

## On the Syntax and Semantics of Assertion

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The well known analysis of *if*-clauses as restrictors of modals (Kratzer, 1986) has proven quite successful in the analysis of conditionals, but faces an apparent counterexample in cases like (1).

(1) If John went to the store, he bought cookies.

Kratzer's response to such cases is to posit a covert epistemic necessity modal, akin to *must*, in ordinary declarative sentences, which can provide something for the *if*-clause to restrict. This analysis, along with the general analysis of *if*-clauses as restrictors, has become widely accepted and cemented in the mainstream theory of modality.

**Problem.** But this theory raises several concerns. For one, if all declaratives contain a covert epistemic necessity modal, why does English not allow speakers to plainly assert a proposition? Why do all assertions have to be modalized? Furthermore, if there is an epistemic necessity modal present in all sentences, what exactly comprises the domain of this modal? Is it the set of worlds consistent with the mutual knowledge/belief of the interlocutors (i.e., the common ground)? If so, all utterances of declaratives should be either false or uninformative, since a true utterance would entail that the hearer already knows its content. Is it the set of worlds consistent with the speaker's knowledge/belief? If so, basically all utterances of declaratives  $\phi$  should be unassailable, since what the speaker is really asserting is "I believe  $\phi$ "; but in fact, of course, assertions are usually not unassailable; what B denies in (2b) is not that A believes that John left – it just denies that John left.

(2) a. *A/B*: John left.  
b. *B/A*: That's not true!

Note that one could deny that all assertions are modalized and still maintain Kratzer's account of conditionals – i.e., one could posit that Kratzer's silent epistemic modal exists only when need, i.e., in indicative conditionals. But the same problem remains for indicative conditional sentences: Whose knowledge forms the modal base? This led some (e.g., Stephenson, 2007) to propose relativist accounts of conditionals, whereby a conditional like (1) is treated as having a subjective truth-value, similar to a sentence containing a predicate of personal taste, like (3).

(3) The cookies John bought are tasty.

I pursue an approach that does not require appeal to relativism to explain these ordinary conditionals.

**Proposal.** This paper provides a non-relativist solution to this problem by simply contending that Kratzer's silent modal is not a part of the content of what is asserted, but rather is the operator responsible for the illocutionary force of assertion itself; in other words, all assertions are modalized because assertion itself is modal in nature. Note that this argument is parallel to Kaufmann's (2012) argument that conditional imperatives can be accounted for by her theory that there is an imperative operator in syntax. For Kaufmann this operator is essentially the modal *should*, thus imperatives like (4a) are equivalent to performative utterances of (4b).

- (4) a. Go!  
b. You should go.

However, it needs to be made clear what the difference is between a performative utterance of (4b) and its use as a normal assertion. Likewise, the present proposal regarding assertions is useless unless an explicit model of performative meaning is articulated to explain the exact role of the assertion operator (the target for restriction by *if*-clauses in (1)). I spell out such a model below.

**Performatives.** On my model, all sentences denote propositions. There is a single static update rule. Whenever a sentence is uttered, if its felicity (definedness) conditions are met, it is added to the Social Common Ground (SCG) as in (5).

$$(5) \quad SCG_n + \llbracket S \rrbracket = SCG_{n+1} = SCG_n \cap \llbracket S \rrbracket$$

The SCG for a given community is a body of information which everyone in that community, by normative convention, agrees (to act as if) is true. This model looks just like Stalnaker's (1984), which has been shown to be inadequate as a model of assertions, because assertions do not directly update the common ground, but merely propose to do so. However, explicit performatives like (6) actually do have the behavior Stalnaker's model attributed to assertions: Their update is (when felicitous) automatic and non-negotiable.

- (6) I promise to go.

Thus the explicit performative (6) denotes the ordinary proposition abbreviated in (7) (the proposition it would classically denote if it were considered an ordinary declarative).

$$(7) \quad \llbracket \text{I promise to go} \rrbracket = \lambda w [\exists e [\text{promise}(e, w) \ \& \ \text{Ag}(e, 1, w) \ \& \ \dots]]$$

Uttering it adds that proposition to the SCG, so everyone in the relevant community becomes committed to acting as though it is true; i.e., everyone in the community becomes committed to act as though the speaker has promised the hearer that she will go, whatever else that entails (e.g., that the speaker will be punished if she doesn't go, etc.)

**Commands etc.** Following Kaufmann (2012), (4a) has LF (8a) and denotation (8b).

- (8) a. IMP [ *<you>* go ]  
b.  $\llbracket (a) \rrbracket = \lambda w [\Box_{1,w} \lambda u [\exists e [\text{go}(e, u) \ \& \ \text{Ag}(e, 2, u)]]]$

I take  $\Box_x$  to mean *should (according to x)* similar to Kaufmann, meaning (9a) is a worthy paraphrase of (4a); though it could also be Lauer's (2013) *public effective preference* operator (PEP), in which case the declarative paraphrase of an imperative like (4a) would be something more like (9b).

- (9) a. According to me, you should go. (Kaufmann-style paraphrase)  
b. I promise (to act as though) I want you to go. (Lauer-style paraphrase)

Either would work just as well for the present analysis. Thus when an imperative is (felicitously) uttered, (the relevant community becomes committed to act as though) the hearer is obligated (or preferred) by the speaker to perform the act described by the VP. (NB: The IMP operator only

establishes an obligation on behalf of the speaker, not necessarily the community at large; so unlike in the case of explicit performatives, hearers can respond to imperatives by refusing to commit themselves to undertaking the prescribed action.) Lastly, as Kaufmann argues, it is IMP which is restricted by *if*-clauses in conditional imperatives.

**Assertions.** Assertions like (2a) have LFs like in (10).

(10) [ IMP [ BEL [ John left ] ] ]

The operator BEL is synonymous with *think* or *believe*. Accordingly, (2a) is equivalent to a performative utterance of (11a) or (11b).

- (11) a. According to me, you think should John left. (Kaufmann-style paraphrase)  
b. I promise (to act as though) I want you to think John left. (Lauer-style paraphrase)

So it's BEL which is restricted by conditionals as in (1). This successfully fleshes out Kratzer's original analysis of conditionals, dispensing with the problem for cases with no overt modal raised at the beginning of this abstract. (NB: This is *not* a conditional speech act analysis, because the speech act occurs unconditionally.)

Modeling the illocutionary effect of an assertion of  $\phi$  as creating an obligation or public effective preference for the hearer to believe  $\phi$  captures the essential purpose of assertions: We typically assert  $\phi$  *in order to get the hearer to believe  $\phi$* , a point made by Grice (1957). Additionally, we judge it as odd when a hearer refuses to believe something asserted at them (unless the hearer has good reason; assertions are still negotiable, just as imperatives are). This normative judgment cannot be explained unless there is a normative convention which puts pressure on hearers to believe assertions; I argue that this normative convention is a grammatical convention, i.e., a part of compositional semantics.

On the contrary, the standard wisdom has long been that the illocutionary effect of an assertion of  $\phi$  is to commit the *speaker* to the belief that  $\phi$ . (See Lauer 2013 for a recent version of this.) And typically the speaker surely *does* become committed to believe what she asserts. But this fact can be explained by appeal to pragmatic, rather than grammatical, convention, i.e., Grice's Quality (anyone who asks others to believe  $\phi$  commits themselves to believe  $\phi$ ). Moreover, speaker-commitment theories of assertion cannot explain the non-synonymy of (12a) and (13a), which on (e.g.) Lauer's analysis have essentially the meanings in (12b) and (13b) (which are equivalent); whereas my analysis paraphrases them as in (12c) and (13c) (not equivalent).

- (12) a. John left.  
b. I promise to believe John left.  
c. I want you to believe John left.
- (13) a. I believe John left.  
b. I promise to believe I believe John left.  
c. I want you to believe I believe John left.

**Biscuits.** An advantage of the decompositional approach is that it offers an angle on relevance conditionals, also called biscuit conditionals.

- (14) If you're hungry, John bought cookies.

On my analysis the *if*-clause in (14) restricts IMP, rather than BEL as in (1). The result is that the hearer is only obligated/desired to believe the consequent if the antecedent is true. Conditional perfection leads the hearer to infer that if the antecedent is not true, they are not under any obligation to believe the consequent. A la Franke (2007) the hearer can reason that this is not because the consequent is actually false when the antecedent is false, so the hearer is likely to either believe or disbelieve the consequent regardless of the truth value of the antecedent. But the inference that the information conveyed by the consequent is relevant only if the antecedent is true is derived by a version of Grice's (1975) Relation, namely something like (15).

(15) It is infelicitous to obligate someone to do  $x$  if their doing  $x$  is not relevant to common interests.

So this theory does offer something more like the “conditional speech act” approach (e.g., DeRose and Grandy, 1999), but only for biscuit conditionals. My paper will also thoroughly discuss alternative approaches to indicative conditionals (e.g., Stephenson, 2007), biscuit conditionals (e.g., Franke, 2007) and assertion generally (e.g., Krifka, 2015).

#### References

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