

Reading Assignment 20: Berkeley's *The Analyst*

Required Readings: Sections 1-15 of George Berkeley. The Analyst. In William Bragg Ewald, editor, *From Kant to Hilbert Volume 1: A Source Book in the Foundations of Mathematics: A Source Book in the Foundations of Mathematics*, volume 1. Oxford University Press, 2005.

Questions:

- In no more than a paragraph, compare one of Berkeley's arguments against the existence of infinitesimals in Sections 1-6 with his arguments against the existence of Lockean abstract ideas you read previously. Are there any obvious similarities and/or differences?
- In your own words, summarize the following argument:

For when it is said, let the Increments vanish, i.e. let the Increments be nothing, or let there be no Increments, the former Supposition that the Increments were something, or that there were Increments, is destroyed, and yet a Consequence of that Supposition, i.e. an Expression got by virtue thereof, is retained. Which, by the foregoing Lemma, is a false way of reasoning. Certainly when we suppose the Increments to vanish, we must suppose their Proportions, their Expressions, and every thing else derived from the Supposition of their Existence to vanish with them.

In particular, Berkeley is criticizing Newton's proof of what theorem? Which steps of Newton's derivation does Berkeley claim rely on the assumption that the "increments were something" and which rely on the assumption that "the increments be nothing"? It may help to continue reading until the end of Section 16.

References

George Berkeley. The Analyst. In William Bragg Ewald, editor, *From Kant to Hilbert Volume 1: A Source Book in the Foundations of Mathematics: A Source Book in the Foundations of Mathematics*, volume 1. Oxford University Press, 2005.