

Learning (and Teaching) Logic: Some Theories, Evidence and Blind Spots

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This talk is based on research I'm conducting for a project I'm a co-PI on titled 'Learning Critical Reasoning: A Machine-Learning Perspective'. The project focuses on learning skills relating to conditionals in logic, a notoriously difficult area to learn (and teach). As the project is still in its early stages, the talk is restricted to a partial survey of existing theories and empirical evidence in the relevant areas which include Philosophy, Psychology, Computer Science and Education. I conclude with a consideration and brief discussion of some blind spots in the literature. For example, the literature seems to be missing experimental interventions on different methods taught in logic courses. That's something we aim to rectify with our project as we plan to compare the efficacy of such methods.