

Perceptual evaluation of tonal and contextual cues to sarcasm in French

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INTRODUCTION

• **Verbal irony/sarcasm** = intended meaning of an utterance is opposite to, or different from, the literal sense of the words used (Gibbs, 2000).

E.g. « What a nice weather! » (thunderstorm outside)

- Can be conveyed
 - lexically (e.g. exaggerated adjectives and adverbs),
 - nonverbally (e.g. facial expressions)
 - and through prosodic modulations (Bryant & Fox Tree, 2002; Attardo et al., 2003; Cheang & Pell, 2008).
 - In French, sarcastic speech is slower and has a higher pitch level and greater intensity (Loevenbruck et al. 2013).

THE ISSUE

WHAT IS THE ACTUAL ROLE OF PROSODIC CUES IN SARCASM COMPREHENSION?

1. Importance of prosody (intonation, rate/rhythm, phrasing) as a cue for detecting sarcasm (Cheang & Pell, 2008)
2. Adult listeners have been found to identify sarcastic intent in content-filtered utterances (Bryant & Fox Tree, 2005; Rockwell, 2000).
3. Alternative view:
 1. it is mainly extralinguistic information (i.e., degree of incongruity between context and speaker and/or utterance) that signals sarcasm (Ivanko & Pexman, 2003).
 2. Irony cues are only employed if the common ground is not sufficient to indicate the intended message (Cutler, 1974).

RESEARCH QUESTIONS

1. DOES CONTEXT PREVAIL ON TUNE IN SARCASM COMPREHENSION?
2. CAN ACOUSTIC CUES ALONE (WITHOUT CONTEXT) HELP IN IDENTIFYING SARCASM UTTERANCES

HYPOTHESES

- H1: Sarcastic responses will be greater for sarcastically tuned vs. neutral utterances when no context is present.
- H2: Sarcastic responses will be greater when previous context induces sarcasm vs. literal meaning, independent of prosody.

DISCUSSION & CONCLUSION

- Acoustic cues to sarcasm can be correctly identified in absence of contextual cues (59% vs 14%).
- Even when the context biases towards a literal interpretation, the sarcastic tune induces sarcastic interpretation in 12% cases.
- However, number of sarcastic responses differs between literal and sarcastically tuned utterances, independent of context.
- Future works will examine whether sarcastic tunes are better interpreted in presence of an ambiguous context (neither literal nor sarcastic)

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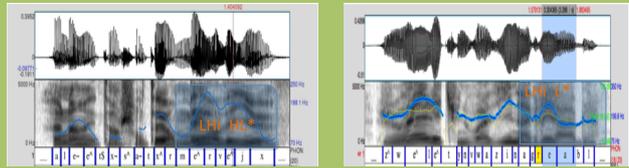
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FRENCH SARCASM SPEECH: TONAL CUES



Alain est un chanteur merveilleux

'Alain is a wonderful singer'

Jo lle est une voisine agr eable

'Jo lle is a pleasant neighbor'

[[LHi (H)L*]]_{AP} L%_{IP}

MATERIALS

- 28 utterances (14 sarcastic/14 neutral) with prototypical contour, plus 14 distractors

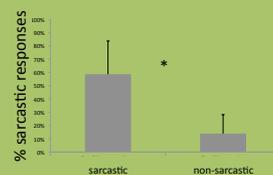
| | |
|----------|---|
| Contexte | <i>Alain a convaincu Marion d'aller au bar de karaok .</i> <i>Lorsqu'il a chant , les gens ont commenc    lui lancer des tomates.</i> <i>Marion dit :</i> |
| : | <i>Alain est un musicien merveilleux.</i> |

PROCEDURE & RESULTS

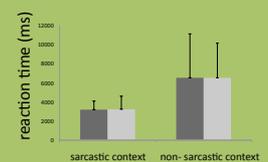
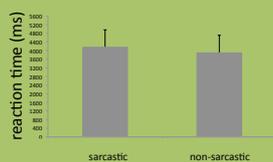
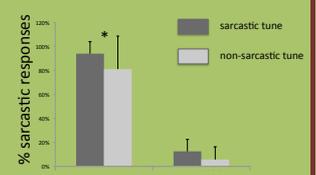
- Participants: 40 French listeners
- 2 tasks, response S (sarcastic) vs. NS (non-sarcastic)
 1. Identification: 28 utterances; two-alternative forced choice task + confidence rating on 5-point Likert scale.
 2. Context-matching: 28 stories with context inducing either a sarcastic interpretation (N=14) either a literal interpretation (N=14) + fillers

| SARCASMIC CONTEXT | NEUTRAL CONTEXT |
|--|--|
| <i>Emilie voit Pierre arriver au travail le lundi matin. Il est p le et a l'air d'avoir tr s mal dormi. matin. Il est resplendissant et pr t   commencer</i> | <i>Emilie voit Pierre arriver au travail le lundi matin. Il est p le et a l'air d'avoir tr s mal dormi. matin. Il est resplendissant et pr t   commencer</i> |
| <i>'Emilie sees Peter arriving at work on Monday morning. He is pale and seems to have not slept</i> | <i>'Emilie sees Peter arriving at work on Monday morning. He is radiant and ready for a great new week.'</i> |
| <i>Pierre est un collaborateur  nergique</i> | <i>Pierre est un collaborateur  nergique</i> |
| <i>'Pierre is an energetic collaborator.'</i> | <i>'Pierre is an energetic collaborator.'</i> |

Identification



Context-Matching



- Identification in absence of contextual cues is significantly greater for sarcastically tuned utterances
- Higher score of sarcastic responses when context is sarcastic