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## On the impact of emotional prosody in announcements

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# On the impact of emotional prosody in announcements

## The case of the pre-sequence

Emilie Marty

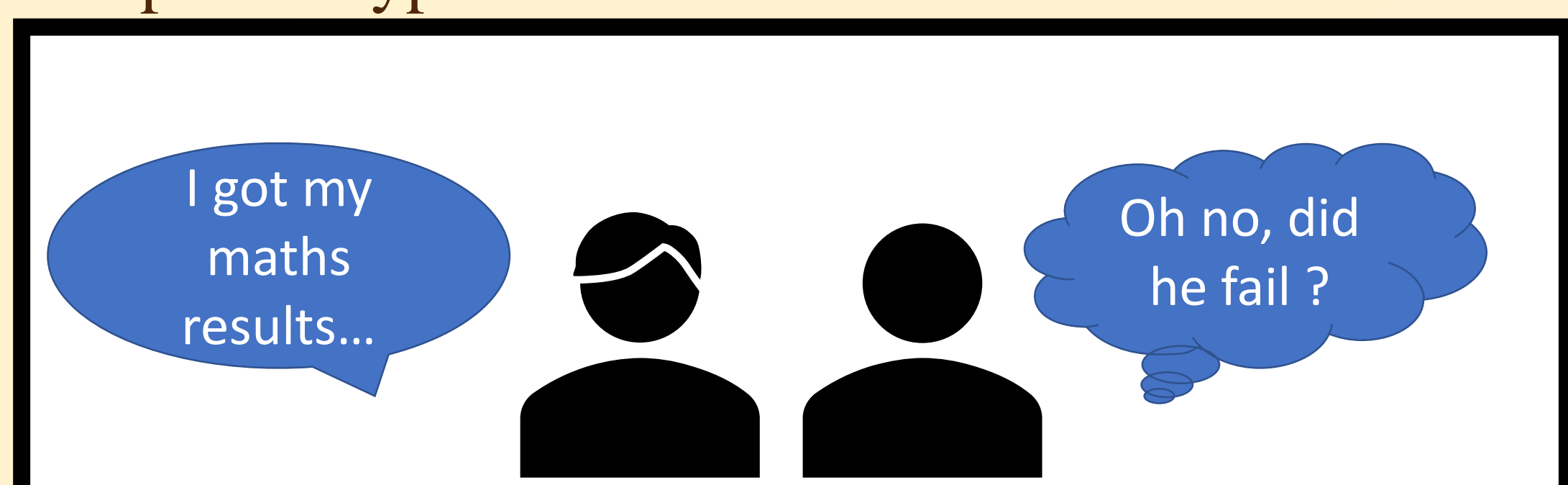
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### I Introduction

- Conversation Analysis
  - Pre-sequences:** Produced as preliminaries to a projected upcoming sequence of action, thus made “contingent on the response to the pre-sequence initiator” [Schegloff, 1987, p.58]
    - Specific type: **Pre-announcement**



- Stance: Emotional and attitudinal point of view from the speaker on what he is saying [Stivers 2008]
- Projection** of expectations created by an utterance on the following one
  - pre-announcement project announcement
- Phonology
  - Emotional prosody: Research for prosodic patterns used to encode 6 basic emotions and their variants (ex hot vs. Cold anger) [Scherer,2003] → here, study of emotional tendencies

### II Issues

- Good news, bad news:** How does it influence the prosodic emotional valence in the pre-announcement? How is it implemented in speech prosody and perceived? What effect on the listener?
- Social role** [Petrone et al. 2018] and **gender** [Polce-Lynch et al. 1998]: To what extent do those two factors influence the pre-announcement?

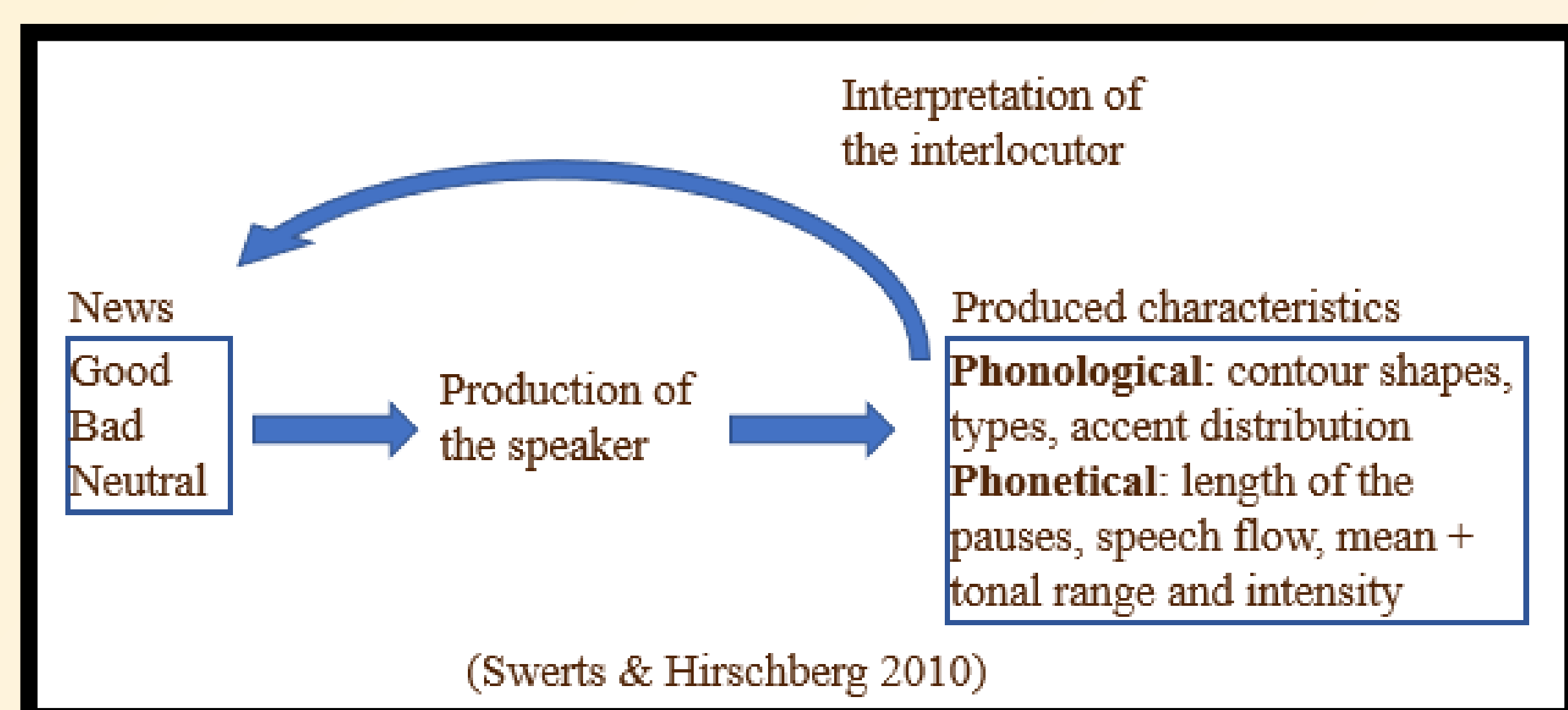
Context of interest: Announcement of **medical** news made by caregivers to their patients.



### III Experiment 1 Production task

Prosodic characteristics produced depending on the valence of the news to announce

**Corpus creation:** Semi-controlled production by caregivers varied in genre (H, F) & social role (nurse, doctor)



### IV Experiment 1 Perception task

Prosodic characteristics used by listeners

**Method:** Forced choice [Swerts & Hirschberg 2010]

“What kind of news do you think your nurse/doctor is going to announce?”

Good Bad Neutral

#### Hypothesis

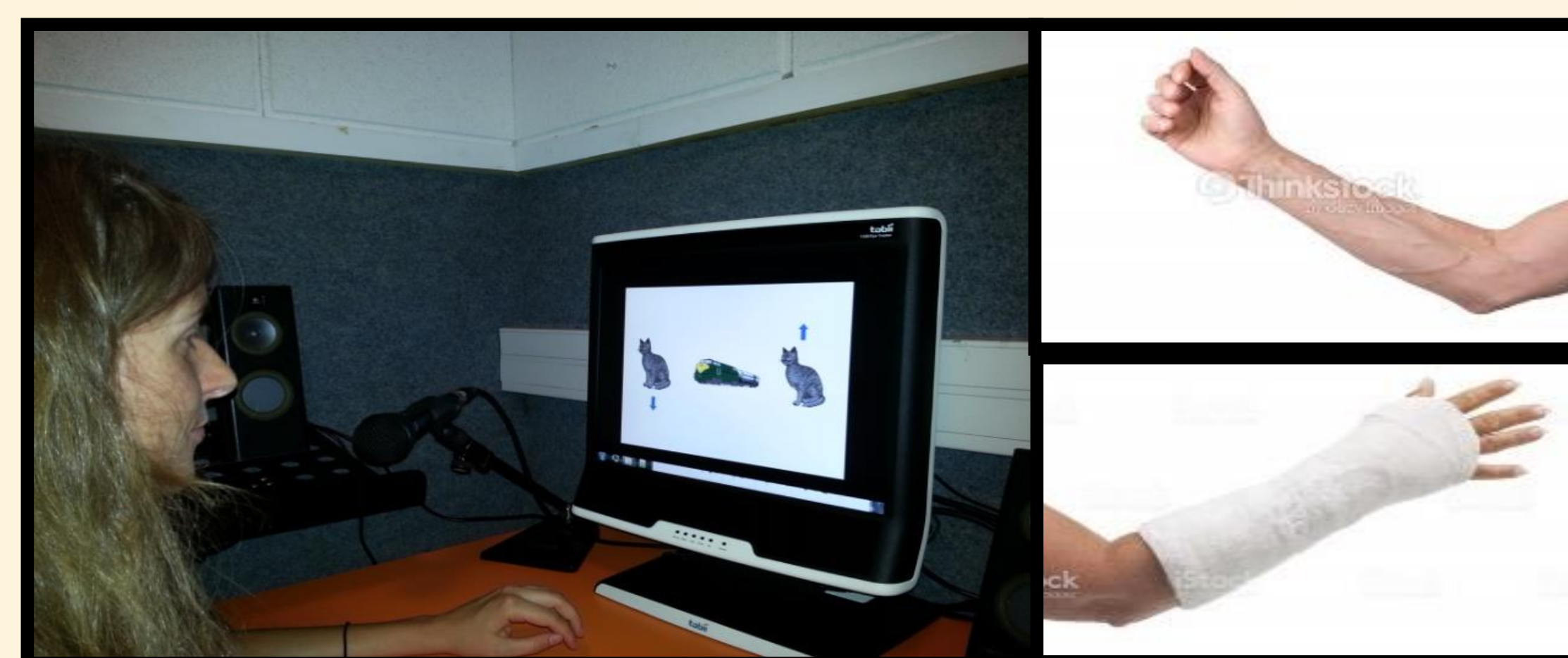
- Pattern found in part 1 used by listeners to infer the valence of the news to be announced
- Gender and social role may influence how many pre-announcement are perceived as predicting each of the valence of the news

### V Experiment 2 Online psychophysiological task

Temporal aspects of projection by prosody

**Method:** Eye-tracking [Paullman et al., 2012, Petrone et al., 2016]

- 72 participants
- Written context + pre-sequence’s audio + sequence’s audio



#### Hypothesis

- Participants look more often at the image corresponding to the prosodic valence of the pre-sequence

Negative characteristics = more eye-fixations on the broken arm

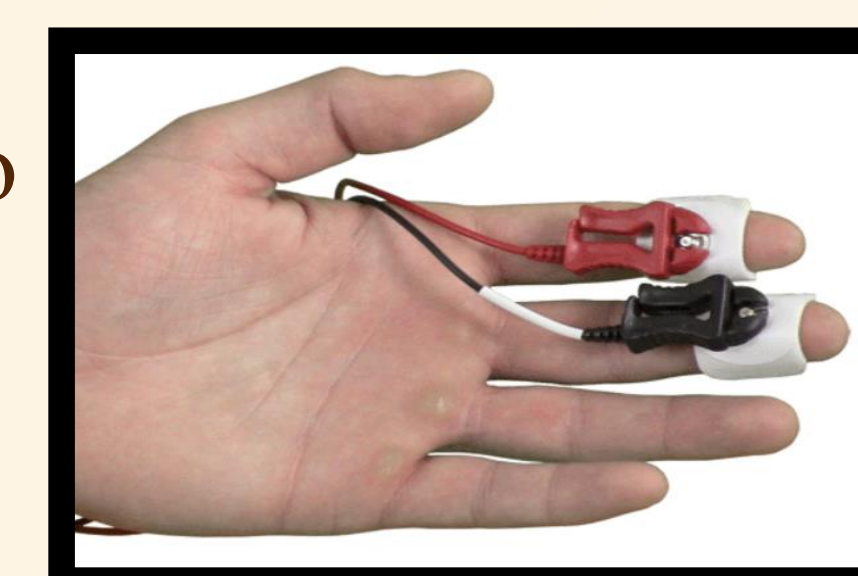
- Stronger differences when the voice is associated to a doctor’s when prosodic characteristics project bad news
- Differences depending on gender

### VI Experiment 3 Psychophysiological task

Effect on the interlocutor’s emotional affect

**Method:** Electrodermal measures (EDA) [Petrone et al., 2016]

- 72 participants
- Written context + pre-sequence’s audio
- Evaluation task:** valence & arousal



#### Hypothesis

- Stronger reaction to marked valences (negative or positive)
- Stronger reaction when the voice is associated to a doctor’s
- Differences depending on gender

### VII Conclusion: PhD structure

- Investigate the phonological and phonetical characteristics of news’ pre-announcement sequences made in a production task
- Validate those characteristics: Perception task. Items from the corpus, contextualized by a short written test, heard in 2 experiments:
  - 1<sup>st</sup>: Uncover the timing and the way listeners use prosodic characteristics heard
  - 2<sup>nd</sup>: Analyze emotional reaction to the same items by looking at electrodermal variations on the listeners