

1106-C5-1714 **Thomas Drucker*** (druckert@uww.edu), Department of Mathematics, University of Wisconsin–Whitewater, 800 West Main Street, Whitewater, WI 53190. *Explanatory and Justificatory Proofs*.

Michael Dummett has pointed to the difference between explanatory and justificatory proofs. It is also a distinction familiar to those who have to explain to a class that mathematical induction does not give the user a way to discover what is to be proved, but only to justify a particular result. As students proceed in their studies of mathematics, proofs that may originally have seemed purely justificatory take on an explanatory structure. This talk will look at Dummett's distinction to see if it is more than a reflection of the level of mathematical experience of the prover. (Received September 15, 2014)