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Logic, Doxastic

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Doxastic logic, beginning with Hintikka's *Knowledge and Belief. An Introduction to the Logic of the Two Notions* (1962. Cornell University Press), studies relations between propositions about what we believe. Using 'a' as a proper name like 'Ann', ' \rightarrow ' for 'if' as opposed to material implication, propositional variables such as 'p', 'q' and 'B' to represent the two-place relation, '... believes that ...'.

Ann believes that it is raining.

is formalized:

Bap.

Uncontroversial is,

$Ba(p \ \& \ q) \rightarrow (Bap \ \& \ Baq)$.

Controversial, even for ideally rational believers, are so-called 'BB' principles:

$Bap \rightarrow BaBap$

and conversely.

[JW] John Williams

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