Implication House

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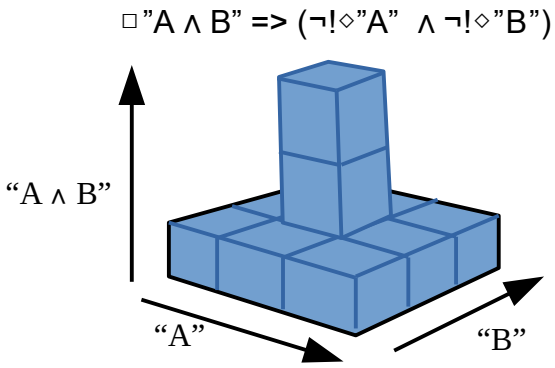
This paper I visualize a semantic model of Answered Modal Logic called an "implication house".

An implication house can be visualized as the following:



This semantic model is derived from the following expression:

□"A ∧ B" => (¬!◇"A" ∧ ¬!◇"B")

Proof:

∵ □"A ∧ B" => ¬!◇"A" ∧ ¬!◇"B"
∴ not(□"A ∧ B") ∨ (¬!◇"A" ∧ ¬!◇"B")
∴ !◇"A ∧ B" ∨ (¬!◇"A" ∧ ¬!◇"B")

Extracting tables:

!◇"A ∧ B"	!◇A	¬!◇A	□A	Since "A" and "B" are not mentioned, fill all
!◇B	1	1	1	
¬!◇B	1	1	1	
□B	1	1	1	

¬!◇"A ∧ B"	!◇A	¬!◇A	□A	
!◇B	0	0	0	
¬!◇B	0	1	0	¬!◇"A" ∧ ¬!◇"B"
□B	0	0	0	

□"A ∧ B"	!◇A	¬!◇A	□A	
!◇B	0	0	0	
¬!◇B	0	1	0	¬!◇"A" ∧ ¬!◇"B"
□B	0	0	0	