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Dissertation Abstract

Aristotle faces two fundamental problems that threaten the foundations of his physics and psychology. The first is "the stopping and starting problem", which raises a difficulty for his physics regarding the transition between motion and rest. The second is "the contraries problem", which is a puzzle in his psychology about the transition between different physiological processes involved in the discrimination of perceptible qualities. Both problems involve a boundary between two different intervals where it is unclear which interval(s) the boundary belongs to.

Scholars have long found it difficult to see how Aristotle solves these problems. To make progress, the first chapter of my dissertation offers a careful reconstruction of his theory of the boundaries of processes. On my reading, Aristotle's theory holds that, when a process is directed from a beginning to an end, the process is bounded by both the beginning and the end and it is not arbitrary, but *objective*, whether a boundary is a beginning or an end. This theory further holds that while boundaries cannot exist separately, only the beginning that bounds a process belongs to the process; the end that bounds a process is external to the process and belongs to the interval of a contrary state or process immediately following the completion of the process. I argue that this theory is coherent and has important implications for how we are to understand Aristotle's solutions to the stopping and starting problem and the contraries problem.

In the second chapter of my dissertation, I discuss the stopping and starting problem. Aristotle's theory of the boundaries of processes, I argue, directly helps him solve the stopping problem, which concerns the transition from motion to rest. His view is that the end of motion is external to motion and belongs to the interval of rest immediately following the completion of motion. I further argue that he similarly solves the starting problem, which concerns the transition from rest to motion, by saying that the end of rest is external to rest and belongs to the interval of motion immediately following the completion of rest. His solution turns on a distinctive notion of rest, according to which rest is not just the privation of motion, but is essentially directed towards an end – namely, the beginning of motion. Some might object that my reading implies that Aristotle allows for motion and rest at an instant (if the end is understood as the last instant of an earlier interval that belongs to the later interval), which he appears to prohibit. I argue that this understanding of Aristotle is wrong. Instead, he is best understood as denying only that motion and rest can be *completed* at an instant, *not* that motion and rest can *occur* at an instant.

In the third and final chapter of my dissertation, I show that Aristotle applies the same theory of the boundaries of processes to solve the contraries problem. On previous readings, his solution fails or, at best, only succeeds in some cases. I argue instead for a solution that succeeds in *all* the relevant cases. Since Aristotle does not take perceiving activities to be the same as processes, some conceptual work needs to be done to bridge perceiving activities and processes. I argue that for him perceiving activities are general types, which can be realized as particular physiological processes by instantiating the relevant qualities in the subject's body. Accordingly, when the subject's body is at the boundary between two different perceiving activities, the same body is transitioning from one physiological process to another. Furthermore, on his theory of the boundaries of processes, the boundary that bounds both processes belongs only to the second, later, process. Aristotle thus has a solution to the contraries problem. This solution, I argue, is applicable to all the relevant cases, given that it does not place constraints on the types of perceptible qualities.