Melissus of Samos in a New Light:
Aristotle’s Physics 186a10-16

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1. Introduction: Aristotle on Melissus’ Logic

Three times in the de Sophisticis Elenchis Aristotle attacks Melissus for using false logic.

Each time the same argument is called in question. Melissus begins with the true statement (1) that everything that has come into being has a beginning. From this he deduces (2) that everything which has a beginning has come into being.

What puzzles Aristotle is the steps Melissus used to deduce (2) from (1). He finds three possible false logical arguments which Melissus might have followed: (a) In 167b17-18 Aristotle suggests that Melissus might have said: If what has come to be always has a first beginning, then, by simple inversion, what has a first beginning has come to be. Aristotle illustrates the fallacy here by comparing this inversion to the one employed in saying that if a man in a fever is hot, then a man who is hot is in a fever. (b) In 168b39-40 the following is offered as a possible train of thought employed by Melissus: Since that which has come into being has a beginning, and since that which comes to an end has a beginning, then that which has come into being is identical with that which comes to an end (and one can be substituted for the other in any proposition). If, then, that which has a beginning is one and the same as that which comes to an end, then that which has a beginning is one and the same as that which comes into being (by substitution). Clearly, the absurdity here is to equate that which has come into being with that which has come to an end, merely because they share an accidental quality, namely, having a beginning. Following this reasoning, Aristotle points out, swans and snow will be identical in all respects (and

1 This study was supported in part by a grant from the Alfred P. Sloan Foundation.
2 167b13f., 168b35f., 181a27f.
3 Here Aristotle assumes the proposition which he defends at length in the Physics, that that which has a beginning has an end and vice-versa.
4 168b34-35.
interchangeable in all propositions) because they both happen to "be white". (c) In 181a28-29 Melissus is pictured as arguing as follows: If that which has come into being has a beginning, that which has not come into being has no beginning (i.e., that which has a beginning has come into being\(^1\)). Aristotle's comment on this case of false negation is, "The fallacy of opposites consists in saying that if \(p \) implies \(q\), then \(\neg p\) implies \(\neg q\) . . . This is not, however, so, for the correct negation is that \(\neg q\) implies \(\neg p\)."\(^2\)

Why is Aristotle so concerned with the inference of proposition (2) from proposition (1)? On the one hand, as we have seen, he includes other examples of the above three logical fallacies, and on the other hand, Melissus employs false logic elsewhere\(^3\) which Aristotle might also have drawn upon in refuting him. Proposition (2), then must have been crucial to Melissus' system and especially offensive to Aristotle. That it was a cornerstone of Melissus' theory, is at least in part suggested by its prominent place among the fragments; that Aristotle felt obliged to combat it so strongly, is seen from 185a17-20, where he says that it must be dealt with in any scientific treatise because it involves a basic absurdity in viewing the nature of reality. For, indeed, it is not true that everything which has a beginning has come into being, if by coming into being one means, as Melissus and all the Eleatics did, coming into being in an unqualified sense, i.e., the appearance of something existent out of the nonexistent. Every change and transformation has a beginning, but does not involve the coming-to-be of anything essential. Thus, in order to allow for the obvious changes which take place in Nature, Aristotle feels compelled to show that this argument of Melissus is sophistic and that Melissus does not, in fact, prove that all beginnings imply substantial coming-to-be.

There are, then, according to Aristotle, three possible logical arguments from (1) to (2), all of them specious. The mistake in reasoning in (a) is obvious, and not generally made; that in (b) is intricate, slightly forced and not easily followed; the fallacy in (c) is easy to fall into and easy to understand. Therefore it will be the one to appear in any treatise not concerned with logic (such as the Physics), in the context of a general attack on Melissus; and it is the one which appears at 186a10-16.

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\(^1\) This is the correct negation of "that which has not come into being has no beginning."

\(^2\) 181a26-27, 29-30.

\(^3\) Cf. 168b37, 40-169a2.