

Emotion Analysis and Generation

Birds of a Feather Session

BoF, EACL 2026

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Emotion Examples



Which emotion is associated with each example?

How did you recognize that?

Emotion Examples



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How did you recognize that?

- “She became angry.”

Emotion Examples



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- “She became angry.”
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Emotion Examples



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- “We are going for a walk at the beach.”

Emotion Examples



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With this exercise, we discussed two things:

- What is an appropriate set of emotions?
- How are they expressed/recognized?

Emotion Models – Basic Emotions

How to define a categorical system of emotions?



Ekman (1992): An argument for basic emotions.

Emotion Models – Basic Emotions

How to define a categorical system of emotions?

- Distinctive universal signals
- Presence in other primates
- Distinctive physiology
- Distinctive universals in antecedent events
- Coherence among emotional response
- Quick onset
- Brief duration
- Automatic appraisal
- Unbidden occurrence

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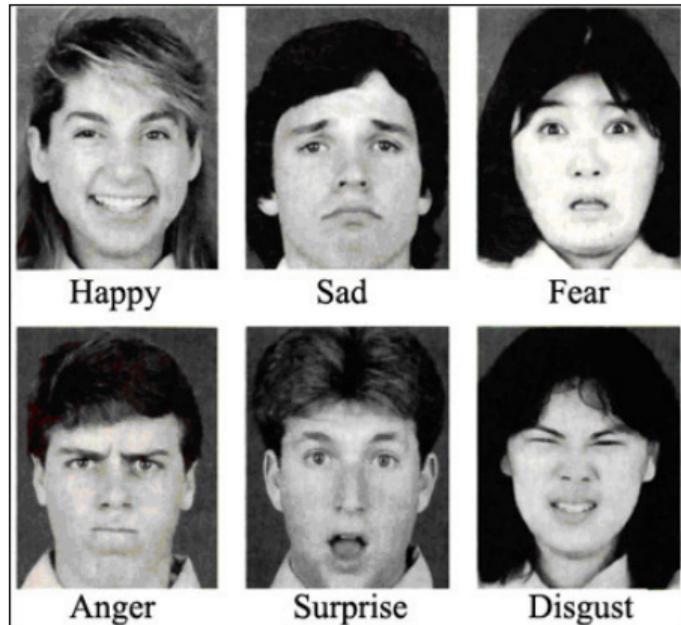
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Joy

Anger

Disgust



Fear

Sadness

Surprise

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- “I do not allow for non-basic emotions” (Ekman, 1999)
 - ⇒ They do not exist.

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- “I do not allow for non-basic emotions” (Ekman, 1999)
 - \Rightarrow They do not exist.
- What is **love**, **depression**, or **hostility**?

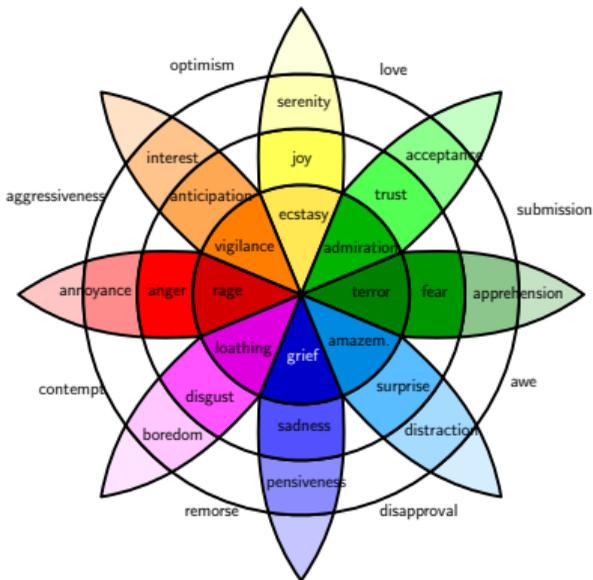
Ekman: What are non-basic emotions?



- “I do not allow for non-basic emotions” (Ekman, 1999)
 - ⇒ They do not exist.
- What is **love**, **depression**, or **hostility**?
 - Personality traits (hostility, openness)
 - Moods (depression, anxiety, long-term disturbances are clinically relevant)
 - Emotional plots (love, grief, jealousy)

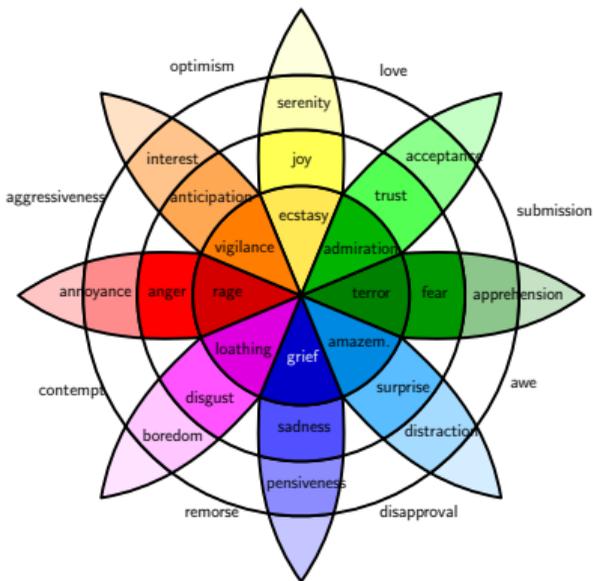
Models of Basic Emotions: Plutchik's Wheel

An emotion is a patterned bodily reaction that follows a function



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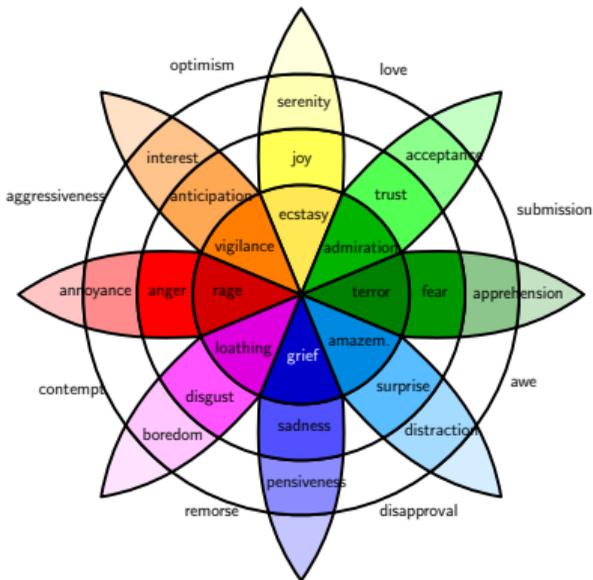


- protection
- destruction
- reproduction
- deprivation
- incorporation
- rejection
- exploration
- orientation

Models of Basic Emotions: Plutchik's Wheel

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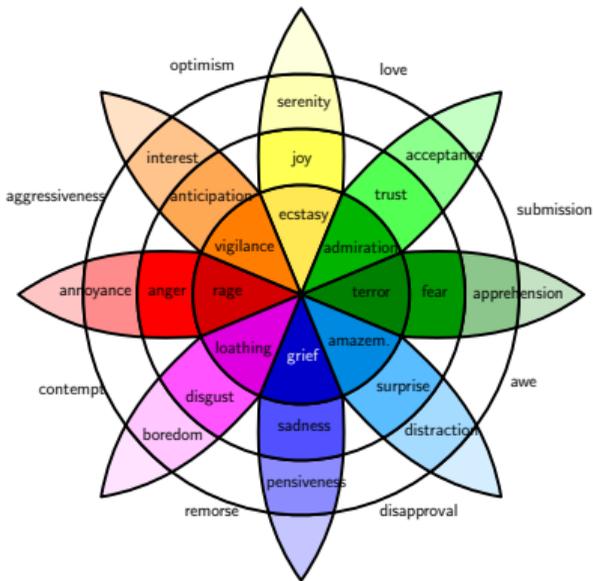
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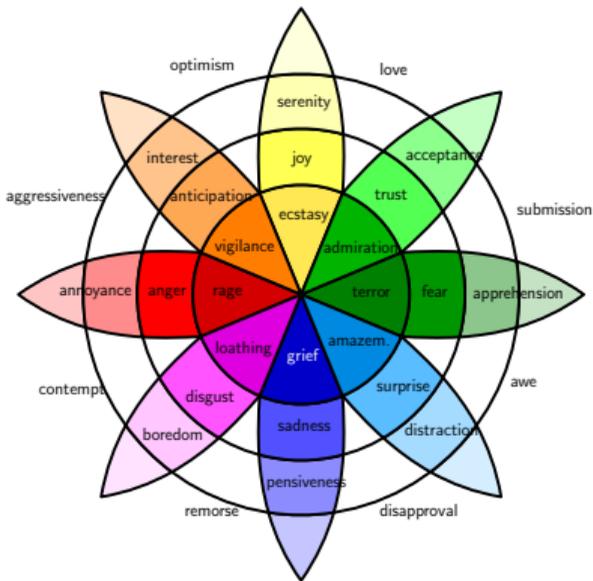
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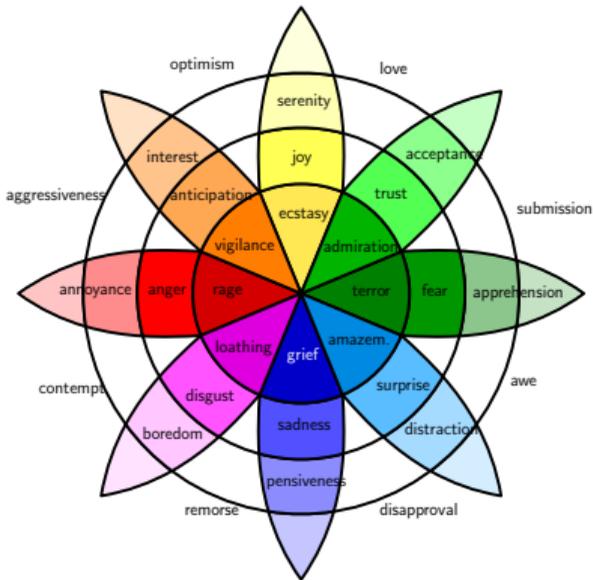
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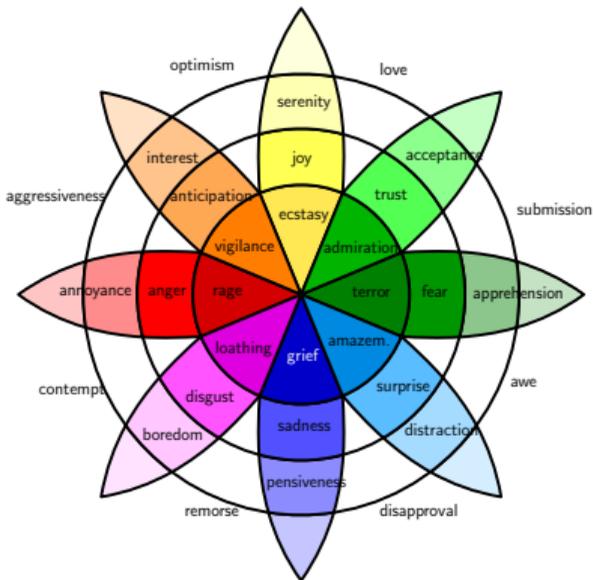
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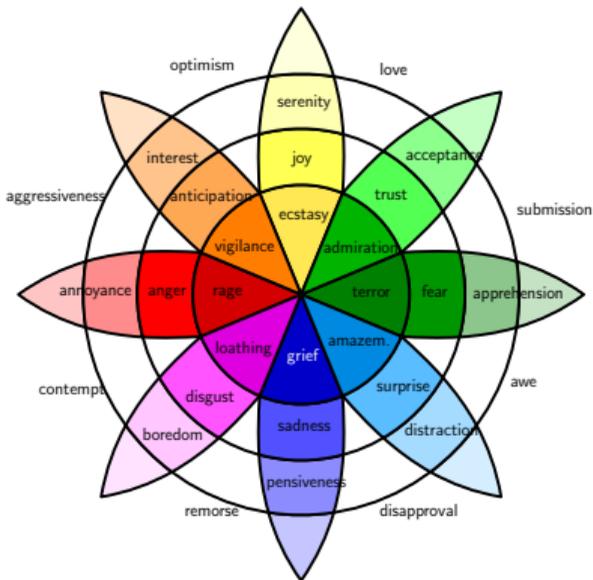
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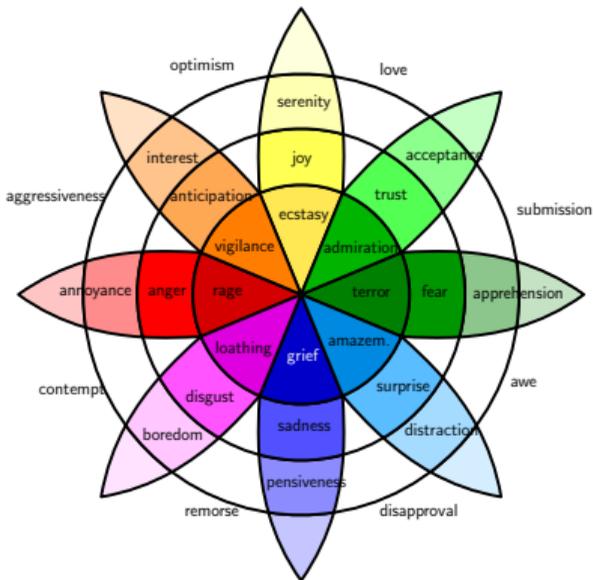
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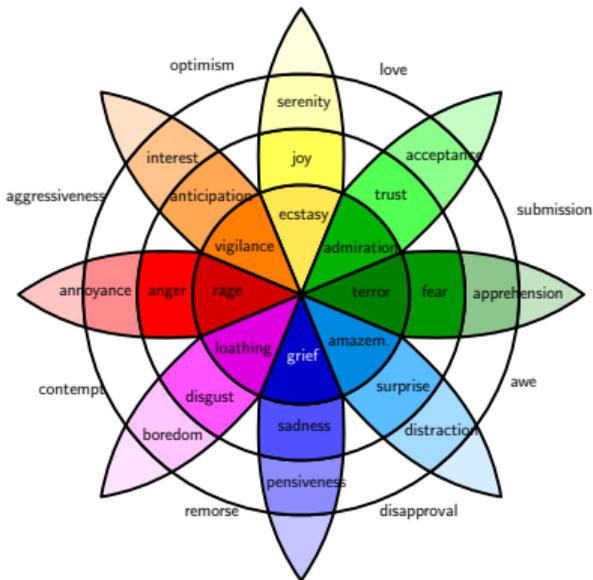
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- orientation

Models of Basic Emotions: Plutchik's Wheel

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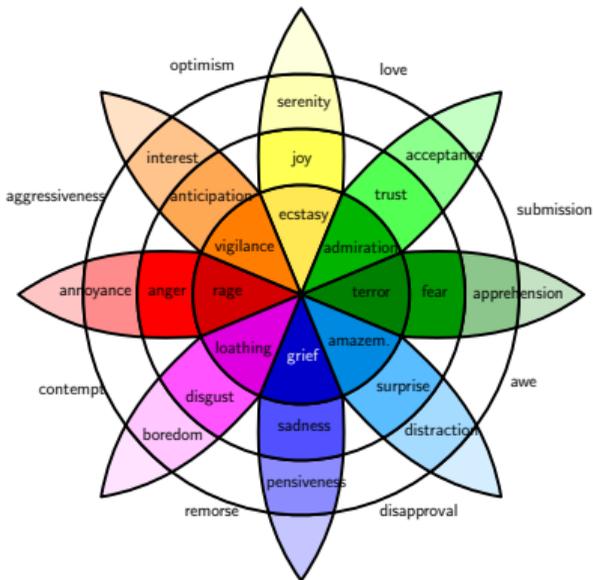
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- protection – fear
- destruction – anger
- reproduction – joy
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- incorporation – acceptance
- rejection – disgust
- exploration – anticipation
- orientation – surprise

⇒ These are basic emotions according to Plutchik (1970)



Emotion Models – Valence–Arousal Model of Affect

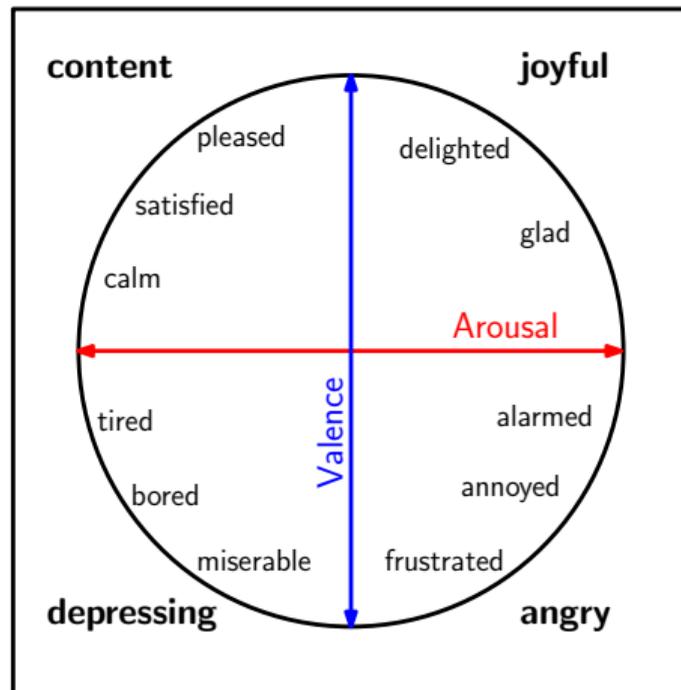


- Perhaps mixtures and opposites do not make sense, but there are other ways to explain the relations between emotions?

Emotion Models – Valence–Arousal Model of Affect



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Russell, R. (1980). A Circumplex Model of Affect.

Definition of Emotions: Components



Emotion (Scherer, 2005)

Definition of Emotions: Components



Emotion (Scherer, 2005)

Emotions are “an **episode** of interrelated, synchronized changes in the states of [...] **five organismic subsystems** in response to the evaluation of a [...] **stimulus-event ...**”

Definition of Emotions: Components



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Event

Definition of Emotions: Components



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Event

Feeling	Expression	Bodily Symptom
Action Tendency	Cognitive Appraisal	

Components

Definition of Emotions: Components



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Event

Feeling	Expression	Bodily Symptom
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Components

Fear

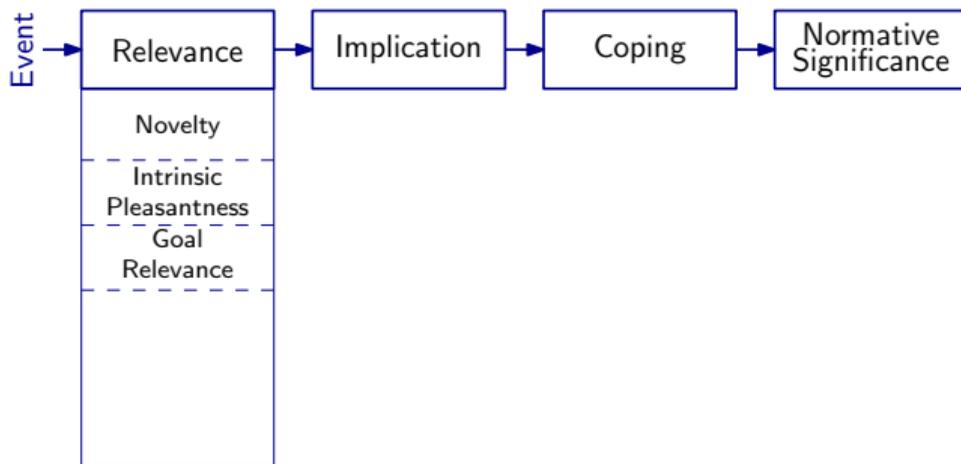
Name

Cognitive Appraisal in Scherer's Component Process model



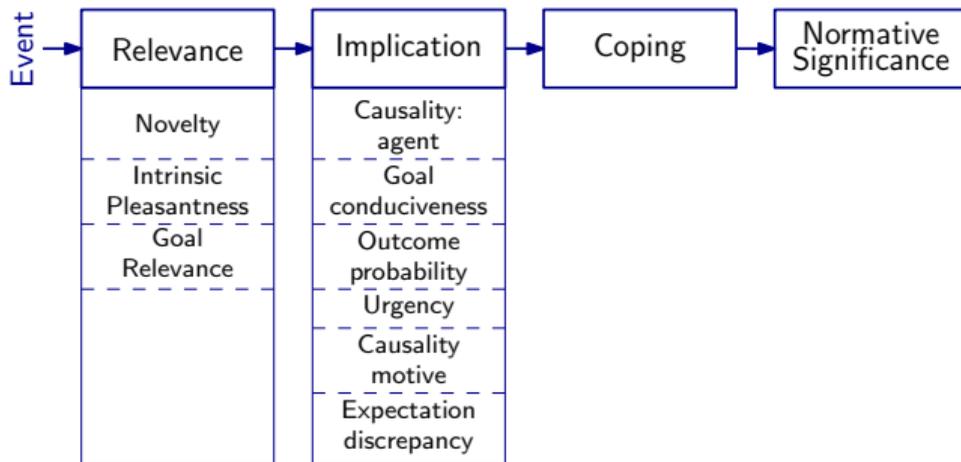
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Cognitive Appraisal in Scherer's Component Process model



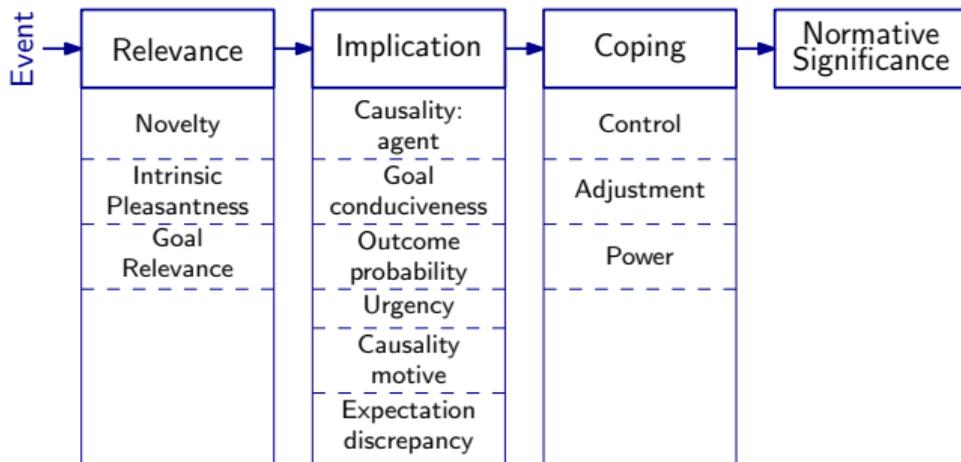
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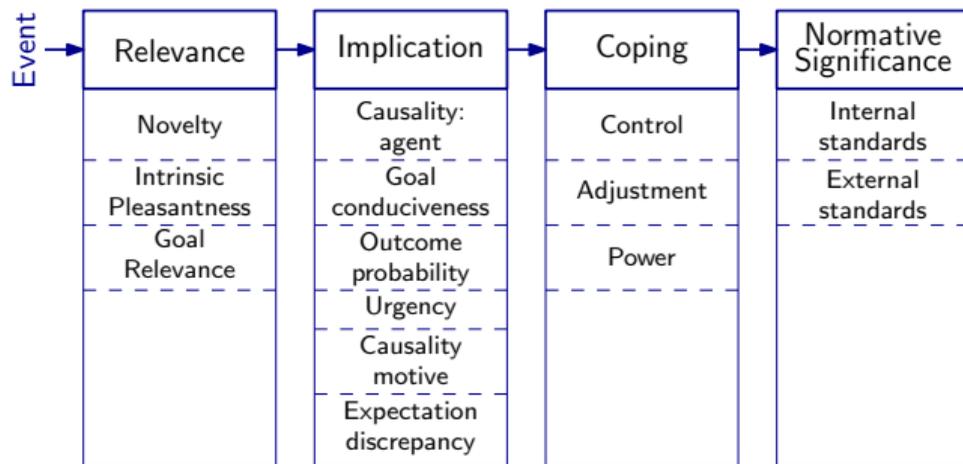
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Many theories have not been used yet in NLP...

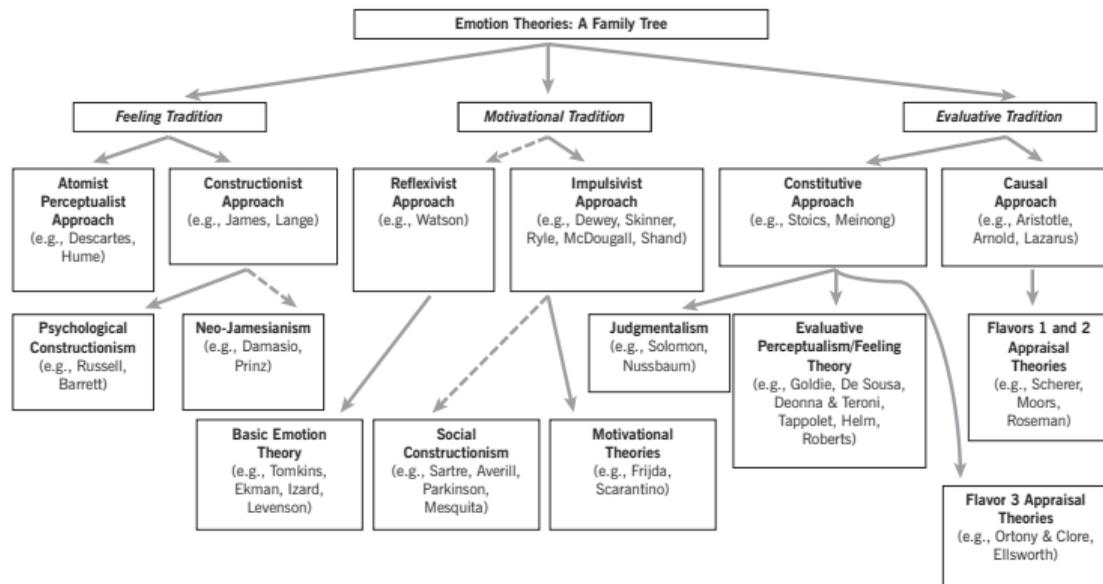
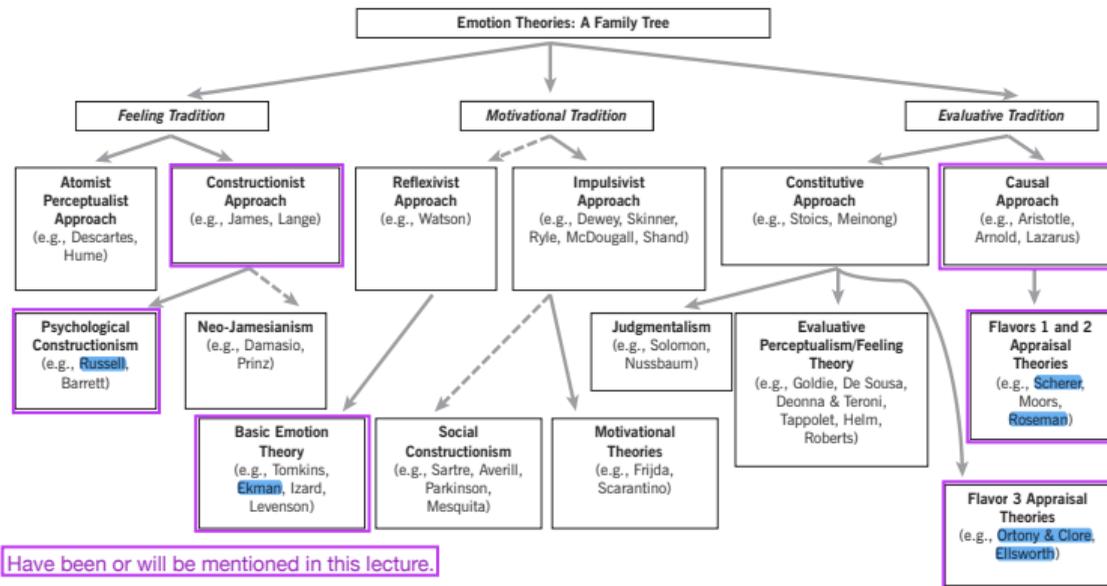


FIGURE 1.1. A family tree for theories of emotions. Dashed lines are meant to signal more tenuous connections among traditions, approaches, and research programs than solid lines.

Scarantino: The Philosophy of Emotions and Its Impact on Affective Science. In: Handbook of Emotions. 2016

Many theories have not been used yet in NLP...



Have been or will be mentioned in this lecture.

I am aware of work in NLP that made use of these theories.

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Emotion Analysis: What we want to do.



Emotion Analysis: What we want to do.



Subtasks and Their Relations



“Nala did not expect that Putu is angry when she took away his computer.”

Subtasks and Their Relations



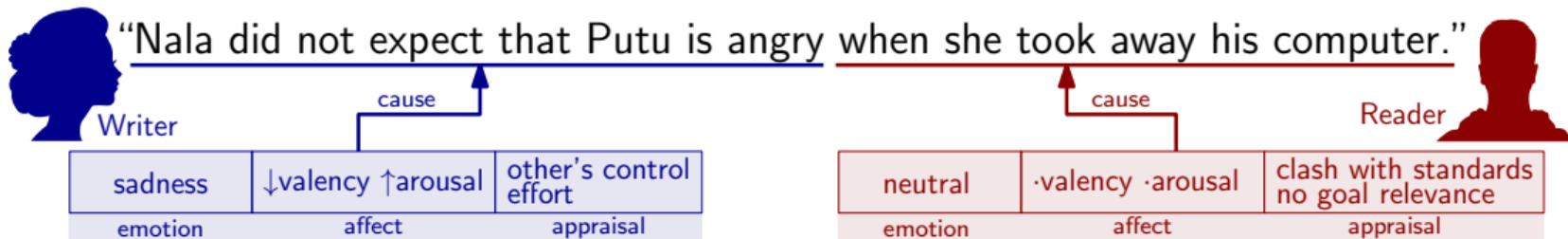
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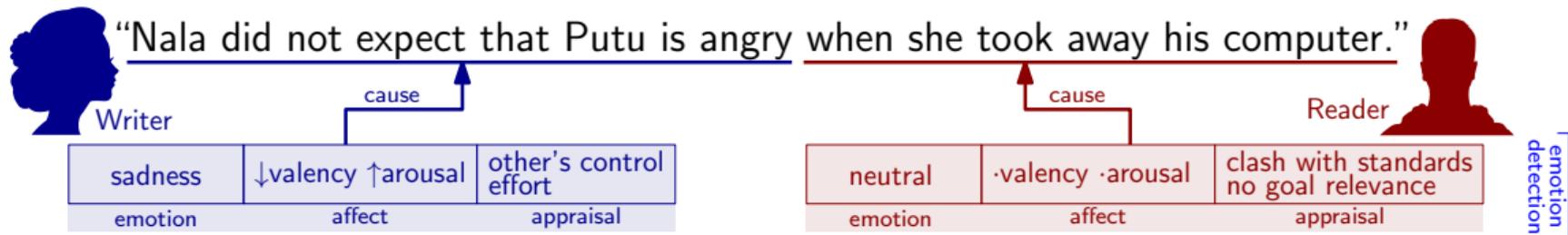
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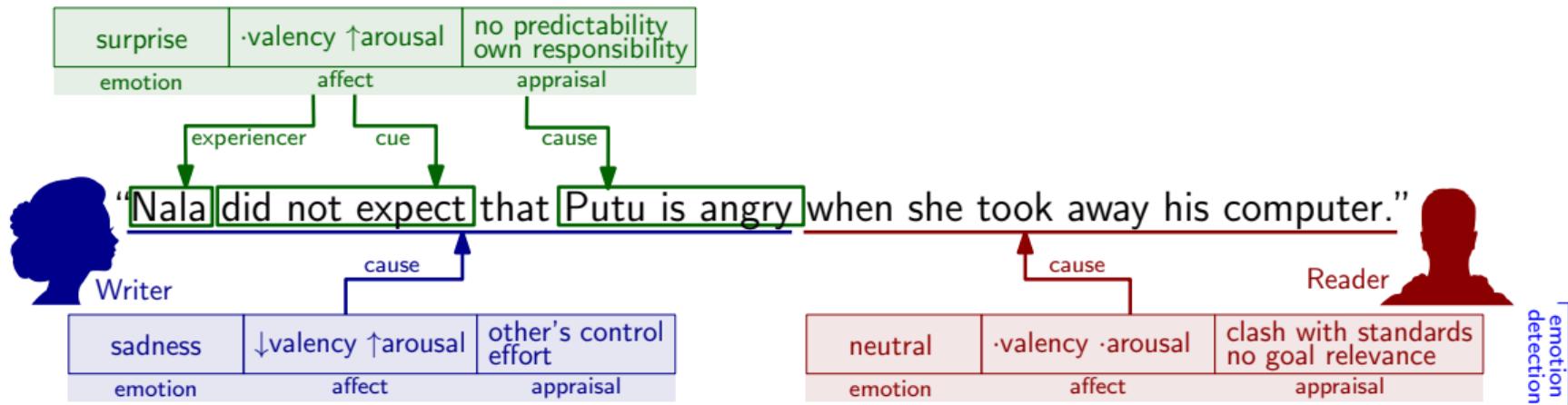
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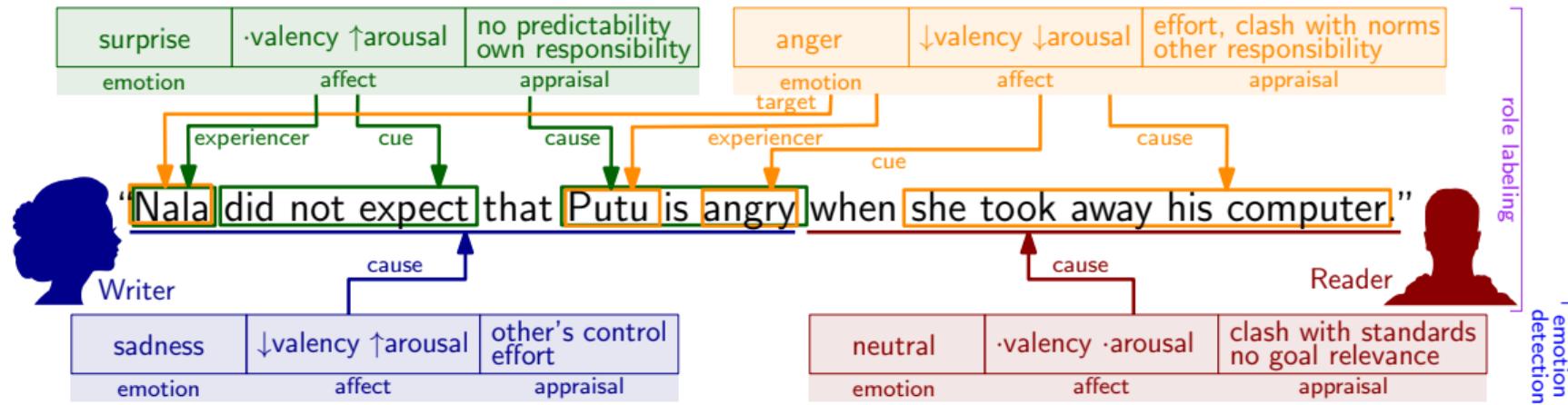
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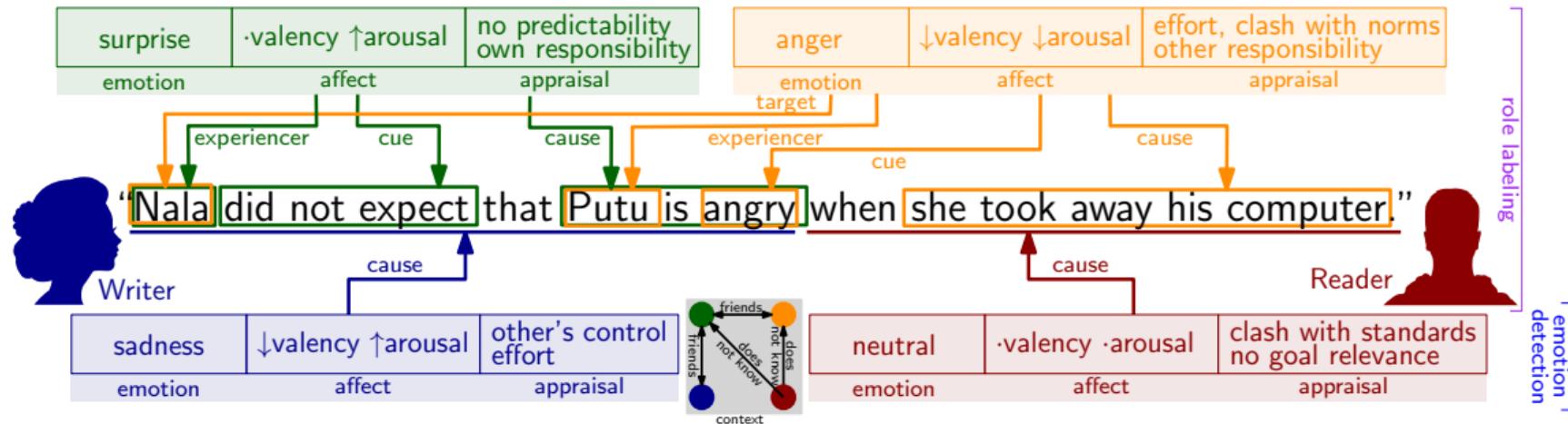
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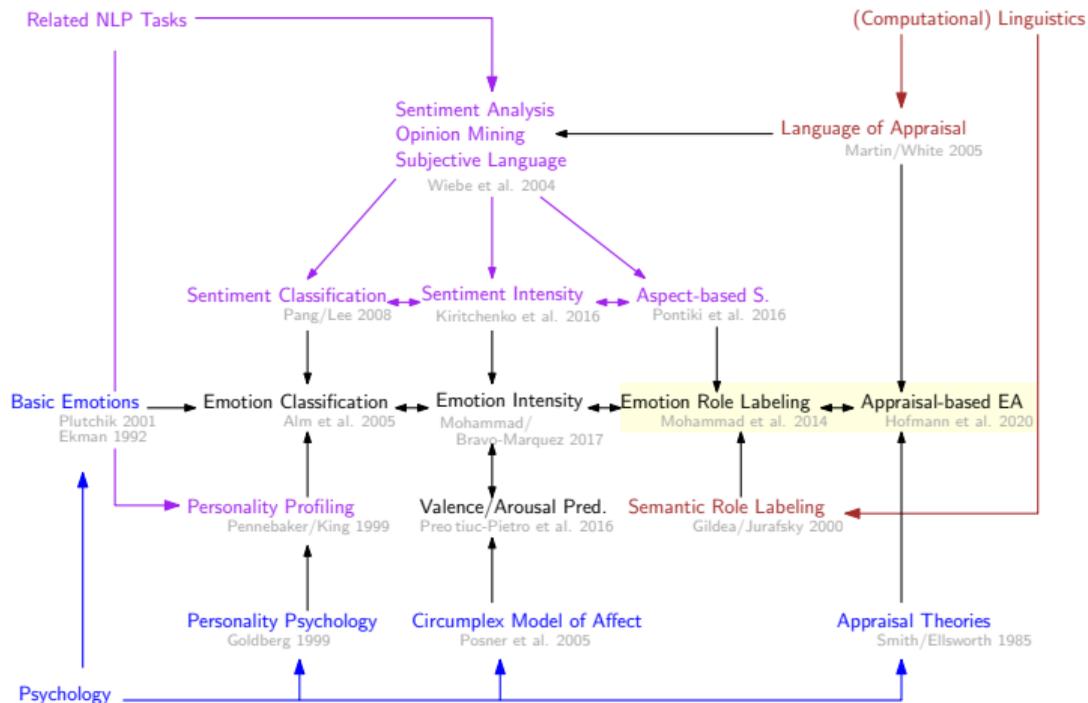
Subtasks and Their Relations



Subtasks and Their Relations



Embedding in the Research Landscape



Applications



Applications



- Literature analysis (arcs and character relations)

Applications



- Literature analysis (arcs and character relations)
- Social media analysis

Applications



- Literature analysis (arcs and character relations)
- Social media analysis
- News analysis

Applications



- Literature analysis (arcs and character relations)
- Social media analysis
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- Empathetic chatbots

Applications



- Literature analysis (arcs and character relations)
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- Understanding emotions from psychological perspective

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Next Steps



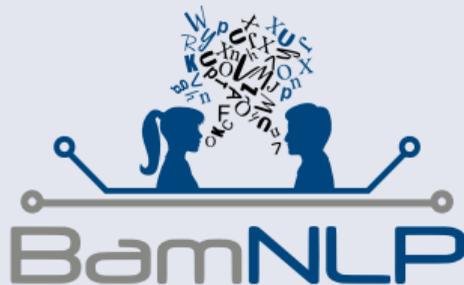
- We will now: Discuss your challenges and topics you work on!

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