

# Phil. 401: Discussion Questions

## Primary qualities in modern philosophy

February 16th, 2017

### Readings:

- Galileo. “The Assayer.” In M. Oster. *Science in Europe, 1500-1800: a primary sources reader*. Palgrave, 2002. Pages 73-75.
- Galileo. “History and Demonstrations Concerning Sunspots.” In G. Galilei. *The Essential Galileo*. Ed. by M. A. Finocchiaro. Hackett Publishing, 2008. Chapter 3. Pages 101-102.
- J. Locke. *An essay concerning human understanding*. Ed. by J. Bennett. 2015
  - Book II. Chapter VIII. Articles 8-26.
  - Book IV. Chapter III. Articles 11- 14.
- Descartes. *Meditations on First Philosophy*. In R. Descartes. *The Philosophical Writings of Descartes*. Ed. by J. Cottingham, R. Stoothoff, and D. Murdoch. Vol. 2. Cambridge University Press, 1984. First Meditation. Pages 12-16.

### Purpose

Each question below suggests a different way to define “primary quality.” In groups of five students, use each question to provide a different definition of “primary quality,” and then list which qualities are primary according to each definition.

### Definitions

1. Review your answer to the following question from the reading assignment: “According to Galileo, in what ways are heat, odor, taste, and tickling similar?” Contrast heat, odor, and tickling with shape.
2. What does Locke intend to show using the example involving a grain of wheat?

3. What common things are odorless? What common items are colorless? Are there any things that are weightless?
4. Plato and some Greek atomists often argued the senses were unreliable by discussing how our senses change when we're sick. For example, some Greek philosophers thought that objects appear yellower when one has jaundice. How does sickness affect other senses?
5. Assess whether you think Descartes would agree with the following claim: one can imagine an object as lacking color, taste, and odor, but one cannot imagine an object without some shape and some size.
6. In Book IV, Chapter 2, Section XI of Locke's *Essay Concerning Human Understanding*, Locke writes, "with other simple ideas, whose modes and differences are made and counted by degrees and not quantity – for example, in contrasts like x is much redder than y rather than like x has 2.37 times the volume of y' – we don't have such finely accurate ways of determining their differences or their exact equality." What other types of qualities might Locke and others include as ones whose "differences are made and counted by degrees and not quantity?"
7. In Leibniz's letter to Queen Charlotte Sophie, he says that "number ... is found equally in sounds, colors, and tactile quantities." What does Leibniz mean, and what other properties are like number in this respect?

**Exercise:** Assess whether the above definitions of "primary quality" are equivalent.

### The importance of primary qualities

Suppose that (\*) to explain why an object changes, one must be able to describe how the object's primary qualities change (or how the primary qualities of the object's parts change). Construct an argument that, in order for one to be able to acquire knowledge of objects via controlled experiment, telescopic observations, and observation via the microscope, the primary qualities must include all and only those qualities (e.g., shape, size, etc.) that mechanical philosophers discussed, and none of what scholastics called "primary qualities." Does your argument depend upon a particular definition of primary quality? Why or why not?