

## Aristotelian Epistemology and Natural Philosophy

The 3<sup>rd</sup> workshop of the research project *Induction from Aristotle to Galilei*

Organised by Mika Perälä (Helsinki) and Harry Alanen (Pittsburgh)

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**Wednesday, May 10, 2023** Lecture Room 24, The Forest House, Unioninkatu 40

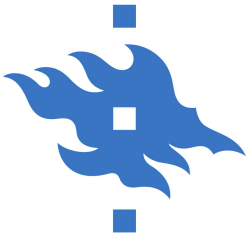
- 9.00–9.15      Mika Perälä (Helsinki): **The opening of the workshop**
- 9.15–10.30    Harry Alanen (Pittsburgh): **Induction and perception of change in Aristotle’s natural philosophy**
- Coffee break*
- 10.45–12.00    Mika Perälä (Helsinki): **Induction in Aristotle’s Ethics**
- Lunch break*
- 13.00–14.30    Lucas Angioni (Campinas): **Scientific Knowledge and Perception in Aristotle’s *Posterior Analytics* I.31**
- Coffee break*
- 14.45–16.00    Serena Masolini (Helsinki): **Discussing Privation in Thirteenth-Century England: Geoffrey of Aspall and Anonymous, MS Wellcome, Hist. Med. Libr., 333**

The workshop is a hybrid event. Admission is free. All interested welcome. For a Zoom link to the workshop, please contact one of the organisers [mika.perala@helsinki.fi](mailto:mika.perala@helsinki.fi) or [harry.alanen@gmail.com](mailto:harry.alanen@gmail.com).

### Induction and Perception of Change in Aristotle’s Natural Philosophy

Harry Alanen (University of Pittsburgh)

In this paper, I explore the connection between induction (*epagōgē*) and perception in Aristotle’s natural philosophy. In *Physics* I.2, Aristotle notes that the apparent fact that all or some natural things are changing is clear from induction. But what, if anything, grounds this claim? The existence of change is after-all something denied by Aristotle’s predecessors. What, then, licenses Aristotle’s confidence in the reality of change? I argue that we can make some progress toward this question by considering our ability to perceive change. Change, according to Aristotle, is one of the common perceptibles. Appealing to perception is licensed by Aristotle’s methodology for natural science as outlined in *Physics* I.1. There Aristotle notes that the correct procedure is to begin with what is more knowable to us but less certain by nature, which requires proceeding from universals to particulars. Here perception seems to play an important role, since Aristotle’s remarks suggest that the universal is a kind of whole and that this is more known through perception. However, what is that we perceive when we perceive change? Is change something that itself affects the senses, or do we rather perceive some substance or quality that is changing? These questions need to be addressed if we are to understand Aristotle’s methodology for natural science.



### Induction in Aristotle's Ethics

Mika Perälä (University of Helsinki)

It is controversial what Aristotle's method is in his ethics. In scholarly literature, two key alternatives are identified: the dialectical method based on *endoxa*, and the scientific method based on observed phenomena. I shall address this controversy by considering how Aristotle understands what he calls the first principles, or the starting points of ethics. I shall not discuss all kinds of starting points that Aristotle discusses but confine my focus on the starting points for the study of *akrasia* in *Ethica Nicomachea* Book 7. My main question is how, according to Aristotle, these points are acquired and whether induction (*epagōgē*) plays any role in acquiring them. Based on Aristotle's own considerations (e.g., *Ethica Nicomachea* 1.7, 1098a20–b8, and 6.3, 1139b25–31), I shall argue for two claims: first, in ethics, like in other fields of study, according to Aristotle, induction supplies primary, non-demonstrative, immediate premises for demonstration, and second, Aristotle's method in ethics, to some extent at least, aligns with the scientific method outlined in *Posterior Analytics* Book 2.

### Scientific Knowledge and Perception in Aristotle's *Posterior Analytics* I.31

Lucas Angioni (University of Campinas)

In *Posterior Analytics* I.31, Aristotle discusses some issues related to perception (*aisthesis*). The main claim announced in the beginning of the chapter is that it is not possible to have scientific knowledge (*epistasthai*) through perception. Obviously, his discussion does not focus exactly on the same technical notions studied in *De Anima* and *De Sensu*. Aristotle is talking about perception in the sense that we can be said to perceive, e.g., that the Earth is interposed between the Sun and the Moon. I will not examine how this (broader) employment of “*aisthesis*” coheres with the technical notions studied in *De Anima* and *De Sensu*. Instead, I will examine what exactly Aristotle is trying to achieve in the chapter in terms of clarifying and consolidating his notion of scientific knowledge—this time, by contrasting it with perception as a foil. I will argue that “*epistasthai*” is used in the chapter as it has been mainly used in the *Posterior Analytics* since 71b9–12, namely, to refer to that specific piece of expert knowledge which encapsulates the most appropriate explanation of a given explanandum within a given discipline (e.g., the piece of expert knowledge which expresses the most appropriate explanation of the lunar eclipse). Aristotle's main point in his contrast between *epistasthai* (understood in this way) and *aisthanesthai* (perception) is that, even if perception is (or would be) able to grasp an explanatory connection, it is not able to grasp that explanatory connection in its universality. Since *epistasthai* (understood in the relevant way) essentially depends on grasping the universality of an explanatory connection, it follows that *epistasthai* can never result from *aisthanesthai* alone, even if *aisthanesthai* furnishes the indispensable starting point on the basis of which universal knowledge is attained through induction.

### Discussing Privation in Thirteenth-Century England: Geoffrey of Aspall and Anonymous, MS Wellcome, Hist. Med. Libr., 333

Serena Masolini (University of Helsinki)

The concept of matter, form and privation as the three principles of change underwent extensive discussion among the commentators of Aristotle active in mid-thirteenth century England. The prevailing trend within this tradition was to affirm that (1) matter (or better, ‘natural’ matter) could not consist solely of pure passive potentiality but was rather imbued with either some formal determination or active potentiality, and (2) privation could not be considered as mere ‘nothing’ (*nihil*). This position was established as orthodox by the Oxford Prohibitions, issued on March 18, 1277 by Richard Kilwardby “with the agreement of all the masters and non-masters of the University of Oxford”. Nevertheless, a study of selected English commentaries on the *Physics*, *Metaphysics* and *De generatione et corruptione* dated 1240–1270 reveals a wide range of doctrinal variation regarding the nature of matter and privation, as well as their interrelationship.

This paper will analyse the discussion of privation in the works of two English masters who were active in the third quarter of the thirteenth century: Geoffrey of Aspall and the anonymous author of the commentary on the *Physics* preserved in MS Wellcome, Hist. Med. Libr., 333. The paper will focus on their views on the possible ‘positivity’ of privation and its identification with the active potency of matter. Particular attention will be given to their reading of *Metaphysics* V.22, where Aristotle presents the different meanings of *στέρησις*.