CHAPTER 5

OCKHAM AND THE NATURE OF SCIENCE

Introduction

As we have seen, an overarching concern of the later Middle Ages in the question of whether theology is a science is a concern with the rationality of the world and how God fits into both that world and that rationality. If science (in any age, in any of its various meanings that share a family resemblance) is supposed to tell us something about the world, then the world itself will feel the changes that the concept of science undergoes. The question of whether theology is a science was central in keeping alive the discussions of Aristotle’s somewhat strange concept of science. It is in this question that theology and epistemology, ontology and cosmology fold into one another—as we have already seen. The three questions that have to be asked at the intersection of these fields are: (1) What is God’s relation to the cosmos? (2) How is God knowable? (3) How is the cosmos knowable? These three questions are, in the end, one and the same: Is God a part of the cosmos or not? If God is part of the cosmos, then God ought to be knowable by human beings insofar as the cosmos is knowable. There is no natural barrier to knowledge of God when God is part of the world. Often, a supernatural barrier has to be erected. The supernatural barrier then takes the form of a mere prohibition. While God ought to be knowable, it is the case that God is not. Conversely, if God is not a part of the world, then God is, by nature, supremely unknowable.

Ockham certainly introduces a new sort of epistemology, philosophy of nature and metaphysics. Yet it is difficult, if not fruitless, to attempt to place a priority on any of these. Is Ockham concerned with safeguarding God from philosophy? Or is he concerned with the nature of universals? Or is he concerned with a theory of science that would take experiment and experience seriously? Or is he concerned with God’s absolute power? All of these questions can certainly be answered in the affirmative. Yet one
cannot establish a priority in which one concern is the origin and the driving force of the others.¹

Such procedures can be avoided. There can be no doubt that whatever the origin, the concerns and consequences of Ockham’s thinking are clear: (1) there is a deep concern with the absolute power of God; (2) there is a logical concern with the status of universals; (3) there is an epistemological concern with guaranteeing knowledge while still grounding that knowledge in singulars.² The mixture of these concerns produces several far-reaching consequences: theology becomes divorced from scientia; scientia becomes divorced from necessary laws; physics becomes divorced from metaphysics. In all of these, Ockham can be seen as unpacking the conclusions already achieved by Scotus.

Ockham on Theology as a Science

Ockham’s definition of science is deceptively simple:

[S]cience . . . is evident knowledge of a necessary truth, which, by its very nature, is caused by premises applied to it in a discursive syllogism.

[[S]cientia . . . est notitia evidens veri necessarii, nata causari per praemissas applicatas ad ipsum per discursum syllogisticum.]³

This definition applies to the conclusion of a demonstrative syllogism and not to the syllogism as a whole. We have science of a proposition that can be demonstrated. Ockham delineates three conditions that this definition sets forth:

1. Science is evident knowledge. This condition rules out other ways of grasping the conclusion—for example, opinion, suspicion, faith, and so on.
2. Science is of necessary truths. This rules out science of contingent truths, which are not knowable by science, properly called.
3. Science is caused by premises. This rules out the possibility that the conclusion can be grasped in the same way in which the premises are grasped.⁴ Here, the phrase “by its very nature, is caused” is meant to allow that the knowledge of the same proposition can be caused in other ways, but it is of such a nature that it can be caused by premises. It may, for instance, be caused by experience, but it is in principle possible that it could also be caused by premises. There are, presumably, truths that cannot be caused by any premises: for example, ‘Socrates is sitting’.⁵