Modifying Conversational Moves: The Case of Rising Declaratives

Problem. Gunlogson (2001) observes that declarative English sentences can contain with rising ("question") intonation (RDs) can be used in a number of ways. One is to question a presupposition of a previous utterance, as in (1). (Rising intonation is indicated with a question mark.) Another is to indicate speaker uncertainty as in (2), where Coworker B seems to be offering 'John is on vacation' as a possible answer to A's question, while indicating that she isn't certain of it. Rising intonation can even be used when the speaker is uncertain about the appropriateness of the speech act itself (3,4).

(1) A: John has to pick up his sister at the airport. B: John has a sister?
(2) A: [noticing John's desk is empty]: What happened to John? B [shrugging]: He's on vacation?
(3) Radio Station DJ: Good morning, Susan. Where are you calling from?
   Caller: I'm from Skokie? [Gunlogson 2001 (31), citing Hirschberg & Ward 1995]
(4) Waiter: Hi, my name's Carl. I'll be your waiter tonight? [Gunlogson 2001 (32)]

In this paper, we propose a unified analysis of RDs. We propose that the rising intonation serves as an utterance modifier, similar to adverbials frankly or strangely (5a, Potts 2005) or conditional clauses in relevance conditionals (5b, Scheffler 2007). However, it operates on an even higher level, modifying not just the utterance, but the actual conversational move involved in making it. Together with the basic meaning of a declarative utterance, this yields a move which addresses the currently open issue, but acknowledges the hearer's authority to perform the move (cf. Ettinger 2010).

(5) a. If John were there, he would, frankly, win. b. If you're hungry, there's pizza in the fridge.

Background. We adopt a slightly modified version of Farkas & Bruce's (2010) framework [F&B]. On this view, each stage in a conversation is represented by a context state consisting of: (i) a set of propositions that each each participant is committed to; (ii) the Table, a stack of propositions that are at issue in the conversation; (iii) the common ground (CG); and (iv) the Projected Set of common grounds representing potential unmarked continuations of the conversation. E.g., when A makes a simple assertion that p (declarative with falling intonation), A is publicly committing to p (and its presuppositions), bringing up the issue of whether p, and proposing that p (and all its presuppositions) be added to the CG. The default next move is for other speakers to accept this proposal and for p to be added to the CG. This is modeled in F&B's system by adding p to the list of the speaker's public commitments, to the top of the Table stack, and to each member set of the Projected Set. This is illustrated in (6) for (1) with a previously empty conversational state.

(6) A's Commitments: j has a sister and j is picking up j's sister B's Commitments:
TABLE: j is picking up j's sister  CG: {}
PROJECTED SET: { j has a sister and j is picking up j's sister }

In contrast, in the case of an interrogative question, such as (7) or (8), the questioner commits to nothing except the presuppositions of the question, puts the proposition (in the case of a polar question) or an open proposition (in the case of a wh-question) on the Table, and projects that the CG will be updated with one of the answers, as (9) illustrates (for 8).

(7) Does John have a sister?
(8) What happened to John?
(9) A's Commitments: B's Commitments: TABLE: \( \text{on-vacation}(j) \) \( \text{fired}(j) \) \( \text{promoted}(j) \& \text{on-vacation}(j) \)
CG: {}  PROJECTED SET: { {\text{on-vacation}(j)} \{\text{fired}(j)\} \{\text{promoted}(j) \& \text{on-vacation}(j)\} }

Proposal. We propose that RDs express a conversational move in which the speaker is acknowledging the hearer's authority to make a move to assert the content of the declarative (similar to Chinese <ba, Ettinger 2010>). Following Potts 2005, we assume that the the syntax and semantics of sentences include a representation of relationships between the speaker and the utterance (10). We add to this an additional level representing relationships between conversational participants and moves (11), and propose that rising intonation contributes the indicated modifier in (11) (bold).
The effect of this conversational-move modifier is to express the hearer’s authority to make the speech act that the speaker would otherwise be making. We can see from (12)-(13) that the rising intonation acts on a higher level than adverbs like *frankly*. That is, (13) can only be interpreted as a move where the speaker acknowledges the hearer’s authority to assert that Mary said or asked something, rather than expressing that Mary passed authority to her audience on her move.

Mary said that if John were there, he would, *frankly*, win the tournament. (Mary is being frank)

Mary asked whether John has a sister?

The conversational moves are recorded in the context (the past course of the conversation is part of mutual knowledge), forming a tree whose structure parallels the issue stack (cf Grosz&Sidner 1986). F&B define introduction of a new issue as a push of that issue on the top of a stack; once it is addressed, the issue is popped. Conversational moves can only address the topmost issue.

To illustrate, in (2), B is saying, ‘one thing I could do here is assert that John is on vacation, but you have the authority to really assert that.’ In the model, the sub-issue of whether John is on vacation is added to the Table (the normal effect of an assertion) but this proposition is not added at this point to the speaker commitments or the common ground (since the speaker is passing on the authority to make this move) After the RD, the model is (9, without move tree):

(9) A’s Commitments: B’s Commitments: TABLE: J is on vacation - x happened to j
CG: {} PROJECTED SET: {{on-vacation(j)} {fired(j)} {promoted(j)&on-vacation(j)}}

If the hearer chooses to exercise their authority and confirm (i.e., assert) that John is on vacation, then *vacation(j)* will be added to each set in the projected set, and inconsistent sets eliminated.

We can understand a case like (1) by comparing it to (14), in which B makes an explicit inference from A’s presupposition. In (1), B is saying ‘I could assert (through inference) that John has a sister, but you have the authority to really assert that.’ Since the hearer has just presupposed that John has a sister, this results in a n inference that speaker did not know that fact and wants confirmation. The RD in (1) also adds to the top of the Table the issue of whether John has a sister, which is a sub-issue of whether John is picking up his sister.

John has to pick up his sister at the airport. B: (Oh!) John has a sister. (I didn’t know that.)

In (3), the caller is saying, ‘Addressing your question, I could assert that I’m from Skokie, but you have the authority to really assert that.’ Although the speaker is an authority on where he is from, the hearer (DJ) is in a position to know the appropriate way to conduct a radio call, so we infer that the speaker is not sure whether he is making an appropriate response. Given that the caller is not sure what is being asked, the issue of what town he is from can be understood as a sub-issue of where he’s calling from (which was put on the Table by the DJ’s question). We can account for (4) along similar lines, though the hearer’s authority acknowledged here is of a slightly different kind.

Conclusions. By analyzing rising intonation on declaratives as a modifier at the level of conversational moves, we are able to unify otherwise disparate uses of RDs, while at the same time making progress towards a full theory of moves and stages in conversation, and a compositional account of meanings that arise at the interface between the sentence and discourse level.