

our emotions and making them act *kata logon*, ‘so that one’s emotions and one’s thinking act cooperatively and as one’ (p. 132). J. Singer’s paper discusses Aristotle’s distinction between three ways in which people make use of their leisure and argues that music paves the way to contemplation, as the best and, presumably, most *logos*-related sort of leisure.

The final part, ‘The *Logos* of the *Polis*’, turns to *logos* in political life. R. Metcalf discusses what it means to be an animal with *logos* at different stages in life, taking inspiration from Martin Heidegger’s readings of Aristotle’s *Rhetoric*. F. Guerin explores practical reason and its excellence (*phronēsis*), and argues that it presupposes mastery of rhetoric and its three constituents: argument (*logos*), character (*ethos*) and feelings (*pathos*). Arel tries to reconstruct Aristotle’s account of animal motion and practical syllogism to the effect that our movements reflect certain goods that we have determined in advance, responding to Socrates’ response to reductive explanations of human motion from the end of Plato’s *Phaedo*. I am not sure, however, that Aristotle would agree that ‘movement cannot occur until we have decided upon a general conception of the good’ (p. 186). W. Brogan’s piece ‘Aristotle: the Politics of Life and the Life of Politics’ promises to show ‘that in a certain way for Aristotle *logos* is life, that is the *telos* of life and thus the source of life’ (p. 189), but I confess that I failed to see the promise delivered. Apart from two references to Giorgio Agamben and Jacques Derrida, all the other references in Brogan’s piece are to works included in this volume. The volume closes with an intriguing paper ‘*Logos* and the *Polis* in the *Poetics*’ by P. Fagan, who explains the way in which watching the plays in Athens was a political activity. It is partly through dramas, Fagan maintains, that *logos* ensured that people care and rely upon each other in ancient Athens.

There is a joint bibliography at the end, a list of contributors and a basic general index, but no index of passages cited. The volume works well as a whole, with chapters making cross-references to one another, sometimes to the exclusion of more relevant scholarly literature. Although this nicely produced volume targets readers interested in Aristotle from the perspective of the broadly construed continental philosophical tradition, some chapters might appeal to other Aristotelian scholars too.

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LIVING BEINGS IN ARISTOTLE

ZATTA (C.) *Aristotle and the Animals. The Logos of Life Itself*. Pp. x + 237. London and New York: Routledge, 2022. Cased, £120, US\$160. ISBN: 978-0-367-40949-4.
 doi:10.1017/S0009840X2400115X

In this thoughtful and wide-ranging study Z. brings her earlier work (*Interconnectedness* [2018]) on life and living being in Presocratic thought to bear on Aristotle’s investigations of ‘the animal as such’ (p. 4) and on the complex conceptual role played by the living beings that permeate the Aristotelian corpus. For Z. Aristotle’s investigation of animality is simultaneously anchored in a granular study of animal sentience – the capacity that distinguishes its living from the life of plants and illuminates the ordered and ordering structure of the animal body – and, by this very structure, oriented towards a study of

life itself, an orientation reflected in the book's subtitle. The purview of the volume, then, lies within Aristotle's broader study of nature and alongside his narrower focus on human nature. Identifying this field of study requires reckoning with a fundamental tension in Aristotle's work between, as Z. puts it, the anthropocentric, hierarchising tendency of the ethical and political works and the zoocentric, more egalitarian approach to the subjects of the biological texts.

A brief introduction sketches this argument and the principal texts on which Z. will draw. Chapter 1, 'Aristotle, Animal Boundaries, and the Logos of Nature', begins with the apologia for an investigation of *all* animals that opens the *Parts of Animals* and then lays the methodological ground for the book by following Aristotle's demarcation of the study of animals as a distinct contribution to the study of nature. For Z. Aristotle's focus on the specificity of animal life, on the structures of their bodies and the movements and sensations that this structure enables, reveals an end-directed, immanent order, a *logos*, reflective of nature itself. This order provides the basis for what Z. reads as a unifying and egalitarian approach to animal life grounded in their 'common nature', one that de-emphasises the human exceptionalism asserted elsewhere in Aristotle's work and merits its own field of research, distinct from, while related to, both cosmology and the human-oriented focus of his ethics and politics.

Chapter 2, 'From Reason to Life: Aristotle on Soul Division', turns to *De anima* to locate Aristotle's account of the faculties of soul in distinction from the bipartition at work in his ethical texts, and as responding to his own discomfort with the limits of bipartition when assessing the capacities of desire and affect to be persuaded by reason. The division of soul into four capacities with their corresponding objects and organs provides what Z. describes as a geometrical division that operates in marked distinction from the evaluative and normative structure at work in Aristotle's ethical treatises. The implications of this geometrical model of soul for Aristotle's biological work are explored in the subsequent study of nutrition and reproduction (Chapter 3), sensation (Chapter 4) and imagination and pleasure (Chapter 5).

Each of these chapters is rich with insight. For instance, Chapter 3, 'Animals and Nature: at the Core of Aristotle's Zoocentrism', offers an analysis of Aristotle's account of growth as a preservation of the *proportion* of the animal body, which provides depth and nuance to Aristotle's claim that reproduction is the most natural activity. Chapter 4, 'The Sentient Animal', grounds its central claim that animal life and sensation are coextensive in a careful analysis of the complex play between potentiality and actuality at work on the chapters devoted to sensation in *De anima* and their implication for the animal's relation to the world; embedded in a world from birth, 'animals do not learn to sense the world, but rather build their knowledge of the world upon sensation' (p. 114). The integration of the senses by means of which animals learn the world forms a central concern of Chapter 5, 'Animal Pleasure: from Sensation to Imagination and beyond', which addresses the relationship of pleasure and pain to animal sentience in order to claim for animals a range of pleasures that extend beyond those associated with their nutritive life. The storing of past experiences of pleasure in memory and the anticipation of pleasures, in the form of *phantasia*, give to animal lives a distinctive temporality and movement, enabling them to carry a past as well as to 'transcend the presentness of sensation and to project themselves into the future, allowing order and consequentiality on their actions and lives' (p. 151).

Chapter 6, 'The Lives of Animals', returns to the overarching examination of the organisation of the animal body introduced in Chapter 1 by way of a study of Aristotle's *History of Animals*, which 'reflects Aristotle's understanding of life as founded on, and deriving from, a set of fundamental and complementary functions and activities

that are rooted in the living body, relate to movement, and ultimately express animals' intrinsic desire to live, fulfilling it' (p. 176). For *Z. HA* is distinct from, and complementary to, Aristotle's other zoological investigations by focusing specifically on animal's 'variegated space of existence' (p. 177), that is, on how animals' living unfolds in their particular *topos*. *Z.* thus tracks the argument of *HA* through Aristotle's variable assessment of animal sameness and difference to conclude with a focus on his understanding of the political nature of certain animals, identifying therein 'a form of cohesion that equally exists among (some) nonhuman animals and their fellow humans' (p. 201). *Z.* concludes by returning briefly to the scene of Aristotle's engagement with Presocratic thinkers to reassert that, for all of the differences he observes between his own approach to living being and those of figures like Empedocles and Democritus, a 'body-rooted form of thought' (p. 218) connects their respective thinking about animality, one that Aquinas' influential approach to Aristotle overlooks.

The breadth of textual evidence that *Z.* summons to make her case is dazzling, as is her reconstruction of the conceptual debate to which Aristotle was responding in his effort to locate the study of animal life within a larger philosophical project. *Z.*'s book is a significant contribution to ongoing conversations about the scale of Aristotle's teleology presented in work by J. Gelber and D. Henry, about whether *zōē* is a core-dependent homonym, as opened by C. Shields and complicated fruitfully in recent work by C. Coates, and about the kind and extent of Aristotle's empiricism as explored by M. Gasser-Wingate. *Z.*'s volume should be considered necessary reading for scholars tracking and participating in these conversations. While it would not be possible to engage with all the secondary literature on the texts *Z.* covers in this book, *Z.* would likely have found lively interlocution in E. Rabinoff's work on perception in Aristotle's ethics (*Perception in Aristotle's Ethics* [2018]), Ö. Aygün's survey of the many senses of *logos* in the Aristotelian corpus (*The Middle Included: Logos in Aristotle* [2016]) and A. Kosman's work on Aristotle (*The Activity of Being* [2013]).

As she suggests in the conclusion, the stability of the distinction that *Z.* draws between the ethical/political treatises and the biological texts remains a question; anthropocentrism and zoocentrism 'coexisted in Aristotle's corpus itself' (p. 219), and Aristotle's hierarchising tendency is embedded in his zoological works in a variety of ways. For instance, as *Z.* notes, even as Aristotle claims the separability of mind, the human 'hosting' of mind does make demands on the human body and is reflected in human upright posture (*PA* 686a24–686b22) – it is hard to see in this passage from *Parts of Animals* an 'exile' of reason or absence of hierarchy and human exceptionalism. Parsing Aristotle's use of *zōē*, *zōion*, *zēn*, *eu zēn*, *bios* and *eubiotos* is notoriously difficult; it is also difficult to avoid the impression that Aristotle reserves *eu zēn* for human life, opting for *eubiotos* to designate non-human animal success at living and *eu heneka* for mortal animal well-being (as is the case for the passages *Z.* cites about non-human animal living well, see p. 66 and n. 139).

Nevertheless, *Z.*'s insistence on a generalist lens informing even (perhaps especially) Aristotle's most granular study of the lives of animals is deeply compelling. *Z.* effectively shows a difference of perspective and approach between the biological works and the ethical and political that is not reducible to the difference between theoretical and practical inquiries and that bears upon the question of whether life admits of a single account. While it remains unclear whether Aristotle's approach to living beings would support the definite article of *Z.*'s subtitle, the volume significantly advances conversation about this question by requiring scholars to query just how easily Aristotle's detailed analysis of animal structure sits with his differential assessment of animal worth; by highlighting the places where we see interaction between universalising

and hierarchising impulses; and by focusing squarely on Aristotle's arguments about the embodied structure of animal lives, as the source from which a general account could arise.

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ARISTOTLE AND BIOLOGY

PELLEGRIN (P.) *Animals in the World. Five Essays on Aristotle's Biology*. Translated by Anthony Preus. Pp. vi + 324. Albany, NY: State University of New York Press, 2023. Cased, US\$95. ISBN: 978-1-4384-9147-9.

doi:10.1017/S0009840X24000866

Reading P.'s insightful and wide-ranging essays deepened my appreciation for Aristotle's meticulous approach to studying nature. The book (published concomitantly with the CNRS French edition) addresses one overarching question that has shaped P.'s contributions to the *biological turn* in Aristotle studies: in what sense does Aristotle fulfil the role of a true biologist? P. intends to write for both Aristotle specialists and non-specialist philosophers (p. 3), although, in my opinion, it is more accurate to say that *some parts* of the book appeal to specialists, while *others* are more accessible to non-specialists. For the denser parts, readers unfamiliar with Aristotle's zoological corpus will need to make a sustained effort to follow some of the complex arguments.

The first essay, 'Is There an Aristotelian Biology?', opens with P. questioning whether it is 'absolutely anachronistic' to consider Aristotle a biologist (p. 7) and concludes with him saying that it is not (p. 15). P. discusses the relationship and influence of Aristotle on modern biologists, such as Carl Linnaeus, Jean-Baptiste Lamarck, Georges Cuvier, Charles Darwin and Colin Pittendrigh. For example, P. relates Aristotle to Darwin through the concept of adaptation, describing their relationship as one of 'isomorphism' (p. 9), and argues that Darwin's discussion of advantageous characteristics introduces a version of final causes congenial to Aristotle's. When comparing Aristotle to Cuvier, P. asserts that their connection is even stronger than mere isomorphism (p. 11). He draws parallels between them in classifying living beings according to their functions and ranking fundamental functions, such as the nervous system, against more superficial ones, such as circulation and respiration (p. 22). He also stresses that both emphasise 'the necessity of observation in the natural sciences' (p. 42) and that what Cuvier calls 'theory' is essentially Aristotle's 'final cause' under a different name (p. 43).

P.'s ability to bridge ancient observations with modern scientific thought is particularly impressive. His underlying argument suggests that, because Aristotle shares many similarities with modern biologists, he should be considered a biologist himself. This reasoning becomes especially clear when P. later claims that 'Aristotle profoundly resembles' Cuvier – rather than the other way around (p. 182). However, Aristotle is a biologist *in his own right*, without *needing* to be viewed as a predecessor to modern biologists. His extensive studies on living organisms, their classifications, behaviours and physiological processes demonstrate a rigorous and methodical approach to understanding the natural world. Aristotle's biological works, such as *Historia animalium* and *De partibus*