1163-01-1605 **Julia C Tomasson*** (`jct2182@columbia.edu`), 523 W 112, Apt 33, New York, NY 10025. *The Lockean Foundations of Newton's Calculus in The Analyst Controversy.*

George Berkeley's (1685-1753) critique of Newton's calculus in his The Analyst: A DISCOURSE Addressed to an Infidel Mathematician (1734) provoked many responses, collectively referred to as "The Analyst Controversy." Understandably, the controversy is often discussed in adversarial terms, all being some variation of "Berkeley vs. Isaac Newton (1643-1727)." In this talk, I present evidence that this debate might be better summarized as "Berkeley vs. John Locke (1632-1704)." I argue that 1) Berkeley is much more sympathetic to Newton and Newtonianism and much more antagonistic towards Locke than has been previously recognized; 2) Berkeley's critique of the product rule does not reject Newton's results, but rather the basis for accepting them; 3) this basis is thoroughly Lockean (and not Newtonian) and contemporary mathematicians realized this. Understanding a Lockean epistemology of mathematics provides insight into the strange character of eighteenth-century British mathematics, between the invention of the calculus and its rigorization over a century later. (Received September 15, 2020)