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A semantical approach to the psychology of reasoning

It seems obvious that there must be an intimate connection between the meaning of an expression and valid arguments that make essential use of that expression. For example, if a native speaker of English is inclined to say that "No B are A" follows from "No A are B", it is because he knows what "no" means. It is somewhat remarkable, therefore, that semantical considerations have not played an important role in the psychological literature on reasoning. In this talk I present a meaning-based model of reasoning with quantifiers, which I argue is not only simpler and more principled than alternative accounts (such as the mental-model theory of Johnson-Laird et al.) but covers a much broader range of data as well.