Intonation and Commitment: The case of rising declaratives[*]

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1 Setting the Stage

The subject at hand: the conventional discourse effect of rising declaratives, and its relation to the conventional discourse effect of falling declaratives and of polar interrogatives.

(1)   a. Bill owns rottweilers.
    b. Bill owns rottweilers?
    c. Does Bill own rottweilers?

▷ rising intonation marked with question marks throughout, as above
▷ today I'll just say 'rising intonation' and leave it at that—though I think a fully convincing account would eventually need to engage with at least somewhat fine-grained intonational detail

To get a sense of the empirical terrain, here's three basic cases:

(2)   THE HAIRCUT CASE

    a. *[Context: **A** is looking at her addressee, whose hair looks much shorter than yesterday.]*
    A: You got a haircut?

    b. *[Context: **A** is talking to her addressee on the phone, and is groping at random for something to talk about.]*
    A: #You got a haircut?

In the felicitous case, (2a), **A** has good reason to believe that p is true, and also has good reason to believe that her addressee believes it to be true.

(3)   THE TRINKET CASE

    a. *[Context: **A** has shown **B** a chintzy trinket and told him that Antiques Roadshow appraised it to be worth millions.]*
    B: This trinket is valuable?

b. *[Context: **B** has noticed a chintzy trinket on **A**'s shelf, which **A** has given no indication is at all valuable.]*
  B: #This trinket is valuable?

In the felicitous case, (3a), **B** seems surprised or skeptical that p, but has good reason to believe that his addressee believes it to be true.

(4) THE STEPHANOPOULOS CASE
  a. *[Context: **G** is perplexed that his addressee has responded to a question about making sacrifices by talking about creating jobs and building structures.]*
  G: Those are sacrifices?
  b. *[Context: **G**'s addressee has just been talking about creating jobs and building structures, with no indication that he considers those to be sacrifices.]*
  G: #Those are sacrifices?

In the felicitous case, (4a), **G** believes that p is false, but has good reason to believe that his addressee believes it to be true.

In all the infelicitous cases, the speaker has no reason to suspect their addressee believes p.

The empirical generalizations I draw from these cases:

▷ Rising declaratives elicit addressee response

▷ Rising declaratives are only felicitous when the speaker has some reason to suspect that the addressee believes p.

Rising declaratives have been called 'biased questions' on occasion.

▷ There is something questiony about rising declaratives, in that they request a response

▷ But they're non-neutral in their relation to presumed addressee belief

In this talk I propose an analysis of rising declaratives that explains their questioniness and their biasedness as arising from their rising intonation and their declarative form, respectively.

To foreshadow my central analytical claims:

▷ Declarative sentences raise singleton issues, anticipating addressee commitment

▷ Rising intonation has the discourse effect of not committing the speaker to a resolution of the issue raised by their utterance, necessitating addressee response

As contextualizing prerequisites to my formal proposal, I'll present a framework, a rallying cry, and a point of departure.

1.1 A framework

I assume the commitment-based discourse model of Farkas & Bruce (2010), which has the following components:

(5) a. COMMON GROUND
   The common ground cg is the set of all propositions all conversational participants are publicly committed to

   b. CONTEXT SET
   The context set cs is the set of all worlds compatible with all propositions in the common ground ($\bigcap cg$)

   c. DISCOURSE COMMITMENTS
   For each conversational participant X, there is a set of propositions DC_X representing those propositions X has publicly committed to in the course of the discourse that have not (yet) become common ground

   d. THE TABLE
   The Table is a (potentially empty) stack of sets of propositions, representing issues currently under discussion[1]

   e. THE PROJECTED SET
   The projected set ps is the set of all sets of propositions that would result if some proposition in the top element of the Table were added to cg, representing the set of all potential future common grounds that could result from a licit resolution of the issue at hand.

   ▷ To add content to the Table is to RAISE AN ISSUE

   ▷ An issue is RESOLVED when one of the propositions in it is entailed by cs

   ▷ Conversations are driven by pressure to shrink cs, which encourages both issue-raising and issue-resolution

Farkas & Bruce (2010) define the ASSERTION of some proposition p as adding p to the assertor's discourse commitments, and the addition of the singleton set containing p to the Table:

(6) a. **A**: I got a haircut.

   b. UPDATE WITH *I got a haircut.*

DC_A	Table	DC_B		DC_A	Table	DC_B
			→	p	$\{p\}$	
$cg = \varnothing,\ ps = \{\varnothing\}$				$cg = \varnothing,\ ps = \{\{p\}\}$		

Farkas & Bruce (2010) define QUESTIONING whether p as making no changes to the questioner's discourse commitments, and as adding the set containing p and $\neg p$ to the Table:

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[1]Farkas & Bruce (2010) assume that the Table is a stack of pairs of syntactic structures and sentential denotations. I leave out the syntactic structures for the sake of simplicity.

(7) a. **A**: Did you get a haircut?
   b. UPDATE WITH *Did you get a haircut?*

DC_A	Table	DC_B

$\rightarrow$

DC_A	Table $\{p, \neg p\}$	DC_B

$cg = \varnothing$, $ps = \{\varnothing\}$ $cg = \varnothing$, $ps = \{\{p\}, \{\neg p\}\}$

1.2 A rallying cry

Farkas & Roelofsen (to appear) argue that a satisfying account of conventional discourse effects must *derive* them from the combinatorics of the ingredients of sentence forms, instead of stipulating them case by case.

▷ Relevance to rising declaratives: several recent accounts directly stipulate their conventional discourse effect

▷ q.v. Krifka (2015), Malamud & Stephenson (2015)

▷ It would be preferable to derive the behavior of rising declaratives from the contribution of declarative sentence form and the contribution of rising intonation

1.3 A point of departure

Farkas & Roelofsen (to appear): intonation affects semantic content.

▷ Rising intonation contributes an operator that, in the terminology of Inquisitive Semantics (Ciardelli et al. 2013) renders the proposition it is applied to inquisitive and uninformative

▷ The important part for our purposes today: the effect of rising intonation on a declarative sentence is to convert it into the corresponding polar question meaning (from $\{p\}$ to $\{p, \neg p\}$)[2]

▷ Because this renders rising declaratives semantically identical to polar interrogatives, something more needs to be said about their conventional discourse effect, as rising declaratives aren't identical to polar interrogatives

Farkas & Roelofsen (to appear): rising declaratives are a MARKED form, and as a marked form they get an additional discourse effect.

▷ In addition to questioning whether p, rising declaratives indicate that the speaker has evidence on the basis of which their credence in p is **at most low**

I have two objections to this account—one theoretical and one empirical.

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[2]In the Inquisitive Semantics implementation of Farkas & Roelofsen (to appear), this set will be downward closed. We can abstract away from that here, as nothing crucial to the discussion at hand hinges on it.

EMPIRICAL OBJECTION: rising declaratives are compatible with a full range of credences toward p—see data in (2-4), in particular the haircut case. The real generalization isn't low credence, but expectation of addressee commitment.

THEORETICAL OBJECTION: this analysis does not fully satisfy the rallying cry: the special additional discourse effect that rising declaratives are given as a marked form doesn't follow from anything about the nature of their form, their intonation, or the interaction between the two.

2 Intonational contours are discourse effect modifiers

I propose (contra Farkas & Roelofsen to appear) that intonation has no semantic effect.

▷ The semantic content of a sentence is fully determined by sentence form (declarative, interrogative, imperative) and lexical content in the familiar compositional way

▷ Intonation affects conventional discourse effects—i.e. how that semantic content is put into play in the conversational context

I assume the following simple conventional discourse effects for today:

(8) THE CORE PROPOSAL:

▷ The basic discourse effect of utterance: places the semantic content of the uttered sentence on the Table

▷ Falling intonation adds the additional discourse effect of committing the speaker to the informational content of the uttered sentence

▷ Rising intonation supplies no additional effect—sentences with rising intonation just add the semantic content of the uttered sentence to the Table, making no speaker commitments in the process

2.1 Sanity check: the basic pairings

This decomposition of conventional discourse effects into the basic discourse effect and the contribution of intonation derives exactly the conventional discourse effects proposed for falling declaratives and polar interrogatives by Farkas & Bruce (2010):

Falling declaratives:

▷ Contribution of declarative sentence form: sentence raises singleton issue

▷ Contribution of falling intonation: speaker commits to the informational content of that issue

(9)   UPDATE WITH *I got a haircut.*

DC_A	Table	DC_B

$cg = \varnothing,\, ps = \{\varnothing\}$

$\rightarrow$

DC_A	Table	DC_B
p	$\{p\}$	

$cg = \varnothing,\, ps = \{\{p\}\}$

Polar interrogatives:

▷ Contribution of interrogative sentence form: sentence raises non-singleton issue

▷ Contribution of rising intonation: speaker makes no discourse commitments

(10)   UPDATE WITH *Did you get a haircut?*

DC_A	Table	DC_B

$cg = \varnothing,\, ps = \{\varnothing\}$

$\rightarrow$

DC_A	Table	DC_B
	$\{p, \neg p\}$	

$cg = \varnothing,\, ps = \{\{p\}, \{\neg p\}\}$

2.2   The conventional discourse effect of rising declaratives

Rising declaratives:

▷ Contribution of declarative sentence form: sentence raises singleton issue

▷ Contribution of rising intonation: no speaker commitment

(11)   UPDATE WITH *You got a haircut?*

DC_A	Table	DC_B

$cg = \varnothing,\, ps = \{\varnothing\}$

$\rightarrow$

DC_A	Table	DC_B
	$\{p\}$	

$cg = \varnothing,\, ps = \{\{p\}\}$

Rising declaratives make no commitments on the part of the speaker, making addressee response necessary to resolve the issue; they raise singleton issues, projecting only one resolution to that issue, anticipating addressee commitment to p (cf. Krifka 2015).

Returning to the 'biased question' intuition:

▷ The account of rising intonation captures the intuitive questioniness of rising declaratives: the speaker making no commitments necessitates addressee response to resolve the issue

▷ The semantics of declarative sentences accounts for the intuitive biasedness of rising declaratives: raising a singleton issue projects only one resolution

3   The pragmatics of rising declaratives

To more fully articulate the ramifications of this proposal, I'll walk through the pragmatics of the choice to use a rising declarative instead of a related sentence form.

3.1 Competition with falling declaratives

Rising declaratives differ from falling declaratives only in terms of avoiding commitment to p.

▷ Rising declaratives should be chosen only when the speaker has a reason to avoid committing to p

▷ Put another way: the use of a rising declarative licenses the pragmatic inference that the speaker has such a reason

This inference jumps out most clearly from cases like the following (Farkas & Roelofsen to appear):

(12)   THE SUNSET CASE
       *[Context: **A** has told **B** that the sunsets are really beautiful this time of year.]*
       B: This is a beautiful sunset?

Intuitively, **B**'s choice of a rising declarative suggests that he disagrees with its semantic content. But why, if all the rising declarative does is project addressee commitment to p?

▷ Raising a singleton issue that projects addressee commitment to p can be done with either a falling or a rising declarative

▷ Because a form that would've committed **B** to p was available, the choice of a form that avoids commitment gives rise to the inference that **B** has some reason not to commit

▷ Because he is currently looking at the sunset, the only conceivable reason he would want to avoid committing to p is that he doesn't find the sunset beautiful

3.2 Competition with polar interrogatives

Rising declaratives differ from polar interrogatives only in that they don't project a Common Ground that has resolved the issue in favor of $\neg p$.

▷ Rising declaratives should be chosen only when the speaker has a reason to believe the addressee will commit to p

▷ Put another way: the use of a rising declarative licenses the pragmatic inference that the speaker expects the addressee to commit to p

Let's look again at the sunset case:

(13)   THE SUNSET CASE
       *[Context: **B** knows that **A** is generally unimpressed by sunsets.]*
       B: #This is a beautiful sunset?

Why is (13) infelicitous?

▷ Eliciting addressee response about p can be done with either a rising declarative or a polar interrogative

▷ Because a form that would've been neutral about whether the addressee would commit to p or $\neg p$ was available, the choice of a form that projects only commitment to p gives rise to the inference that **B** believes that that is the choice **A** will make

▷ In (13), that belief is unjustified, and infelicity results; in (12) that belief is justified, and there is no infelicity

4 Prospects for future investigation

THEORETICALLY: I'm particularly interested in (what appear to be) rising imperatives in English:

(14) Buy me lunch?

(15) **A**: What should I do tonight?
  a. **B**: Do some work? Blow it off and party?
  b. **B**: #Do some work. Blow it off and party.

Could it be productive to think about these in terms of the speaker 'calling off' their commitment to the imperative, while still putting it out there for the addressee to act on if they so choose?

EMPIRICALLY: it would be nice to get rid of the disclaimer I started with—to get past 'rising' and 'falling' and replace them with an actual phonetically sophisticated empirical typology of intonational contours, associated with conventional discourse effects (q.v. e.g. Pierrehumbert & Hirschberg 1990).

My guess is that if we split up 'rising declaratives' into a heterogenous group of pairings of declarative sentences with intonational contours, finer-grained effects will emerge.

References

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