial shift in the conception of the soul as it comes to be identified with an individualistic mind. This promotes a radically different (and potentially damaging) way of envisaging our relationship with the world around us. This brief historical survey therefore seeks to re-emphasise the importance of ethics and to alert us to a suspicion of our own hermeneutics when considering changing concepts of the soul. If we wish to abandon language of the soul today, we must be careful that we do not lose more than just a Cartesian ghost in the machine.

I

The view that Hebrew thought points towards a holistic idea of the self tends to rest on the argument that the Bible understands *nephesh* (often translated as soul) as something corporeal (e.g. Oomen 2003, p. 380). Adam, for example, becomes a living *nephesh* when he receives the breath of God (Genesis 2:7). The word is complex, however, and recent biblical scholarship rejects any one meaning, especially since the discoveries of the Dead Sea Scrolls. Sometimes *nephesh* refers to a corpse (Numbers 6:6) and at other times to the throat (Psalm 63:2), but on some occasions it is opposed to the flesh (e.g. Isaiah 10:18). Even more obscure is the death of Rachel in Genesis 35:18 and the story of Elijah praying for the return of *nephesh* to the child in 1 Kings 17:21f. Some of these texts can be interpreted either monistically or dualistically. A monistic reading of Genesis 2:7 suggests Adam is really just mud (the breath is not really part of Adam as it comes and goes with his in- and exhalation), while a dualistic exegesis regards Adam as mud plus God's breath. There is nothing here to suggest that 'soul' should be interpreted as just the totality of the human person (Barr 1992, p. 37). Further complications arise with the association of *nephesh* with *ruah*, usually translated as 'spirit' (and often used in opposition to flesh). There are several passages that speak of the rescue of *ruah* or *nephesh* from an existence in Sheol (e.g. Psalm 31:5; Psalm 88:4; Isaiah 38:17). There are certain contexts, therefore, when *nephesh* cannot be interpreted as a holistic unity. Hebrew thought certainly seems to find it difficult to imagine that *nephesh* as a life-giving force will die: it may return to God or it may continue to exist in some other way (Barr 1992, p. 43).

These passages and others do not necessarily point towards a belief in the immortality of the soul but, as Barr argues, they do allow for the

possibility of a soul or spirit somehow transcending bodily existence (1992, p. 39). Furthermore their ambiguity makes it easy to see how they led to many contrasting theologies of life after death. From the period of Daniel to the early Christian church an assortment of different beliefs were in evidence, from the resurrection of the body to the immortality of the soul. What is certain is that there was no unified Hebrew account of the self. The Dead Sea Scrolls show that some traditions of later Jewish thought were extremely dualistic. The Pharisees insisted that every soul is immortal or imperishable, while the Essenes contrasted the corruption of the body with the immortality of the soul (Barr 1992, p. 44). The lack of any one 'tradition' of Hebrew or later Jewish thought has serious implications for any study of the New Testament (Nicholsburg 1972, p. 180). The debates about life after death form the context of Jesus' exhortation not to fear those who can kill the body but not the soul (Matthew 10:28), while the general ambiguity of the New Testament (e.g. Luke 12:20; 1 Thessalonians 5:23) gave rise to widely contrasting accounts of self and life after death in early Christianity. The centrality of the resurrection of Jesus' body to the New Testament did not mean that the immortality of the soul was necessarily denied (Barr 1992, p. 111).

The ambiguity of the Bible therefore means that it cannot be said to favour a more holistic view of the human person as opposed to a more dualistic account. The impossibility of distinguishing historically between these two ways of thinking becomes even more evident if we remember that 'Jewish' and 'Hellenistic' thought was so intertwined by the time of the New Testament that any attempt to distinguish between them is impossible (Hengel 1989). It makes no sense to take particular concepts or authors, like Paul or the writer of Hebrews, and to see them as belonging to the Hebrew/Jewish tradition as opposed to the Hellenistic (Barr 1992, p. 2). For these writers there would have been no distinction between the Hebrew and Greek traditions, which means that a straightforward interpretation of, for example, the resurrected 'spiritual body' of 1 Corinthians 15:44 becomes difficult. The early Christian church was influenced by a synthesis of both traditions, and they cannot be disentangled. The interrelation of Athens and Jerusalem therefore makes it impossible to seek any Hebrew 'pre-Greek' idea of the human person. As there is no one accepted view of the human person then if any particular account is to be favoured it must be justified on grounds other than the Hebrew Bible or New Testament alone.

II

The Greek philosophers are also highly complex. It is not difficult to see why Plato is so often regarded as the father of substance dualism. In the *Phaedo*, Socrates (surprisingly cheerful despite having been sentenced to an imminent death) presents a series of proofs for the immortality of the *psuchē* ('soul'). His high spirits are attributed to his conviction that his soul will soon be released from 'the shackles of the body' (67d). Death is a cause for celebration because the soul of the philosopher despises the body and flees from it, while the purification of philosophy itself is no less than preparation for death through 'separating as much as possible the soul from the body' (67c). However, the dialogue is not quite the straightforward depreciation of this mortal coil that it might seem. What is most important about the soul is not its immortality but its ability to perceive truth. At the heart of the *Phaedo* is an argument about the affinity of the soul to intelligible being (78b-80b), and this (central to many of the other Platonic dialogues) is ultimately an argument about the objectivity of ethics.

Plato is worried that the five senses can sometimes deceive us. For this reason he thinks truth cannot be perceived by means of the body but must instead arise from the soul (identified as reason) contemplating the nature of things themselves – that is the Forms – most notably Goodness, Truth and Beauty (*Phaedo* 65d-66e). Anything that has knowledge, Plato insists, must have some affinity with that which is known. In order to have knowledge, therefore, the soul must have some sort of kinship with the Forms. For Plato, therefore, the soul is that part of human nature that can contemplate the Forms (*Phaedrus* 249e) and the immateriality of the soul arises directly from its kinship with their immaterial nature. The power of knowing the Forms – intellect (*nous*) – is usually described as a state or faculty of the soul (*Timaeus* 37a-c; c.f. *Republic* 508d). Arguments against materialistic reductionism and ethical relativism dominate the Platonic corpus, and the two are interconnected. If nothing exists but physical reality, the objective existence of truth and goodness are threatened. Plato rails against the Sophists that truth is real and justice is not merely in the interests of the stronger. Many of the pre-Socratic philosophers had proposed a primary substance out of which everything else is composed. Democritus suggested atoms: Thales, water; and Anaximenes, air. Plato's substance dualism is a rejection of their ontological materialism. For him, matter is not the most basic substance of the universe. If it is, then there can be no place for justice – it can be reduced to personal interest. This is why the supreme reality (for Plato the Form of the Good, the source of all

value) cannot be material, but must be something ontologically distinct from matter.

The ethical aspect of Plato's doctrine becomes even clearer when considering his account of deformity as the *telos* of human life. The flight of the soul involves imitation of the divine defined in terms of right conduct: 'assimilation [to God] is the combination of wisdom with moral respect for God and man' (*Theaetetus* 176a-b; cf. *Phaedo* 64a-67b). It is when the soul has communion with divine virtue that it becomes divine (*Laws* 904d). Plato's substance dualism must therefore be interpreted first and foremost as an argument against eliminative materialism and in favour of ethical realism. His anti-materialism establishes the identity of both that which is knowable (the Good) and that which has knowledge (the soul) as immaterial (Gerson, 2005: 268). This is why he describes the soul as that part of us which grasps truth and which can discern ethical value: 'good and evil are meaningless to things that have no soul' (*7th Letter*, 334-5).

One of the most important of Plato's myths to consider with regard to the soul is the story of creation in the *Timaeus*. In this 'likely story' a demiurge creates the universe and fashions it on an eternal and unchanging pattern. What is distinct about this myth is that soul is attributed to the whole cosmos, because it is a living being: in fact it is more accurate to say that the universe is soul (*Timaeus* 34b; Carone 2005, p. 43-4). The demiurge creates the soul of the cosmos before its physical matter which means *nous* is framed in soul, and soul in body (Carone 2005, p. 43-4). The matter of the cosmos is infused by soul, perceived as a divine source of unending life (*Timaeus* 36d-e). When it comes to human souls, we are told that they are made by the demiurge out of what is left over from the creation of the world-soul (*Timaeus* 40d-44d). This makes them somewhat inferior but it also means that the human soul becomes a microcosm for the world-soul (Dillon 1996, p. 6). This is important for both knowledge and ethical action. It means that the cosmos becomes the model for rational souls to emulate, and this emulation is how souls achieve excellence and are purified: 'the motions that are akin to the divine in us are the thoughts and revolutions of the universe' (*Timaeus* 90d). This casts the purification described in the *Phaedo* in a very different light. Rather than escaping from this world, we should align the motion of our soul with the motion of the universe: the model for our own well-being is therefore present in the universe. The soul's capacity to pattern itself on the divine mind is no happy accident, but is derived from its nature and origin in the divine mind, and from the teleological structure of the world (Sedley 2000, p. 798). The kinship of the human soul, the world-soul and the divine means that we can understand mathematics and physics, and 'we can come

eventually to assimilate the disordered revolutions of thought within our own heads to the perfect celestial revolutions of the divine intellect' (Sedley 2000, p. 798: c.f. *Timaeus* 39b). Plato was anticipating the epistemological problems of a universe created purely through chance events, whether evolutionary or otherwise: a reductionist scientific approach can give us no assurance that we can have scientific knowledge of the universe. This argument is not just epistemological, however: it is also ethical. That human soul is related to the world-soul and also to the divine means that the world is infused with the divine. This aspect of the *Timaeus* becomes important in later Neoplatonic calls for the contemplation of nature. Scientific knowledge is made irreducibly ecotheological because human beings are not divorced from the rest of the natural world but are called to respect it and learn from it.

One final caveat with regard to Plato is that although he tells us that the soul is immortal and indestructible he also insists that only a god is capable of describing its nature in literal terms (*Phaedrus* 246a). Mere humans can only suggest what it resembles in myth and allegory, which is why he presents the myth of the winged charioteer in the *Phaedrus*, a political state in the *Republic* and the aforementioned story in the *Timaeus*. This means that it is hard to say with any certainty that Plato is a substance dualist in the literal sense, as he himself would encourage us to consider what he says about the soul with a considerably generous portion of salt. What is more certain is that Plato's conception of the soul should be treated as an ethical philosophy that recognises the inseparability of the conception of the self from questions of knowledge, reductionism, materialism, our relationship to the world around us, and the ultimate purpose of human life.

Plato's substance dualism is often contrasted with Aristotle's account of the soul as the form of the body. It is worth remembering, however, that the Neoplatonists saw no such conflict between the two thinkers, and believed that their philosophies could be fused together perfectly coherently. The *Physics* introduces us to two of Aristotle's most important concepts: matter and form. Matter is the physical stuff from which things are made (in contemporary language atoms and sub-atomic particles). Form is the organising principle of matter and it is responsible for making a rock different from a bee, different from a human being. Form is more than just organisation, however. It is also the end (*telos*) or purpose towards which any action is directed, and it is the power which directs that action. Both *De Anima* and the *Metaphysics* use 'soul' as akin to 'form' (*De Anima* 412a-b; *Metaphysics* 1032b1-2). *De Anima* describes a living thing's soul as its organising principle and its actuality: 'The soul is the

first actuality of a natural body that is potentially alive' (*De Anima* 412a27). If an axe were alive then 'being an axe' would be its essence or soul (*De Anima* 412b). Soul is treated as the source of life, with its functions including nutrition, sensation, thought and motion. Despite not being the body, it is dependent on body: '. . . the soul does not exist without a body and yet is not itself a kind of body. For it is not a body, but something which belongs to a body, and for this reason exists in a body, and in a body of such-and-such a kind' (*De Anima* 414a: c.f. Wilkes 1992, p. 110).

Form, or soul, causes change in natural objects and it is vital for our understanding because it explains why things behave the way they do. For Aristotle, knowledge – which is knowledge of causes – is therefore still knowledge of forms (albeit without a capital F). To have knowledge of a living thing like, for example, a bee, we need to ask what it is to be a bee and how it is distinct from everything else in the world. Bees buzz, collect nectar, make honey, and are admirably industrious. The 'essence' of a bee is defined as that which any individual bee most truly is, and this seems to be what Aristotle means when he uses the term 'form' in the *Metaphysics* (Lear 1988, p. 274). Each member of the species therefore has the same form or essence. What is crucial is that to understand 'bee-nature' (the essence of bees) we have to observe them. The contemplation of nature is therefore vital for knowledge. When the senses sense something, they perceive an individual object. What understands the essences or forms of things is the mind. This means that, by virtue of being contemplated by the mind, form can exist independently of matter (Lear 1988, p. 284). Soul, therefore, is form lifted out of its material instantiation by the understanding mind in its grasp of essences. Consequently, soul is independent of matter and purely conceptual. It is manifested in the world when it is combined with matter in individual material things but it is also manifested in the mind of the one who contemplates nature and understands essences. Form, or soul, is neither created nor destroyed with the birth or death of any given living thing (*Metaphysics* 1034b8-10: Lear 1988, p. 280).

What then is the human soul? The form of a human being is always found in flesh and bones, and like all soul it is the form of the species (*Metaphysics* 1036b3-7: Lear 1988, p. 274), but humans are special because we can contemplate the forms of other things. Through the contemplation of nature we come to appreciate that our form is to be an 'understander': a thinking, rational being. For Aristotle, soul is not what gives us personal identity but is rather our essence (thinking thing) understood by ourselves (so there is only one 'human soul' that might be said to exist). The highest level of human soul is found in the mind of the

person who is actively contemplating the essence of human life (Lear 1988, p. 134). Contemplation of nature and of ourselves is therefore essential for understanding who we are.

Unlike Plato, Aristotle does not conceive of form as a new or distinct entity nor does form have any agency or causal efficacy. Aristotle is perhaps trying to be anti-reductionist without introducing a specific non-physical entity needed to account for mental intention (Frede 1992, p. 95). He discusses whether anger should be defined as a boiling of the blood or as a desire for revenge and suggests that being angered is a natural process that can be described in material terms (*De Anima* 403a-b). This means the affections of the soul (like getting angry) are no different from the other physical doings of living organisms (Frede 1992, p. 104). What Aristotle seems to be rejecting is the Platonic idea that there is a ‘thing’ (a soul) that is the subject of mental events (believing, desiring etc.) and which thinks or feels (Frede 1992, p. 94): ‘saying that it is the soul that gets angry will be rather like saying that the soul weaves or builds a house – it would be better to say ‘that the man does in virtue of the soul’ (*De Anima* 408b). There is still significant ongoing debate about whether Aristotle thinks of soul as a capacity or an actuality (e.g. Wilkes 1992: Johnston 2011), but he suggests a more embodied concept of soul than Plato’s in that the affections of the soul are inseparable from the natural matter of living things (*De Anima* 403b). We cannot make sense of either the soul without matter or matter without soul (Wilkes 1992, p. 112) and the soul is certainly not immortal either: ‘soul and body are the animal’ and ‘the soul is not separable from the body’ (*De Anima* 413a).

Aristotle’s treatment of intellect in *De Anima*, however, makes it much more difficult to claim that he had a non-dualistic concept of the self. Intellect is not like other mental capacities and does not appear to be a function of any particular bodily organ (Corrigan 2005, p. 72). He goes as far as to suggest that the intellect in its separate state is ‘immortal and eternal’ (*De Anima* 430a), and the confusion is multiplied when it is considered that most of Aristotle’s comments about the affections of the soul ultimately concern the intellect (Frede 1992, p. 105). If the human soul is pure thought then it is theoretically separable from the body. This fifth chapter of Book III of the *De Anima* is notoriously difficult and has led some commentators to wish that it had never been written. K. V. Wilkes admits it is hard not to see it as dualistic (1992, p. 125), and Michael Frede wonders whether Aristotle in the end feels forced to reintroduce a separate subject in the form of the intellect in order to account for thought (Frede 1992, p. 105). There are a myriad of interpretations, the most convincing of which take account of the prime

mover of the *Metaphysics* and see the intellect as somehow akin to it (e.g. Wilkes 1992). The prime mover is the only thing that has no matter because it is separate intellect: pure form. It is an ensouled but immaterial thinking living being (*Metaphysics* 1072b13ff.: cf. *De Anima* 402b), and demonstrates how soul can in fact be independent from matter.

The intellect is best understood, therefore, in terms of Aristotle's theology and ethics. The *Nicomachean Ethics* suggests that human beings can aspire to become like God (the unmoved mover) in as much as we have the ability to contemplate, and in this way our intellect can become immortal (1177a11-18). This immortality is not worth getting excited about from a personal perspective, however, as it offers no individual existence after death (Wilkes 1992, p. 125) but it highlights Aristotle's ethical concerns. The virtuous person is the *megalopsuchos* ('great-souled man') and Aristotle's conception of soul is both ethical and social. Soul emphasises activity, particularly social activity because our actions and choices make us who we are and define us as a person. Living well is inherently a social activity and cannot be done in isolation (Wilkes 1992, p. 120: *Nicomachean Ethics* 1169b10-19). Our personhood is inextricably linked with our relationality to others. Despite, therefore, his rejection of Platonic Forms and his more embodied idea of soul, Aristotle's concept of soul is not a straightforward rejection of dualism. The human soul is intellect, an immortal and eternal aspect of our nature. Like Plato, his anti-reductionism leads him to resist the suggestion that nothing of the human being survives death and that matter is the only thing there is. For Aristotle, as for Plato, assimilation to God is the human *telos* and it is only through the contemplation of nature and the ethical life that we can discover knowledge about our own nature. The concept of the soul is therefore irreducibly theological and ethical.

The ethical nature of the soul becomes even more pronounced in the philosophy of Plotinus (204/5-270 CE), widely regarded as the founder of Neoplatonism. Influenced by both Plato and Aristotle, Plotinus' project involved bringing together the *Phaedo*'s portrait of the soul as otherworldly with the *Timaeus*' more ensouled account of the material world (Rist 1967, p. 112). His metaphysical system is one of three increasingly unified levels of true reality (three hypostases): Soul (*psuchē*), Intellect (*nous*) and the One (*Ennead* V.I). These exist both in nature but also in the mind. The One (sometimes called the Good) emanates Intellect which is an intuitive power through which the mind attains a direct and instantaneous vision of truth (Wallis 1995, p. 53). Soul then emanates from Intellect. Everything in the sensible world is the result of Soul: it animates the sensible world but is also a living organism

(Corrigan 2005, p. 38). In order to explain how Soul can be responsible for the world of sense without also taking on its features of extension, Plotinus distinguishes between the *hupostasis* Soul (which remains in the realm of Intellect) and another level of soul: that of the World-soul and the souls of individuals (*Ennead* IV.3.1-8). The World-soul and individual souls have higher and lower souls. The One emanates reality spontaneously in a process that does not end until everything that is possible to exist does so. This means that creation cannot stop with intelligence but must continue through all levels of reality including matter (Wallace 1995, p. 65). Matter, and all living and nonliving things, are thus the product of Soul.

The activity of Soul is contemplation (*Ennead* III.8.5). Nature comes into being through contemplation, has a contemplative nature and it makes what it contemplates. This is a vitally important idea because it means there is no clear distinction between mind and matter: 'That which is called nature is a soul' (*Ennead* III.8.4). Plotinus did not therefore see himself as a dualist as we tend to think of the term. Matter is not independent of the One because there can be no clear dividing line between soul and body. Mind and body flow into each other and Soul is both spiritual and the animator of the physical universe, which means that the material world is at once both physical and spiritual (*Ennead* 4.3.18: Corrigan 2005, p. 75). Unlike Aristotle, Plotinus does not limit soul to organic things: soul is the cosmic force 'that unifies, organises, sustains and controls every aspect of the world' (O'Meara 1993, p. 17: *Ennead* IV.7.2). Plotinus' arguments for the immortality of soul are grounded in his conception of it as a life-force. It is the origin of life and in this sense is divine. 'It has life of itself, which cannot perish: for how could it, since it is not brought in from outside' (*Ennead* IV.7.11). To avoid a plurality of forms, which he detects in Aristotle, Plotinus concludes it is better to suppose that the soul is not an inseparable form but an immortal substance in its own right (Corrigan, 2005: 75). This explains how life is moved by itself, not by matter, and explains why it is immortal.

The human soul contains all the divine hypostases within it while our higher soul, like the higher level of the World-soul, belongs to the Intelligible order (*Ennead* IV.3.4: Wallis 1995, p. 72). Sometimes Plotinus describes it as the true self. He quotes Aristotle's axe analogy but he does not accept it uncritically (*Ennead* 1.1.4). The living body is not just a shaped living object. If we want to understand the essential nature of a living thing then we cannot merely give a definition of its various parts but nor do we mean 'soul and body, as a constituent definition or an aggregate of elements' (Corrigan 2005, p. 75). Rather a living creature is something different from the parts that make it up, and that difference, Plotinus

believes, has to be expressed as a causal interaction. What is the substance of soul, he asks? It is not a body but action and making: it is that 'we call real substance' (*Ennead* IV.7.8). This is why in *Ennead* IV.4.18 Plotinus prefers speaking of the effect of soul on body in terms of warmth rather than light because warmth gives rise to change (Corrigan 2005, p. 75). The soul is therefore not an epiphenomenon, nor are we as living things determined purely by our constituent parts. Instead, a human being might be described as 'the compound subject that perceives things directly but by virtue of soul (which is the cause of a thing's being human or being anything else)' (Corrigan 2005 p. 75: *Ennead* 1.1.7).

Plotinus' anthropology is thus concerned first and foremost to assert that the human being is a unified agent. 'We' perform our actions (as opposed to – to give a modern-day example – our genes performing them) but we do so by the power of our souls, in the same way that Aristotle suggested we think 'by virtue of the soul' (*De Anima* 408b14-15: Corrigan 2005, p. 75). Plotinus is all too aware of the implications for ethics of a materialistic determinism and it is because of this that he asserts we are not just subjects of our mental states and bodily existence. He insists the soul is causal out of concern to protect human freedom and to safeguard the reality of ethical value. Nobility, justice and other virtues are eternal, abiding and are without size and must therefore have an existence that is not bodily or justice 'would be a kind of breath or blood' (*Ennead* IV.7.8). If the soul is a body, 'neither perception nor thinking nor knowing nor virtue nor anything of value will exist' (*Ennead* IV.7.6).

There are significant differences that must be noted between Plotinus' dualism and Cartesian dualism. Although the soul is an organising principle in the body it is not 'in' the body, as one material thing might be in another material thing, but is in the body as a causally creative, organic presence. For Plotinus it is not possible for any body to exist without soul and (as for Plato too) soul is not 'in' body but body is 'in' soul (Clark 1996, p. 279: Corrigan 2005, p. 76). The soul is no ghost in the machine but is instead responsible for giving matter its very being. What Plotinus recognises is that no purely material metaphysics can identify real individuals because bodies (whether human, non-human or plant) depend on agents, persons or intellectual subjects for their meaning (Clark 2000 p. 126: *Ennead* IV.3.22). This is why causation is so important to Plotinus. That body is infused with soul is also important ethically. If there is no clear distinction between one thing and the next then everything is interrelated, and nothing can be considered in isolation from its environment: is the air we breathe part of our body? (Clark 2000, p. 126) Ecotheological conclusions follow. For Plotinus, the position of the soul in

the cosmos is not fixed – it has no strictly defined place in the world. The Aristotelian idea that soul is not so much a particular thing but rather the ‘All of things’ is interpreted by Plotinus to mean the soul’s being depends on its attitude and its behaviour (Cassirer 1953, p. 27-8). As with Plato, the soul’s *telos* is assimilation to God through virtue (*Ennead* 1.2.1) but this is not pure escapism because it is a process through which the soul overcomes attachment to separate individuality and realises an inner identity with the Intelligible world in its entirety: ‘Since all souls derive from the same from which the soul of the Whole derives too, they have a community of feeling’ (*Ennead* IV.3.8). They are both one and many which means that, for Plotinus, ethics and ecotheology cannot be separated. Recognising our interrelatedness with everything else that has soul (which is, literally, everything – including the entire biological world) is at the heart of the ethical life: ‘True wisdom should require us to reject the notion that “my” body and experience have any privileges’ because we are not one self among many (Clark 1996, p. 285). The contemplation of nature and the very act of thinking about the nature of our own souls begins the contemplative practice that leads to the ascent of the soul and its purification through ethical action. Despite, therefore, their reputation for promoting a dualism that disparages the body, it is not true of either Plato or Plotinus that what is most important is what transcends the body (Clark 2000, p. 222). Theirs is rather an anti-reductionistic conception of a relational self, motivated by ethical realism and promoting, above all, contemplation on nature and on the ethical life.

III

The ambiguity of the bible and the influence of Greek philosophy gave rise to significant theological debate by the time of the early Church Fathers. That we are made in the divine image was generally accepted by all Christian theologians, but what this means, and whether or not there would be a bodily resurrection (either spiritual or physical), were divisive topics. Many identified the divine image with the soul but were agnostic about its nature: ‘I have a soul and yet I cannot describe its characteristics’ writes John Chrysostom (Ware 1999, p. 49). Others opted for the image of God as the unity of body, soul and spirit (e.g. Irenaeus of Lyons). The Nicene-Constantinopolitan Creed of 381 CE does not define the image, nor do any of the decrees of the seven Ecumenical Councils of 325-787 CE. There are just two clear statements. The first is the condemnation of Origen at the Council of Constantinople in 543 CE, in which pre-existence of the soul is linked to universal salvation, and both are deemed heretical.

The second is the Nicene-Constantinopolitan Creed in which it is stated 'I await the resurrection of the body'. This suggests that any severance of the soul from the body at physical death is not final because soul and body will be united again on the last day (Ware 1999, p. 52). Belief in the resurrection of Jesus was crucial for theologies about the soul-body relationship as were debates about God's goodness and justice, continuation of personal identity after death, and the nature of the resurrected body – Tertullian adopted a more extreme materialism, whereas Clement of Alexandria held a much more spiritual view.

There are several important things to note about the early Greek Christian theologians. First, self-knowledge cannot be gained only through philosophical investigation. Practice (*ascesis*) is essential, including prayer, worship and reflection. Self-knowledge is a difficult journey. Second, the soul cannot be described in isolation: it must be defined in terms of its relationality to God (Ware 1999, p. 51-2). Third, conceptions of the soul and life after death both impacted upon, and were informed by, attitudes to the non-human world. For example, opponents of Origen like the Lycian Bishop Methodius argued for the physicality of the resurrected body on the grounds that 'man' is appointed to rule over the world: when he is immortal he will keep his current form (1869: 145). Consequently, many of the Greek Fathers believed that although there would be non-human animals in the new heaven and new earth, they would not be the same individual animals (Ware 1999, p. 63). The *Imago Dei* was believed to make humans vastly superior to non-humans.

Augustine uses the word *anima* for soul in general (all living things have souls), but uses *animus* or *mens* to refer to the human rational soul, which is 'a certain kind of substance, sharing in reason, fitted to rule the body' (1947b: 13:22). In his earlier writings he expounds the view most commonly attributed to him. A human being, he says, 'is a rational soul with a mortal and earthly body in its service' (1872: 1.27.52). In his later writings, however, a distinct change can be identified, and he places much more emphasis on human beings as a unity or 'mixture' of body-soul: 'The soul is not the entire man, but only his better part ... Only when body and soul are in union can we speak of a man' (1952: 13.24.2). Rist explains that 'blending' seems to be the best single word available in English to describe Augustine's view of the soul-body relationship, and the unity of the human person is a common theme in his theology throughout its development (Rist 1994, p. 99). The body is not just an ornament or something external to the true self, but pertains to our very nature (1955: 3.5). All this leads him to assert that 'anyone who wants to separate the body from human nature is a fool' (Rist 1994, p. 111).

The influence of the ethical elements of the Platonic tradition is present in Augustine, and they are fused together with a Christian understanding of Fall and Resurrection. He brings together the metaphysical claims of Plotinus about our common human identity together with the historical claims of Christianity about human individuality and uniqueness (Rist 1994, p. 129). In his early works, Augustine seems to accept the idea of a universal world-Soul (e.g. 1947a: 15.24: Teske 2001, p. 120), and he implies that the world is itself a living organism (Teske 2001, p. 120; Augustine, 1947c: 6.14.44), and this view is in evidence in the *Confessions*. Human nature is more than just a mixture of body and soul for Augustine because our soul is both something of the common soul of the human race while also an individual part of that common soul (Rist 1994, p. 128). We are individuals but share too in the whole of humanity. As with Plotinus, our individuality is marked by selfishness and exploitation but – and this is crucial for Augustine – it need not be. The Incarnation of God becoming human shows that individuality is not necessarily selfish. What is clear from Augustine is that human nature has a collective interest and is defined at least partly on the grounds of our relationality both to others and to God.

The doctrine of the Fall means that for Augustine our nature is irrational and cannot be understood (1962: 14.5; Rist 1994, p. 140). Self-knowledge is corrupted by false self-centred constructions of our own image, further impaired by our damaged relations with the world around us. There are shades of Plotinus here, read through a theology of the Fall. The way to self-knowledge is both practical and contemplative. If we want to know what we really are, we must seek ourselves in God. In striving to do this, we will see that our frustrated souls are part of our fractured persons (Rist 1994, p. 146; Augustine, 1962: 10.5.7ff). Knowledge of the soul is therefore fundamentally ethical. The body is not a hindrance but (through the Resurrection) is necessary for our self-knowledge. Augustine therefore offers us a moral account of what human nature is like, together with a phenomenological ‘psychology’ (Rist 1994, p. 147). His metaphysics is consciously inadequate, however, because (and here he is very different from both Aquinas and Descartes) we cannot yet know what a human being (that is, a perfect human being) is like.

In the West, Augustinian thought dominated until Aristotle’s *De anima* became known in the thirteenth century. The Medievals readily adopted Aristotle’s distinction between three types of soul (vegetative, sensitive and intellective) and they embraced the idea that intellective soul is what sets humans apart from non-human animals. Thomas Aquinas was no different in this respect and he followed mainstream Medieval thought in

embracing Aristotle's account of soul as form, and seeing the human person as a unity 'Since a soul is part of a body of a human being, it is not the whole human being, and my soul is not me' (quoted in Stump 2006, p. 169). What Aquinas means by form (and therefore soul), however, is not always clear and is the source of intense scholarly debate.

Soul is described as the root principle of life present in plants (which have a nutritive soul) and non-human animals (nutritive and sensitive soul) and in humans (which have a rational, or intellectual soul). The soul is like an unmoved mover in each living thing: the 'soul, as the primary principle of life, is not a body but that which actuates a body' (ST 1a, q.75). This is essentially a non-reductive position: for Aquinas' argument to work, there has to be a residue of animal metabolism and behaviour irreducible to the activity of chemical and physical agents (Kenny 1993, p. 131). Living things have to have a unique mode of explanation different from inanimate non-living things. Human beings are distinct: we have an intellectual soul which is the principle of intellectual activity. The intellect is thus the form of the human body (ST 1a, q.76, 1). A human being is a single substance, a rational soul, and this makes us different in nature from other 'lower' forms of plants and non-human animals.

Aquinas' accounts of soul and intellect are complex and ambiguous. *On there being only one Intellect* claims that the human soul is not the form of the body in terms of its intellectual power, since intellect is not the act of any corporeal organ (1993: III.60). When considering its intellectual abilities, the soul is immaterial: it receives intelligible content in an immaterial way (Stone 2000, p. 54; c.f. also ST 1a q. 76, 1) and is the unique source of human action: 'a form of matter, the human soul is not a material form' (Stone 2000, p. 52). That it is not material underpins Aquinas' argument for the immortality of intellect. The human soul (intellect) is immaterial, incorruptible, immortal and subsisting: there is no way the soul can decompose or pass away (Kenny 1993, p. 142, 6th article). A candle's colour or shape ceases when it has been burned down, and a nonhuman animal's soul passes away when the animal itself decomposes. A human soul is different because it is capable of existence without the body (Stump 2006, p. 155). Aquinas therefore sets up a sharp dualism between human and nonhuman souls because the former can think intellectual thoughts while the latter cannot (Kenny 1993, p. 143). The agent intellect is the capacity (unique to humans) to abstract universal ideas from sense experience which gives them a substantially different form, or soul. This is no emergent materialism, however, because intellect subsists, exists and functions apart from matter (Stump 2003, p. 204).

For Aquinas, then, the soul is both the form of matter and an immaterial form (Stone 2000, p. 47). It is the form of matter in that it is the source of human activity and it is an immaterial form because its nature is spiritual. Aquinas uses the term ‘subsisting form’ to indicate that the soul is incorruptible, immortal and imperishable, even when the body dies and matter corrupts. As subsistent, the soul has independent existence. ‘The intellectual principle, therefore, which is called mind or intellect has its own activity in which the body has no share’: ‘The human soul, which is called the intellect or mind, is something non-bodily and subsistent’ (ST 1a, q.75.2). The trouble is, it is not clear what Aquinas means by ‘subsistent’. Stump denies that Aquinas sees the soul as a substance in its own right: it is a configurer of matter and a configured subsistent thing (Stump 2003, p. 210). Kenny notes that Aquinas seems to contradict himself in the two articles of Question 75 (Kenny 1993, p. 136) but he certainly insists (against Averroes) that being material is essential to have sense experience, and is thus an essential part of being human. Like the majority of the Medieval theologians, Aquinas does have a strong commitment to the unity of the human individual but it is still a unity between what might be called an immaterial soul and a material body (Stone 2000, p. 56). This distinction allowed Aquinas to claim that the soul can exist after death, and explained the continuity between the earthly and resurrected body.

Aquinas’ approach is difficult to classify in contemporary terms. He is clearly a dualist of sorts, because he sees the intellect as immaterial. He also promotes a substance dualism in the absolute distinction he asserts between human souls and non-human animal souls. When it comes to the human person, he could be interpreted either as a substance dualist (depending on the definition of ‘substance’) (Stump 2003, p. 212) or some sort of property dualist (some of his statements come close to an emergence view of the human mind), but his account of the intellect means that his view is considerably different from contemporary property dualism. Given Patricia Churchland’s definition of physicalism as the view that ‘mental states are implemented in neural stuff’ then Aquinas sometimes sounds physicalist (Stump 2003, p. 213). The difficulty of defining his concept of soul suggests we should be cautious in trying to ally him closely with any particular contemporary approach to the mind. It also reinforces the problems encountered in trying to read the history of the soul as a straightforward history of substance dualism versus holism. Any such reading tends to obscure the ethical consequences of how the *Imago Dei* is defined, and its perception in relation to the non-human

world. The ethical implications of the conception of the soul become clearer still when we consider the philosophy of Descartes.

IV

In the seventeenth century a radical transition occurred in mainstream thinking about the soul and nature, one that was shaped by Descartes and his absolute separation of matter from mind. Despite an influence from both Platonism and scholasticism, he instigated a shift away from both traditions by moving from the vocabulary of *psuchē* to that of mind, and in so doing promoting a much more reductive explanatory account of the human person. The result is a de-sanctification of the natural world and a conception of science as knowledge aimed at control over nature for human gain.

Descartes explains that when *psuchē* is taken to mean the ‘principal form’ of the human being, he gives it the name mind: ‘I consider the mind not as a part of the soul but as the thinking soul in its entirety’ (CSM, 2: 246). This marks an important transition from talk of the soul to that of the mind (Wilkes 1992, p. 115). The capacities of the soul are defined as the capacities typically granted to the mind. Our soul, he says, is known to us merely through the fact that it thinks – i.e. understands, wills, imagines, remembers and has sensory perceptions: all kinds of thought (CSM, 1: 314). It is likely that he preferred the term mind over soul because it distanced him from Aristotelian language and from the view of soul as that in virtue of which a living body is alive (Frede 1992, p. 93). Descartes should be called a substance dualist for his description of the mind as a substance distinct from the body. ‘Body’ or ‘matter’ is extended and has all the property of an extended thing, which makes it quite different from God or mind (CSM, 1: 223). It seemed obvious to Descartes that there was something fundamentally different about thought and matter because something that has extension, like a piece of string, can be measured or cut in half, but it makes no sense to measure the length of either a thought or of God. From this he derives a further argument: we do not have any convincing evidence or precedent to suggest that any substance can perish, which entitles us to conclude that the mind, as far as we can know, is immortal (CSM, 2: 109). This dualism, however, is very different from the Platonic idea that there can be no body without soul.

The dichotomy between matter and mind that Descartes promotes is a major contributing factor to the mind-brain split that sciences of the mind have been grappling with ever since. Descartes creates an ‘inner’ and ‘outer’ realm that gives rise to the ‘theatre’ view of the mind (Wilkes

1992, p. 116). This reductionist view of the body means that he requires a soul to account for how consciousness arises and how bodies can be alive. Any physical body, he insists, could be explained entirely in terms of its material properties, which means the human body is ‘nothing but a statue or machine made of earth’ (CSM, 1: 99). The result is that ‘when a rational soul is present in this machine it will have its principal seat in the brain, and reside there like the fountain-keeper who must be stationed at the tanks to which the fountain’s pipes return if he wants to produce or change their movements’ (CSM, 1: 99).

This Cartesian idea of the ghost in the machine creates an even more radical dichotomy between humans and non-humans than that found in Aquinas. Non-human animals do not possess *psuchē* in way that humans do, which means they are (and can be treated like) machines: ‘Doubtless when the swallows come in Spring, they operate like clocks. The actions of honeybees are of the same nature ... If they thought like we do, they would have an immortal soul like us’ (CSM, 3: 304). The difference between Descartes and the *Timaeus* is profound, and the de-sanctification of nature follows. Nature is merely matter capable of reduction without remainder and containing no intrinsic beauty or purposiveness: ‘By ‘nature’ here I do not mean some goddess or any other sort of imaginary power. Rather, I am using this word to signify matter itself’ (CSM, 1: 92). John Cottingham explains how this is a double rejection of Platonism: it dismisses any concept of the world-Soul from the *Timaeus* and Plotinus and also (a related point) it evacuates the world of any divine presence. The physical and biological world becomes inanimate, mechanistic, and is reduced to nothing but particle interactions (Cottingham 2007, p. 23-4). As Clark points out, Descartes’ insistence that there are two unrelated sorts of substance is something that no Platonist could accept (1996, p. 276).

The ethical consequences of this philosophy cannot be underestimated. Through his new practical philosophy Descartes declares we can make ourselves ‘the lords and masters of nature’ (CSM, 1: 143-4). By making judgement the essence of soul, it became easier to postulate a dichotomy between the powers of judgement and the corporeal, and then to place the nonhuman world firmly in the corporeal camp (which Descartes’ followers did with even greater enthusiasm than the man himself) (Clark 1996, p. 281). Descartes thus sets up a gulf between the contemplative and controlling mindsets, and in the process nature is left with absolutely no intrinsic value (Cottingham 2007, p. 34). The human relationship with nature is changed because nature is no longer to be contemplated for its beauty and wonder but is a machine to be used to human advantage. Experiment, not contemplation, is all that is needed to understand the

workings of both the natural world and the human mind. Gone is the insistence that knowledge of the soul is a difficult (and ethico-theological) task, requiring effort and commitment. The purpose of knowledge becomes human good, defined in terms of physical health. In a nod towards the transhuman future, Descartes declares that through medicine we might free ourselves from innumerable diseases including even the infirmity of old age, and he proposes his own philosophy as a step along this path (CSM, 1: 143). His substance dualism must therefore be understood against the backdrop of the scientific revolution which he helped to shape, and it has had an enormous impact on our contemporary accounts of the human person, the role of science, and our view of nature.

Despite the fact Descartes was a rationalist philosopher, his account of the soul was adopted and reinforced by many of the British empiricists (Wilkes 1992, p. 115), and it set the terms for all future debate about mind-brain interaction. The seventeenth and eighteenth centuries saw debates centre around the new mechanism and reactions to it. After Descartes, it was an easy step for Locke to suggest that God might superadd thought to matter (1961, 4.3.6: Yolton 1983). The fierce reactions to this idea of 'thinking matter' were prompted primarily by concerns about ethical value. If matter is all there is, and if we are just highly organised matter, then what place is there for the existence of objective morality and genuine human freedom?

Some of the last defenders of what could be termed substance dualism, a small group of seventeenth century philosophers known as the Cambridge Platonists, are notable for their rejection of the predominant mechanistic thought. One of their number, Ralph Cudworth, insisted that the spiritual cannot be derived from the material nor explained through its laws. In his *True Intellectual System* he argues that cognition needs an incorporeal substance because properties require substances, but he is not arguing for a Cartesian-style immaterial faculty in the brain (1820, p. 81: Yolton 1983, p. 7). His argument is primarily anti-reductionist: intelligence cannot be purely mechanistic or we would all be machines (with no freewill and no moral responsibility), and he makes it clear that the attack on materialism was a defence of morality. Morality can only be defended if human beings are made of two substances, because matter cannot account for human action (1820, p. 65). Senseless matter cannot be only the principle of all things (1820, p. 43). Influenced by Plotinus, Cudworth insists that the human soul is in every part of the body, just as God is in every part of the universe. God and the soul are both everywhere and nowhere (so immanence is not reduction). He did his best to try to refute the mutually reinforcing philosophies of Descartes and Bacon that

promoted science as dominion over the whole of the natural world (including human nature). His anti-reductionism denies that nature is merely mechanical, and it seeks a way to understand nature in a top-down manner through explaining the parts in terms of the whole. Nature is not something to control but to understand from within in terms of its own vital principle (Cassirer 1953, p. 50). His view of God and the soul was shaped by his belief that nature has an energy that should be both contemplated and respected.

Descartes' thought has very much shaped our contemporary conception of the soul as mind. Whereas the empiricists embraced the new mechanistic philosophy (which led to the tendency of modern scientists to reject the soul) there have been other philosophical reactions against Descartes' mechanism, including Romanticism (influenced in part by Cudworth) and Kantianism. Many forms of postmodernism have challenged the assumption that metaphysical knowledge (including knowledge of the self or soul) is even possible, either through philosophy or through science. This brief analysis of some of the key historical philosophers in the Western canon suggests that we should take care to avoid interpreting Plato, Aristotle, Plotinus, Augustine and Aquinas through the lens of Descartes. The soul for them was conceived in relation to the divine and the wider world: their understanding of soul directly affected their attitude to the world around them (the latter is certainly true too for Descartes). The history of the concept of soul should not therefore be read as a straightforward substance dualism versus holism. If it is, it masks crucial ethical and theological issues which should be central to our contemporary discussions of self-knowledge. Our own thoughts of the soul or self are intimately connected (whether consciously or not) with our understanding of the rest of the natural world and our relation to it, and with our understandings of ethics and of the scientific enterprise. All too often this goes unnoticed. Barr warns us that 'the contrast of Hebrew (or biblical) and Greek thought was no more than a part of twentieth-century theology's attempt to create its own image in the culture of the ancient world' (Barr 1992, p. 107). We must strive to stop our reading of the history of the soul from doing likewise. In doing so, the concept of the soul can have important relevance today, not least by reminding us that the search for wisdom (including knowledge of the self) is wedded to the contemplation of nature and to our relationship with others, including to the nonhuman world.