

### PROBLEMATA

MAYHEW (R.) (ed.) *The Aristotelian Problemata Physica. Philosophical and Scientific Investigations.* (Philosophia Antiqua 139.) Pp. xvi + 467, ills. Leiden and Boston: Brill, 2015. Cased, €168, US\$218. ISBN: 978-90-04-28085-4.  
doi:10.1017/S0009840X16000421

The volume is a collection of 21 essays on the pseudo-Aristotelian *Problemata physica*, with a preface by the editor, an *index locorum* and an *index nominum*. With its 38 books, the *Problemata physica* is the third longest work in the *corpus Aristotelicum*. Although the work is spurious, we know for sure that Aristotle theorised the usefulness of collecting problems on different subjects for both didactic and scientific purposes. We also know that he actually worked on some such collections (on all these aspects see, in particular, Chapter 1 by I. Bodnár, Chapter 2 by S. Menn and Chapter 3 by J.G. Lennox). It is therefore likely that Aristotle's activity on problems influenced the composition of the *Problemata physica* as we have it, and it is possible that at least some of Aristotle's original problems were incorporated in this collection.

From the general point of view, the volume sheds light on the sense in which the *Problemata* can be regarded as the result of the Aristotelian approach to natural phenomena, and on how this work relates to the philosophical activity and, more generally, to the cultural life in the years of the early Peripatos. The volume does not aim at providing a systematic or unified analysis of the contents of the *Problemata*. Rather, it is a collection of very different contributions, ranging from the detailed reading of a particular chapter (e.g. J.G. Rheins on *Probl.* 30.6), to the discussion of philological problems (e.g. A.C. Bowen on the title and agenda of *Probl.* 15), to the analysis of broader philosophical issues (e.g. Lennox on the place of the analysis of problems in Aristotle's account of scientific enquiry) and of the features of the explanations provided in the *Problemata* (B.J. Stoyles on the relation between material and teleological explanations in *Probl.* 10). Bodnár's Chapter 1 provides a general introduction to Aristotle's approach to *problemata* and Chapter 21, by L. Taub, outlines the main features of collections of problems as a specific genre, in contrast with other kinds of writings in the form of questions and answers. The vast majority of the chapters is devoted to specific topics dealt with in one or more

books of the *Problemata*: medical problems (K. Oikonomopoulou, O. Thomas and J. Wilkins); wine-drinking and drunkenness (W.W. Fortenbaugh); acoustics and the analysis of sound (S. Hagel and A. Barker); odours (H. Baltussen); ethnography (M. Leunissen); food and health (Wilkins); the sea (M. Wilson); winds (M.); the physiology of fear and courage (Fortenbaugh); temperance, intemperance, continence and incontinence (B. Centrone); Athenian law (D.C. Mirhady); the influence of black bile on human behaviour (E. Schütrumpf).

Most chapters provide, with different degrees of detail, an assessment of the most likely sources for the discussion of the corresponding problems. With respect to the analysis of the sources, three aspects come to the fore particularly clearly. In Chapter 2 Menn explores Democritus' influence on Aristotle's problematic approach to philosophy. Fortenbaugh and M. provide a detailed discussion of the relation between *Probl.* 3 and 26 and parallel texts in Theophrastus in Chapters 6 and 15 respectively. Thomas's Chapter 5 discusses the relation between the *Problemata* and the Hippocratic corpus. More generally, from the analysis of the relation between the *Problemata* and other texts it becomes clear that, due to the composite nature of the *Problemata*, relations of chronological and theoretical priority are extremely difficult to assess. For this reason M. (see, in particular, p. 308 n. 33) proposes a cautious approach to the relation between the *Problemata* and thematically affine texts, warning against the danger of simplistically identifying the latter as 'sources' of the former. From this point of view, the volume quite radically departs from the much more optimistic take of P. Louis (*Aristote: Problèmes*, 2 vols [1991 & 1993]).

The full appreciation of the complex relationship between the *Problemata* and affine texts turns out to be important on two complementary grounds. On the one hand, it allows a better understanding of the non-Aristotelian philosophical and cultural background of this work. On the other hand, it opens new perspectives for a better understanding of its genuinely 'Aristotelian' features. In this respect, two overarching issues seem particularly relevant for assessing the extent to which the *Problemata* can be regarded as a sample of Aristotelian investigations – without necessarily being Aristotle's investigations.

The first general issue is the relation between Aristotle's theoretical approach to the identification of groups of problems as outlined in *Arist. An. Post.* 2.14–18. In Chapter 3 Lennox sets the terms for answering the question whether the *Problemata* comply with the plan outlined in those chapters. Some of the essays suggest a positive answer to that question, at least as far as some books of the *Problemata* are concerned (e.g. Chapter 4, Chapter 6 pp. 118–22, Chapter 7), while other essays rather emphasise the difficulties in envisaging any relatively coherent plan (see e.g. Chapter 9, pp. 186–7).

The second general issue is the interpretation of the fact that most tentative explanations provided throughout the *Problemata* are in terms of material and efficient factors, while formal and final causation find close to no resonance throughout the text. This feature has traditionally been taken as a sign of the post-Aristotelian origin of the *Problemata physica*, with particular reference to the materialistic trend of Strato's approach to natural philosophy. This traditional reading finds an echo in some of the essays (see in particular Schütrumpf's take in Chapter 19). However, a second interpretation of the materialistic approach of the *Problemata* emerges quite clearly (see in particular Stoyles's Chapter 7 and Leunissen's remarks in Chapter 10, pp. 190–2): one can regard the facts for which an explanation is sought in the *Problemata* as the kind of particular facts which only allow for material and efficient explanation according to Aristotle's approach. Examples of such facts can be found, for instance, in *Arist. Gen. An.* 5, where Aristotle considers a series of natural phenomena (e.g. differences in eye colour) which cannot be accounted for in teleological terms. If the reason why formal and final causation remain out of the *Problemata* is that the phenomena to be explained only allow for material and efficient

explanation, then the materialistic character of the tentative solutions to the problems, far from being non-Aristotelian, turns out to be rather Aristotelian in spirit.

The essays ‘present the results’ – as the editor says – ‘of a great deal of probing’ (p. x). The considerable amount of information on the context of the discussions for most of the topics approached in the *Problemata* succeeds in making this text less baffling. Furthermore, the admirable attempts of the contributors at outlining theoretical frameworks which would make the questions and answers collected in the *Problemata* intelligible or even interesting (see, for example, Hagel’s reconstructions in Chapter 8) enlighten trajectories for further research. The combination of very informative essays on specific topics with the exploration of broader interpretative and philosophical issues makes the volume a fine addition to the still sparse but slowly growing literature on this rather enigmatic text.

*Ludwig-Maximilians-Universität, Munich*

LAURA M. CASTELLI  
[laura.castelli@lrz.uni-muenchen.de](mailto:laura.castelli@lrz.uni-muenchen.de)