

1135-A5-609

Daniel C. Sloughter* (dan.sloughter@furman.edu), Department of Mathematics, Furman University, Greenville, SC 29613. *Hardy, Bishop, and making hay*. Preliminary report.

I find many parts of constructive mathematics appealing. For example, I find Kronecker's dictum "[d]ie ganzen Zahlen hat der liebe Gott gemacht, alles andere ist Menschenwerk," an attractive starting point. Philosophically, I am intrigued by Errett Bishop's addition that "mathematics belongs to man" and "[i]f God has mathematics of his own that needs to be done, let him do it himself." Yet, when confronted with, say, the version of the Hahn-Banach theorem in Bishop's *Constructive Analysis*, I find myself turning back to the cleaner statement in classical ("God's"?) mathematics. And I recall G. H. Hardy's remark that he was willing to accept the Axiom of Choice, in part, because to deny it "seems to make hay of a lot of the most interesting mathematics." In this talk, I will discuss the context of Hardy's comment and how the creation of interesting and aesthetically pleasing mathematics influences one's acceptance of axioms, and hence one's philosophy of mathematics. (Received September 10, 2017)