The social signal value of emotions: The impact of context and culture

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WHY DOES CONTEXT ALWAYS MATTER?
Pattern matching
Activation of Zygomaticus Major? Check!
Pattern matching

Activation of Orbicularis Occuli? Check!

Activation of Zygomaticus Major? Check!
Activation of Zygomaticus Major? Check!

Activation of Orbicularis Occuli? Check!

He is happy!
Perspective taking
Perspective taking

He just got some very good news
He just got some very good news.

People who get very good news are happy.
He just got some very good news.

People who get very good news are happy.

He is happy!
He just got some very good news.

People who get very good news are happy.

He is happy!
Serena Williams after beating her sister in the 2008 US open tennis finals
Scherer: Modified Brunswick model
What do emotional facial expressions signal
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- Hess & Hareli: The question is not what do they signal, but when do they signal this
Emotions solve problems

• Darwin
  – Emotion expressions are useful in the situation
    – Example A: surprise – widening of eyes increases visual field
    – Example B: anger – showing teeth signals readiness to bite – this may frighten aggressors away

• The motivate behavior to solve (evolutionary) problems
WHAT ELSE DO EMOTION EXPRESSIONS TELL US?
Emotion expressions signal behavioral intentions

Appraisal theories of emotion

Novelty/Relevance
Pleasantness
Goal Significance
Coping Potential
Legitimacy
Scherer: Facial actions are the output of appraisals.
Reverse engineering

Emotion expressions allow inferences regarding

- The expresser – who is that person?
- The situation – what happened?
A model of the meaning of emotion expressions
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Context

Encapsulated meaning

Direct Process

Inferences on Expresser Situation Norms
A model of the meaning of emotion expressions

Context

Filter

Cultural Values and Individual Goals

Encapsulated meaning

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Context

Perceived Emotion

Encapsulated meaning

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Direct Process

Active matching

Filter

Cultural Values and Individual Goals
Types of context information

• Classic context: What do I know about the emotion eliciting situation? And the person?
• Display-rules: Cultural norms regarding emotion expressions
• Socio-cultural expectations: What group does the person belong too? How do people from that group behave?
SITUATIONAL CONTEXT AND INFERENCES ABOUT THE EMOTION AND THE EXPRESSER
Miscategorizations

![Bar chart showing percentage of miscategorizations.]

- Disgust: 91%
- Fear: 13%
- Sadness: 29%
- Anger: 87%
Miscategorizations

![Bar chart showing categorization as context. The chart indicates that Disgust is categorized correctly in 91% of cases, Fear in 13% of cases, Sadness in 29% of cases, and Anger in 87% of cases.](image)
Miscategorizations
Depending on the situation

Anger vs neutral

Warm/caring

.62***

Depending on the situation

Anger vs neutral

Unpleasantness

Norm(in) compatibility

Warm/caring

.72***

.71***

.39***

.30***

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ANYTHING GOES?
A model of the meaning of emotion expressions
A model of the meaning of emotion expressions

- **Context**
- **Encapsulated meaning**
  - Perceived Emotion
    - Filter
      - Cultural Values and Individual Goals
  - Inferences on Expresser Situation Norms
- **Active matching**
- **Direct Process**
A new game

Global view of the field where distance markers are up to 15 meters.

The blue player is about to throw the last ball in this match; fans appear in the background.

The third ball is also about to cross the 15-meter line.

Close up: The final result of the three balls thrown by the blue player.
The reaction to the play
Perceived performance of the player

Opponent

Supporter

Happy
Neutral
What about awe?
Miscategorizations
Miscategorizations
Miscategorizations
THE IMPACT OF CULTURE
Cultural influences on emotion expression decoding

• Context is interpreted differently in different cultures

• Emotional Dialects
  – Different cultures express emotions in subtly different ways, this increases decoding errors for expressions from unfamiliar cultures

• Holistic versus analytical perception

• Cultural display rules
  – Pre- and proscribe certain emotions
  – Display rules are matched by decoding rules
The impact of context and culture

Participants
- 87 German
- 90 Greek

Emotion decoding task
Emotion x Social context x Country

- Congruent
- Incongruent
- Individual

Anger Disgust Happiness Sadness Anger Disgust Happiness Sadness

Germany Greece

Individual
Country by Emotion

Germany | Greece
--- | ---
Anger | 3.5 | 4.5
Disgust | 5 | 6.5
Happiness | 6.5 | 7
Sadness | 5 | 5.5
AND WHY DO WE CARE?
The situation
Anger is a positive emotion

- Of sorts ...

Anger
- Frees resources
- Increases optimism about success
- Helps us to redress injustice
- Helps us learn about the rules of society
The study

- Israel: 149 (84 men)
- Greece: 273 (120 men)
- Germany: 261 (84 men)
- US: 452 (247 men)

Tasks

- Describe Norm
  - If you are next
  - If someone else is next
- Rate Anger, Sadness, Indifference
- Rate whether a norm was violated
Emotion Rating
Emotion Rating

- Anger
- Sadness
- Indifference

Countries:
- Germany
- Greece
- Israel
- US
Emotion Rating

Anger  Sadness  Indifference

Germany  Greece  Israel  US
Norm violation appraisal

Emotion expression in last picture
- Anger
- Sadness
- Neutrality

Country
- Germany
- Greece
- Israel
- US
Norm learning

Country

Emotion expression in last picture
- Anger
- Sadness
- Neutrality
Prediction of norm learning and appraisal from emotion ratings

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<th></th>
<th>F</th>
<th>p</th>
<th>r²</th>
<th>Anger Overall</th>
<th>Sadness</th>
<th>Neutrality</th>
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<tr>
<td>Norm learning accuracy</td>
<td>53.27</td>
<td>&lt; .001</td>
<td>.13</td>
<td>.34***</td>
<td>-.04 (ns)</td>
<td>-.06*</td>
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<td>Appraisal of norm violation</td>
<td>376.84</td>
<td>&lt; .001</td>
<td>.50</td>
<td>.56***</td>
<td>.17***</td>
<td>-.15***</td>
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Summary

Emotion perception
Universal: Anger expressions are rated as most angry, Sad expressions as most sad, Neutral as most indifferent
Culture specific: Relative intensity of emotion ratings

Norm learning (and appraisal)
Culture specific: how well are norms learned
Universal: Prediction of learning from emotion ratings
A model of emotion perception and inferences in context

Context

Emotion perception

Expresser

Situation

Relationship

Cultural Norms
My Collaborators

- Reginald B. Adams, Jr.
- Shlomo Hareli
- Konstantinos Kafetsios
- Robert E. Kleck
Emotional dialects

Quebec

Gabon
Interdependence

Markus & Kitayama (1991)