

1125-C5-248

James R Henderson* (jrh66@psu.edu). *Otavio Bueno's Mathematical Fictionalism.*

Mathematical Platonists claim that mathematical objects actually exist (though not spatio-temporally) and that, therefore, there is but one mathematical Truth corresponding to those objects and the relations that hold between them. Nominalists, on the other hand, claim mathematical objects do not exist and, therefore, almost all of mathematics is false. (This includes any proposition involving an existence claim; universal propositions are taken to be vacuously true.) Not surprisingly, both Platonism and Nominalism have their own particular strengths and weaknesses. The question for the practicing mathematician or philosopher of mathematics is this: Does one have to "pick a side"? Fictionalism, at least as advocated by Otavio Bueno, takes its lead from Bas van Fraassen's Constructive Empiricism, a version of scientific anti-realism. Bueno's Fictionalism is a middle position where the sticky problem of the existence of mathematical entities is simply not addressed (or not completely, at any rate), and it gives a non-standard version of mathematical truth. Whether this brand of Fictionalism can provide a sound basis for mathematics as practiced by professional mathematicians will be discussed. (Received August 18, 2016)