

REVIEW

Julius Rocca (ed.) *Teleology In The Ancient World: Philosophical And Medical Approaches* (Cambridge University Press, Cambridge, 2017) xv+331 pp. £75.00, ISBN 9781107036635.

This collection of articles from respected academics explores the differing ways ancient thinkers conceptualised teleology, and the different uses to which they then put these concepts in both philosophical and medical contexts. The book is divided into four parts. The first, written by David Sedley, begins by exploring the historical Socrates's conception of teleology and the ways in which this is intimately tied to Socrates's theological world-view. With this in place Sedley imagines how Socrates might have addressed a problem with which Darwin wrestled, namely the apparently superfluous beauty inherent in nature and evolution.

The second part examines the views of Plato, and the Platonic tradition more generally. Samuel Scolnicov begins by highlighting a potentially important distinction between Aristotelian and Platonic teleology, namely that Platonic teleology allows for 'atemporal teleology' unlike Aristotelian teleology which is irreducibly temporal. Harold Tarrant then explores the importance of names in the Platonic and Anaxagorean traditions. Jan Opsomer then examines the explanations given by Plutarch (and others) as to why the Moon doesn't crash into the Earth. John Dillon then asks whether the gods of Neoplatonism care about human affairs and the world more generally. He explains how the views developed from earlier to later Neoplatonists and, in so doing, draws attention to the inherently religious nature of the Neoplatonic tradition.

Part three examines Aristotle and the Aristotelian tradition more generally. It begins with Mariska Leunissen's discussion of the role of teleology in Aristotle's account of the city. I shall examine this section in greater depth later on. Monte Ransome Johnson then has an excellent article in which he demonstrates that, not only is the Aristotelian metaphysical schema compatible with mechanistic explanations, but that we can formulate Aristotelian mechanistic explanations of physical events using the sorts of terms and ideas Aristotle himself used. I think that this article is of particular value to Aristotelians interested in the areas of metaphysics and philosophy of science, because Johnson decisively refutes the idea that the modern mechanistic-cum-mathematical model of the world is incompatible with an Aristotelian world view. My only minor quibble with this article is that it felt slightly out of place when compared to the rest of the book. Most of the book primarily concerns historical questions about the correct interpretation of, and how to understand, the ancients, whereas this chapter seems to be more about the purely philosophical question of the plausibility of the Aristotelian metaphysical schema. R. W. Sharples then examines the purpose of the natural world for Aristotle and his successors, before James G. Lennox closes out this section of the book with an article that nicely links parts three and four. Lennox explores the works of William Harvey and argues that Harvey successfully integrates his own distinctive brand of Aristotelianism with Baconian experimentalism. This chapter nicely follows on from Johnson's article because the two together challenge certain assumptions commonly made about the effect of the Scientific Revolution upon Aristotelianism. The biological emphasis of Harvey's work then links this article with the final section which is on the role of teleology in medicine.

Elizabeth Craik opens the final section of the book by arguing that, contrary to popular belief, there are teleological elements in the Hippocratic Corpus. Philip van der Eijk then examines the place of disease in the teleological worldviews of Plato, Aristotle and Galen. Finally, R. J. Hankinson examines the roles of teleology and necessity in Ancient Greek embryology. He examines the views of a number of different thinkers including some of the Pre-Socratics, Aristotle and Galen.

Leunissen's discussion of the role of teleology in Aristotle's account of the city is extremely valuable as it attempts to clarify Aristotle's position on whether the state is 'natural'. Leunissen is quite right in highlighting that this is an area of ambiguity, and thus potential weakness, within *The Politics*. However, I had some concerns about her proposed solution. Leunissen argues that Aristotle's city is both natural and artificial. Leunissen distinguishes between two levels of organization of Aristotle's city; the first she labels the 'natural city', the second the 'ethical city'. The 'natural city' emerges entirely out of natural generation and the human need to co-operate in order to survive, a process Leunissen labels 'primary teleology'. The 'ethical city', on the other hand, is a human artefact created by the politicians and lawmakers who crafted the constitution of the city, a process Leunissen labels 'secondary teleology'.

Leunissen explains that the 'natural city' is for the benefit of everyone, including women and slaves, since it exists for the sake of living. The 'ethical city', on the other hand, is for the sake of living well and, since this is only possible for freeborn men, the 'ethical city' therefore exists for the benefit of freeborn men alone. For this reason, the 'natural city' is in some way analogous to those features of animals that exist for the sake of living (for example, a heart) whereas the 'ethical city' is analogous to those features of animals that exist for the sake of living well (for example, a set of horns).

Leunissen concludes by saying, 'The city that comes to be for the sake of living, and that does so under the influence of the natural inclinations and tendencies all human beings have, is the object of natural science. The city that exists for the sake of living well and that is established by the lawgiver who uses the natural city as his material is the object of political science' (p. 124). Leunissen's thesis, therefore, in answering the question of whether Aristotle's city is natural or artificial, is that Aristotle's city is a hybrid entity with an artificial layer built on top of a natural layer, and with this I have no quarrel. However, she also asserts that 'The city does not have a form that transcends the individual forms of its inhabitants, nor does it have a nature, even if it is "by nature" because its constitutive material has come to be naturally' (p. 123); here I must raise an objection.

It seems to me that Aristotle does believe that the city has a form and nature above and beyond that of its individual inhabitants. A thing's nature is either its form, or its form instantiated in matter, depending upon the nature of the entity in question, and as such I shall use the terms form and nature interchangeably. According to Aristotle a city's nature or form is its constitution. This can be seen when Aristotle writes, 'For the state is a kind of association – an association of citizens in a constitution; so when the constitution changes and becomes different in kind, the state also would seem necessarily not to be the same. We may use the analogy of a chorus, which may at one time perform in a tragedy and at another in a comedy, so that we say it is different – yet often enough it is composed of the same persons. And the same principle is applicable to other associations and combinations, which are different if the combination in question differs in kind ... If this is right, it is clear that the main criterion of the continued identity of a state ought to be its constitution' (Aristotle, *Pol.* 3.3.1276a34 – 1276b15). If Aristotle did not believe that the city had a form above and beyond its citizens, and that this form was its constitution, then this passage would make no sense. If a city had no form above and beyond those of its citizens, then surely the continued identity of the state would depend entirely upon its citizens. However, Aristotle rejects this. Instead he thinks that the continued identity of the state depends upon its constitution, and since a thing's form is tied to its identity then it follows that the city does have a form above and beyond its citizens, namely its constitution. Thus, although Leunissen may be correct in other areas, in this area Aristotle's own words contradict her.

Leunissen presents three arguments as to why, by Aristotle's own criterion, the city cannot have a form above and beyond that of its citizens. She first argues that in order for

something to qualify as having a nature not only does it need 'to be a nature in the sense of being a final cause (for even non-natural entities can be a nature in that sense ...), but that it also needs to have a nature in the sense of having an internal principle of motion and rest (i.e. have an internal efficient cause) through which its pre-existing potential for form is realized' (p. 111). Both Leunissen and I grant that a city can qualify as a final cause, so the city seems to fulfil that condition. However, arguably it also fulfils her second criterion, namely that it has 'an internal principle of motion and rest'. It seems to me that the constitution fulfils this role. The fact that something is written into a city state's constitution could explain why an action is taken. The fact that an election is held every year (or what have you) in a city state can be explained, at least in part, by the fact that it is written into that city state's constitution. Hence the constitution is the 'from whence it came' for that election. Therefore, the constitution can count as, at least one of, an event's efficient causes, and thus it can be a principle of motion. We've already seen that Aristotle grounds the continued identity of a state in its constitution and thus, according Aristotle, a constitution can also count as a principle of rest. Due to this it looks like the city's constitution fulfils all the criterion of a nature according to both Aristotle's and Leunissen's definitions.

Leunissen also argues that 'If cities turn out to have their own internal efficient cause and their own form that transcends the forms of the individual human beings of which they are composed (in other words, if Aristotle's analogy between cities and organism is too biological), that would imply that Aristotle ultimately does away with the ontological independence of "ordinary" substantial beings such as individual humans' (p. 111). I would respond to this in two ways.

The first is to challenge whether or not Leunissen is correct in thinking that Aristotle believes that human beings are 'ontologically independent'. My reason for doubting this comes from where Aristotle writes 'the state has a natural priority over the household and over any individual among us. For the whole must be prior to the part. Separate hand or foot from the whole body, and they will no longer be hand or foot except in name, as one might speak of a "hand" or "foot" sculptured in stone.' (Aristotle, Pol. 1.2.1253a18). How to fully understand this passage goes beyond the space available here, but it looks as though Aristotle may be prepared to say that in the same way that a hand or foot are ontologically dependent upon the human being to which they belong, because if separated from the rest of the body, not only will they die, they will also lose their very identity, so too are humans ontologically dependent upon the state to which they belong.

However, even if Aristotle does believe that human beings are ontologically independent then I still fail to see Leunissen's point. If we conceptualise the individual citizen as being part of the state in the way that a hand or foot is part of a body, then by Aristotle's own standards they lose their ontological independence. However, if we conceptualise them as being part of the body in the same way that the constitutive elements of the body are part of the body (in either the modern or ancient sense of the word 'element') then although they are part of the body they are still ontologically independent of it. Remove an iron atom from the human body then it remains an iron atom (and, indeed, continues to exist). Alternatively, to use an example Aristotle might have used, remove some water from the human body and it remains water (and, indeed, continues to exist). As such, things can be constitutive parts of wholes whilst retaining their ontological independence.

Finally, Leunissen argues that if a city state had a form above and beyond that of its citizens then 'it would contradict Aristotle's immediately following appraisal of "the person who first put it [i.e. the city] together" ... as responsible for one of the greatest goods ... which suggests that politicians are like craftsmen and that cities are products of art' (p. 111). Once again, I simply don't see the force of this objection. Humans, whether or not they act as craftsmen, can create things with forms above and beyond that of their constitutive parts.

Two obvious examples are bread and babies. Bread has properties above and beyond those of its constituent parts (for example, the flour and water which are used to make it) and thus must also have a form above and beyond those of its constituent parts. Likewise, humans make other humans, and nobody is denying that humans have a form! As such, humans, and thus craftsman, can create things having a form.

As such, although I am happy to agree with Leunissen that *The Politics*, as a whole, expresses a hybrid thesis with both elements of political science and natural science I see no reason to follow her in saying that the city does not have a form above and beyond that of its citizens; indeed I see many reasons to say the opposite. It seems to me the real question here is not whether the city has a form above and beyond that of its citizens but whether, given that the city does have a form above and beyond that of its citizens, this form is substantial or merely accidental (to use scholastic language).

As a whole *Teleology In The Ancient World: Philosophical And Medical Approaches* covers a large amount of ground both historically and philosophically, but it succeeds in doing this in sufficient depth to raise some interesting ideas and to challenge some common assumptions. Of particular note are the articles by Sedley, Dillon, Leunissen, Johnson, Lennox and Craik. As a result, the book makes a worthwhile and valuable contribution to the study of teleology both in the ancient world and in contemporary discourse.

Richard Playford
St Mary's University
Waldegrave Road, Twickenham, London, TW1 4SX.
richard.playford@stmarys.ac.uk