James R. Henderson* (jrh66@psu.edu), 402 W Main Street, Titusville, PA 16354. Multiplicity of Logical Symbols: Why Is That a Thing?

It is not surprising that, over the years, different authors have suggested different symbols to stand in for different logical connectives and quantifiers. After all, different languages have various sounds for the same concept or object, and, perhaps more closely related, mathematicians sometimes have different ways of symbolizing the same operation or transformation. (Easy example: Newton and Leibniz famously used different notations for the derivative.) It is one thing, however, for two mathematicians to independently develop a rather sophisticated idea and use dissimilar notation, and quite another to have multiple symbols for very simple connectives like negation or disjunction, even after the development of a decades-old literature concerning truth tables. It seems a bit excessive. Why hasn't there developed, for instance, one canonical way to join two propositions into a conjunction rather than the use of the ampersand, the dot, the inverted wedge, or simply placing characters adjacent to each other? It is as if authors of elementary arithmetic books had half a dozen ways to express the notion of "two plus four." This talk concerns the motivations of authors to affect the way logical concepts are envisioned by readers, which may lie at the root of this phenomenon. (Received September 24, 2018)