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Samuel Luke Tunstall* (tunstall1@msu.edu). *Investigating college students' reasoning with messages of risk and causation.*

Language of risk and causation pervades modern media sources, and statistical literacy is often framed as a critical means of understanding such discourse. For this exploratory study, roughly 200 students in an introductory university-level mathematics course—one which focuses on science and quantitative information in media—responded to an opinionated news article about cancer risk in relation to processed meats. Analysis of students' responses using Toulmin's framework for argumentation revealed that the majority of the students agreed with the author's misleading message about processed meats. Results suggest that prior knowledge and pre-existing biases serve as nontrivial barriers to the types of reasoning desired for statistical literacy. In this presentation, I will focus on the results of the study and their implications for introductory courses in quantitative reasoning or statistics. (Received August 25, 2017)