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320 Emerson Hall, Cambridge, MA 02138. *Reason and evidence in mathematics.*

In this talk I will address some of the general, structural features that arise in the case for new axioms. According to a traditional view axioms are “self-evident”. One difficulty with this view is that in foundational discussions there is often disagreement as to which statements are “self-evident”. Nevertheless, there is generally large agreement as to whether a given statement is “more evident” than another. For this reason, the relative notion is more suitable for articulating foundational disputes in mathematics. In the first part of the talk I will elucidate this relative notion by distinguishing it from kindred notions and by providing several examples. This will lead to what I will call the *evidentiary hierarchy*. In the second part of the talk I will use this framework to make a number of points concerning the case for new axioms. First, I will present what appears to be a strong argument that the case for new axioms is ultimately doomed to fail. Second, I will argue that (at least in certain known cases) this problem can be overcome by appealing to reasons that involve deep mathematics. Finally, I will use this framework to place Harvey Friedman’s program in philosophical perspective. (Received September 18, 2012)