

In J. Williamson & F. Russo (Eds.), *Key Terms in Logic*: Continuum.

Abduction

Abduction, sometimes called inference to the best explanation, is a nonmonotonic pattern of reasoning. While deduction determines necessary consequences and induction determines probable ones, abductive reasoning determines what plausible explanation, theory or hypothesis would make sense of an already observed consequence. Hence, from the observation of a fact B, one may conjecture that A entails B and that A is the best explanation for B, and thus that A might be a sound hypothesis. Although it is defeasible (compelling but not rationally valid), abduction has an important role in scientific discovery and artificial intelligence.

See also assumption, analogy, belief revision, condition, necessary and sufficient, , consequent, soundness, analogy

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