Human Reasoning and Computational Logic

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Problem 10.1

Consider the syllogism IA1:

First Premise	Iab	'*some a are b*'
Second Premise	Abc	'*all b are c*'

For the syllogism IA1, the majority of the participants concluded Iac.

Consider the syllogism EO2:

First Premise	Eba	'*no b is a*'
Second Premise	Ocb	'*some c are not b*'

For the syllogism EO2, the majority of the participants concluded NVC.

Consider the syllogism OI1:

First Premise	Oab	'*Some a are not b*'
Second Premise	Ibc	'*some b are c*'

For the syllogism OI1, the majority of the participants concluded Iac, Oac and NVC.

Answer the following questions for each syllogism:

1. What is the corresponding logic program?

2. What are the predictions under the Weak Completion Semantics, i.e. the conclusions that are entailed by the least model of the weak completion of the corresponding programs?

3. What is the matching percentage with respect to the participants' responses?