As we have indicated, the interpretation we have assigned the material conditional is this:

(1) “If p then q” is true if and only if either p is false or q is true.

But why believe this? The meaning of this connective is not as intuitive as the meanings of the others. One problem with this interpretation is that it seems to sever the connection between the if part and the then part – isn’t the if part (viz., the antecedent) supposed to provide a condition that suffices for the then part (viz., the consequent)? That suggests that there is a connection of some sort between them, but our interpretation above tells us that “if p then q” can be true because of what’s up with p considered independently of q, or vice versa.

There is a lot of literature on the meaning of the conditional. It is still an active area of research. But even so, there is an argument that can be given for this interpretation. It is an argument in two stages: first, we establish that “if p then q” is logically equivalent to (i.e., has the same meaning as) a sentence that we’ll call S, and second, we derive the interpretation above from S. Here goes:

Stage I

We establish the equivalence in three steps:

Step 1.

A. It is intuitive that “If p then q” cannot be true in a circumstance where p is true but q is false. (For example, “If I am in my office, then my lights are on” cannot be true in a circumstance where I’m in my office but the lights are off.)

B. So, if the conditional is true, then so is the sentence, “It is not the case that both p is true and q is false” – call the quoted sentence here S

C. Thus, “if p then q” implies S

Step 2.

A. Second, S is true if and only if the sentence “p is true and q is false” is false – this is just what it is for “it is not the case that both p is true and q is false” to be true

B. Given this, if S is true and, furthermore, if p is true, then we know that “q is false” must
not be true, which is to say that q must be true.

C. Thus, against the assumption that $S$ is true, we have determined that if p is true, then q must also be true.

D. Thus, $S$ implies “If p then q”

*Step 3.*

A. From Step 1.C, “if p then q” entails $S$

B. From Step 2.D, $S$ entails “if p then q”

C. Therefore, since these two sentences entail one another, they are equivalent, that is, they mean the same thing.

*Stage II*

A. If $S$ and “if p then q” mean the same thing, then whatever we say of $S$ we can say of “if p then q”.

B. $S$ is true if and only if the sentence “p is true and q is false” is false (Step 2.A above)

C. The sentence “p is true and q is false” is false if and only if either p is false or q is true.

D. Thus, $S$ is true if and only if either p is false or q is true.

E. So, by A, we can say that “if p then q” is true if and only if either p is false or q is true. But that is our definition (1) above.