1086-L5-71 **Sean F Argyle*** (sargyle1@kent.edu). *Mathematical Thinking - From Cacophony to Consensus.*

What does it mean to do mathematics? What counts as mathematics? Who decides? These sorts of fundamental questions about the nature of the discipline have not yet been answered such that there is general agreement on the matter. Without these answers, how can we trust in our derivations and proofs? More importantly, how can we train the next generation of mathematicians if we can't even agree what it means to be a mathematician? What little research on the subject exists is disjointed and dissenting, leading some researchers to lament the possibility of ever coming to an agreement on how to define "mathematical thinking" as a viable construct. Rather than add one more voice into the cacophony of competing definitions, this presentation seeks to discuss the results of a meta-analysis of the term's use in an appropriately titled journal – Mathematical Thinking and Learning. This synthesis of more than a decade of research provides cognitive model of the internal process of doing mathematics utilizing a post-epistemological stance that relies on a compromise between the Platonist and Formalist extremes. Only when researchers and philosophers can agree on a vocabulary can we begin to "stand on the shoulders of giants." (Received July 04, 2012)