

# Recognition of Non-Prototypical Emotion From Speech - The Final Frontier?

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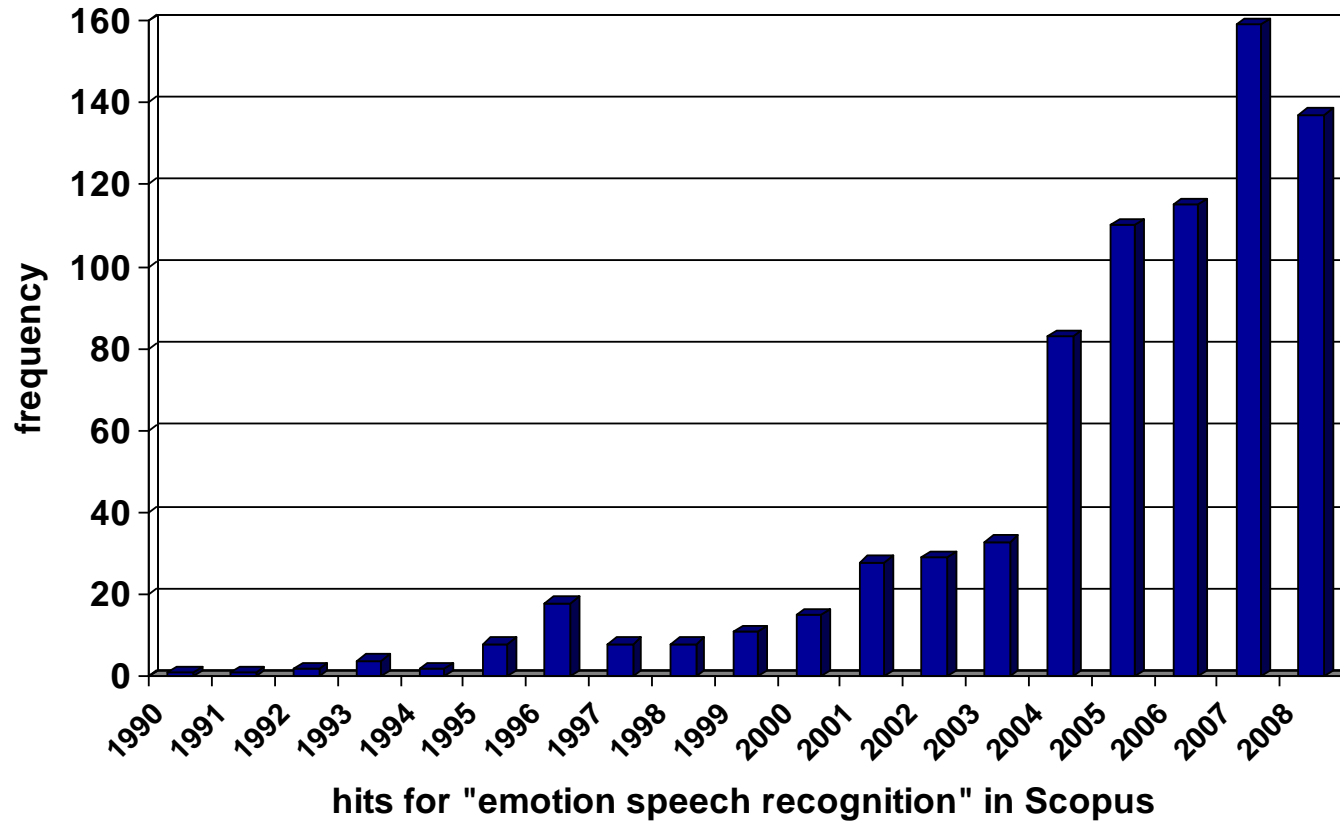
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# Emotion and Speech: from yet another exotic topic to mainstream



# The concept of prototypes



- **prototype theory**: prototypes are salient, **central** member of a category and typically **most often** associated with this category (E. Rosch)
- straightforward **operationalisation**:
  - to speak of *prototypical* emotions if the labellers agree
  - *non-prototypical* emotions are weak and/or mixed:
    - labellers annotate more than one emotion per item
    - we preserve the disagreement of several labellers in some sort of graded/mixed annotation

# The prototypical drink



- the holy grail?
- a cup coffee?
- a glass of wine?
- a cocktail?



# The prototypical emotion

- prompted, acted, partly exotic (**big *n***) emotions produced in the lab?
- non-prompted, non-acted, real(istic) i.e. **frequently occurring** emotional states (weak/mixed)?



- the **paradoxon of inverse prototypicality: the hinterland, is it really the hinterland?**



# Quantisation: early or late

<b>annotation</b> <i>experts/naive, one/more</i>	<b>recognition</b> <i>extraction, selection, ...</i>	<b>decision</b> <i>emotion module</i>	<b>application</b> <i>higher modules</i>
binary n-ary	classification	2 classes n classes	eventually, some binary decision? ⇒ <i>to be or not to be</i>
continuous	regression	continuous	

# Reformulation



- We have to face realistic, i.e. vague and mixed, emotional user states/affects without any pre-selection.
- How to deal with them, i.e. when to introduce some quantisation or not, is a practical problem.
- Most likely, at the end of the day, we or someone else have to make a (binary) decision.

