A unifying understanding of rise-fall-rise, topics and non-at-issue meaning

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Outline

1. Aims of this talk

2. Intonational Compliance Marking (Westera 2017)

3. Application to rise-fall-rise

4. Conclusion
1.1. The various uses of rise-fall-rise

(1) A: Have you ever been West of the Mississippi?
B: I’ve been to Missouri...
1.1. The various uses of rise-fall-rise

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(2)  A: I’d like you here tomorrow morning at eleven.
     B: Eleven in the morning?!
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(4) A: So I guess you like [æ]pricots then?
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   B: Loved it!? I hated it!
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Main aims:
- to identify the core meaning of RFR;
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Main aims:

- to identify the core meaning of RFR;
- to explain how it is composed from the meanings of R and F;
- to explain how it accounts for the above range of uses.
1.2. Previous accounts of the meaning of RFR

- RFR conveys (three types of) *uncertain relevance* or *incredulity* (Ward and Hirschberg 1985, 1986).


- RFR conveys *selection* of material from the context (Brazil 1975, Gussenhoven 1983, Steedman 2014).

- RFR marks the key of a *strategy* (Jackendoff 1972, Roberts 1996, Bürging 2003).

Shortcomings:

- these approaches are aimed at particular sub-classes of uses;
- they are non-compositional (except Steedman 2014);
- [some empirical inadequacies].
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2.1. Warming up: rising declaratives

(9) A: *(Enters with an umbrella.)*

B: It’s raining?
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(9) A: *(Enters with an umbrella.)*
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(10) B: What do you think of your new neighbor?
    A: He’s attractive?
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(11) A: *(Receptionist)* Can I help you?
M: Hello, my name is Mark Liberman...?
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Westera (2013):
▶ the final rise conveys a maxim suspension;
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Westera (2013):
   - the final rise conveys a maxim suspension;
   - context and paralinguistic cues constrain the interpretation;

QUIZ!

Quality

Relation

Quantity

Manner
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- reasoning about clashes yields further predictions;
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  - e.g., Quality suspension implies *speaker bias* (Gunlogson, 2008);
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- the final rise conveys a maxim suspension;
- context and paralinguistic cues constrain the interpretation;
- reasoning about clashes yields further predictions;
  
  - e.g., Quality suspension implies *speaker bias* (Gunlogson, 2008);
- the essence of this proposal aligns with much previous work
  
  (e.g., Pierrehumbert & Hirschberg 1990).
2.2. Phonological assumptions

From Gussenhoven 2004, simplified:

\[
\text{Intonation Phrase} = \left\{ \begin{array}{c} H^* \\ L^* \end{array} \right\}^n \left\{ \begin{array}{c} L\% \\ H\% \end{array} \right\}
\]

Remark: there are two variants:

▶ fall-rise: \( H^* \) \( L\% \)
▶ rise-fall-rise: \( L^* \) \( H\% \) \( L\% \) = delayed fall-rise

We can remain agnostic about the meaning of the delay. (Gussenhoven 1983, 2002: delay conveys extra significance.)
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L^% \\
H^% \%
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      H*L  
      H*L

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▶ fall-rise:  H*L  H%
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H\
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\[
\begin{array}{ccc}
H^*L & H% & H^*L
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H\% \\
\%
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\begin{array}{ccc}
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H^*L & H^*L & L\%
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L\% \\
H\% \\
% 
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\begin{array}{llll}
H^* & L & H\% & H^* & L & L\%
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\begin{align*}
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\begin{array}{cccc}
H^* & L & H^\% & H^* & L & H^\% \\
\end{array}
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- **rise-fall-rise:** L*HL H% (= delayed fall-rise)

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(Gussenhoven 1983, 2002: delay conveys extra significance.)
2.3. Generalization to rising/falling accents

Generalizing Westera 2013 (following Hobbs 1990):

- like boundary tones (H%/L%), also trailing tones (L*H, H*L) convey (non-)compliance with the maxims.
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Question

- RFR $((L)H^*L \ H\%)$ has a low trailing tone and a high boundary...
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- RFR ((L)H*L H%) has a low trailing tone and a high boundary...
- ...but how can an utterance both comply and not comply?!
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- RFR ((L)H*L H%) has a low trailing tone and a high boundary...
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Some related questions:

- How are the maxims defined?
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**Question**

- RFR ((L)H*L H%) has a low trailing tone and a high boundary...
- ...but how can an utterance both comply and not comply?!

**Some related questions:**

- How are the maxims defined?
- Is compliance marked for the entire utterance or only some part?
2.4. The maxims

- Compliance with the maxims is defined relative to a QUD.
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- Compliance with the maxims is defined relative to a \textsc{Qud}.

For a proposition $p$ and a \textsc{Qud} $Q (\langle\langle s, t \rangle, t \rangle)$:

$$\text{Quality}(p) = \square \uparrow p$$
2.4. The maxims

- Compliance with the maxims is defined relative to a QUd.

For a proposition $p$ and a QUd $Q$ ($\langle\langle s, t \rangle, t \rangle$):

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\begin{align*}
\text{Quality}(p) &= \Box^\vee p \\
\text{Relation}(Q, p) &= p \in Q
\end{align*}
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- Compliance with the maxims is defined relative to a \( QUD \).

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\begin{align*}
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\text{Relation}(Q, p) &= p \in Q \\
\text{Quantity}(Q, p) &= \forall q \left( \left( \text{Quality}(q) \land \text{Relation}(Q, q) \right) \rightarrow (p \subseteq q) \right)
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- $\text{Quantity}(Q, p) = \forall q \left( \left( \text{Quality}(q) \land \text{Relation}(Q, q) \right) \rightarrow (p \subseteq q) \right)$
- $\text{Manner}(p) = \Box (p \in \text{Intents}) \quad (\Box = \text{common knowledge})$
2.4. The maxims (some of them)

- Compliance with the maxims is defined relative to a QUd.

For a proposition \( p \) and a QUd \( Q (\langle s, t \rangle, t) \):

\[
\begin{align*}
\text{Quality}(p) &= \Box \checkmark p \\
\text{Relation}(Q, p) &= p \in Q \\
\text{Quantity}(Q, p) &= \forall q \left( \left( \text{Quality}(q) \land \text{Relation}(Q, q) \right) \rightarrow (p \subseteq q) \right) \\
\text{Manner}(p) &= \Box (p \in \text{Intents}) \quad (\Box = \text{common knowledge})
\end{align*}
\]
2.4. The maxims (some of them)

- Compliance with the maxims is defined relative to a QUd.  

For a proposition \( p \) and a QUd \( Q (\langle\langle s, t\rangle, t\rangle) \):

\[
\begin{align*}
\text{Quality}(p) & = \Box^\vee p \\
\text{Relation}(Q, p) & = p \in Q \\
\text{Quantity}(Q, p) & = \forall q \left( \left( \text{Quality}(q) \land \text{Relation}(Q, q) \right) \rightarrow (p \subseteq q) \right) \\
\text{Manner}(p) & = \Box (p \in \text{Intents}) \quad (\Box = \text{common knowledge})
\end{align*}
\]

\[
\text{Maxims}(Q) = \exists p \left( \begin{array}{c}
\text{Quality}(p) \land \\
\text{Relation}(Q, p) \land \\
\text{Quantity}(Q, p) \land \\
\text{Manner}(p)
\end{array} \right)
\]
2.5. Intonational Compliance Marking (ICM)

(Non-)compliance with the maxims is indicated:

▶ relative to a QUD;
2.5. Intonational Compliance Marking (ICM)

(Non-)compliance with the maxims is indicated:

- relative to a QUD;
- for the utterance up to (and including) the current intonation phrase.
2.5. Intonational Compliance Marking (ICM)

(Non-)compliance with the maxims is indicated:
- relative to a $Q_U D$;
- for the utterance up to (and including) the current intonation phrase.

The ICM theory (Westera 2017):
- L%: $\Box$ Maxims($Q$)
- H%: $\neg \Box$ Maxims($Q$)
2.5. Intonational Compliance Marking (ICM)

(Non-)compliance with the maxims is indicated:
- relative to a \( Q_{UD} \);
- for the utterance up to (and including) the current intonation phrase.

**The ICM theory (Westera 2017):**
- \( L\%: \Box \text{Maxims}(Q) \)
- \( H\%: \neg \Box \text{Maxims}(Q) \)
- \( -L: \Box \text{Maxims}(Q) \)
- \( -H: \neg \Box \text{Maxims}(Q) \)
2.5. Intonational Compliance Marking (ICM)

(Non-)compliance with the maxims is indicated:

- relative to a QUD;
- for the utterance up to (and including) the current intonation phrase.

The ICM theory (Westera 2017):

- L\%: $\Box \text{Maxims}(Q_0)$
- H\%: $\neg \Box \text{Maxims}(Q_0)$
- -L: $\Box \text{Maxims}(Q)$
- -H: $\neg \Box \text{Maxims}(Q)$

($Q_0$ is the main QUD)
(Non-)compliance with the maxims is indicated:

- relative to a \textit{QUD};
- for the utterance up to (and including) the current intonation phrase.

\textbf{The ICM theory (Westera 2017):}

- \textbf{L\%:} \(\Box\) Maxims\((Q_0)\) \((Q_0\) is the main \textit{QUD})
- \textbf{H\%:} \(\neg\Box\) Maxims\((Q_0)\)
- \textbf{-L:} \(\Box\) Maxims\((Q_i)\) \((Q_i\) is some \textit{QUD} due to which the accented word is \textit{important})
- \textbf{-H:} \(\neg\Box\) Maxims\((Q_i)\)
2.5. Intonational Compliance Marking (ICM)

(Non-)compliance with the maxims is indicated:

▶ relative to a \( Q_{UD} \);
▶ for the utterance up to (and including) the current intonation phrase.

The ICM theory (Westera 2017):

▶ \( L\%: \Box \text{Maxims}(Q_0) \) \hspace{0.5cm} (\( Q_0 \) is the main \( Q_{UD} \))
▶ \( H\%: \neg \Box \text{Maxims}(Q_0) \)
▶ \( -L: \Box \text{Maxims}(Q_i) \) \hspace{0.5cm} (\( Q_i \) is some \( Q_{UD} \) due to which the accented word is \textit{important})
▶ \( -H: \neg \Box \text{Maxims}(Q_i) \)

Roughly:

▶ \( Q_0 \) is determined by the overarching goals
  (typically the \( Q_{UD} \) underlying a preceding explicit question);
2.5. Intonational Compliance Marking (ICM)

(Non-)compliance with the maxims is indicated:

- relative to a $Q_{UD}$;
- for the utterance up to (and including) the current intonation phrase.

The ICM theory (Westera 2017):

- L%: $\square$ Maxims($Q_0$) \hspace{1cm} ($Q_0$ is the main $Q_{UD}$)
- H%: $\neg \square$ Maxims($Q_0$)
- $\neg$L: $\square$ Maxims($Q_i$) \hspace{1cm} ($Q_i$ is some $Q_{UD}$ due to which the accented word is *important*)
- $\neg$H: $\neg \square$ Maxims($Q_i$)

Roughly:

- $Q_0$ is determined by the overarching goals (typically the $Q_{UD}$ underlying a preceding explicit question);
- $Q_i$ are subsets of their respective sets of focus alternatives;
2.5. Intonational Compliance Marking (ICM)

(Non-)compliance with the maxims is indicated:
- relative to a $Q_{UD}$;
- for the utterance up to (and including) the current intonation phrase.

The ICM theory (Westera 2017):
- L%: $\Box$ Maxims($Q_0$)  
  ($Q_0$ is the main $Q_{UD}$)
- H%: $\neg \Box$ Maxims($Q_0$)
- -L: $\Box$ Maxims($Q_i$)  
  ($Q_i$ is some $Q_{UD}$ due to which)
- -H: $\neg \Box$ Maxims($Q_i$)  
  the accented word is important

Roughly:
- $Q_0$ is determined by the overarching goals
  (typically the $Q_{UD}$ underlying a preceding explicit question);
- $Q_i$ are subsets of their respective sets of focus alternatives;
- $Q_0$ and $Q_i$ can be identical.
Outline

1. Aims of this talk

2. Intonational Compliance Marking (Westera 2017)

3. Application to rise-fall-rise

4. Conclusion
3.1. Core prediction regarding RFR

**Prediction 1:**
An utterance with RFR addresses, on top of the main $Q_0$, a secondary $Q_1$ (due to which the accented word is important).

Remarks:
▶ in the absence of a precise, general theory of $Q_0$...
▶ ...RFR is best regarded as a new empirical window on $Q_0$.
▶ The ICM theory generates many predictions even without a precise understanding of the $Q_0$.
3.1. Core prediction regarding RFR

**Prediction 1:**
An utterance with RFR addresses, on top of the main $Q_0$, a secondary $Q_1$ (due to which the accented word is important).

**General recipe** for understanding any particular use of RFR:

(i) What is the main $Q_0$?
3.1. Core prediction regarding RFR

**Prediction 1:**
An utterance with RFR addresses, on top of the main $Q_0$, a secondary $Q_1$ (due to which the accented word is important).

**General recipe** for understanding any particular use of RFR:

(i) What is the main $Q$?

(ii) What is the secondary $Q$?
3.1. Core prediction regarding RFR

**Prediction 1:**
An utterance with RFR addresses, on top of the main QUDe Q₀, a secondary QUDe Q₁ (due to which the accented word is important).

**General recipe** for understanding any particular use of RFR:

(i) What is the main QUDe?
(ii) What is the secondary QUDe?
(iii) What relation between the QUDES makes this rational?
3.1. Core prediction regarding RFR

**Prediction 1:**
An utterance with RFR addresses, on top of the main $\text{QUĐ } Q_0$, a secondary $\text{QUĐ } Q_1$ (due to which the accented word is important).

**General recipe** for understanding any particular use of RFR:
(i) What is the main $\text{QUĐ}$?
(ii) What is the secondary $\text{QUĐ}$?
(iii) What relation between the $\text{QUĐS}$ makes this rational?

Remarks:
▶ in the absence of a precise, general theory of $\text{QUĐS}$...
3.1. Core prediction regarding RFR

**Prediction 1:**
An utterance with RFR addresses, on top of the main ✿✿✿ ✿ ✿ ✿, a secondary ✿ ✿ ✿ (due to which the accented word is important).

**General recipe** for understanding any particular use of RFR:
(i) What is the main ✿ ✿ ✿?
(ii) What is the secondary ✿ ✿ ✿?
(iii) What relation between the ✿ ✿ ✿ ✿ makes this rational?

Remarks:
- in the absence of a precise, general theory of ✿ ✿ ✿ ✿...  
- ...RFR is best regarded as a *new empirical window* on ✿ ✿ ✿ ✿.
3.1. Core prediction regarding RFR

**Prediction 1:**
An utterance with RFR addresses, on top of the main $Q_{UD} Q_0$, a secondary $Q_{UD} Q_1$ (due to which the accented word is important).

**General recipe** for understanding any particular use of RFR:
(i) What is the main $Q_{UD}$?
(ii) What is the secondary $Q_{UD}$?
(iii) What relation between the $Q_{UDs}$ makes this rational?

Remarks:
- in the absence of a precise, general theory of $Q_{UDs}$...
- ...RFR is best regarded as a *new empirical window* on $Q_{UDs}$.
- The ICM theory generates many predictions even without a precise understanding of the $Q_{UDs}$. 
3.2. The various uses of RFR (1/5)

(7) B: John, who is a vegetarian, envies Fred.
3.2. The various uses of RFR (1/5)

(7)  B: John, who is a vegetarian, envies Fred.

(8)  B: John – he’s a vegetarian – envies Fred.
3.2. The various uses of RFR (1/5)

(7) B: John, who is a vegetarian, envies Fred.
(8) B: John – he’s a vegetarian – envies Fred.

Analysis (e.g.):
(i) Main QUd: whom does John envy?

(ii) Secondary QUd:

(iii) Relation: explanation/elaboration.

Assumption 1: It is rational to address, as a secondary QUd, one that asks for explanation/elaboration of the main intent.

Note furthermore that:
▶ given the final L%, the prefinal H% can be blamed only on Manner;
▶ now, the part up to the RFR contour...
▶ ...doesn’t clearly convey the intent for the main QUd (H%);
▶ ...but must convey a compliant intent for the secondary QUd (H*L).

Prediction 2: in utterances that end with L%, prefinal RFR marks material that conveys a secondary intent (non-at-issue meaning).
3.2. The various uses of RFR (1/5)

(7) B: John, who is a vegetarian, envies Fred.
(8) B: John – he’s a vegetarian – envies Fred.

Analysis (e.g.):
(i) Main QUD: whom does John envy?
(ii) Secondary QUD: why does John envy that person?
3.2. The various uses of RFR (1/5)

(7) B: John, who is a vegetarian, envies Fred.
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Analysis (e.g.):

(i) Main QUD: whom does John envy?
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Note furthermore that:

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3.2. The various uses of RFR (1/5)

(7) B: John, who is a vegetarian, envies Fred.
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Analysis (e.g.):

(i) Main QUD: whom does John envy?
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Note furthermore that:
- given the final L%, the prefinal H% can be blamed only on Manner;
- now, the part up to the RFR contour...
  - ...doesn’t clearly convey the intent for the main QUD (H%);
3.2. The various uses of RFR (1/5)

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Note furthermore that:
- given the final L%, the prefinal H% can be blamed only on Manner;
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  - ...doesn’t clearly convey the intent for the main QUD (H%);
  - ...but must convey a compliant intent for the secondary QUD (H*L).

Prediction 2: in utterances that end with L%, prefinal RFR marks material that conveys a secondary intent (non-at-issue meaning).
3.3. The various uses of RFR (2/5)

(13) B: On an unrelated note, Fred is a vegetarian.
3.3. The various uses of RFR (2/5)

(13) B: On an unrelated note, Fred is a vegetarian.

Analysis (e.g.):

(i) Main QUd: does Fred have any food constraints?
3.3. The various uses of RFR (2/5)

(13) B: On an unrelated note, Fred is a vegetarian.

Analysis (e.g.):
(i) Main QUd: does Fred have any food constraints?
(ii) Secondary QUd: is this related to the preceding discourse?
3.3. The various uses of RFR (2/5)

(13) B: On an unrelated note, Fred is a vegetarian.

**Analysis (e.g.):**

(i) Main QUD: *does Fred have any food constraints?*

(ii) Secondary QUD: *is this related to the preceding discourse?*

(iii) Relation: support/clarification.

**Assumption 2:** It is rational to address, as a secondary QUD, one that asks for clarification of the main QUD.
3.3. The various uses of RFR (2/5)

(13) B: On an unrelated note, Fred is a vegetarian.

Analysis (e.g.):
(i) Main QUĐ: does Fred have any food constraints?
(ii) Secondary QUĐ: is this related to the preceding discourse?
(iii) Relation: support/clarification.

Assumption 2: It is rational to address, as a secondary QUĐ, one that asks for clarification of the main QUĐ.

A similar analysis is available for (6):
(6) A: What about Fred, what did he eat?
   B: Fred, ate the beans.
3.3. The various uses of RFR (2/5)

(13) B: On an unrelated note, Fred is a vegetarian.

Analysis (e.g.):

(i) Main QUĐ: does Fred have any food constraints?
(ii) Secondary QUĐ: is this related to the preceding discourse?
(iii) Relation: support/clarification.

**Assumption 2:** It is rational to address, as a secondary QUĐ, one that asks for clarification of the main QUĐ.

A similar analysis is available for (6):

(6) A: What about Fred, what did he eat?
    B: Fred, ate the beans.

➤ Given prediction 2, “Fred” must convey a (secondary) intent...
3.3. The various uses of RFR (2/5)

(13) B: On an unrelated note, Fred is a vegetarian.

**Analysis (e.g.):**

(i) Main QUD: *does Fred have any food constraints?*
(ii) Secondary QUD: *is this related to the preceding discourse?*
(iii) Relation: support/clarification.

**Assumption 2:** It is rational to address, as a secondary QUD, one that asks for clarification of the main QUD.

A similar analysis is available for (6):

(6) A: What about Fred, what did he eat?
   B: Fred, ate the beans.

- Given prediction 2, “Fred” must convey a (secondary) intent...
- plausibly, this can only be *that the utterance is about Fred,*
3.3. The various uses of RFR (2/5)

(13) B: On an unrelated note, Fred is a vegetarian.

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(i) Main QUD: does Fred have any food constraints?
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A similar analysis is available for (6):

(6) A: What about Fred, what did he eat?
   B: (As for) Fred, (he) ate the beans.

- Given prediction 2, “Fred” must convey a (secondary) intent...
- plausibly, this can only be that the utterance is about Fred,
3.3. The various uses of RFR (2/5)

(13) B: On an unrelated note, Fred is a vegetarian.

Analysis (e.g.):

(i) Main \texttt{QUD}: does Fred have any food constraints?
(ii) Secondary \texttt{QUD}: is this related to the preceding discourse?
(iii) Relation: support/clarification.

Assumption 2: It is rational to address, as a secondary \texttt{QUD}, one that asks for clarification of the main \texttt{QUD}.

A similar analysis is available for (6):

(6) A: What about Fred, what did he eat?
    B: (As for) Fred, (he) ate the beans.

- Given prediction 2, “Fred” must convey a (secondary) intent...
- plausibly, this can only be that the utterance is about Fred, hence:

Prediction 3: Pre-final RFR can mark the topic of the utterance.
3.4. Intermezzo on (contrastive) topic

(6)  A: What about Fred, what did he eat?  
     B: Fred, ate the beans.
3.4. Intermezzo on (contrastive) topic

(6)  A: What about Fred, what did he eat?
     B: Fred, ate the beans.

Jackendoff (1972) claims that (14) is the exact mirror image:

(14)  A: What about the beans, who ate those?
     B: Fred ate the beans...
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(6) A: What about Fred, what did he eat?
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Jackendoff (1972) claims that (14) is the exact mirror image:

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However, according to the ICM theory:

**Prediction 4:** (6) and (14) are not symmetrical; only (14) leaves the main QUD unresolved.
3.4. Intermezzo on (contrastive) topic

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However, according to the ICM theory:

**Prediction 4:** (6) and (14) are not symmetrical; only (14) leaves the main QUD unresolved.

Indeed (Wagner 2012; Meyer, Fedorenko & Gibson 2011):

(15)  A: Did John insult Mary?
3.4. Intermezzo on (contrastive) topic

(6)  A: What about Fred, what did he eat?
     B: Fred, ate the beans.

Jackendoff (1972) claims that (14) is the exact mirror image:

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However, according to the ICM theory:

**Prediction 4:** (6) and (14) are not symmetrical; only (14) leaves the main QUĐ unresolved.

Indeed (Wagner 2012; Meyer, Fedorenko & Gibson 2011):

(15)  A: Did John insult Mary?
     b. B: ?? No! Mary insulted John...
3.5. The various uses of RFR (3/5)

(1)  A: Have you ever been West of the Mississippi?
     B: I’ve been to Missouri...
3.5. The various uses of RFR (3/5)

(1) A: Have you ever been West of the Mississippi?
   B: I’ve been to Missouri...

Analysis (e.g.):

(i) Main QUD: Have you been West of the Mississippi?
3.5. The various uses of RFR (3/5)

(1) A: Have you ever been West of the Mississippi?
B: I’ve been to Missouri...

Analysis (e.g.):

(i) Main \text{QUD}: \textit{Have you been West of the Mississippi}?
(ii) Secondary \text{QUD}: \textit{Which states/places have you visited in that general direction}?
3.5. The various uses of RFR (3/5)

(1) A: Have you ever been West of the Mississippi?
   B: I’ve been to Missouri...

Analysis (e.g.):

(i) Main QUd: Have you been West of the Mississippi?
(ii) Secondary QUd: Which states/places have you visited in that general direction?
(iii) Relation: strategic (e.g., Roberts 1996).

**Assumption 3:** If the main QUd cannot be directly resolved, it is rational to address a strategic secondary QUd, i.e., one that asks for information that may help resolve the main QUd.
3.5. The various uses of RFR (3/5)

(1)  

A: Have you ever been West of the Mississippi?  
B: I’ve been to Missouri...

Analysis (e.g.):

(i) Main QUD: Have you been West of the Mississippi?  
(ii) Secondary QUD: Which states/places have you visited in that general direction?  
(iii) Relation: strategic (e.g., Roberts 1996).

Assumption 3: If the main QUD cannot be directly resolved, it is rational to address a strategic secondary QUD, i.e., one that asks for information that may help resolve the main QUD.

Prediction 5: With RFR, exhaustivity is implied only relative to \( Q_1 \) (since \( \Box \text{Maxims}(Q_1) \) but \( \neg \Box \text{Maxims}(Q_0) \)).
3.5. The various uses of RFR (3/5)

(1) A: Have you ever been West of the Mississippi?
    B: I’ve been to Missouri...

Analysis (e.g.):

(i) Main \textbf{QUD}: \textit{Have you been West of the Mississippi}?
(ii) Secondary \textbf{QUD}: \textit{Which states/places have you visited in that general direction}?
(iii) Relation: strategic (e.g., Roberts 1996).

\textbf{Assumption 3:} If the main \textbf{QUD} cannot be directly resolved, it is rational to address a \textit{strategic} secondary \textbf{QUD}, i.e., one that asks for information that may help resolve the main \textbf{QUD}.

\textbf{Prediction 5:} With RFR, \textit{exhaustivity} is implied only relative to \(Q_1\) (since \(\Box \text{Maxims}(Q_1)\) but \(\neg \Box \text{Maxims}(Q_0)\)).

Indeed, this is as observed by Wagner (2012):

(16) A: Do you accept credit cards?
    B: Visa and Mastercard... \textit{(implied: no other cards)}
3.5. The various uses of RFR (3/5)

(1)  A: Have you ever been West of the Mississippi?
    B: I’ve been to Missouri...

Analysis (e.g.):

(i) Main QUD: Have you been West of the Mississippi?
(ii) Secondary QUD: Which states/places have you visited in that general direction?
(iii) Relation: strategic (e.g., Roberts 1996).

Assumption 3: If the main QUD cannot be directly resolved, it is rational to address a strategic secondary QUD, i.e., one that asks for information that may help resolve the main QUD.

Prediction 5: With RFR, exhaustivity is implied only relative to Q₁ (since □ Maxims(Q₁) but ¬ □ Maxims(Q₀)).

Indeed, this is as observed by Wagner (2012):

(16)  A: Do you accept credit cards (of a type that I possess)?
    B: Visa and Mastercard... (implied: no other cards)
3.6. The various uses of RFR (4/5)

(3) B: All my friends didn’t come...
3.6. The various uses of RFR (4/5)

(3)  B: All my friends didn’t come... (Only some did.)
3.6. The various uses of RFR (4/5)

(3) B: All my friends didn’t come... (Only some did.)

Analysis (e.g.):

(i) Main QUĐ: how many of your friends came? (elaboration)
3.6. The various uses of RFR (4/5)

(3)  
B: All my friends didn’t come... (Only some did.)

Analysis (e.g.):

(i) Main QUd: how many of your friends came? (elaboration)
(ii) Secondary QUd: what isn’t the case that was just implied?
3.6. The various uses of RFR (4/5)

(3) B: All my friends didn’t come... (Only some did.)

Analysis (e.g.):

(i) Main QUD: how many of your friends came? (elaboration)
(ii) Secondary QUD: what isn’t the case that was just implied?
(iii) Relation: common ground maintenance on the side.

Assumption 4: it is rational to address the QUD of which prior implications were false, but subordinate to the main narrative (i.e., progression of main QUDs).

(cf. Horn 1989)
3.6. The various uses of RFR (4/5)

(3) B: All my friends didn’t come... (Only some did.)

Analysis (e.g.):

(i) Main \textbf{QUD}: how many of your friends came? (elaboration)
(ii) Secondary \textbf{QUD}: what isn’t the case that was just implied?
(iii) Relation: common ground maintenance on the side.

\textbf{Assumption 4:} it is rational to address the \textbf{QUD} of which prior implications were false/true, but subordinate to the main narrative (i.e., progression of main \textbf{QUDs}).

(cf. Horn 1989)

Similarly for (4):

(4) A: So I guess you like [æ]pricots then?
   B: I don’t like [æ]pricots – I like [ei]pricots!
3.6. The various uses of RFR (4/5)

(3) B: All my friends didn’t come… (Only some did.)

Analysis (e.g.):

(i) Main QUĐ: how many of your friends came? (elaboration)
(ii) Secondary QUĐ: what isn’t the case that was just implied?
(iii) Relation: common ground maintenance on the side.

Assumption 4: it is rational to address the QUĐ of which prior implications were false/true, but subordinate to the main narrative (i.e., progression of main QUĐs).

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Similarly for (4):

(4) A: So I guess you like [æ]pricots then?
   B: I don’t like [æ]pricots – I like [ei]pricots!

But the contributions are metalinguistic
   (and the shift in main QUĐ this imposes is annoying).
3.7. The various uses of RFR (5/5)

(2) A: I’d like you here tomorrow morning at eleven.
B: Eleven in the morning?!
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(in line with Constant 2012).
Outline

1. Aims of this talk

2. Intonational Compliance Marking (Westera 2017)

3. Application to rise-fall-rise

4. Conclusion
4.1. Summary of assumptions:

The ICM theory (Westera 2017):

- L%: □ Maxims($Q_0$) \((Q_0\) is the main \textit{QUDE})
- H%: \neg □ Maxims($Q_0$)
- -L: □ Maxims($Q_i$) \((Q_i\) is some \textit{QUDE} due to which the accented word is \textit{important})
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An utterance with RFR addresses, on top of the main QUd Q₀, a secondary QUd Q₁ (due to which the accented word is important).
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References (1/2)

References (2/2)