The Concept of Cause in Aristotle

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1) Four causes

Aristotle distinguishes between four causes (Phy.,¹ B, 3; PsA, B, 11, 94a20-24):

- a) Material cause: that from which; the antecedent out of which a thing comes to be and persists. E.g. the bronze of the statue; the silver of the bowl
- b) Formal cause: essence; the form or the archetype, i.e. the statement of the essence and its genera and the parts in definition; the whole and the co-positing. E.g. the relation 2:1 and generally number as cause of the octave
- c) Efficient cause: the primary source of the change or coming to rest. E.g. The seed, the advisor and the father; generally: what makes of what is made and what causes change of what is changed.
- d) Final cause: cause in the sense of end or the good or that for the sake of which a thing is done. E.g. health as the cause of walking about

The four causes are causes of the thing as it is itself. As the word cause has several senses, there are several causes of the same thing as that thing and not merely in virtue of a concomitant attribute: 'Both the art of the sculptor and the bronze are causes of the statue. These are causes of the statue qua statue, not in virtue of anything else that it may be- only not in the same way.' (Phy., B, 3)

Met.

Phy.

PsA.

¹ Abbreviations used in this paper:

2) Other senses of cause

Aristotle distinguishes proper from accidental cause: while it is its sculptor who is the proper cause of a statue, Socrates, the sculptor, is the accidental cause. (Phy., B, 3) Moreover, he distinguishes potential from actual cause, the 'house builder' from 'house-builder building.' (Phy., B, 3)

In *Physics* (B, 3) Aristotle makes three distinctions between causes by their multiplication he achieves twelve sorts of causes: 'All these various uses, however, come to six in number, under each of which again the usage is twofold. Cause means either what is particular or a genus, or an incidental attribute or a genus of that, and these either as a complex or each by itself; and all six either as actual or as potential.'

In *Metaphysics* (Λ , 1069b32-34) he distinguishes between three causes: 'The causes and the principles, then, are three, two being the pair of contraries of which one is formula and the form and the other is privation, and the third being the matter.'

3) Cause and knowledge

A question is indeed a search for the cause. (e.g. PsA., B, 11, 94a36-38) Knowing the cause is the necessary condition of scientific knowledge (PsA., B, 11, 94a20-21) In fact, 'men do not think they know a thing till they have grasped the 'why' of (which is to grasp the primary cause).' (Phy., A, 1) 'To know the essential nature of a thing is the same as to know the cause of a thing's existence.' (PsA., B, 8, 93a4-5)

'Where demonstration is possible,' Aristotle says, 'one who can give no account which includes the cause has no scientific knowledge. If, then, we suppose a syllogism in which, though A necessarily inheres in C, yet B, the middle term of the demonstration, is not necessarily connected with A and C, then the man who argues thus has no reasoned knowledge of the conclusion, since this conclusion does not owe its necessity to the middle

term: for though the conclusion is necessary, the mediating link is a contingent fact.' (PsA., A, 6, 74b)

4) Cause and middle in syllogism

The middle in a syllogism is the cause in virtue of which a relation between the extremes is inferred. (cf. PsA., B, 11, 94a24-33 for its causation in the first figure; 94a34-36 and b8-21 for final cause; and 94a36-b8 for the efficient cause)

5) Reciprocal causality

'Some things cause each other reciprocally, e.g. hard work causes fitness and vice versa, but again not in the same way, but the one as end, the other as the origin of change.' (Phy., B, 3)

6) The same cause of contraries

'The same thing is the cause of contrary results. For that which by its presence brings about one result is sometimes blamed for bringing about the contrary result by its absence. Thus we ascribe the wreck of a ship to the absence of the pilot whose presence was the cause of its safety.' (Phy., B, 3)

7) Classes as cause

'The classes that include the accidental cause are also causes, e.g. a man or in general an animal-is the cause of the statue because Polyclitus is a man, and a man is an animal.' (Met., Δ , 1014a1-3)

Aristotle says in the same page: 'There are causes either as individual, or as the class that includes the individual, or as the accidental, or as the class that includes the accidental, and these either as combined, or as taken simply.' (Met., Δ , 1014a15-20)