

1154-O1-1421 **Jeff Buechner*** (buechner@newark.rutgers.edu). *Are mathematical explanations interest-relative?* Preliminary report.

Hilary Putnam introduced a wrinkle in the philosophical literature on explanation when he argued that explanations are interest-relative. What counts as an explanation for one set of interests might not count as an explanation for another set of interests. Suppose that some mathematical proofs do provide an explanation of what is proved. Are such explanations interest-relative, or are mathematical explanations via proofs immune to the interest-relativity of explanations? Certainly there can be different explanations of the same theorem—because there are different mathematical proofs of that theorem. For example, the interests of a topologist are satisfied by a topological proof of theorem A, while the interests of a number-theorist are satisfied by a number-theoretic-proof of theorem A. Can there be a topological proof of theorem A which explains A for, say, one topologist but not for another topologist (where both topologists are equally competent)? (Received September 15, 2019)