

Paradoxes of the Material Conditional

1 Indicative Conditional vs Subjunctive Conditional

Indicative *If Old Mike goes to Phil Club, then it will be fun.*

Subjunctive *If Art had not put Baja Bar Grill up for sale, then we would not have to meet at a different location for Phil Club.*

2 Materialism

Materialism (M) The material conditional, denoted by " \supset ", is the correct analysis of the English indicative conditional.

P	Q	$P \supset Q$
T	T	T
T	F	F
F	T	T
F	F	T

3 Paradoxes

$\neg P \models P \supset Q$

C If $2+2=5$, then God exists.

Turkey-Paris Paradox¹

P1 If John is in Paris, then he is in France.

P2 If John is in Istanbul, then he is in Turkey.

C Therefore, if John is in Paris he is in Turkey, or, if he is in Istanbul he is in France.

Switches Paradox²

P1 If you throw switch S and T, the motor will start.

C Therefore, either if you throw switch S the motor will start, or if you throw switch T the motor will start.

4 Resolutions

3-Valued Logic¹

P	Q	$P \implies Q$
T	T	T
T	F	F
T	G	G
F	T	G
F	F	G
F	G	G
G	T	T
G	F	F
G	G	G

Conversational Implicature⁴

Def. An assertion is *pragmatically improper* just in case it flouts the Cooperative Principle.

Claim "If P , then Q " has the truth conditions of " $A \supset B$ " and is assertable just in case it would not be *pragmatically improper* to do so.

Robustness in Assertions³

Def. Say that a speaker's belief in a conditional, "If P , then Q ", is *robust* just in case the speaker would not abandon their belief in the conditional if the speaker were to come to know that P .

Claim "If P , then Q " has the truth conditions of " $A \supset B$ " and is assertable just in case the speaker's belief in it is robust.

5 References

1. *The Propositional Logic of Ordinary Discourse* - William S. Cooper (1967)
2. *The Logic of Conditionals* - Ernst Adams (1965)
3. *On Assertion Conditions and Indicative Conditionals* - Frank Jackson (1979)
4. *Studies in the Way of Words* - H.P. Grice (1989)
5. *Ifs* - Editors: William L. Harper, Robert Stalnaker, Glenn Pearce (1981)