



From the "Sensible Qualities and the Rise of Modern Science" section of his Robert M. Adams's Introduction to the Hackett edition of Berkeley's Three Dialogues

p. xiii

At the beginning of the first *Dialogue* Hylas does not accept this opinion. He believes rather that among the constitutive properties of bodies are *all* the sensible qualities; that the so-called secondary qualities exist outside the mind in bodies; that we (immediately) apprehend them in sense perception as they are in the bodies; that they are not collections, configurations, or sequences of the primary qualities, and are not merely powers the bodies have to cause sensations in sentient beings. I call this set of beliefs Secondary Quality Realism. For strategic reasons Berkeley presents it, in the speeches of Hylas, as a naïve, unsophisticated point of view. But in fact it is a philosophical theory, and was part of the medieval Aristotelianism against which early modern philosophers rebelled.

In its Aristotelian form³ it was based on a theory of perception, according to which sense perception is a causal interaction in which either a sensible quality of the material object perceived, or an immaterial copy of the quality (a "sensible *species*" or sensible form), is transmitted from the object to the perceiver. This theory applied particularly to the qualities we are calling "secondary." If I see a red apple, for example, the redness present in the apple causes a form that resembles it to be present in an illuminated transparent medium between the apple and my eye. The sensible form of redness in the medium produces a similar sensible form in part of my eye. Eventually such a form is received by my mind. What is most important for our present purpose, in this extremely simplified account of the Aristotelian theory of perception, is that the redness immediately present to my mind was thought to be present also in the apple, constituting its color, since the redness of the apple is like the sensible form of redness received by the mind, except in being material.

This theory of perception involves an Aristotelian theory of causation, according to which many causes work by a sort of contagion, imparting a form that they have to something that previously did not have it. Thus a warm body heats a cold body by producing in it a

p. xv

It is not surprising, then, that Galileo and other modern philosophers rejected Secondary Quality Realism, and revived the opinion of the ancient Greek Atomists, that the primary qualities are the sole constitutive properties of bodies, regarded as existing outside the mind. I call this view *Primary Quality Realism*.

Though they agreed that there is nothing in bodies resembling the qualities immediately present to our minds in the perception of secondary qualities, Primary Quality Realists disagreed about the analysis of secondary qualities. Some, such as Galileo,⁵ identified them with sensations and held that tastes, odors, colors, and so forth do not reside in the bodies perceived as having them, but only in the perceiver. Others, such as Boyle,⁶ allowed that secondary qualities may be ascribed to bodies, but only as powers that they have, by virtue of their primary qualities, to affect sentient beings. The secondary qualities, Boyle insisted, are not anything real in a body distinct from its primary qualities.

In either of these versions, Primary Quality Realism presents us with a physical world that is very different from what it appears in sense perception to be. In place of the colors, tastes, smells, and so forth that fill our sensory fields and form so large a part of our ordinary picture of the world, and that certainly do not seem to be only powers, we are offered a world of geometrical properties and motions—little more than a mathematical framework—plus perhaps some powers. It is a world that is not even grey, except in the sense that it is able to make us see grey. Berkeley claims, by contrast, to agree

5. Galileo Galilei, *The Assayer* (1623), section 48, in [32], p. 65.