1 The framework

Let’s start with Stalnaker’s general framework.

Inquiry, possible worlds, and propositions  Stalnaker thinks that the main point of inquiry is to distinguish between alternative ways the world could be. We start out in a state of ignorance; it could be this way or this way. As we inquire, we eliminate some of these ways. This corresponds to knowing more about our world. We’ve whittled down the class of possibilities for how the world could actually be.

Think of a proposition—that which you believe or assert—as a function from possible states of the world (possible worlds) to truth values, or equivalently, a set of these possible worlds. Accepting a proposition is accepting that the actual world is one of the worlds in that proposition. Rejecting a proposition is denying that. Thinking a proposition is possible is thinking that the actual world might be inside it.

Assertion and the common ground  Assertion is a speech act that has its place in a shared process of inquiry. In any conversation, there is a common ground of propositions that are accepted within that conversation. (The participants may not actually believe these propositions, since one can accept a proposition, in the framework of a conversation, without believing it.) The common ground is common in the sense that there is common knowledge about what is mutually accepted. If I’m in doubt about whether you accept \( p \), then \( p \) is not part of the common ground, even we all do accept it. Indeed, even if we all accept \( p \), and we all know that the others accept \( p \), \( p \) will fail to be in the common ground if we think that the others might not know that we accept \( p \).

We can think of the common ground as a set of propositions. But we can also think of it as a set of possible worlds—those that fall into the intersection of the propositions. This set, which Stalnaker calls the context set, contains all of the worlds that are compatible with what the conversational partners mutually accept. Everything else is “off the table” and ruled out, for purposes of the conversation.

Once an assertion is made and accepted, its content is added to the common ground. We intersect the context set with the asserted proposition, throwing away worlds that aren’t compatible with what is asserted. So, as the conversation progresses and more assertions are made and accepted, the context set shrinks.

A proposition \( p \) is accepted in the context if \( p \) is true at every world in the context set.
Common ground as context  Many sentences are context-dependent; what they are used to assert depends in part on the context. This is obviously the case for indexicals like ‘I’ and ‘here’, but Stalnaker thinks it is also true for many other expressions, including quantifier domains and, as we’ll see, conditionals.

One of Stalnaker’s key ideas is that the notion of common ground can play the role of context: what is asserted by a sentence can depend on the common ground. (We’ll see how this works in a bit.) Since assertions also affect the common ground, there is a two-way, reciprocal relation between assertion and common ground. What I assert using a sentence depends on the common ground, and my assertion affects the common ground in turn.

2 Semantics

Stalnaker thinks the truth conditions are the same for indicative and subjective conditionals. The difference between them has to do with the different presuppositions they carry.

The idea of the analysis is this: a conditional statement, if A, then B, is an assertion that the consequent is true, not necessarily in the world as it is, but in the world as it would be if the antecedent were true. [3, p. 68]

More formally:

⌜A → B⌝ is true at w if B is true at f(A, w). If f(A, w) is not defined because there is no world where A is true, then the conditional is vacuously true (n. 9).

Intuitively, f(A, w) is the “closest” possible world to w at which A is true. (Why just the closest world? Why not look at all worlds where A is true?)

3 Constraints on closeness

What does “closest” mean? Or, “most similar”? It will depend on the context: “Relevant respects of similarity are determined by the context” [3, p. 69]. However, we can lay down two constraints:

C1 If A is true at w, f(A, w) = w.

C2 If w is in the context set, then f(A, w) must, if possible, be within the context set: that is, “all worlds within the context set are closer to each other than any worlds outside it.”

The idea is that when a speaker says ‘If A’, then everything he is presupposing to hold in the actual situation is presupposed to hold in the hypothetical situation in which A is true. Suppose it is an open question whether the butler did it or not, but it is established and accepted that whoever did it, he or she did it with an ice pick. Then it may be taken as accepted and established that if the butler did it, he did it with an ice pick. [3, p. 69]
4. The or-to-if inference

What this means is that the inference from $B$ to $A \rightarrow B$ is a reasonable inference, in the sense that if $B$ is accepted in the context, $A \rightarrow B$ will be true. It is not, however, a valid inference, since $B$ can be true at the actual world without $A \rightarrow B$ being true at the actual world.

Stalnaker says that C2 is “only a defeasible presumption and not a universal generalization” (p. 70). Sometimes one may want to go out of the context set, “which is to say he may want to suspend temporarily some of the presuppositions made in that context. He may do so provided that he indicates in some way that his selection function is an exception to the presumption.” This is normally done through the use of the subjunctive mood.

So, when I use a subjunctive conditional, I’m signaling that I don’t mean for you to obey constraint C2—you can go outside of the context set for the closest $A$-world. When I don’t signal this (e.g., when I use an indicative), you’ve got to stay in the context set.

Compare:

1. The murderer used an ice pick.
   But if the butler had done it, he wouldn’t have used an ice pick.
   So the murderer must have been someone else.

2. The murderer used an ice pick.
   But if the butler did it, he didn’t use an ice pick.
   So the murderer must have been someone else. (??!)

The second example sounds very odd, and that is explained by Stalnaker’s constraint.

4 The or-to-if inference

The or-to-if inference is not valid. Countermodel:

$\text{Context set} = \{ w_1, w_2, w_3 \}$

$A$ is true at $w_1$ only, $B$ is true at $w_2$ only.

$f(\neg A, w_1) = w_3$

$A \lor B$ is true at $w_1$, but $\neg A \rightarrow B$ is not true at $w_1$.

So why does it seem like good reasoning?

Stalnaker will show that every context in which $A \lor B$ could appropriately be asserted, and in which it is accepted, is a context in which $\neg A \rightarrow B$ is accepted. (Roughly: the inference is acceptance-preserving, or assertability-preserving, but not truth-preserving.)

A Gricean assumption:

$G \models \phi \lor \psi$ is appropriately asserted in a context only if the context set includes worlds where $\phi$ is true and $\psi$ false, and also worlds where $\psi$ is true and $\phi$ false. (Otherwise you could have said something stronger, and your saying the weaker thing is misleading.)
5. Contraposition and hypothetical syllogism

The argument:

1. Suppose \( A \lor B \) is assertable and accepted.
2. Then the context must contain a world where \( A \) is false. \([G]\)
3. Now take any world \( w \) in the context set.
4. By our constraint \( C2 \), \( f(\neg A, w) \) is in the context set.
5. Since \( A \lor B \) is accepted, it is true at all worlds in the context set, and hence true at \( f(\neg A, w) \).
6. Since by definition \( \neg A \) is true at \( f(\neg A, w) \), it follows that \( B \) is true at \( f(\neg A, w) \).
7. So \( \neg A \rightarrow B \) is true at \( w \).
8. Since \( w \) was an arbitrary world in the context set, it follows that \( \neg A \rightarrow B \) is true at all worlds in the context set (i.e., accepted).

…the indicative conditional and the material conditional are equivalent in the following sense: in any context whether either might appropriately be asserted, the one is accepted, or entailed by the context, if and only if the other is accepted, or entailed by the context. This equivalence explains the plausibility of the truth-functional analysis of indicative conditionals, but it does not justify that analysis since the two propositions coincide only in their assertion and acceptance conditions, and not in their truth-conditions. \([3\ p. 72]\)

As Stalnaker notes, the denial conditions for \( A \lor B \) and \( \neg A \rightarrow B \) are very different.

5 Contraposition and hypothetical syllogism

Stalnaker notes that his analysis makes contraposition and hypothetical syllogism invalid.

You can easily find examples with subjunctives \([2\ p. 35]\): Olga has a huge crush on Boris, but Boris finds her unpleasant. Boris didn’t go the party, and Olga did go. Boris stayed away solely to avoid Olga. Olga would have liked it even better if Boris were there. In this scenario,

(3) If Boris had gone to the party, Olga would have gone.

is true, but its contrapositive

(4) If Olga had not gone, Boris would not have gone.

is false.

Stalnaker’s example of a hypothetical syllogism failure (from \([2\ p. 33]\)):

(5) If J Edgar Hoover had been born a Russian, he would have been a communist.

(6) If he had been a communist, he would have been a traitor.

(7) So, if he had been born a Russian, he would have been a traitor.
Stalnaker says his account can explain why we don’t find intuitive indicative counterexamples. (Is this right? Can you think of any? Can you show that contraposition and hypothetical syllogism are reasonable inferences, given Stalnaker’s pragmatic constraints?)

6 The argument for fatalism

This is Stalnaker’s version of an argument considered by Michael Dummett in [1]:

Either I will be killed in this raid (K) or I will not be killed. Suppose that I will. Then even if I take precautions (P) I will be killed, so any precautions I take will be ineffective (Q). But suppose I am not going to be killed. Then I won’t be killed even if I neglect all precautions; so, on this assumption, no precautions are necessary to avoid being killed (R). Either way, any precautions I take will be either ineffective or unnecessary, and so pointless. [3, p. 74]

1 $K \lor \neg K$
2 $K$
3 $P \rightarrow K$
4 $Q$
5 $Q \lor R$
6 $\neg K$
7 $\neg P \rightarrow \neg K$
8 $R$
9 $Q \lor R$
10 $Q \lor R$

Each step is plausible. What goes wrong?
The move from $K$ to $P \rightarrow K$ is not an entailment, but merely a “reasonable inference.” What this means is that if $K$ is accepted at a context, $P \rightarrow K$ is acceptable too. But when we’re in a subproof, our hypothetical suppositions aren’t accepted at our context. Remember, our context is compatible with both $K$ and $\neg K$. The feature we need arguments in subproofs to have is truth-preservation, and this one isn’t truth-preserving.

“So it is a confusion of validity with reasonable inference on which the force of the argument rests.” [3, p. 75]
References

