

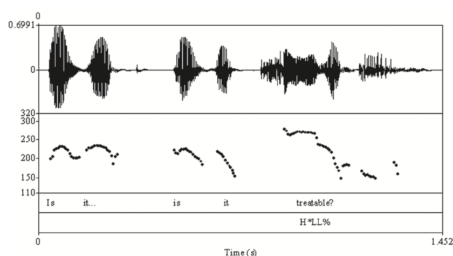
## The Meaning of Non-Canonical Question Intonation in English

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This paper aims to integrate into current formal semantic/pragmatic theories of dialogue the results of our previous corpus studies of question intonation in American English. That work involved extracting 410 polar questions and 200 wh-questions from two corpora of telephone conversations; annotating their intonation using ToBI; and cross-classifying them for final pitch contour and dialogue function. 91% of our polar questions ended in a rise, while 81% of our wh-questions ended in a fall, as expected for English. Typically, falling polar-questions were used typically for action requests or announcements, or to indicate expectation of a particular answer, as in (1), while rising wh-questions requested clarification or supplementary information, as in (2).

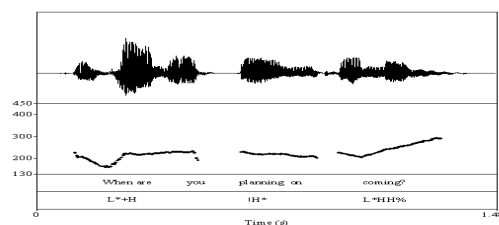
### (1) FALLING POLAR QUESTION

A: How is your mother?  
 B: She's doing okay to a certain extent.  
 She's just found out she's had glaucoma.  
 A: Ah. Is it is it **treatable**?  
 H\*LL%



### (2) RISING WH-QUESTION

A: I'm coming anyway but I have no idea like where I'll go-  
 B: **When** are you **planning on coming**?  
 L\*+H                    !H\*                    L\*HH-%



Our proposed theoretical integration is given in Table 1, which summarizes Rudin's 2018 Table model account of declaratives and interrogatives with canonical intonation, Heim & Wiltschko's 2020 Interactional Spine model account, and our proposed modifications.

Table 1. Canonical intonation

Speaker's discourse commitment set		Table		Feature valuation	
<i>Our proposal</i>	<i>Rudin 2018</i>	<i>Rudin 2018</i>		<i>Heim &amp; Wiltschko 2020</i>	<i>Our proposal</i>
p	p	{p}	Falling Declarative	+C, -E	+C, -E
∅	∅	{p, ¬p}	Rising Polar-Interrogative	-C, +E	-C, +E
U{p, q, r, ...}	U{p, q, r, ...}	{p, q, r, ...}	Falling Wh-Interrogative	uC, -E	uC, +E

Speakers raise issues by putting sets of propositions on the Table as candidates for negotiated entry into the Common Ground, and in some cases publicly commit to a proposition or presupposition. Propositions are viewed as sets of possible worlds. The Interactional Spine model implements degrees of speaker commitment with a three-valued Commitment feature, and incorporates an addressee-Engagement feature. Our only change would be to posit [+E] for both types of interrogative.

Table 2 shows the proposed effects of non-canonical intonation. On the Table model, a declarative rise eliminates commitment, a polar-interrogative fall adds commitment to a trivial presupposition, and a wh-interrogative rise has no effect. On the Interactive Spine model, a rise weakens commitment on declaratives and strengthens engagement on wh-interrogatives. We propose that non-canonical intonation reduces commitment to a subset of propositions in all three cases.

Table 2. Non-canonical intonation

$\emptyset$	$\emptyset$	{p}	Rising Declarative	<b>uC</b> , +E	uC, +E
<b>U{p}</b>	<b>U{p, ¬p}</b>	{p, ¬p}	Falling Polar-Interrogative	<i>no account</i>	<b>uC<sup>&lt;</sup></b> , +E
<b>U{p, q, r}</b>	U{p, q, r, ...}	{p, q, r, ...}	Rising Wh-Interrogative	uC, +E	<b>uC<sup>&lt;</sup></b> , +E

Our presentation will justify the following innovations using corpus data: (i) The effect of rising vs falling intonation is not uniform across all sentence types. (ii) Partial commitment indicates reduction in the size of the answer set instead of degree of belief. (iii) All interrogatives engage the addressee to answer the question. (iv) Non-canonical intonation always has a non-trivial effect.

**[Word count: 499]**

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