

# Identifying Expressions of Emotion in Text

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# happiness, sadness, anger, disgust, surprise, fear

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## ■ Goals

- investigate the expression of emotion in text through a corpus annotation study
- explore computational techniques for emotion classification

## ■ Data

- drawn from blog posts and manually annotated with emotion-related information

## ■ Applications

- affective interfaces for HCI and CMC, Text-to-Speech systems, psychological analysis of text, personality modelling

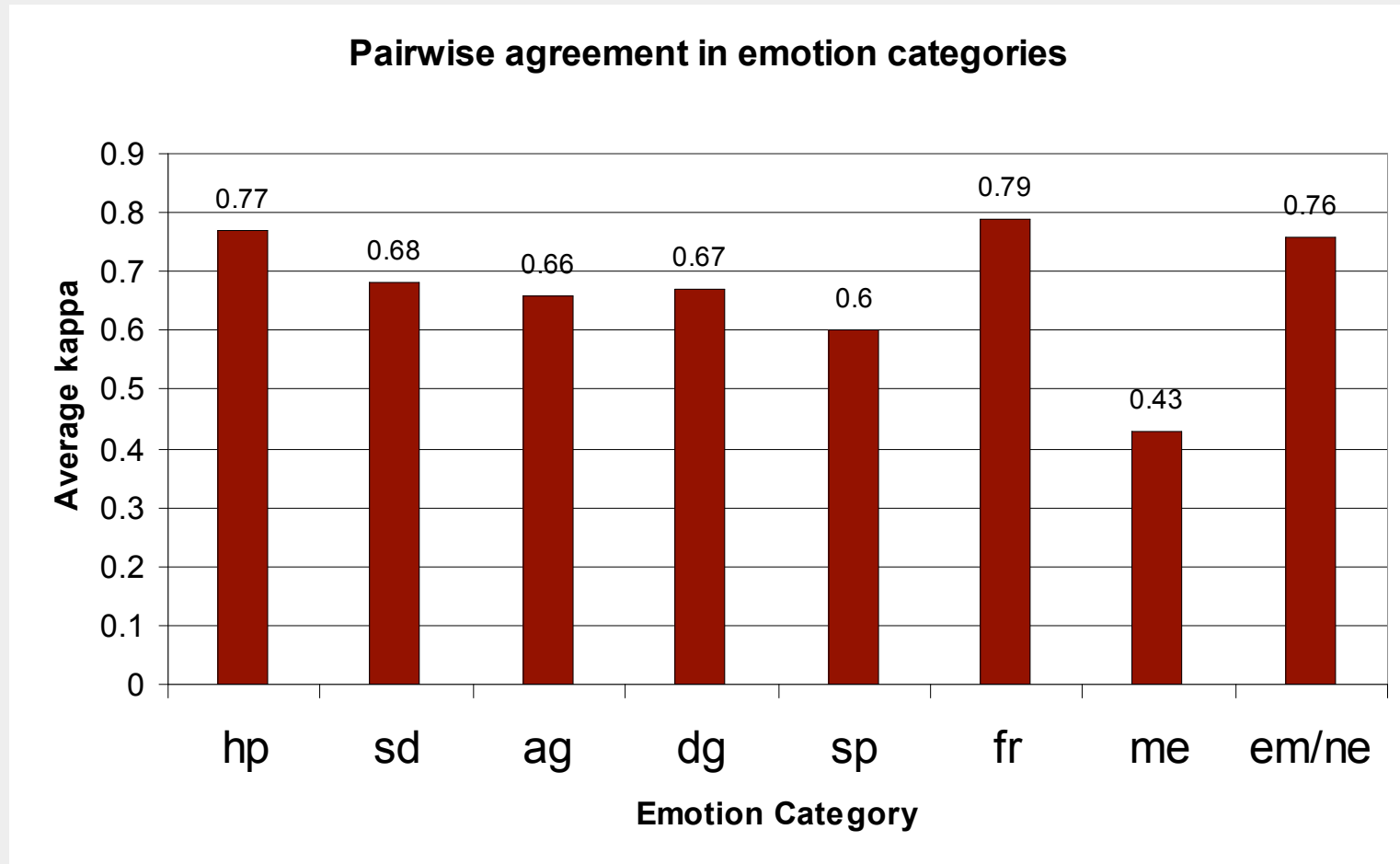
## ■ Basic emotion categories proposed by Ekman

# must annotate...

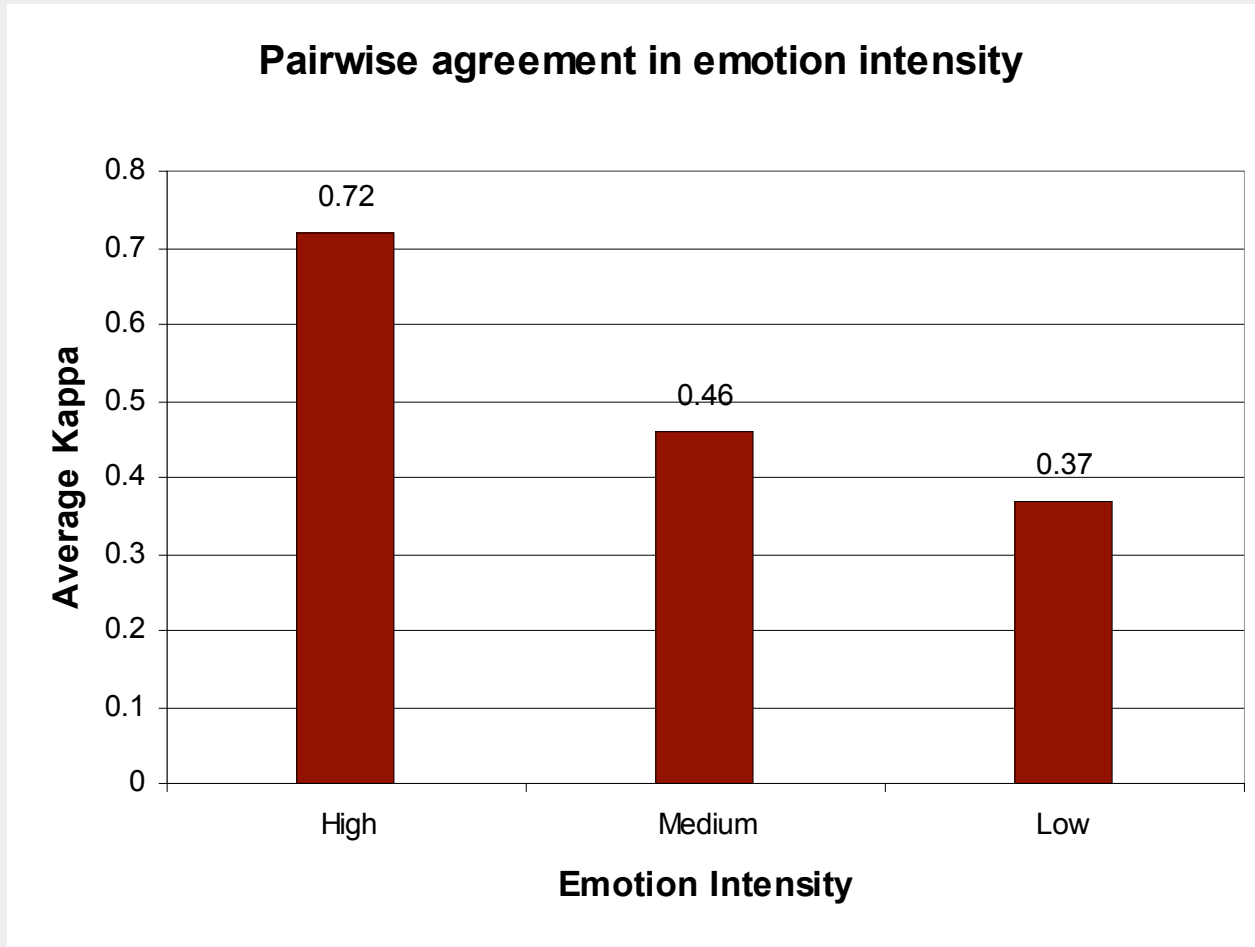
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- *Seed words* selected for each emotion category
- Blog posts containing the seed words retrieved from the Web (173 posts, 5205 sentences)
- Each sentence received two judgments
  - four judges performed the annotation
- Types of emotion annotations
  - categories – happiness, sadness, anger, disgust, surprise, fear, *mixed emotion*, *no emotion*
  - intensity – high, medium, low
  - indicators – spans of text

# evaluate annotations — categories

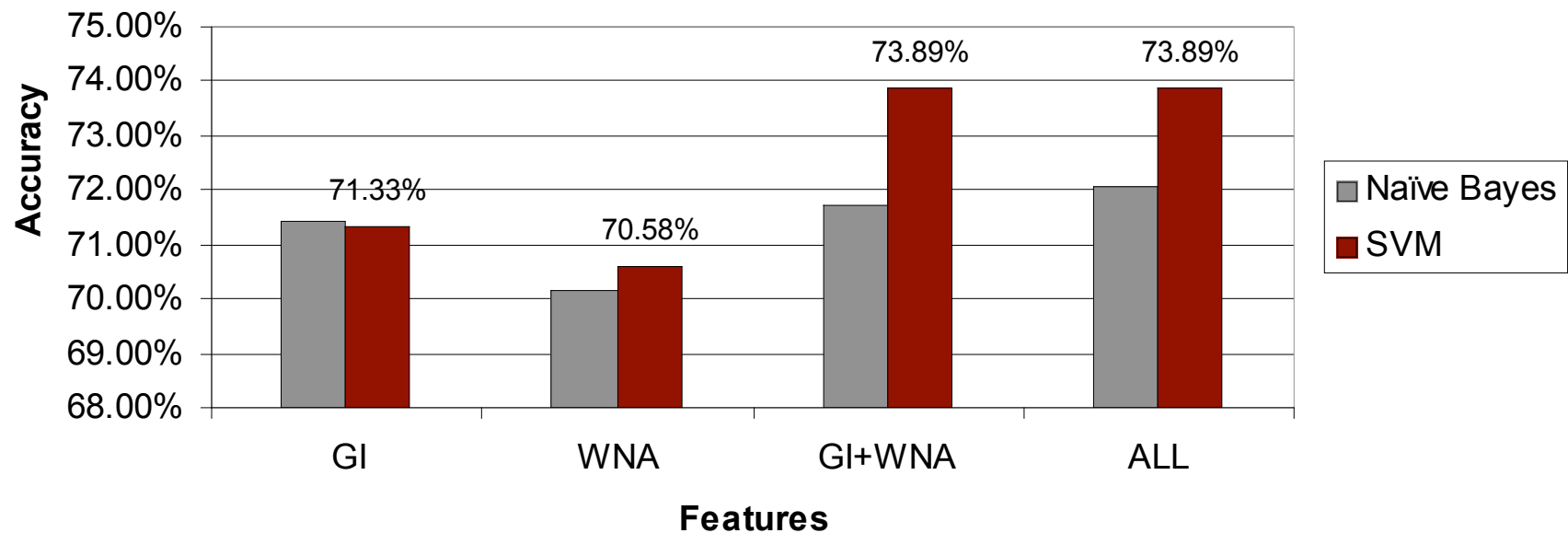


# evaluate annotations — intensity



# now, can we learn anything?

Emotion/non-emotion classification results



Features: emotion words from *General Inquirer* and *WordNet-Affect*  
Baseline accuracy (majority class): 65.6%