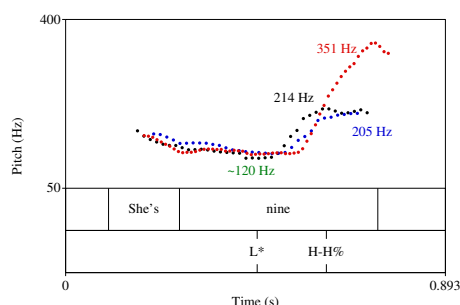


Rising declaratives and the pragmatics of illocutionary force

Root declaratives are usually used to assert. But when produced with the rising intonation of a polar question in English, they can be used to ask a biased question (1). So while clause type alone does not determine illocutionary force, it seems like intonation may help. However, this view is complicated by the fact that rising declaratives (RDs) can also be used to make assertions (2).

- (1) Inquisitive RD (IRD): **Confirmative**
 S and A are buying a birthday card. S thinks A might have told him that the birthday girl has just turned nine, but he wants to confirm it, so he says:
 S: She's nine ↗
- (2) Assertive RD (ARD)
 S: My girl wants to study tuba with you.
 A: Okay, but there are limited places for each age group, and some are already filled. How old is she?
 S: She's nine ↗
- (3) Inquisitive RD (IRD): **Incredulous**
 S and A are watching a girl give a very professional performance in a school debate. S thinks she is at least 13 years old.
 A: I can't believe she's only 9.
 S: She's nine ↗
- (4) Pitch tracks for (1), (2), and (3) with boundaries and avg. pitch accents in Hz.



Many accounts of IRDs set ARDs aside (e.g. G03/08, FR17, R18). Some argue that IRDs have a steeper phonological rise than ARDs, and that each contour makes a distinct meaning contribution, resulting in the force asymmetry (T12, J18). J18 suggests that phonetic variation could swamp our ability to observe this phonological distinction. But if phonetic variation can be controlled, T12/J18's view predicts a speaker to produce IRDs and ARDs differently on average in well distinguished contexts; they would have to if children were ever to acquire the two purported rises. But intuitively, this is not so for (1) and (2) (see the author's productions in (4)). Incredulous IRDs (3) are reliably steeper though, likely due to increased emotional activation (Gu04, W17). So controlling for one source of phonetic variation (neither the IRD (1) nor the ARD (2) is emotionally activated) results in *no* intonational difference between them. Steepness tracks emotional activation, not the IRD/ARD split. Thus I suggest an alternative analysis: There is only one polar question rise '↗'; steepness is caused by paralinguistic emotional activation (cf. W17/18). On this view, steeper rises make IRD interpretations more likely because emotional activation correlates with incredulity, and incredulity entails inquisitiveness, i.e. lack of commitment to the propositional content (which is consistent with J18's comprehension experiment results). Since there is only one rise, a unified account of IRDs and ARDs must be given. And since RDs can either be used inquisitively or assertively, pragmatics must play a key role in the derivation of force.

Account: I assume a Hamblin semantics (5), and discourse context (6). An utterance of any declarative or interrogative ψ puts $[[\psi]]$ on T (7). The rise '↗' conveys the speaker's lack of commitment to the truth of a proposition q (8); by default, q is identified with the content p of the clause uttered (8b), but when this is contextually implausible, q is a second issue that is also relevant to the QUD (8a). In order for (8a) to apply successfully to polar interrogatives, '↗' must combine below the Q morpheme. Falling intonation '↘' is an unmarked default. (9) depends on the view that the goal of conversation is to grow CG , and plays a key role in deriving force.

- (5) *Hamblin semantics*
- a. Declarative: $\llbracket \phi \rrbracket = \{p\}$
 - b. Polar interrogative: $\llbracket ?\phi \rrbracket = \{p, \neg p\}$
- (6) *A context c is a tuple $\langle DC, CG, T, QUD \rangle$*
- a. DC is a set of sets of discourse commitments DC_a for each interlocutor
 - b. CG is $\bigcap DC$, the common ground
 - c. T is a push-down stack of issues
 - d. QUD is a salient question/goal
- (7) *Dynamic pragmatics*
- UTTERANCE(ψ, c_n) $\rightarrow c_{n+1}$ such that $T_{n+1} = T_n + \llbracket \psi \rrbracket$
- (8) $\llbracket \nearrow \rrbracket^c = \lambda C_{\langle \langle s,t \rangle, t \rangle}$ (in set talk: $\{\langle s,t \rangle\}$) $\cdot C$
- a. *Non-at-issue meaning:*
 $\exists q[q \notin DC_S \ \& \ \exists P[q \in P \ \& \ C \subseteq P \ \& \ \bigcap P \in QUD \ \& \ \bigcap (P - \{q\}) \notin QUD]]$
 - b. *Default that can be violated:* $q \in C$
- (9) *Pragmatic support requirement:* When an issue I is added to T , there is pragmatic pressure for some a to support a proposition $p \in I$ by adding it to their DC_a .

Falling declaratives (FDs) add a ‘ $\{p\}$ ’ relevant to the QUD to T while **not** conveying that S lacks commitment to a relevant q via ‘ \searrow ’. Given (9) and the fact that S chose not to use ‘ \nearrow ’, we infer that S intends to commit to p . Thus the assertive commitment of FDs is derived, not just from (5a) (cf. L13), but also from ‘ \searrow ’, (7), and (9). Both (1) and (2) also add a ‘ $\{p\}$ ’ relevant to the QUD to T . But only in (2) is there reason to think that ‘ \nearrow ’ does not apply to p , since S knows his own daughter’s age. In (1), ‘ \nearrow ’ conveys that S lacks commitment to p . So (9) leads to the inference that S intends (1) with the force of a question for A to answer. Because $\{p\}$ is singleton, it only provides one choice to A for resolution, so S can’t use it to ask a question unless S expects that A will support it, explaining the contextual bias of IRDs (cf. W17, R18). As for (2), since ‘ \nearrow ’ doesn’t apply to p , S’s commitment to p is derived like it is for FDs. Meanwhile, the q that S lacks commitment to in (2) must respect (8a). The QUD is *Can my daughter study tuba with you?*. S’s p answers a local question about her age, but leaves the QUD unresolved. We infer q based on what could combine with p to resolve the QUD . This is the proposition *that there is still room in the 9-year-old’s group*. Thus in (2), S commits to p , but raises $\{q, \neg q\}$ as a second issue. Compare this to W17’s unified account, which proposes a different meaning for ‘ \nearrow ’, that S is violating a Gricean maxim. (2) is a challenge for W17’s account, as S seems to be respecting all maxims. In particular, S’s utterance is relevant and informative enough for the current purposes of the exchange.

Conclusion: My account builds on prior work on RDs in various ways (G08, T12, MS15, FR17, W17/18, J18, R18). What is novel is (i) the empirical observation that steepness does not track the IRD/ARD split, suggesting that the two interpretations of RDs need to emerge from a single clause type-intonation combination, (ii) the role of pragmatics in determining the propositional target of ‘ \nearrow ’, and (iii) the derivation of assertive and inquisitive force from (a) a semantics for clauses and (b) intonations, (c) a single convention of use, and (d) pragmatics. (ii) builds on T12, but is distinct since on T12’s view, whether or not the propositional target is the content of the clause is determined by intonation, not pragmatics. As for (iii), W17 also derives the IRD/ARD split, but via a meaning for ‘ \nearrow ’ that makes distinct predictions for e.g. (2), as pointed out above.

REFERENCES: **FR17** Farkas & Roelofsen, Division of Labor... **G03** Gunlogson, True to form. **G08** Gunlogson, A question of commitment. **Gu04** Gussenhoven, The phonology of tone and intonation. **J18** Jeong, Intonation and sentence type conventions. **L13** Lauer, Towards a dynamic pragmatics. **MS15** Malamud & Stephenson, Three ways to avoid commitments. **R18** Rudin, Rising above commitment. **T12** Truckenbrodt, Semantics of intonation. **W17** Westera, Exhaustivity and intonation. **W18** Westera, RDs of the Quality-suspending kind.