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# Human Reasoning, Logic Programs and Connectionist Systems

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**Summary**

The suppression task, the selection task, the belief bias effect, spatial reasoning and reasoning about conditionals are just some examples of human reasoning tasks which have received a lot of attention in the field of cognitive science and which cannot be adequately modeled using classical two-valued logic. I will present an approach using logic programs, weak completion, three-valued Łukasiewicz logic, abduction and revision to model these tasks. In this setting, logic programs admit a least model and reasoning is performed with respect to these least models. For a given program, the least model can be computed as the least fixed point of an appropriate semantic operator and, by adapting the CORE-method, can be computed by a recurrent connectionist network with a feed-forward core.