

Reading Guide #4: Modern Empiricists

George Berkeley, from *A Treatise Concerning the Principles of Human Knowledge*
David Hume, "Selections on Mathematics"

Berkeley's *Principles*, Introduction §1 - §20; Main Text §113- §132.

Introduction, §1 - §20

1. Are the paradoxes and difficulties of our understanding the fault of our senses? Explain.
2. What "abuse of language" is a chief part of philosophical confusion?
3. How do we, supposedly, arrive at abstract ideas? Provide an example.
4. How does the perception of common qualities lead to a second layer of abstraction?
5. "But then whatever hand or eye I imagine, it must have some particular shape and color." (§10) Explain.
Why is this an argument against abstract ideas?
6. For Locke, what is the relationship between general words and abstract ideas? Does Berkeley think this establishes the existence of abstract ideas?
7. How do Locke and Berkeley disagree about how words become general?
8. Describe Berkeley's distinction between general ideas and abstract general ideas.
9. How does the notion of an abstract, general idea lead to a contradiction?
10. Do we need abstract ideas to account for geometric reasoning? Explain.
11. How does the presupposition that each word stands for one thing lead to the doctrine of abstract ideas? Be specific.
12. How are names like variables?

Main Text §113- §132

13. According to Berkeley, are there numbers? Explain.
14. How is arithmetic concerned with signs rather than with things?
15. How is arithmetic infected by the doctrine of abstract ideas?
16. How does Berkeley argue that extension is not infinitely divisible? What does this mean for geometry?
17. "There is no such thing as the ten-thousandth part of an *inch*; but there is of a *mile* or *diameter of the earth*, which may be signified by that inch." (§127) Explain. How does this indicate the basic error of the notion of infinite divisibility, for Berkeley?
18. Does Berkeley deny the utility of mathematics? Explain.

David Hume, *Selections on Mathematics*

Enquiry, Section IV

1. What is Hume's distinction between relations of ideas and matters of fact? Describe each.
2. How do we learn propositions that are solely concerned with relations of ideas?
3. What three kinds of evidence do we use to account for matters of fact?
4. How do we learn to connect specific effects with their causes? How can we not learn this, according to Hume?
5. Why can't effects be discovered by examining their causes?
6. What, according to Hume, is the, "Utmost effort of human reason" (3)?
7. "Thus the observation of human blindness and weakness is the result of all philosophy..." (3). Explain. Why does Hume make this conclusion?
8. Does the certainty of geometry extend to the natural science to which it is applied? Explain.

Enquiry, Section XII

9. What are the advantages of skepticism?
10. "When we run over libraries, persuaded of these principles, what havoc must we make" (4-5)?

Treatise, §I.I.7

11. What view of Berkeley's does Hume defend?
12. How does Hume argue that all our ideas must be of particular objects (the three arguments)?
13. How do particular ideas come to be general by representing other, related, ideas?
14. What role does 'customary conjunction,' or 'habit,' play in Hume's account of abstract ideas? What do his examples show?
15. What is the difference between figure and the body figured?

Treatise, §I.III.1

16. How are relations of proportions of quantity or number different from other relations?
17. How does geometry fail to be precise?
18. How does Hume account for precision in arithmetic?
19. "And this is the nature and use of geometry, to run us up to such appearances as by reason of their simplicity cannot lead us into any considerable error" (8). Explain.