

On the Science of Emotion

Gerald L. Clore



Barrett: Emotions are not the tightly organized, evolved modules envisioned by basic emotion or discrete emotion hypotheses

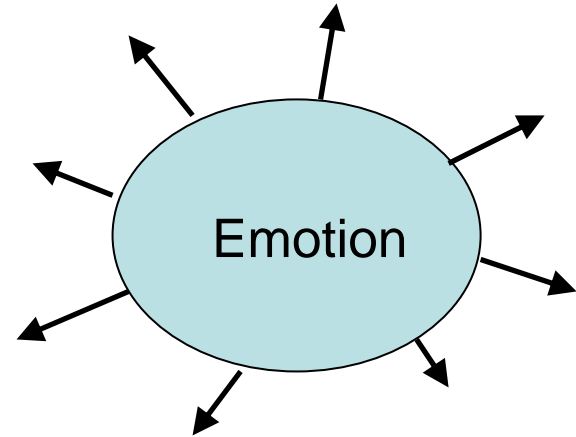
The data (brain, physiology, behavior, experience, expression) do not show the distinctive patterns assumed

Mischel (1968): Personality traits do not show the cross-situational consistency that trait theory predicts

Behavior is contingent and Personality is situated

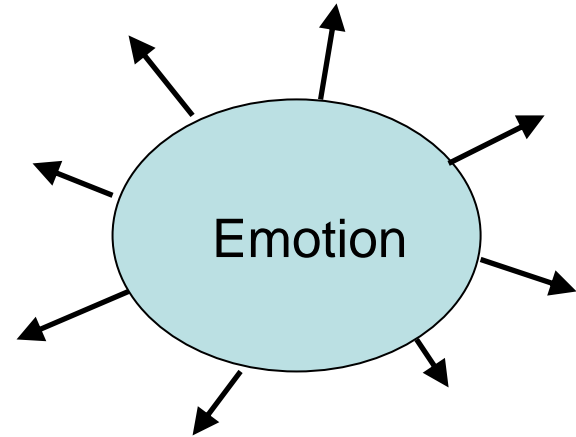
Models of emotion

Latent variable model

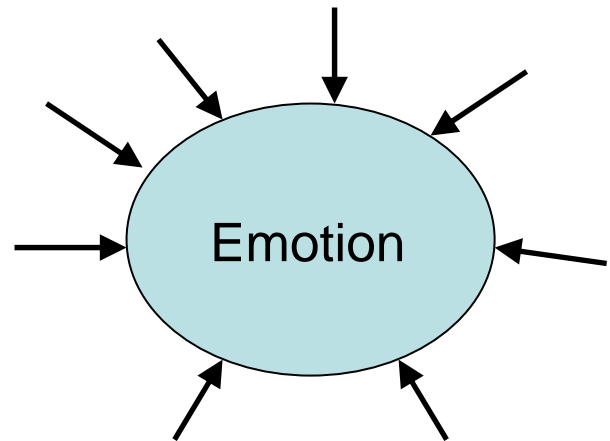


Models of emotion

Latent variable model



Emergent variable model



Moods & emotions are affective states

- “Affective” *goodness-badness*
- “States” *multiple systems reflect*

Dimensions of affect

Hi Arousal

Fear

Joy

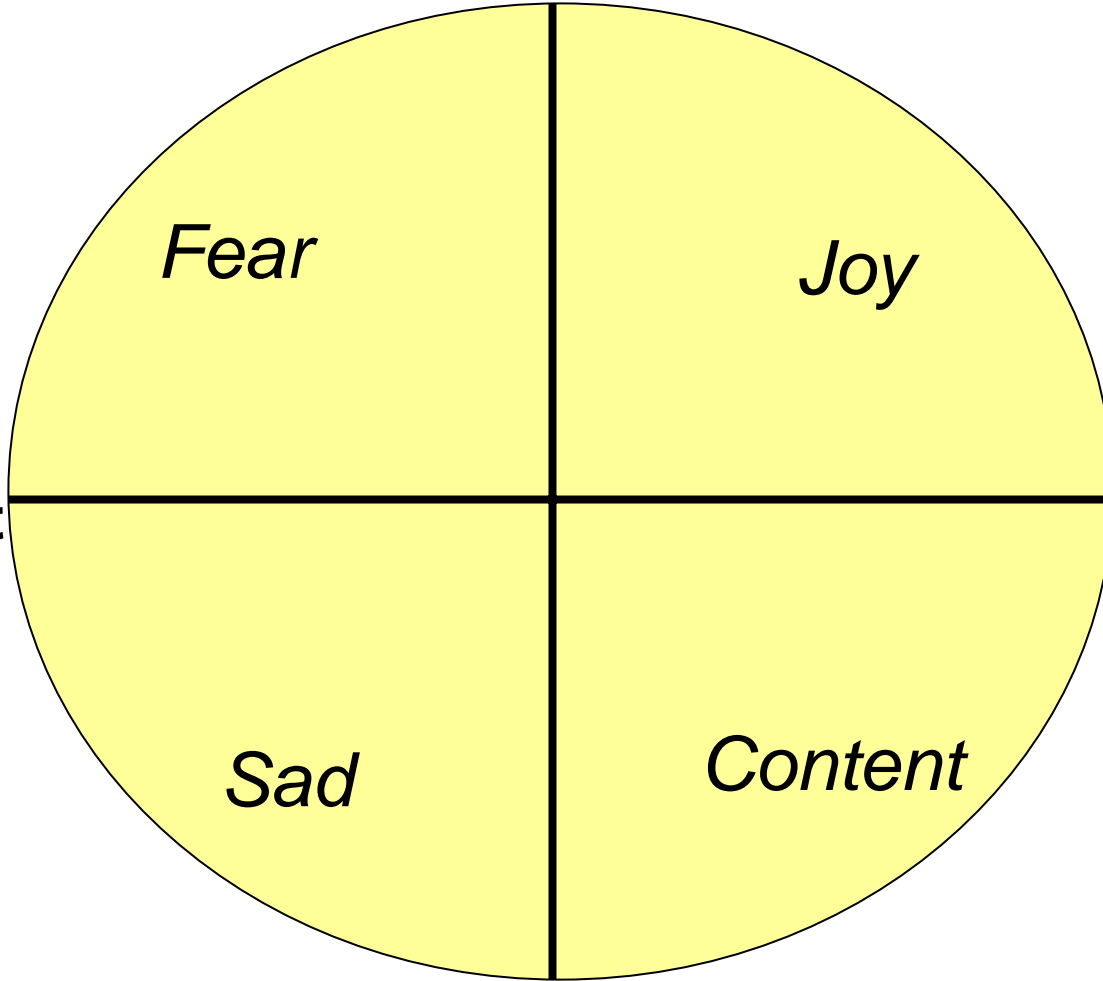
Unpleasant

Pleasant

Sad

Content

Lo Arousal



Affective Information

Important

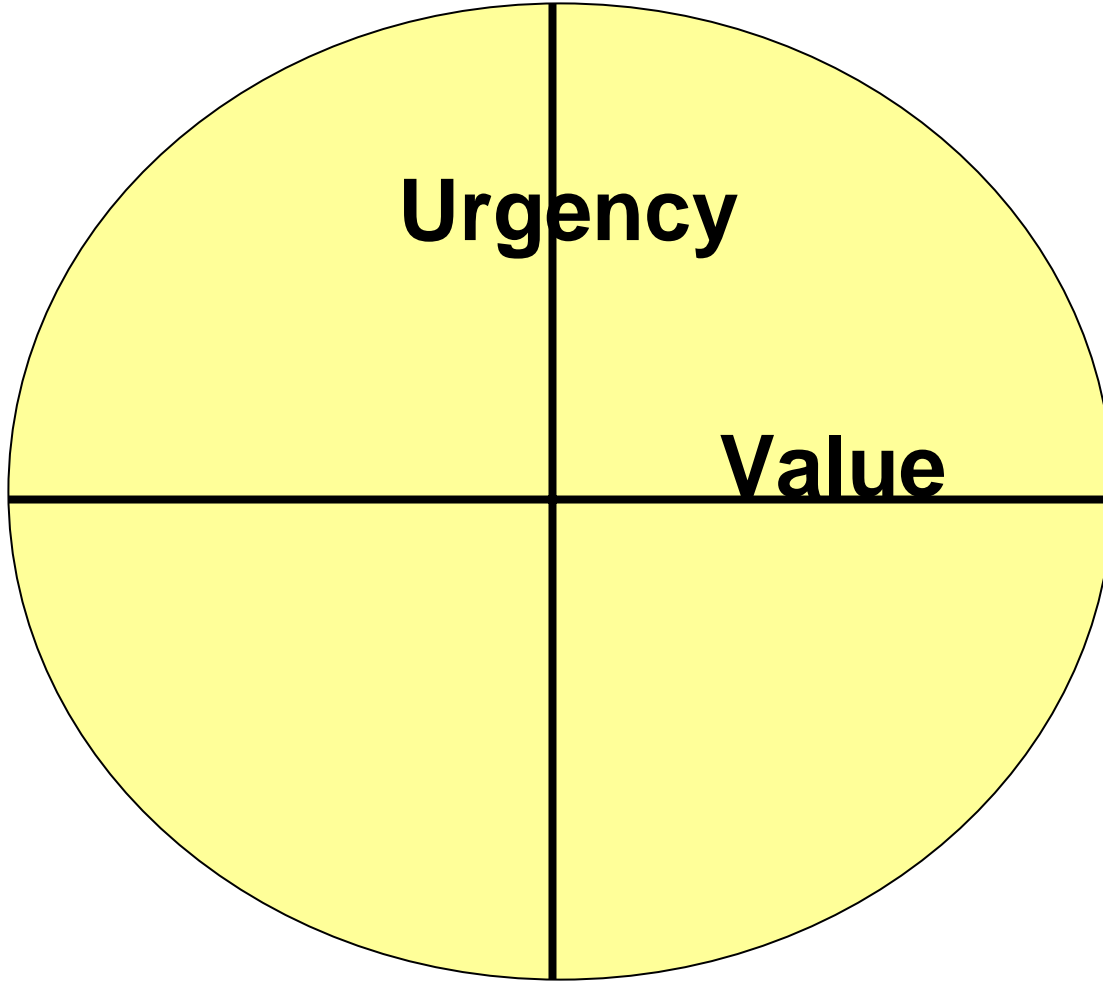
Urgency

Value

Bad

Good

Unimportant



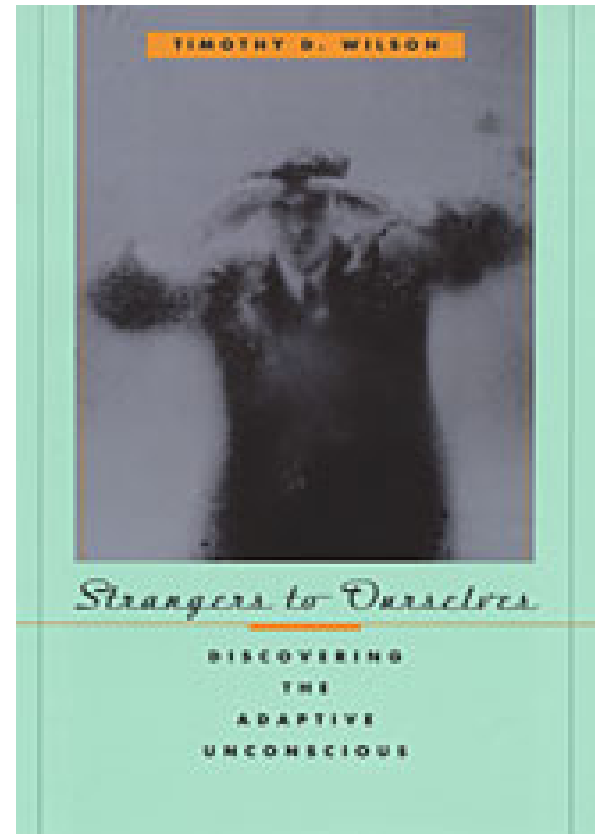
Affect-as-Information Approach

**Affective expressions inform us
about others**

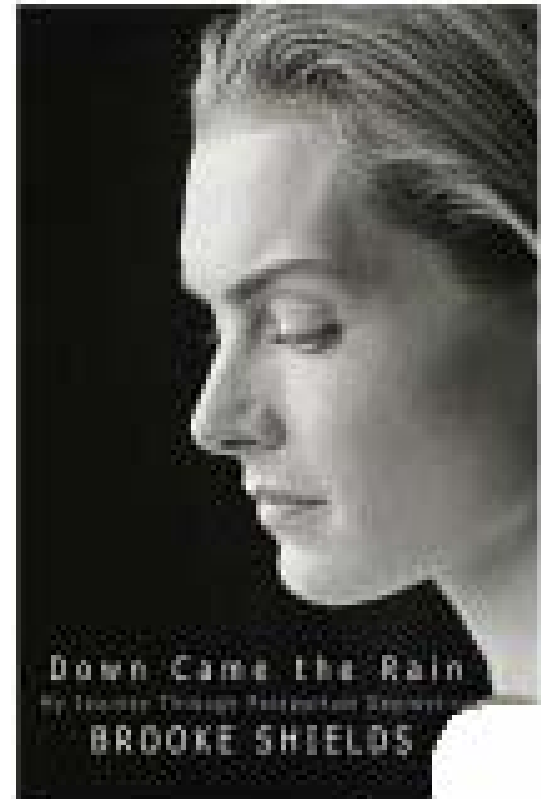
**Our affective feelings inform us
about ourselves**

Unconscious

**Affective feelings
provide information
about unconscious
appraisal processes**



**Absence of affect is
also informative**



**Absence of affect is
also informative**



Pvt. Steven Green

Do People and other Intelligent Agents Need Affect & Emotion?

Memory

Attention

Judgment & Decisions

Thinking Style

Motivation



Attention & Visual Processing

**Mere presence of fearful face
enhances contrast sensitivity**

(Gabor figures, Phelps et al 2006)

Memory

Importance marked by epinephrine & nor-epinephrine release consolidates memories over 48 hour period. (McGaugh, Cahill)

PTSD

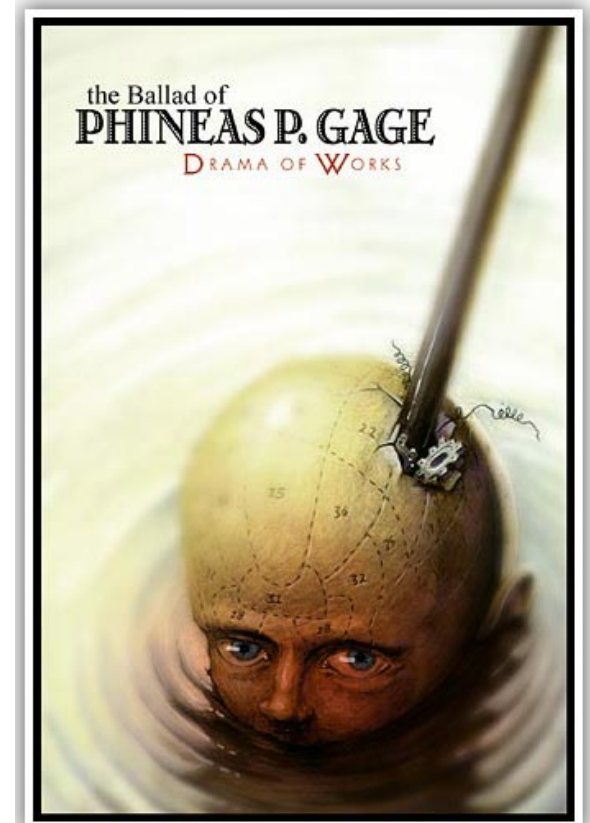
Decision-making

Anticipated Emotion (Baumeister, 2006)

Affective Forecasting (Wilson & Gilbert)

Decision-making

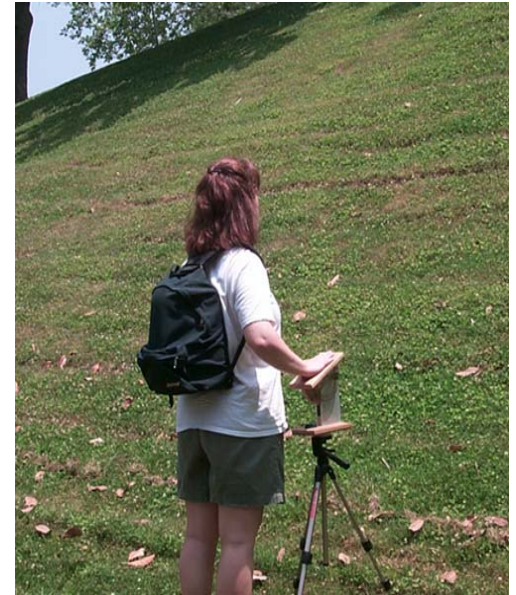
Damasio:
studies of brain damage



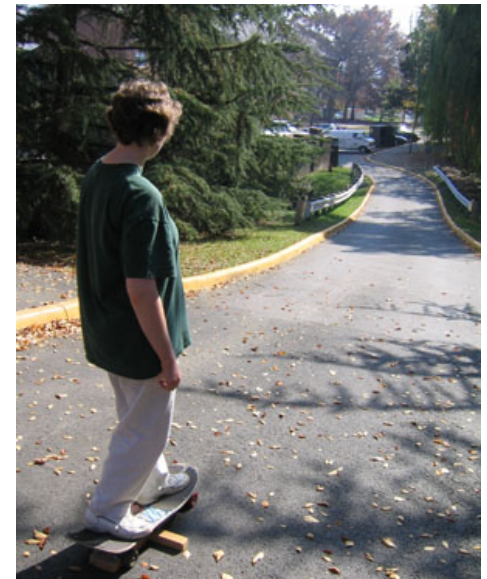
Judgment

Affective reactions serve as input to judgments

**Sadness influences
perceptions of slant
when hill viewed
from bottom**



**Fear influences
perceptions from
top**

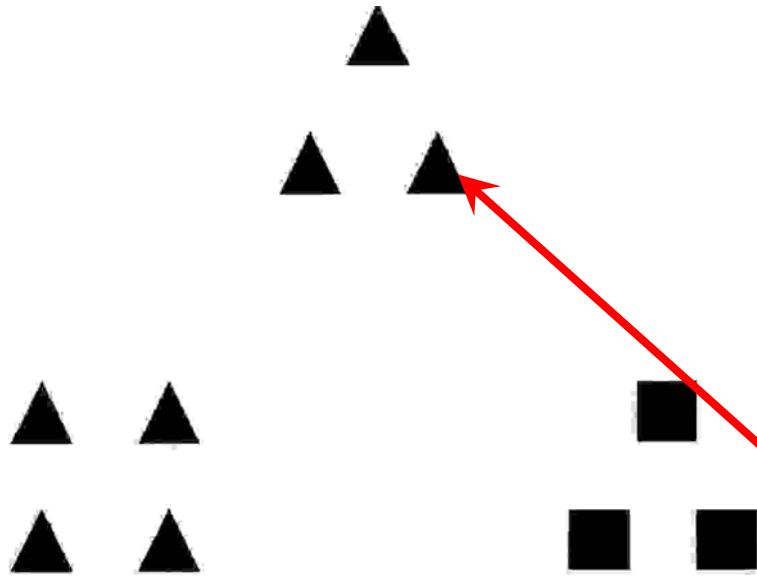


Emotion & Performance

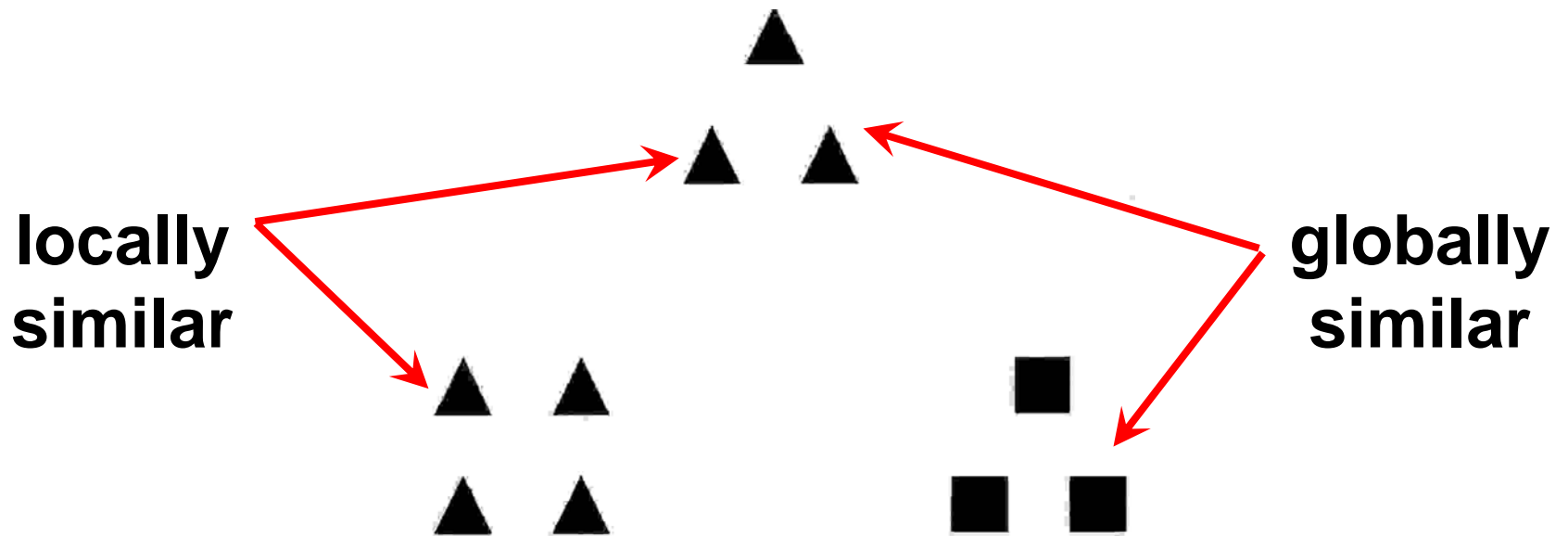
Emotion Regulation



Thinking Styles



which comparison figure is similar to target ?



Positive affect promotes attention to the forest; sad mood to the trees

In a task focus

Positive affect → global focus

top-down processing

***because affect confers
value on own thoughts***

Negative affect → local focus

bottom-up processing

Textbook demonstrations:

- **semantic priming**
- **script processing**
- **schema-guided memory**
- **heuristic reasoning**
- **global superiority effect**
- **false memory effect**

**We concluded that the cognitive
revolution had an affective trigger**

Affective Accounting

**Effects are situated, depend on how
one parses affective experience**

Constraints on affective meaning

	Current State	Chronic Disposition
Object Salient		
No Object Salient		

Constraints on affective meaning

	Current State	Chronic Disposition
Object Salient	<i>Emotion</i>	<i>Attitude</i>
No Object Salient	<i>Mood</i>	<i>Temperament</i>

Trauma and Communication

Buddhist therapy for pain

**Detachment from the world,
Meditation**

