

## *Introduction*

*Brad Inwood and James Warren*

The relationship of soul to body was one of the earliest and most persistent questions in ancient thought. It emerges in the Homeric poems, where the *psuchē* is a breath-like stuff that animates the human being until it departs at death for the underworld, leaving the corpse (*sōma* or *nekros*) behind. In the *Odyssey* these souls are found lurking wraith-like in the underworld until they are revitalised by a sacrifice of blood which gives them a temporary power to think and speak again. Among Pythagoreans and others, the soul lives imprisoned in the body until it is liberated at death, only to be reincarnated for a new life in a new body in accordance with its merits. Plato embraces this theory in several of his dialogues, but even though the soul is a relatively autonomous substance it is nevertheless deeply affected by the conditions of the body it inhabits during life and the choices this embodied soul makes. Other early Greek thinkers regarded the soul as little more than the life force animating a body, a special kind of material stuff that accounts for the functions of a living animal but then disperses at death. Democritean atomism embraced this notion of soul, which was also common in the medical tradition. Aristotle's analysis of all substances into form and matter facilitated the identification of soul with the form of a suitably organised body, a form responsible for all of the abilities and capacities (*dunamis*) that constitute the life of any living thing (both plants and animals).

It may appear, in that case, that once Aristotle came to offer his view, the general landscape of accounts of the relationship between body and soul was more or less fully mapped out. On one side there are those accounts which hold that the soul is itself a kind of body, perhaps a particularly volatile or rarefied body but a body nonetheless. On the other side there are those who insist that there is a radical difference in kind between souls and bodies. Bodies are perceptible, physically extended, and resistant to touch, while souls are to be understood as lacking all of these features and instead being intelligible and, on some views, able to exist entirely independently

of any body. Somewhere between these two broad camps there are those thinkers who follow Aristotle in his hylomorphic analysis and his view that ‘the soul is neither without a body nor is it a body’ (*De Anima* 2.2, 414a19–20). And we can perhaps also add as a distinct group those thinkers who made the soul dependent on a body or a certain arrangement of bodily matter but not itself a body, including those ‘harmony’ theorists invoked by Socrates in Plato’s *Phaedo* (85e–86d) and then again by Aristotle in the *De Anima* (1.2, 407b27–408a28). All of these views had been presented, revised, attacked, and defended by the beginning of the Hellenistic period and the various authors on whom the essays in this collection concentrate were all well-informed about the relatively long history of the problems they continued to discuss.

The essays gathered in this volume explore Greek and Roman theories about the relationship of soul and body in the centuries after Aristotle. All the essays have their origin in papers presented at the fourteenth triennial Symposium Hellenisticum, held at the University of Utrecht in July 2016. They cover connected issues that arise among philosophers and doctors from the period immediately after Aristotle down to the second century CE. Doctors from Herophilus to Galen are covered, as are representatives of the Peripatetic, Epicurean, Stoic, and Platonist traditions. Building on the achievements of earlier Greek thinkers, these doctors and philosophers were particularly focused on the close relationships of soul and body; such relationships are particularly intimate when the soul is understood to be a material entity, as it was by Epicurean atomists and by Stoics; but even hylomorphists (such as many Aristotelians) and substance dualists (such as many Platonists) share the conviction that body and soul interact in ways that affect the well-being and moral condition of the living human being.

These philosophers continued to pursue the question of the relationship between the soul and the body by considering it in a variety of different but interrelated philosophical contexts. They were interested in the central question of the nature of the soul, its structure, and its powers. They were also interested in the place of the soul within a general account of the world. This leads to important questions about the proper methods by which we should investigate the nature of the soul and the appropriate relationships among natural philosophy, medicine, and psychology. Insofar as questions about the world as a whole may sometimes also involve questions of theology, as they certainly did in the case of the Stoics, it is also easy to see how an account of the relationship between the body and the soul will easily lead into considerations of the relationship between the individual human soul and a divine soul or the soul of the cosmos (‘the

world soul'). Likewise, since these philosophers were often engaged in a project that had at its centre the concern to provide an account of the best possible human life, the relationship between the body and the soul would also lead inevitably to concerns of a more generally ethical nature: how is the soul to be cultivated, soothed, and improved? How is it that bodily changes can affect the soul in positive and negative ways?

Once again, it is important to emphasise that these questions were not inaugurated in the Hellenistic period and the centuries that followed. And the philosophers of that period were under no illusions about that. However, there are some important characteristics of the way in which they were pursued in that period that we want to highlight here and which can be seen in a variety of ways in the individual contributions. First, it is precisely because these philosophers were writing in what was by now an acknowledged and long tradition of thinking about these questions that their discussions are often particularly subtle and arresting. That is to say: Platonists, Epicureans, Stoics, and Peripatetics were often self-consciously writing as part of an ongoing philosophical tradition. This is most obviously the case within the dogmatic philosophical schools and some of the essays in this collection highlight the ways in which Epicureans and Stoics dealt with the demands of an allegiance to an earlier foundational authority while managing new objections or concerns. But the philosophers of the past could be used for other purposes too. Consider, for example, Galen's clever use, in his *That the Capacities of the Soul Follow the Mixtures of the Body* (QAM), of quotations from a wide range of authorities, from Homer through Plato and Aristotle to the early Hellenistic philosophers. He gathers evidence from this wide range of thinkers in support of his central thesis of psychosomatic interaction, a thesis which not coincidentally supports the conclusion that someone with a close and detailed knowledge of the workings of an organic body, someone like Galen himself perhaps, must also be a significant authority on matters concerning the soul.

Second, the relationship between philosophical discussion and medical discoveries is one of the important features of this period of reflection about the relationship between the body and the soul and features in a number of the contributions. As various anatomical discoveries were made about the location within the body of various structures that had clear connections with different aspects of psychological functioning, certain previous accounts of the location of the soul or parts of the soul sometimes had to be revisited and revised. This in turn sometimes put pressure on school orthodoxy and on the authority of its foundational

texts, as in the case of the Epicureans, and more generally added a further dimension to the question of who could claim to be the most authoritative and helpful guide to the nature of the soul and its relationship to the body. This level of disagreement and sometimes outright conflict should not be a surprise. It is fair to say that to this day there is no stable accommodation between the competing claims of philosophers of mind and of empirical studies of human psychology and neurology.

The individual contributions to the volume are as follows:

**Sylvia Berryman** ('Hellenistic Medicine, Strato of Lampsacus, and Aristotle's Theory of Soul') examines the approach to body/soul relations in the work of Strato of Lampsacus (c. 335–269 BCE), the third head of the Lyceum. She argues that Strato embraced the results of new medical research in his theory of the soul and preserved the empirical tradition of Aristotle's school, though doing so put him in the position of challenging certain features of Aristotle's own theory. Berryman argues that Strato incorporated anatomical discoveries made by Hellenistic doctors and on that basis revised Aristotelian views on the location of the central organ of the soul, the material basis of the soul, and the number of seeds involved in reproduction, because these new findings provided answers to Aristotle's criticisms of earlier theories of the soul. This enabled Strato to locate the psychic centre in the 'mid-brow' (not the brain as a whole) and to argue that the 'mind' is closely involved in all acts of perception rather than being a distinct receiver and adjudicator of the results of perception. Berryman argues that Strato's increased emphasis on *pneuma* as an internal material basis for psychic activities owes more to medical and other scientific advances than it does to Stoicism. Further, Aristotle famously argues that 'seed' comes only from the male parent, but Strato relies on new empirical research to argue that both parents provide 'seed'. Strato emerges not as a renegade, but as part of an ongoing Peripatetic tradition of dialectical engagement with earlier theories in the light of the best available empirical science.

**David Leith** explores overlapping issues in his 'Herophilus and Erasistratus on the *Hēgemonikon*'. Through a careful analysis of the complex evidence about these early Hellenistic doctors and medical researchers, Leith argues that the familiar narrative which attributes to them the doctrine that the *hēgemonikon* is located in the brain is mistaken. In their view, the living body involves 'complex processes spanning multiple organs and mediated by multiple fluids'. Some of these are centred in the heart, some in various parts of the head, others elsewhere. The oversimplified standard narrative was, he argues, the result of the doxographical tradition

being influenced by the response of Chrysippus to their discoveries about the physiology of the nervous system. Herophilus had a complex theory of different kinds of powers and movements in the body and was the first to recognise the ‘nerves’ (*neura*) as a distinct anatomical structure. But *neura* should not be equated with nerves in the modern sense; they include a range of ‘cord-like’ structures, including tendons and ligaments. Erasistratus recognised a ‘nervous’ system alongside the arterial and venous systems in the body; the first two have forms of *pneuma* flowing in them. Together these three systems and their capacities account for the complex functions of the organism. Both doctors were interested in complex physiological processes rather than in the theories of philosophical psychology which came to dominate debates and doxographical reports on them once Chrysippus reacted to the Hellenistic doctors. The Stoic commitment to a ‘unified, corporeal soul converging on a single, governing command centre’ made the medical theories seem like a challenge; Chrysippus’ reaction to them and Galen’s to Chrysippus created the deceptive appearance of a debate between doctors and philosophers in the Hellenistic period. This construct then became the standard picture as reflected in most of our indirect evidence. Leith’s article is a study in the methodology of intellectual history as well as a contribution to medical and philosophical history in the Hellenistic and early imperial periods.

**Philip van der Eijk** (*‘Galen on Soul, Mixture and Pneuma’*) carries forward the study of medical influence on theories of the body/soul relation to the great philosophical doctor Galen of Pergamum. With careful attention to the internal variety of Galen’s theories on the topic, van der Eijk emphasises the flexibility and empiricism of his work. Whether it be Galen’s well-known agnosticism about the nature and essence of the soul, his theories of the soul’s parts and the corresponding forms of *pneuma*, the various material blends that correlate with psychological phenomena and even the direction of causation (mind to body or body to mind), or the pragmatic variety of his prescriptions for treating psychic diseases, van der Eijk lays out the range of views Galen presents and explores their relationships with insight and sympathy. The major focus of his essay is an extended analysis of the important but challenging work *That the Capacities of the Soul Follow the Mixtures of the Body*. What it means for features of the soul to ‘follow’ the condition of the body and how such a claim can be compatible with the stance he takes elsewhere, that bodily parts are instruments used by the soul, are vexed questions in Galen. They raise issues that lie in the general area of problems that continue to challenge philosophers today; van der Eijk brings out with great clarity

the philosophical and historical complexities found across Galen's huge corpus.

Some Epicurean sources, notably Lucretius' poem *De rerum natura*, work with a distinction between two parts of the soul, one rational (Lucretius' *animus*) and the other non-rational (Lucretius' *anima*). But this distinction is not present in Epicurus' own *Letter to Herodotus*. **Francesco Verde** ('The Partition of the Soul: Epicurus, Demetrius Lacon, and Diogenes of Oinoanda') shows that attempts to insert the distinction into the *Letter* through various ingenious textual emendations are misguided. Using evidence from Demetrius of Laconia and Diogenes of Oinoanda, Verde shows that there is good reason instead to think that the distinction is likely to be a later Epicurean innovation, perhaps inspired by a closer engagement with certain medical theories and supported by more detailed scrutiny of the independence of various psychological capacities as revealed in cases of localised bodily injury. This change may have taken place during Epicurus' own career. Epicurus famously rejected an encephalocentric view of the principal rational part of the soul but this is not a result of simple ignorance of the relevant medical material; there is good reason to think that Epicurus did engage with the encephalocentric theory but thought there was better evidence for placing that part of the soul in the chest. Lucretius follows his master's views on this matter.

**Francesco Ademollo** ('Cosmic and Individual Soul in Early Stoicism') deals with one of the most important features of the Stoic theory of soul and its nature, its relationship with the soul of the cosmos, to which it is analogous and of which it is a part. These relationships between the individual soul and the cosmic soul are problematic in a number of ways; Ademollo analyses the tensions by distinguishing different senses of soul and concludes that whether or not the Stoics themselves made the relevant distinctions explicit they nevertheless retained a strong thesis of integration between the human soul and the cosmic soul while retaining distinct agency for humans. Ademollo also analyses the influence of Xenophon's *Memorabilia* 1.4 and of Plato's *Philebus* and *Timaeus* on Stoic theories of the relationship between the human soul and the cosmos, which put increased emphasis on the part-whole relationship. He also devotes an extended discussion to the actual arguments deployed by the Stoics to support their claims; these are mostly known from Cicero and Sextus Empiricus and some of them are problematic, while all provide important insight into the sense in which human souls, in the Stoic theory, are both parts of and distinct from the soul of the cosmos.

**Christelle Veillard** ('Soul, *Pneuma*, and Blood: The Stoic Conception of the Soul') presents an account of the development and gradual elaboration of Stoic psychological theories, which over time begin to outline a more detailed view of the relationship between the soul's rational capacities, its physical nature, and the connection between it and the rest of a person's body. While some accounts of Stoic psychology have found in Posidonius' views a rejection of an earlier, strict, intellectualist model, Veillard argues instead that his account should be seen as a gradual unfolding of the earlier Stoic position. Close attention to the earlier Stoics' conception of *pneuma* and its association with more general cosmological processes such as *anathumiasis* may have encouraged Stoics like Posidonius to offer a more detailed account of the relationship between the soul's rational capacities and its relationship to bodily impulses and affections. While Posidonius may have made use of Platonic material to help in this account, there is no reason to think that he is intending to be anything other than faithful to the earlier Stoics' overall conception of the soul. Panaetius and Diogenes of Babylonia show a similar interest in the physiological aspects of psychological development and moral education, in ways they likely thought perfectly consonant with the position of Chrysippus.

**Jan Opsomer** ('The Platonic Soul, from the Early Academy to the First Century CE') considers the reception of Plato's famously difficult account of the composition of the soul in the *Timaeus*. When Plutarch turns to this part of Plato's text in his *De animae procreatione*, he notes that he is following in what is already a long tradition of commentary and interpretation but will concentrate on the views of Xenocrates and Crantor, which attempt to make sense of the *Timaeus* in a way that explains the soul's motor and cognitive powers. Plutarch's own discussion then offers criticisms of Xenocrates, Crantor, and others, including Eudemus and Posidonius; Opsomer argues that this is strongly suggestive not only of a tradition of dedicated commentaries on the *Timaeus* in the earlier Hellenistic period—a conclusion that other evidence from Iamblichus certainly supports—but also that some of these were produced by dogmatic Platonists working in the period in which the dominant Academic position, at least of the Academy in Athens, emphasised a sceptical approach. These dogmatic Hellenistic Platonists are the predecessors of Plutarch's own approach and it is perhaps they who first emphasised a Pythagorean interpretation of the *Timaeus*.

**J. P. F. Wynne** ('Cicero on the Soul's Sensation of Itself: *Tusculans* 1.49–76') looks in detail at part of Cicero's argument in *Tusculan*

*Disputations* I in support of the conclusion that the soul is eternal. He offers a new interpretation of this part of the argument that does not involve attributing to Cicero the view that the soul has immediate experience of itself—a view that would be an anticipation of a view that can be found, for example, in Augustine. Augustine may well have read Cicero as holding such a view and Wynne shows how such an interpretation might have arisen. Nevertheless, Wynne argues, this ‘Augustinian’ interpretation is ultimately not sustainable. Instead, we make best sense of Cicero’s argument if we agree that it holds that the soul’s conception of itself is provided indirectly; the soul does not sense itself but comes to a view of its nature through rational inferences about its sensations and its interactions with the cosmos at large. In this way, the soul ‘sees’ the soul through inferences based upon bodily interactions; we not only infer the presence of other minds through our interactions (including bodily interactions such as conversations) with other people but also infer things about our own minds. In this way, Wynne’s interpretation remains faithful to Cicero’s general epistemological stance.

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BRAD INWOOD AND JAMES WARREN

## CHAPTER I

*Hellenistic Medicine, Strato of Lampsacus,  
 and Aristotle's Theory of Soul*

Sylvia Berryman\*

οὐκ ἔστι γὰρ ἄνευ πολλῆς δυσχερείας ἰδεῖν ἐξ ὧν συνέστηκε τὸ τῶν ἀνθρώπων γένος, οἶον αἷμα, σάρκες, ὀστέα, φλέβες καὶ τὰ τοιαῦτα μόρια.

For no one can look at the elements of the human frame—blood, flesh, bones, vessels, and the like—without much repugnance. (Aristotle, *Parts of Animals* 1.5, 645a29 (trans. W. Ogle))

Although Aristotle's thought became a byword in the early modern period for a rigid and inflexible system impervious to empirical evidence, it seems to have been quite otherwise in the practice of Aristotle's own school. In reconstructing the psychological theory of the third head of the Lyceum, Strato of Lampsacus,<sup>1</sup> I argue that we can best understand his departures from Aristotelian doctrine by looking to new medical theories in the Hellenistic period, which had implications for our philosophical understanding of the soul's functioning. Aristotle, who was interested in the natural processes underlying even the most abstract aspects of human functioning, had lampooned the notion that the soul might exist apart from the body:<sup>2</sup> his psychology posited an intimate connection between form and function, and was informed by empirical studies of living organisms. Strato was known even in antiquity both for a revisionist attitude and his focus on natural philosophy.<sup>3</sup> It would thus be unsurprising for him to be interested in new medical research. The interpretation I offer supports a picture of the Peripatos as a school sensitive to new

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<sup>1</sup> Here I am using the terms 'psychology' and 'psychological' to refer to a theory of *psuchē*, including all of the operations of the living principle, not only the mind or personality.

<sup>2</sup> *DA* 1.3, 406b18–20.

<sup>3</sup> Diogenes Laertius 5.58 = fr. 1 Sharples; cf fr. 3, 8, 10–11. Although many of the surviving texts reporting Strato's ideas concern physics, others relate to biology and medicine: see note 18.

evidence and reasoned critique, even while its members sought to respect the central commitments of Aristotle's programme of investigation.

Reconstructing Strato's views is tricky, since no works by him survive.<sup>4</sup> Following Hermann Diels, Strato's views were once understood as a radical departure from Aristotelianism in favour of a 'compromise' with the materialism of Democritus.<sup>5</sup> This line of argument depends on Diels' ascription to Strato of a particle theory apparent in the work of Hero of Alexandria:<sup>6</sup> Diels' inference depends on a mistaken assumption that mechanical analogies form a natural alliance with atomism. In 1988, Luciana Repici initiated a different approach, challenging Diels' thesis that Strato rejected Aristotelian teleology in favour of a 'meccanicismo biologico'.<sup>7</sup> She argues that Strato's view of the soul is essentially continuous with Aristotle's, retaining many central metaphysical commitments.<sup>8</sup> Repici rightly challenges the tendency to read Strato as a heretic or an atavist reverting arbitrarily to discredited theories, but overlooks the focus of the present discussion, which is the potential of Hellenistic anatomy for motivating modifications of Aristotle's psychology.

Aristotle developed an account of the soul that avoids the dualism characteristic of Platonism, without embracing the eliminativist materialism of his atomist rivals. The notion of the soul as the functioning form of a living body is surely too central a claim to have been abandoned by anyone claiming Aristotelian credentials. A figure who revised Aristotelian views in the light of new arguments or evidence could well have been orthodox in spirit, yet easily miscast by uncharitable critics as an errant 'eclectic' or a haphazard innovator.<sup>9</sup> The reported theories of Strato of Lampsacus, I argue, make sense if he is revising certain Aristotelian tenets in the light of empirical evidence from Hellenistic medicine, even while retaining central methodological commitments of the Aristotelian research programme. Solmsen indeed suggested that Strato might have arrived at his views on the basis of new evidence from medicine.<sup>10</sup> It is this possibility that I wish to establish, by showing how the

<sup>4</sup> Desclos and Fortenbaugh 2011, a recent collection of scholarship on Strato by Project Theophrastus, shows that no consensus has yet emerged on how to piece together the scattered evidence. It also includes the new edition and translation by R. W. Sharples of the surviving texts concerning Strato's thought.

<sup>5</sup> Diels 1893 and Gottschalk 1965 made important contributions to this line of reasoning.

<sup>6</sup> I question Diels' assumption that Hero's treatise constitutes a unified theory, since it cites multiple, incompatible explanations, in Berryman 2011. See Berryman 2009 on the relationship between atomism and mechanistic thought.

<sup>7</sup> Repici 1988: 1. <sup>8</sup> Repici 1988: 5–11. Cf. Sharples 1989.

<sup>9</sup> Stephen White noted in conversation the possible polemical motivations behind the claims of Cicero regarding Strato's 'deviations' from school orthodoxy: *De finibus* 5.13; *Academica* 1.4; 2.38, 121; *De natura deorum* 1.35.

<sup>10</sup> Solmsen 1968: 577.