

Marko Malink: Review of P. Crivelli: Aristotle on Truth; in: *Philosophie Antique* 6 (2006), 208-211.

**Paolo Crivelli**, *Aristotle on Truth*, Cambridge University Press, 2004, 352pp, \$85.00 (hbk), ISBN 0521823285.

P. Crivelli (PC) presents the first monograph to systematically reconstruct Aristotle's views on truth scattered over several writings. He approaches Aristotle from the perspective of analytic philosophy. This approach involves asking Aristotle 'questions he never dreamt of, perhaps even questions he lacked the conceptual apparatus to understand or to answer' (p. 40). However, the result is an accomplished piece of scholarly work which displays a high degree of historical sensitivity while establishing a fruitful dialogue between Aristotle and modern analytic problems. PC proceeds by a thorough examination of the relevant passages, carefully weighing up competing interpretations. Having resolved to be explicit where Aristotle is not, PC keeps the reader well briefed about which decisions his reconstruction rests on. A lucid and relaxed way of presentation makes this book an enjoyable read.

The author starts by giving a detailed overview of his results (pp. 1-39). This is most useful and provides a clear understanding of the main ideas developed in the book. The book itself has three parts. The first one is about 'Bearers of truth or falsehood'. These are truth-evaluable thoughts, sentences and, remarkably, certain objects (*pragmata*) which are neither linguistic nor mental. Among these objects are states of affairs, which are composed of two further objects, one of which being a universal while the other is either a universal or an individual. A state of affairs is true at those times at which the objects of which it is composed are combined in a certain way. It is false at those times at which the objects are divided in a certain way. There is, for example, a state of affairs of your being seated or of the diagonal's being commensurable. There are no 'negative' states of affairs such as your not being seated.

There are some more objects capable of being true and false. For instance, material substances are true when they exist, i.e. when their form is combined with their matter. They are false when they do not exist, i.e. when their form is divided from their matter. Simple non-composed objects, i.e. essences or incorporeal substances such as God, are true and false in virtue of their simply existing or non-existing respectively. It is the truth and falseness of objects that makes truth-evaluable thoughts and sentences true or false. Predicative thoughts or sentences are those concerning states of affairs; existential thoughts or sentences are those concerning material substances or simple objects. While this reconstruction, like any in-depth interpretation of Aristotle, relies on specific readings of passages which are potentially open to alternative readings, it provides an ingenious unifying account of seemingly disparate topics in Aristotle's metaphysics.

Part two, 'Empty terms', vindicates and specifies the widespread opinion that Aristotle endorses a correspondence theory of truth. PC asks Aristotle for an answer to two problems for correspondence theories of truth in general: the problem of the liar paradox and the problem of empty terms. Aristotle's answer to the first problem is based on a distinction between unqualified vs. qualified assertions and implies that liar-sentences sometimes are neither true nor false. The answer to the second problem is that the subject term and the predicate term of simple predicative sentences are bound to signify existent objects. Singular terms are bound to signify individuals which at some time or other exist. General terms are bound to signify universals which always exist, i.e. which are always instantiated by at least one individual which at some time or other exists. Apparent exceptions such as goatstag-sentences are not simple predicative sentences, but composite sentences in disguise.

The third part is devoted to 'Truth and time'. Sentences may have different truth values at different times without undergoing a genuine change. Thus truth is not a genuine property of

sentences, but is similar to Aristotelian relatives. PC goes on to give a close analysis of Aristotle's sea-battle-argument in *De interpretatione* 9. Aristotle is seen to reject bivalence (the claim that every sentence is always either true or false) in order not to be committed to determinism, while he endorses the principle of excluded middle (the claim that every sentence of the form 'either A or it is not the case that A' is always true).

There are six appendices, four of them dedicated to textual or philological problems, two to the logical explication of ideas developed in the preceding chapters. PC proves the consistency of Aristotle's rejecting bivalence while endorsing the principle of excluded middle. The proof relies on a branching time model in which genuine truth (or falseness) of future-tense sentences amounts to satisfaction (or non-satisfaction) in every single branch of the future. Moreover, PC gives a formal account of Aristotle's theory of predicative assertions. The formalization covers a varied domain including utterances, several kinds of sentences, times, universals, individuals, sets and branches. On the one hand, the formalization is rather complex in that it rests on altogether fifty primitive non-logical predicates (in both logical appendices). On the other hand, this non-reductive approach provides a highly general framework applicable to a vast range of contexts.

Readers with different interests will find PC's study a firm and inspiring basis for exploration of topics related to Aristotle's views on truth. In a number of places, the author indicates further lines of investigation beyond those made explicit in the book. Let me mention only three of them which excited my own interest.

A first one concerns the notions of sameness and distinctness which, though not treated in the main parts of the book, figure prominently in the definition of universals, individuals and the truth conditions of negative sentences in Appendix 5 (p. 261). Another example would concern the relation between temporal and atemporal notions of truth and modality. PC's study focusses on a time-relative notion of truth and a statistical notion of modality according to which necessity amounts to omnitemporality (p. 21 and p. 60). On the other hand, PC points out that Aristotle does not explicitly formulate the time-relativity of truth (p. 183), that Aristotle recognized temporally unqualified notions of truth (p. 262, note 14) and that he may also have recognized non-statistical notions of modality (p. 60, note 54).

A third line of investigation concerns the domain of quantification of universal and particular sentences. PC takes a universal affirmative sentence to be true when the predicate term holds of every individual of which the subject term holds (p. 15, p. 94 and p. 261). On the other hand, he indicates (pp. 264f) that there may be alternative truth conditions according to which the quantifier ranges over both individuals and universals. In this event, a universal affirmative sentence would be true when the predicate term holds of every individual and of every universal of which the subject term holds. Accordingly, a particular affirmative sentence would be true when the predicate term holds of an individual or of a universal of which the subject term holds. PC (p. 264) says that there are three reasons for attributing to Aristotle the narrow reading of quantifiers restricted to individuals. However, he mentions only two of them and points out that the second reason is not compelling. The remaining reason is that the sentence 'Some animal is hiding in that corner' is most naturally understood as saying that an individual rather than a universal is hiding in that corner. Now, one would like to find some further explanation, particularly in regard to the questions as to why and in which sense the fact that universals usually do not hide in corners shows that the existential quantifier does not range over both individuals and universals.

The book contains a comprehensive bibliography (though a paper by M. Mignucci referred to in note 22 on p. 265 is missing in the bibliography; the paper is 'Parts, Quantification and Aristotelian Predication' *The Monist* 83, 1 (2000), pp. 3-21). There are indices of names, subjects and passages (the index of subjects could be a bit more generous; for instance, the entry 'categories' does not refer to the section 'Truth and the Categories' pp. 95-98 and to the subsection 'Joining and separating performed on inhabitants of the categories' pp. 154f). Misprints are rare (though it should be 20b15 rather than 20a15 in note 2 on p. 152).

These tiny quibbles are, of course, far from being objections to the impressive general framework established in 'Aristotle on Truth'.

Marko Malink, malink@uni-leipzig.de