



Dept. of Linguistics

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ON THE SYNTAX AND SEMANTICS OF ASSERTION

Questioning Speech Acts

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THIS TALK

A collection of problems faced by various epistemic/doxastic expressions regarding how they integrate with standard theories of assertion

THIS TALK

1. the auxiliary *must*
2. indicative conditionals
3. the attitude *think/believe*

THIS TALK

My proposal: A theory which

- treats illocutionary force as being determined by compositional semantics
- treats assertions as a sort of imperative

ROADMAP

1. Some epistemic puzzles
2. A performative model of meaning
3. Puzzle 1
4. Puzzle 2
5. Puzzle 3

THE PROBLEM WITH EPISTEMICS

PROBLEM 1

Standard theories of assertion contend that the illocutionary effect of an assertion of ϕ is to commit the speaker to a belief that ϕ is true (Lewis, 1975; Gunlogson, 2008; Lauer, 2013)

PROBLEM 1

So (1a) can be paraphrased as (1b):

- (1) a. John left.
- b. I promise I think John left.

PROBLEM 1

But if that's true, (2a) and (2b) ought to be synonymous.

- (2) a. John left.
- b. I think John left.

PROBLEM 1

Because (3a) and (3b) are (roughly) synonymous.

- (3) a. I promise I think John left.
- b. I promise I think I think John left.

PROBLEM 1

Importantly I'm concerned with the contrast between (4a) and (4b-e) and all others, rather than (4a-d) and (4e).

- (4) a. John left.
- b. I firmly believe John left.
- c. I am sure John left.
- d. I am absolutely certain John left.
- e. I think John left.

PROBLEM 1

- (5)
- a. *It's common ground that C believes climate change is real.*
 - b. *D/C: Climate change is not real.*
(hostile)
 - b'. *D/C: I firmly believe climate change is not real.* *(not hostile)*

PROBLEM 2A

The auxiliary *must* (also *might*) is standardly analyzed as an epistemic necessity (possibility) modal.

(6) John must have gotten cookies.

Thus, (6) is true iff John has gotten cookies in all the epistemically accessible worlds.

PROBLEM 2A

But what exactly is this epistemic accessibility relation?

POSSIBILITY 1

Is it the set of worlds consistent with the speaker's belief?

If so, utterances like (6) should be fairly unassailable, and should only be taken as comments on the speaker's beliefs, not on the real world.

POSSIBILITY 1

- (7)
 - a. A/B : Blofeld must be in Zurich.
 - b. B/A : That's not true!

- (8)
 - a. A/B : I firmly believe Blofeld is in Zurich.
 - b. B/A : That's not true!

POSSIBILITY 2

Is it the set of worlds consistent with our mutual beliefs? (i.e., the common ground?)

If so, utterances like (8) should never be meaningful, since they can only recapitulate information that is already known.

PROBLEM 2A

The issue in essence is that, when it comes to *must*-sentences, what seems to be asserted is just the prejacent of *must*, not the sentence as a whole

PROBLEM 2A

This difficulty has led some to embrace relativist/contextualist approaches like assessment sensitivity (e.g., Lasersohn, 2005, MacFarlane 2004), and others to simply deny that *must* is really a modal at all.

PROBLEM 2B

The same problem recurs with the epistemic necessity modal posited by Kratzer (1986) for indicative conditionals

PROBLEM 2B

Kratzer argues that *if*-clauses are restrictors on the domains of modals

- (9)
- a. If John goes to the store he should buy cookies.
 - b. should [If ...] [he buys cookies]

PROBLEM 2B

This requires positing a silent modal in (10):

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

PROBLEM 2B

- (11) a. If John went to the store he bought cookies.
b. OP [If ...] [J bought cookies]
- (12) a. If John goes to the store he should buy cookies.
b. should [If ...] [he buys cookies]
b'. OP [If ...] (should [] [h b c])

PROBLEM 2B

The modal OP has been argued to be an epistemic modal, in which case the same problem arises

And the same solution: Assessment sensitivity (Stephenson, 2007)

Again the question is: What exactly is being asserted?

PROBLEM 3

Indicative conditionals have biscuity readings:

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

PROBLEM 3

There is an inference that the relevance of the consequent depends on the truth of the antecedent

And here what seems to be asserted is just the prejacent (unconditionally)

THIS TALK

My proposal: A theory which

- treats illocutionary force as being determined by compositional semantics
- treats assertion in particular as a species of imperative

A PERFORMATIVE MODEL

MY MODEL

All sentences denote propositions (type $\langle s, t \rangle$)

A single static update rule, identical to Stalnaker's (1984) model of assertion:

$$(14) \quad CG_n + \llbracket S \rrbracket = CG_{n+1} = CG_n \cap \llbracket S \rrbracket$$

PERFORMATIVES

Works when performatives like (15) are modeled simply as the classical propositions they seem to denote

- (15)
- a. I promise to go.
 - b. I sentence you to 50 days in jail.
 - c. I apologize.

CONSTATIVES

For everything else, we need a version of the Performative Hypothesis (Ross, 1970; Lakoff, 1968; McCawley, 1968; Sadock, 1969a,b)

The illocutionary force of any given sentence is determined by its content

IMPERATIVES

A la Kaufmann (2012):

- (16) a. Go!
- b. $\text{IMP} [\langle \textit{you} \rangle \textit{go}]$
- c. $[[\textit{a}]] = \lambda w [\Box_{1,w} \lambda u [\exists e [\textit{go}(e, u)$
 $\& \textit{Ag}(e, 2, u)]]]$

IMPERATIVES

Kaufmann-style paraphrase of (16a):

(17) According to me, you should go.

Lauer-style 2013 paraphrase of (17a):

(18) I want you to go.

PRAGMATICS

Grice's maxims exist as universal conventions guiding speech acts:

All speakers are always committed to acting cooperatively, i.e.:

All speakers are by default committed to trying to get x to do a iff x doing a would help to advance x 's/our interests

ASSERTIONS

ASSERTIONS

I treat asserting-declaratives as a special case of imperative:

- (19) a. John left.
 b. [IMP [BEL [John left]]]]

NOT SO CRAZY!

- (20)
- a. We're gonna build that wall,
believe me.
 - b. Believe me when I tell you that I
would never do you no harm.
 - c. Know this: I will find you and I
will kill you.

ASSERTIONS

So uttering (20a) is kind of like uttering (21a) or (21b):

- (21)
- a. According to me, you should believe that John left.
 - b. I want you to think John left.

ASSERTIONS

What's not negotiable is that the speaker made the assertion (i.e., publicly put pressure on the hearer to believe ϕ)

What's still negotiable is whether ϕ is really true

ASSERTIONS

So on this theory the semantics of assertion commits the hearer to believe ϕ rather than the speaker

ASSERTIONS

But the convention of honesty presumably still means that the speaker ends up committed to ϕ too (Grice, 1975)

(All speakers are by default committed to not trying to get anyone to believe anything that they don't themselves believe)

ASSERTIONS

This captures the intuition (Grice, 1957) that the point of an assertion is to get people to believe things

(NB: Assessment sensitivity faces some serious problems from this perspective)

ASSERTIONS

The standard theory says the assertions commit the **speaker** to believe ϕ , which while indirectly useful, isn't the main point of most assertions

ASSERTIONS

Of course, the proponent of the speaker-commitment view might say:
Pragmatics is responsible for the hearer-oriented effect (if any?)

ASSERTIONS

The main empirical advantage concerns
Problem 1:

- (22) a. John left.
 b. I think John left.

ASSERTIONS

Per speaker commitment:

- (23) a. I promise I think John left.
 b. I promise I think I think John left.

ASSERTIONS

Per my proposal:

- (24)
- a. I want you to think John left.
 - b. I want you to think I think John left.

SEMANTICS OF ASSERTION

So, the semantics I propose for assertion handles Problem 1.

NB the syntax I propose is irrelevant to Problem 1 and logically distinct from the semantics.

PROBLEM 2

Problem 2 is solved because it allows us to treat *must* and Kratzer's OP as being outside the scope of the assertion; i.e., as being (part of) the assertion operator themselves

BACK TO PROBLEM 1

So in the case of *must* we can treat it as being in complementary distribution with BEL

- (25) a. Joe must have left.
 b. IMP [must [Joe left]]

BACK TO PROBLEM 1

And in the case of OP we can treat it as
being BEL

In indicative conditionals, it is the modal BEL
that is restricted by the conditional

BACK TO PROBLEM 1

- (26)
- a. If John went to the store he bought cookies.
 - b. IMP [BEL [If ...] [John bought cookies]]

BACK TO PROBLEM 1

Thus both epistemic modals don't behave like they're part of the assertion because they're not: What's asserted (and therefore what is at issue for the purpose of truth value judgments etc.) is the prejacent of those modals

BISCUITS

BISCUITS

(e.g., DeRose and Grandy (1999); Franke (2007))

- (27) If you're hungry, John bought cookies.
- a. John bought cookies.
 - b. If you're hungry, (27a) is relevant.

BISCUITS

Because there are two modal operators in an assertion, there are two places the *if*-clause can restrict:

[IMP [BEL [John left]]]

BISCUITS

Normal conditionals arise from restriction of
BEL

Biscuit conditionals arise from restriction of
IMP

BISCUITS

- (28) If John went to the store, he bought cookies.
- a. I want you to believe that if John went to the store, he bought cookies.
 - b. (If he didn't go to the store, he didn't buy cookies.)

BISCUITS

- (29) If you're hungry, John bought cookies.
- a. If you're hungry, I want you to believe that John bought cookies.
 - b. (If you're not hungry, I don't have any desire for you to believe John bought cookies.)

BISCUITS

The convention of honesty guarantees that the speaker believes the consequent of a biscuit conditional no matter what (and thus that the hearer will typically infer the consequent no matter what)

BISCUITS

The convention of relevance guarantees the relevance inference: The speaker should only commit the hearer to take action x if the hearer doing x is relevant to his/our interests

CONCLUSION

CONCLUSION

Going syntactic solves problem 2

Going imperative solves problem 1

Doing both gets biscuits

- DeRose, K. and R. E. Grandy (1999, September). Conditional assertions and “biscuit” conditionals. *Noûs* 33(3), 405–420.
- Franke, M. (2007). The pragmatics of biscuit conditionals. In *Proceedings of the 16th Amsterdam Colloquium*.
- Grice, H. P. (1957, July). Meaning. *The Philosophical Review* 66(3), 377–388.
- Grice, H. P. (1975). Logic and conversation. In P. Cole and J. Morgan (Eds.), *Syntax and Semantics 3: Speech Acts*, pp. 41–58. New York: Academic Press.
- Gunlogson, C. (2008). A question of commitment. *Belgian Journal of Linguistics* 22(1), 101–136.
- Kaufmann, M. (2012). *Interpreting imperatives*. Springer.
- Kratzer, A. (1986). Conditionals. *Proceedings of CLS* 22(2), 1–15.
- Lakoff, R. (1968). *Abstract syntax and Latin complementation*. MIT Press.
- Lasnik, P. (2005). Context dependence, disagreement, and predicates of personal taste. *Linguistics and Philosophy* 28, 643–686.

- Lauer, S. (2013). *Towards a Dynamic Pragmatics*. Ph. D. thesis, Stanford University.
- Lewis, D. (1975). Languages and language. In K. Gunderson (Ed.), *Language, Mind, and Knowledge*, pp. 3–35. University of Minnesota Press.
- McCawley, J. D. (1968). The role of semantics in grammar. In E. Bach and R. T. Harms (Eds.), *Universals in linguistic theory*, pp. 125–170. New York: Holt, Rinehart and Winston.
- Ross, J. R. (1970). On declarative sentences. In *Readings in English transformational grammar*, pp. 222–272. Waltham, MA: Ginn.
- Sadock, J. (1969a). Hypersentences. *Papers in Linguistics 1*, 283–371.
- Sadock, J. (1969b). Super-hypersentences. *Papers in Linguistics 1*, 1–16.
- Stalnaker, R. (1984). *Inquiry*. Cambridge, MA: MIT Press.
- Stephenson, T. (2007). Indicative conditionals have relative truth conditions. In *Proceedings of CLS 43*, pp. 231–242.