

On an Unpublished Remark of Russell's on 'If ... Then'

It is commonly claimed that the logicians' material implication fails to represent the 'if...then' of ordinary English. Although ' $p \supset q$ ' is true just in case either ' p ' is false or ' q ' is true, it is commonly claimed that the truth of 'if p , then q ' requires some special connection between ' p ' and ' q '. An argument of Russell's seems to me to show that this claim is an illusion. The argument is from the undated (1900-1902) manuscript "Necessity and Possibility", in the Russell Archives. I have, to my surprise, been unable to find any published version of the argument. Russell argues:

This view of implication is rendered unavoidable by various considerations, such, for example, as the following. Suppose p , q , r to be such that p and q are true, then r is true. It follows that if p is true, then if q is true, r is true. (For example, if a person is male and married, he is a husband; hence if a person is male, then if he is married he is a husband.) Now if p and q are true, then p is true. Hence, by the above principle, if p is true, then if q is true, p is true; that is, if p is true, then q implies p ; that is, a true proposition (p) is implied by every proposition (q).

Russell goes on to point out that the argument is accepted, "though without a full realization of its consequences", by Shakespeare and Bradley in the following passage (Bradley's *Logic*, second edition, p. 128):

Speed. But tell me true, will't be a match?
Launce. Ask my dog: if he say ay, it will; if he say no, it will;
if he shake his tail and say nothing, it will.

A similar argument can easily be constructed to show that if ' p ' is false, then 'if p , then q ' is true, regardless of what propositions ' p ' and ' q ' might be. If ' p ' is false and ' q ' is false, then ' p ' is false. So if ' p ' is false, then if ' q ' is false then ' p ' is false. But this is to say that if ' p ' is false, then if ' p ' is not false then ' q ' is not false, i.e., that if ' p ' is false, then if ' p ' is true then ' q ' is true. That is, if ' p ' is false, then 'if p , then q ' is true, regardless of what propositions ' p ' and ' q ' might be.

Either the above arguments are unsound, or they do not use 'if' and 'then' in their standard English senses, or ' \supset ' is 'if...then'. Since the above arguments are sound and use 'if' and 'then' in their standard English senses, ' \supset ' is 'if...then'.

It is true, of course, that such sentences as 'if snow is green, then $2+2=4$ ' and 'if $2+2=5$, then snow is green' are capable of shocking native English speakers. But this does not show anything wrong with these sentences. It only shows that not all English speakers are able to see the consequences of their day-to-day use of 'if...then'.

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