What can Listeners tell us about Epistemic Meaning and the LLL Tune in American English?

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NORTHWESTERN UNIVERSITY

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http://artofverbalwar.com > Blog

How True Is The Saying "It's Not What You Say, But How You \ldots

The **saying "It's not what you say**, but how **you say it" is** now commonly known as a shoutout to the power of non ...

Oct 2, 2019 \cdot Uploaded by Art of Verbal War

https://www.forbes.com > adriandearnell > 2018/07/10

It's Not What You Say, It's How You Say It: Why Perception ...

Jul 10, 2018 — Given the amount of effort **you**'ve no doubt put into crafting your words for that important presentation coming up, **you** may **not** be happy to learn ...

https://keystrategies.com > its-not-what-you-say-but-ho...

It's not what you say, but how you say it - Key Strategies

It's a phrase we hear time and time again. You could say it is over-familiar. You might call it a cliché. However, it's well-used for one very, very good reason – ...

It's Not What You Say (But How You Say It)

Song by Happy

Face Factory



HOWYOU SAYIT

KATHERINE D. KINZLER



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It's Not What You Say, It's How You Say It

YouTube · Erica Campbell Dec 26, 2018



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About 3,330,000,000 results (0.73 seconds)

What kind of meaning?

How can we elicit this data?

How can we be sure the data is valid?

What kind of data-driven analyses can we use?



(Warren 2016)

"a speaker chooses a particular tune to convey a particular relationship between an utterance, currently perceived beliefs of a hearer or hearers, and anticipated contributions of subsequent utterances" -Pierrehumbert and Hirschberg 1990 (271) Büring 2016 (223)

"...very little has been done in the way of making [Pierrehumbert and Hirschberg 1990's] ideas precise, or systematically investigating the generality of the meanings proposed in the paper"

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Prieto and Borràs-Comes 2018 (565) "little experimental work has been done on the specific epistemic contribution of intonation to sentence interpretation"



A: What did you buy?



A: Oh, great!



A: ...is something wrong with them? A: Is everything okay?





Ruled-in context

A: Well since you know I'm allergic to **berries**, it can't be blueberries or strawberries...

A: What did you buy?





Still sounds fine!

Still sounds odd!



Ruled-out context

A: Well since you know I'm allergic to **citrus**, it can't be lemons or grapefruit...

A: What did you buy?





Did he not listen to her?



Realizes his mistake





Rises inform, and plateaus remind: Exploring the epistemic meanings of "list intonation" in American English^{*}

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Scale Responses

How likely was Oranges expected?



LLL is communicates self-reflection about the error the guy made in buying roses for his allergic gf/wife. HLL seems a bit more to-the-point without any apologetic backing to his answer.

LLL he sounds like he knows he made a mistake, HLL he is just telling her flatly it is roses.

LLL sounds like the man knows the other person
will not like his response.
HLL sounds like he knows the other person
will like the choice.

HLL sounds like a psychopath who is happy that he just bought someone something they are allergic to. LLL sounds like he's realizing his mistake

as he says oranges.

What's there?

What could be there?

seldom

laugh



Probabilistic Classification Naïve Bayes



annoying

Vector Semantics Static Embeddings

Naïve Bayes



Naïve Bayes

IN OUT





LLL he sounds like he knows he made a mistake HLL he is just telling her flatly it is roses

Embeddings



LLL HE Sound'S LIKE HE KNOWS HE MADE A MISTARE

HLL he is just telling her flatly it is roses $\begin{pmatrix}
? \\
?
\end{pmatrix} = \begin{pmatrix}
0.1 \\
5.2
\end{pmatrix} + \begin{pmatrix}
1.0 \\
2.1
\end{pmatrix}$

Embeddings



HLL he is just telling her flatly it is roses $\begin{bmatrix}
1.1 \\
7.3
\end{bmatrix} =
\begin{bmatrix}
0.1 \\
5.2
\end{bmatrix} +
\begin{bmatrix}
1.0 \\
2.1
\end{bmatrix}$

Embeddings

LLL-OUT
Disappointed
Disappointing
Regret
Surprised
Frustration
Annoyed
Sad
Feeling
Embarrassed
Mistake

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Empirical investigation of intonation's epistemic contribution

Elicitation

Free-text responses and scalar responses in operationalized contexts

Validation

Scalar responses showed sensitivity to the context manipulation

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Naïve Bayes

Important terms for LLL are negatively valenced, epistemic in OUT context

Embeddings

Semantic neighborhood reflects linguistic function, hints at other contexts

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Interaction Between Tune and Context

Common meanings across LLL tune and OUT context LLL-OUT *specifically* sees more epistemic terms

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