



Building blocks of emotion

Psychology 1702
The Emotional Mind

Today's agenda

- Part II of course logistics/orientation
- The building blocks of emotion
- How do the building blocks of emotion fit together?

Class orientation

- Syllabus is finalized. Get the copy dated !
- If you work with the Accessible Education Office / Disability Access Office - get in touch ASAP, definitely by the end of next week.
- If you want to take this course and are not enrolled yet, see me after class.
- Course policies (from syllabus).
- Office hours - email me.

Class policies

- Last minute course announcements. In the unlikely event of a last-minute change to class (for example, the need to cancel class), the instructional team will post this on the Announcement page on canvas and it will be emailed to the class list.

First assignment

What's Due



Emotion Intuitions Survey

Jan 31 | 0 pts

Due next Wed by 11:59PM

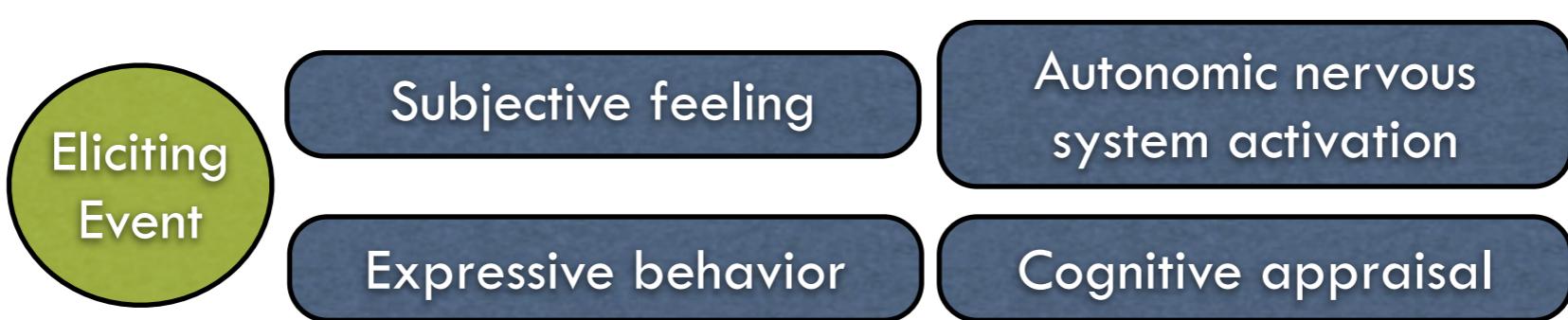
Next week's section/ discussion activity

- Special week — film screening
- Alternatively, you can watch on your own (see Week 2 module for options on accessing the movie)
- Week 2 module contains thought Qs
- Come to week 3 section ready to discuss



Today's agenda

- Building blocks of emotion



- How do the building blocks combine?

What are emotions?



.....

Subjective
feeling state

Expressive
behavior

Autonomic
nervous system
activation

Cognitive
appraisal

1. Eliciting Event

- Emotions don't come out of nowhere
- Antecedent
- Often sudden
 - Often specific
 - Sometimes object focused,
sometimes internally focused
 - Always goal-relevant



Emotion distinct from Mood



2. Autonomic nervous system activation

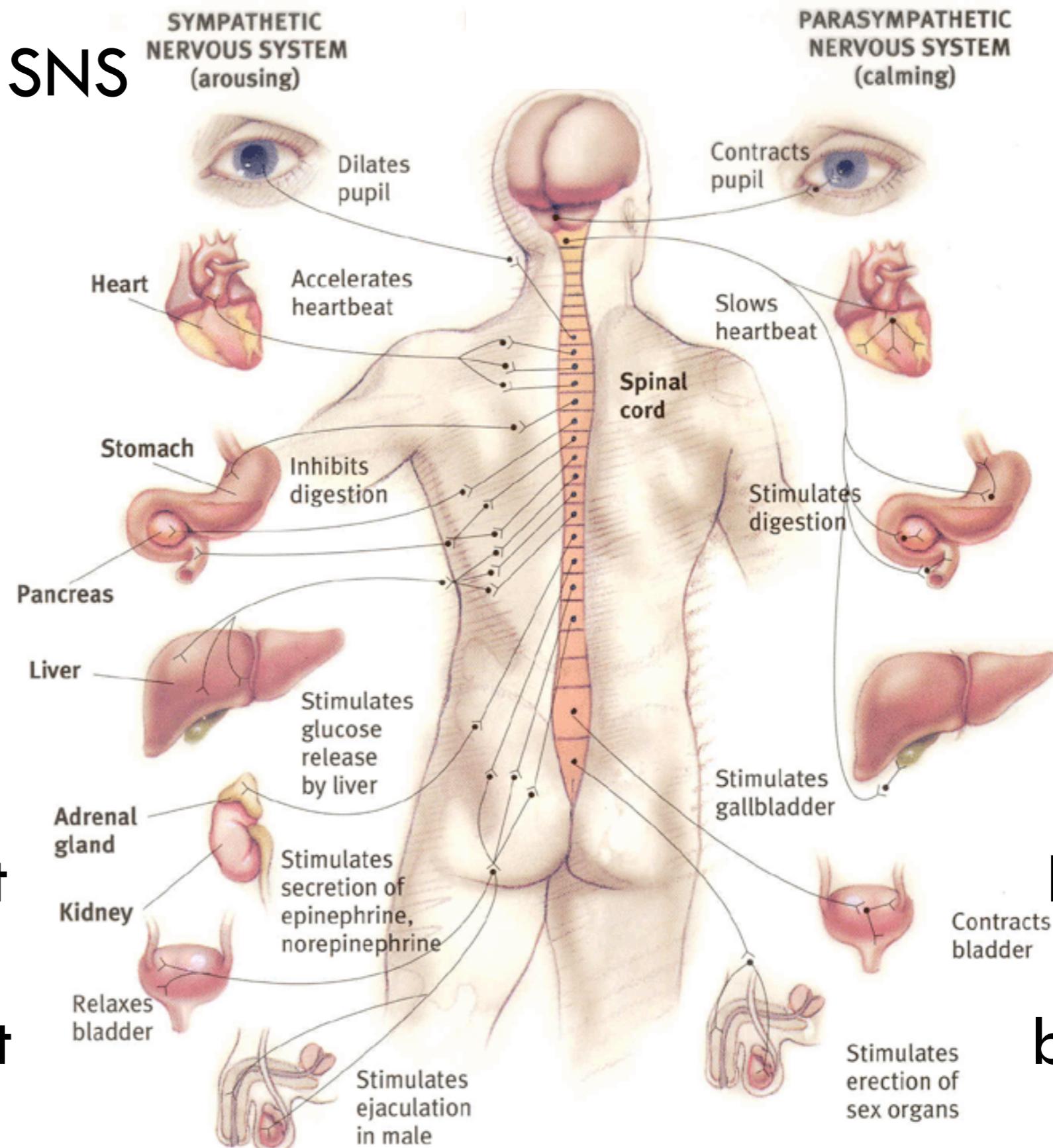
Fight
+
flight

Divisions of the Autonomic Nervous System

SNS

PARASYMPATHETIC NERVOUS SYSTEM (calming)

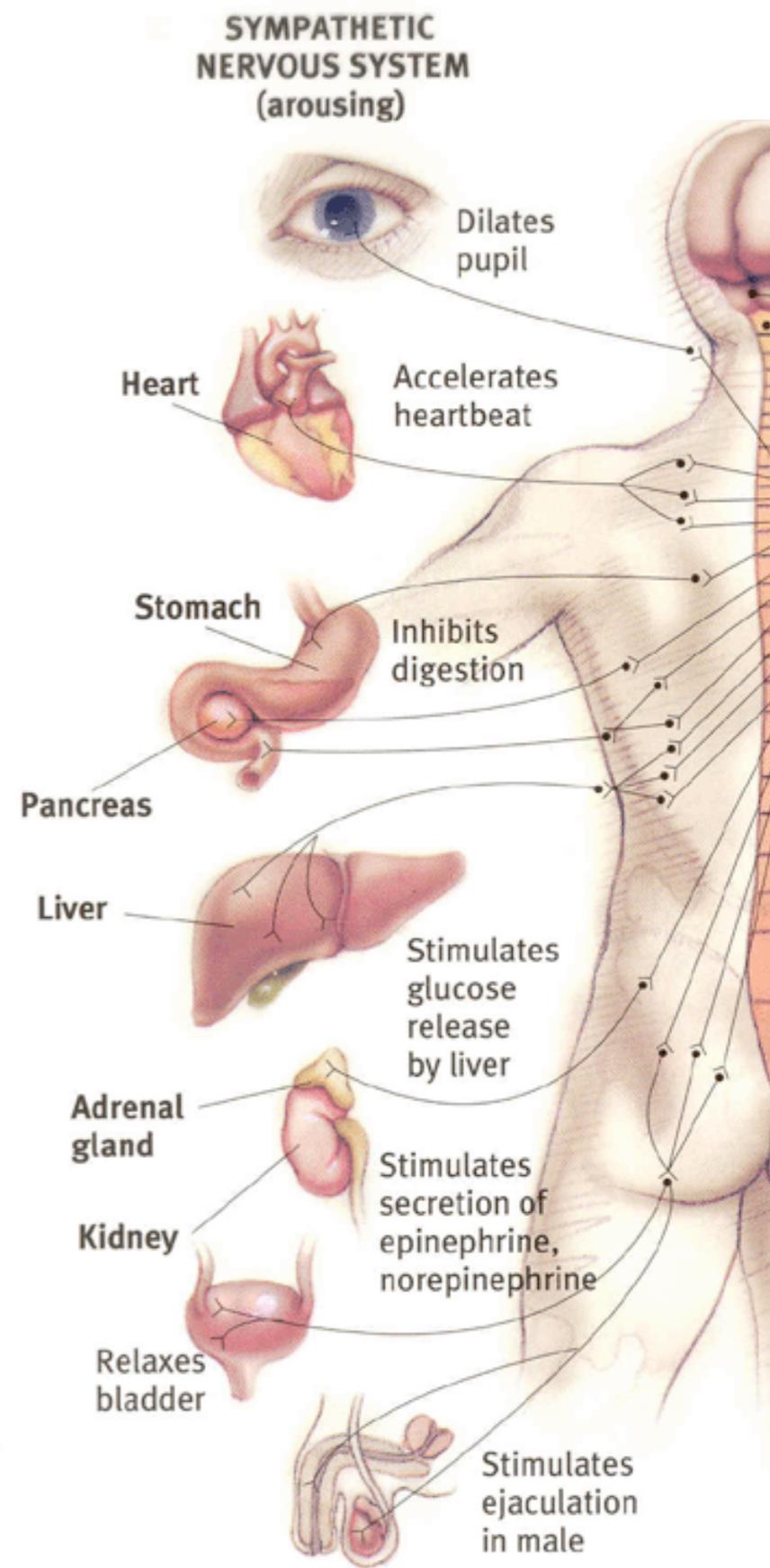
PNS



Feed
+
breed

2. Autonomic nervous system activation

- Activation of SNS temporarily overrides PNS activation, effectively suspending ‘maintenance’ functions that usually occur at rest.
- SNS activity mobilizes energy and facilities action and information gathering.



3. Expressive behavior

- Emotions include a *motivation to express*
- Via *actions*

Withdrawal
Escape



Approach
Aggress

3. Expressive behavior

- Emotions can include a motivation to express via the face



Why do we express?

- (We will talk about that a whole bunch)

4. Cognitive Appraisal



4. Cognitive Appraisal

- Appraisals are **psychological evaluations of emotional significance.**
- Idiosyncratic based on stable and transient factors.
- Allows us to explain why one event could evoke a wide range of responses within and across people.

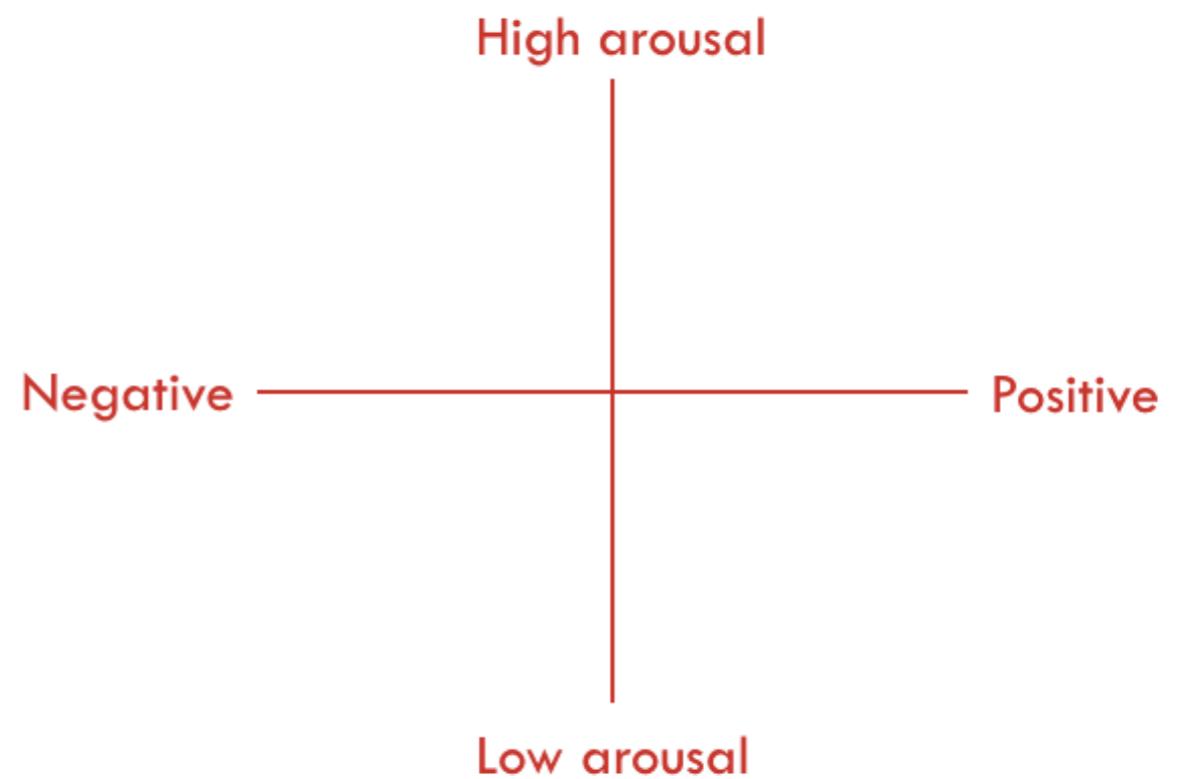
5. Subjective feeling state

- Conscious representation of subjective emotional state
- Affect - subjective feeling state
- Discrete feeling - ‘disgust’, ‘happy’
 - How good/bad, how excited/calm

Discrete?



Dimensions?



What are emotions?



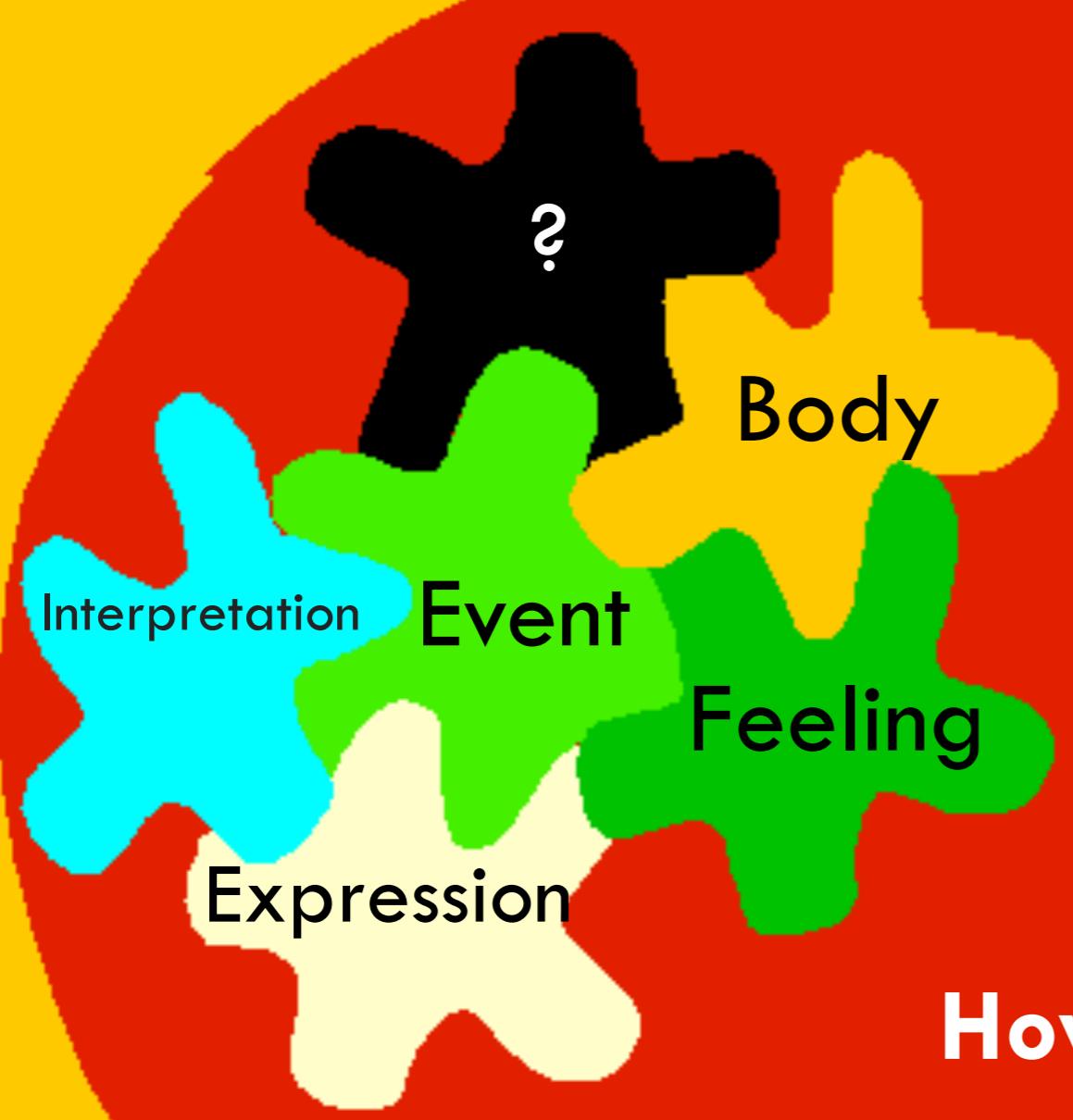
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Subjective
feeling state

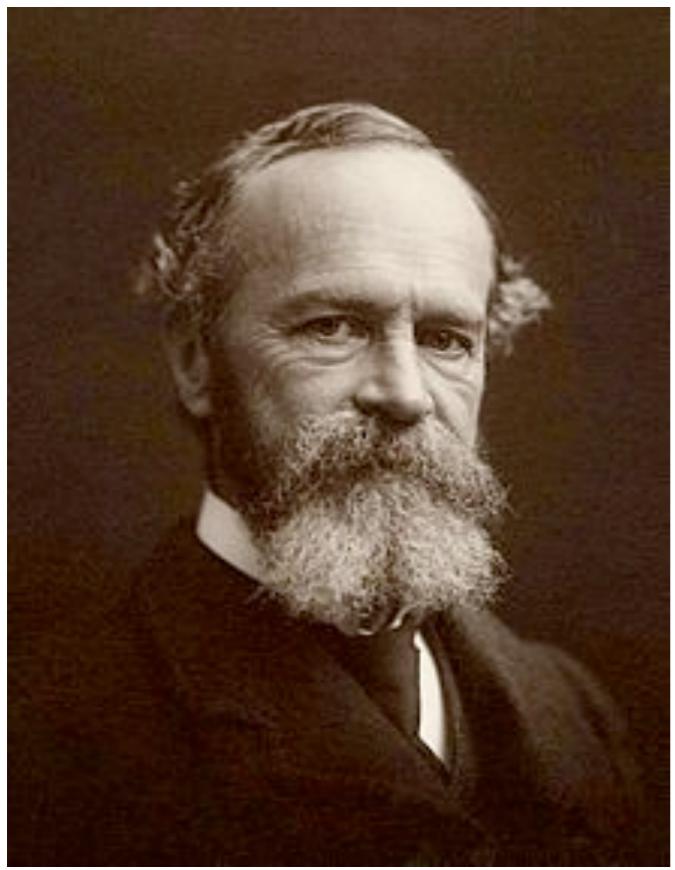
Expressive
behavior

Autonomic
nervous system
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Cognitive
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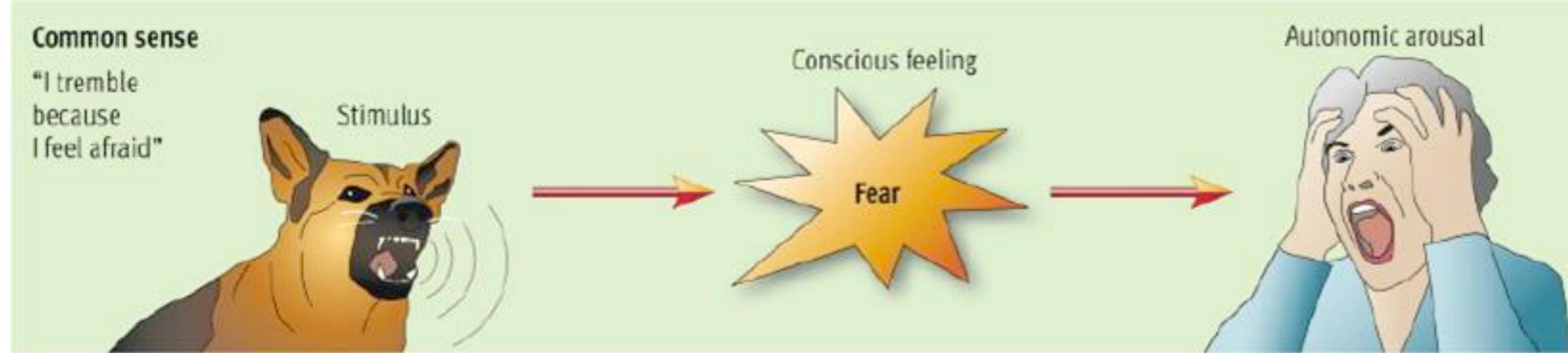
**How do these
components
combine to
generate an
emotion?**



William James started the conversation

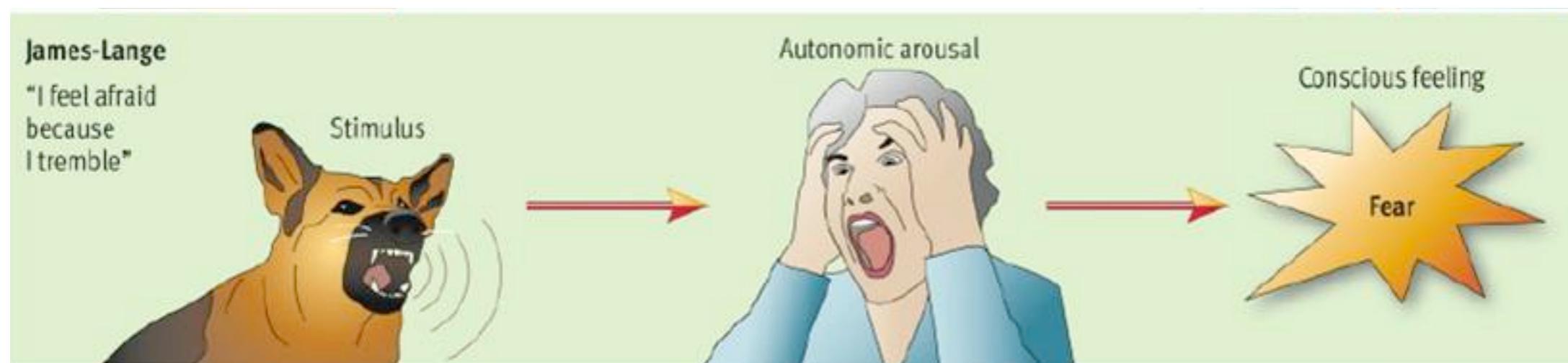
- (The offshoot discipline of Philosophy now known as Psychology)
- In his famous paper “*What is an emotion?*” (1884) he placed physiological arousal at the center of emotional response
- James-Lange theory of emotion

READING!



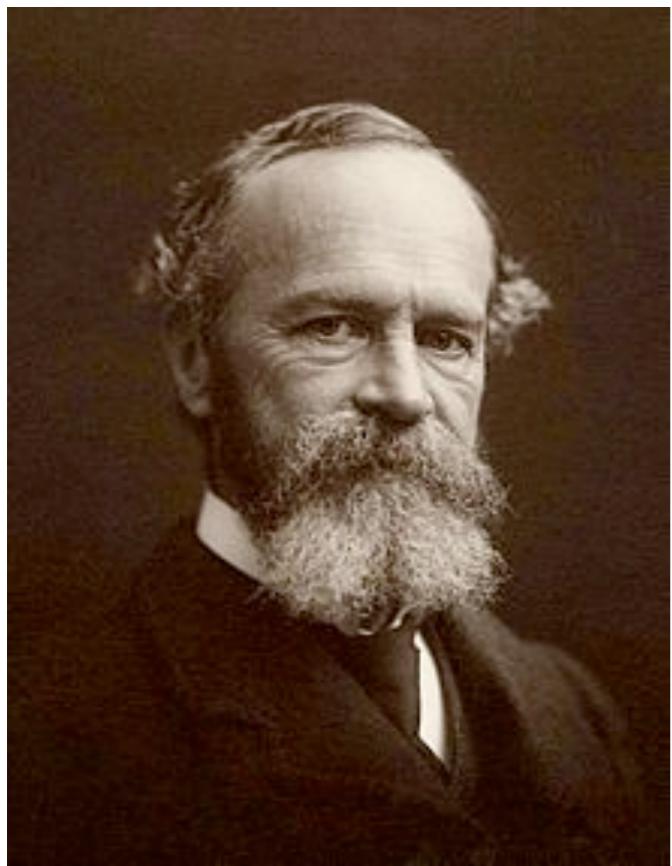
"Our natural way of thinking about... emotions is that the mental perception of some fact excites the mental affection called emotion, and that this latter state of mind gives rise to the bodily expression...."

Common sense says, we lose our fortune, are sorry and weep; we meet a bear, are frightened and run; we are insulted by a rival, are angry and strike.



My thesis on the contrary is that **the bodily changes follow directly the PERCEPTION** of the exciting fact, and that our feeling of the same changes as they occur is the emotion.

... we feel sorry because we cry, angry because we strike, afraid because we tremble, and not that we cry, strike, or tremble, because we are sorry, angry, or fearful, as the case may be. Without the bodily states following on the perception, the latter would be purely cognitive in form, pale, colourless, destitute of emotional warmth. We might then see the bear, and judge it best to run, receive the insult and deem it right to strike, but we could not actually feel afraid or angry."



James' main points

- Emotions are different from other cognitions because they involve changes in body state.
- Emotion is the mind's perception of physiological conditions that result from some stimulus.

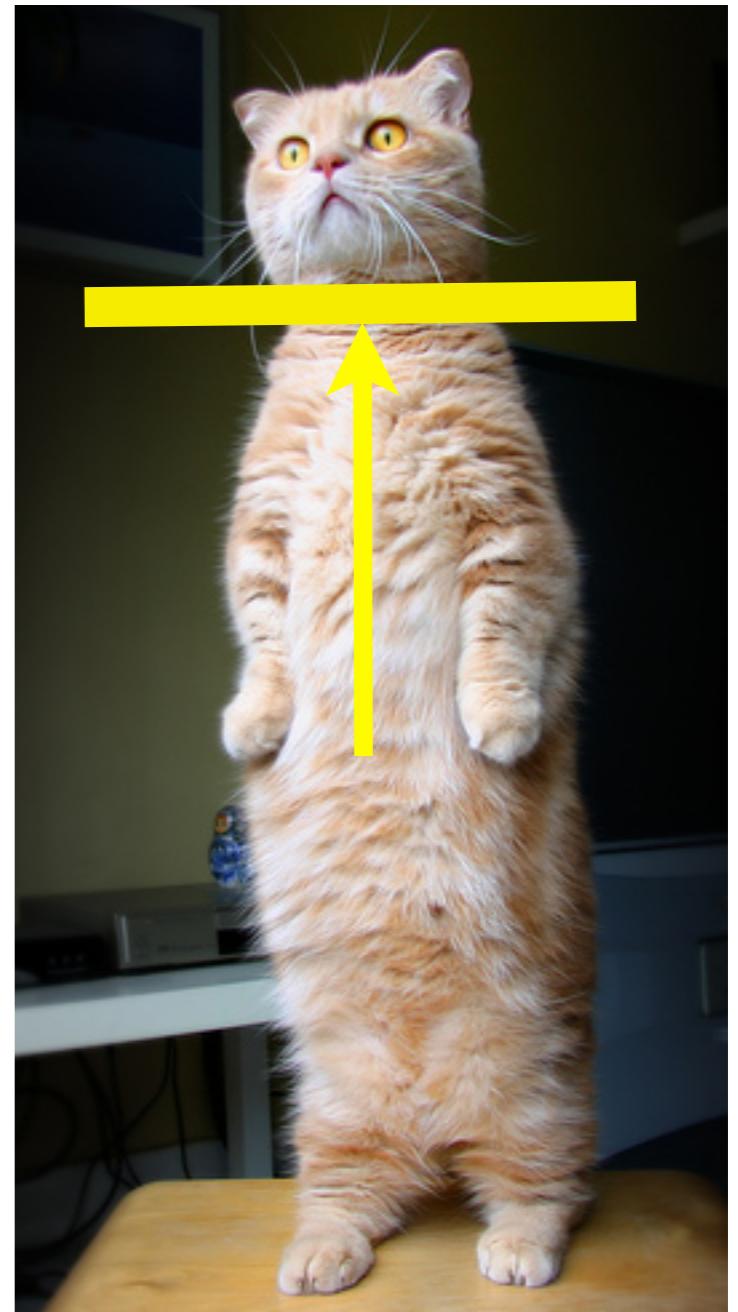
The trouble with James' proposal...



Walter Cannon

1871-1945

- Intuitions:
 - Physiological responses too uniform to distinguish between different emotions.
 - Physiological response and experience seem to occur without a time-lag.
- Data:
 - Sympathectomized cats





Walter Cannon

1871-1945

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"Feline rage"

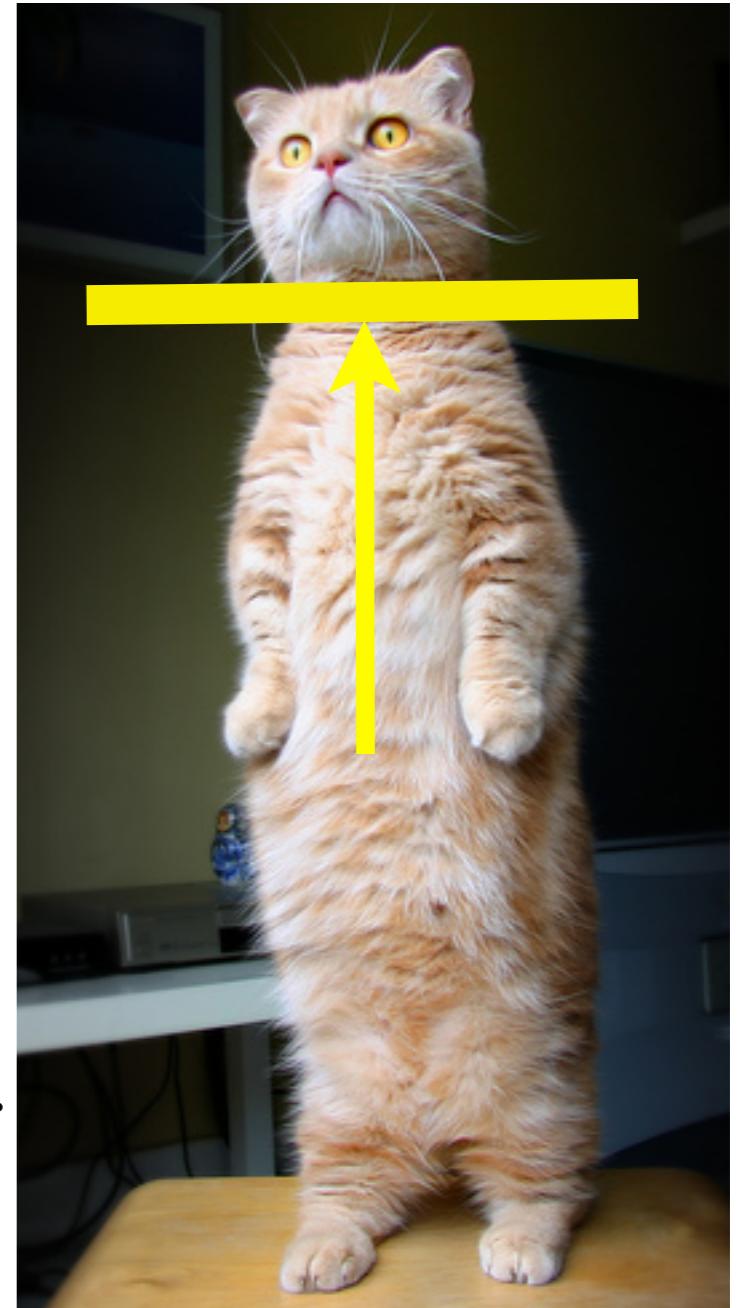




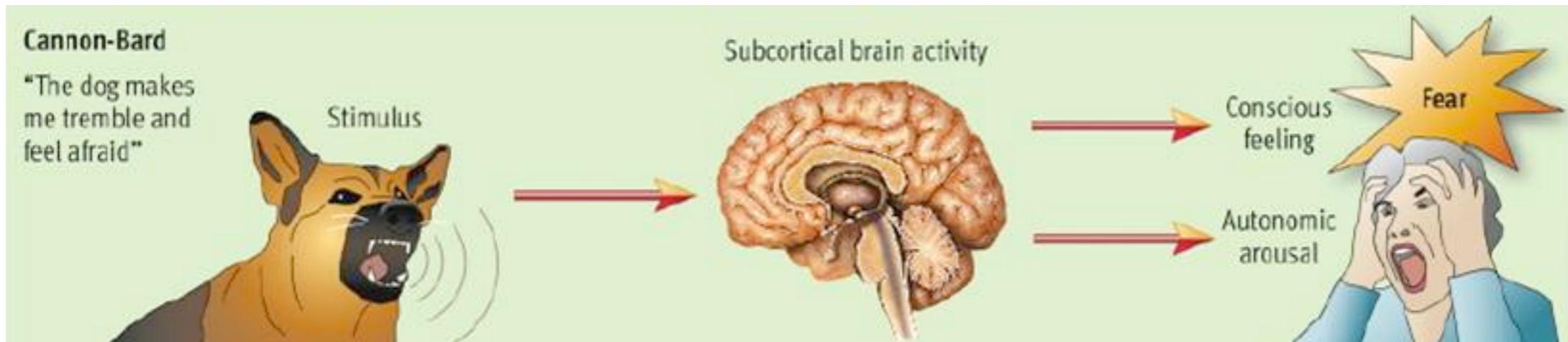
Walter Cannon

1871-1945

- Intuitions:
 - Physiological responses too uniform to distinguish between different emotions.
 - Physiological response and experience seem to occur without a time-lag.
- Data:
 - Sympathectomized cats exhibit “feline rage” when confronted with a dog.
 - Cats with surgically removed cortex also show “feline rage”.
- Conclusion:
 - Emotion is not “coded” in the body state. Deep subcortical structures produce our emotions.



Cannon-Bard theory of emotion



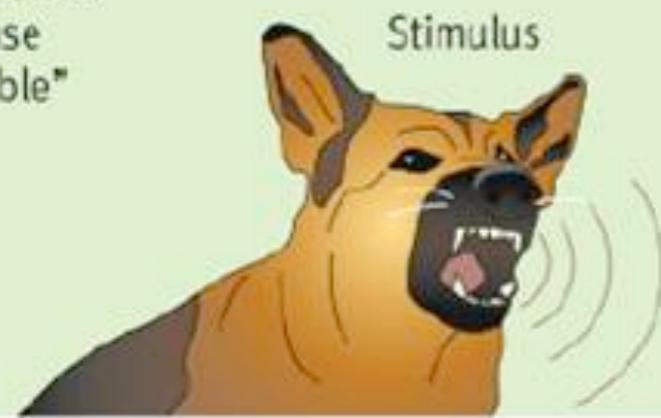
"When thalamic discharge occurs, the bodily changes occur almost simultaneously with the emotional experience. (p. 121)." -Cannon, 1927



... "the sensations from the peripheral changes, contrary to James' view, are "pale, colorless, and destitute of emotional warmth" whereas the thalamic disturbances contribute glow and color to otherwise simply cognitive states (p. 121). "

James-Lange

"I feel afraid because I tremble"



Autonomic arousal

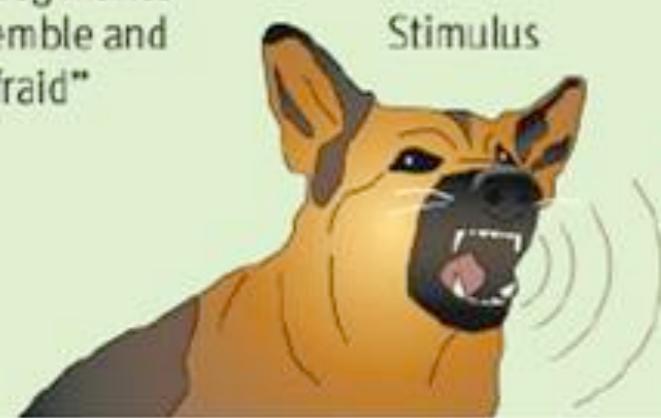


Conscious feeling



Cannon-Bard

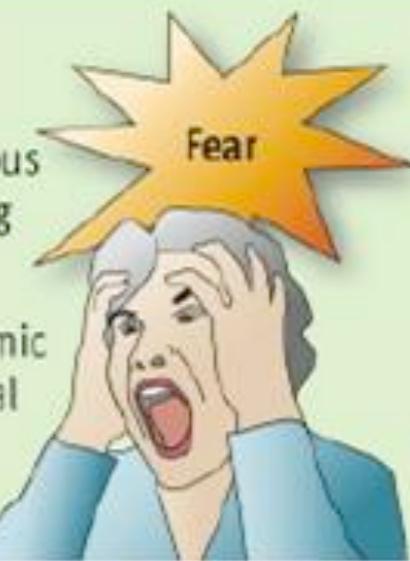
"The dog makes me tremble and feel afraid"



Subcortical brain activity



Conscious feeling



Autonomic arousal

Emphasis on:

- Fast, automatic type responses
- Brain or body “codes” what we are feeling



Stanley Schachter and Jerome Singer



Two-factor hypothesis

“... the variety of emotion, mood and feeling states are by no means matched by an equal variety of visceral patterns (p. 380).”

1. Emotional responses involve experiencing nonspecific arousal



Stanley Schachter and Jerome Singer

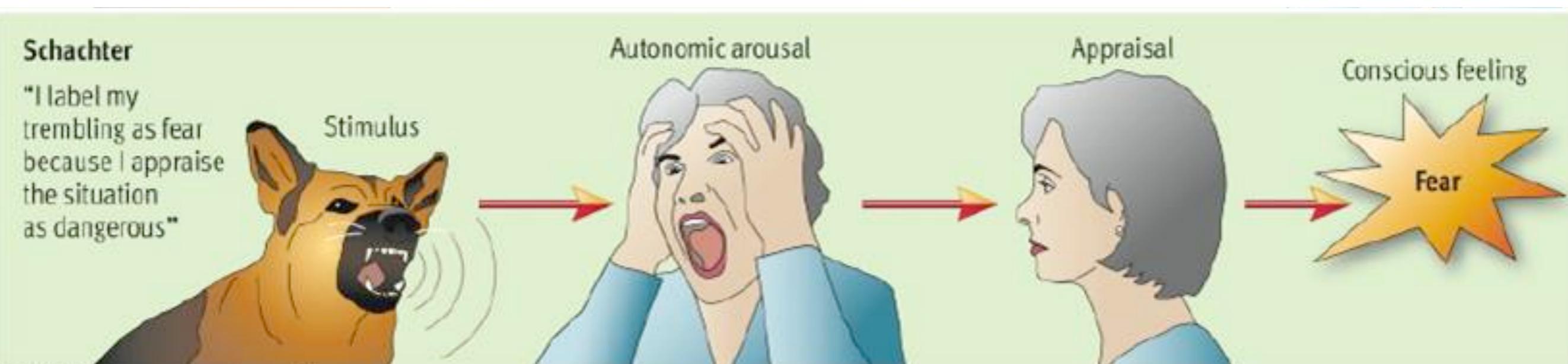


Two-factor hypothesis

“Given a state of physiological arousal for which an individual has no immediate explanation, he will ‘label’ this state and describe his feelings in terms of the cognitions available to him (p. 381).”

2. Our cognition (appraisal) dictates which emotion we are experiencing.

Schachter “two factor” theory



Schachter & Singer's famous study



Arousal

Explanation

Context



ANS-



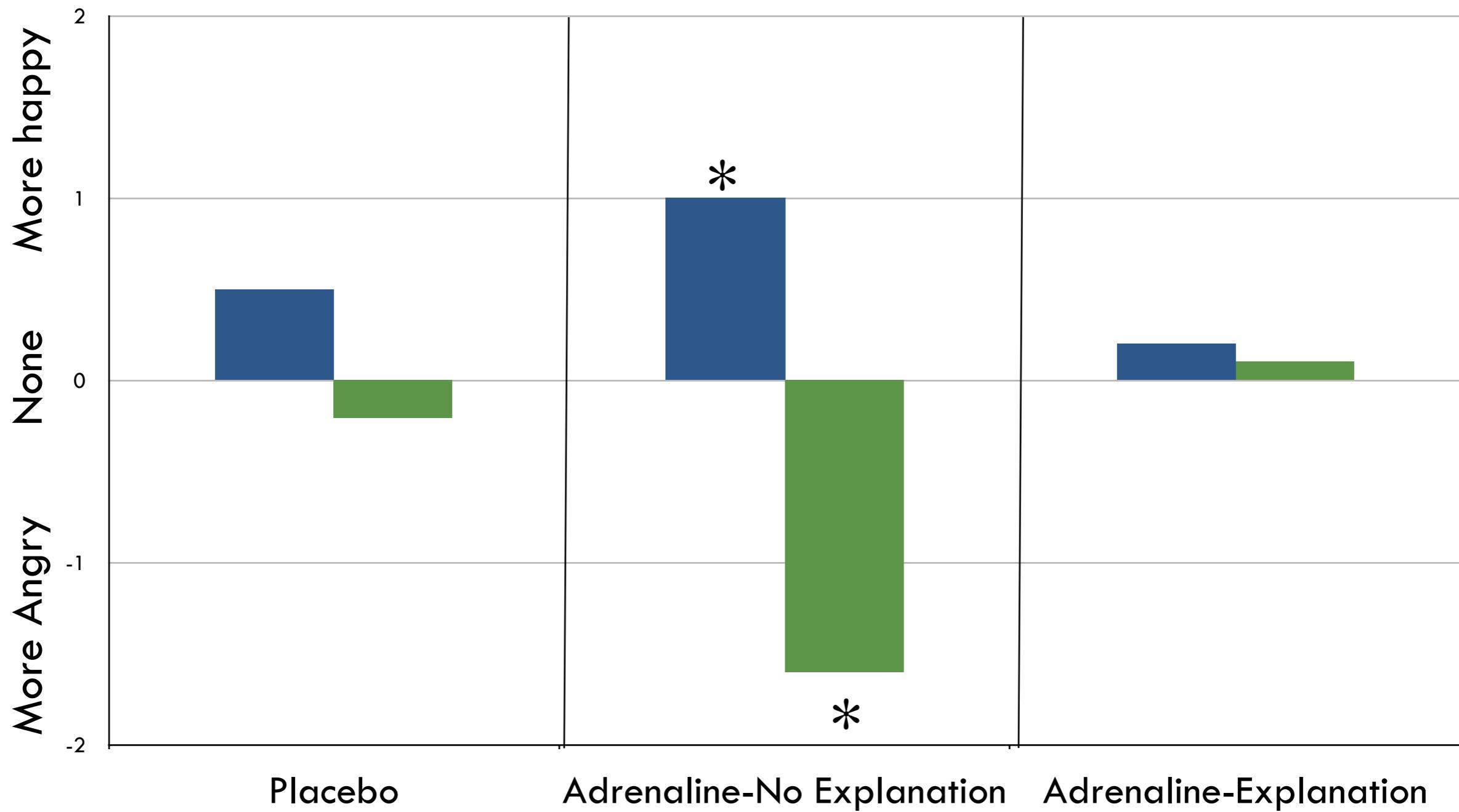
ANS+



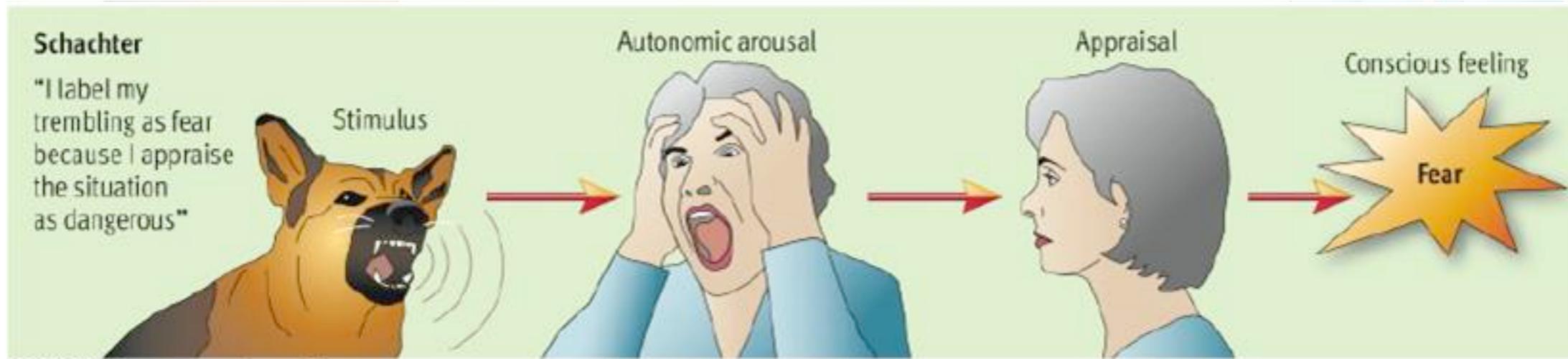
ANS+



Happiness
 Anger



Schachter “two factor” theory

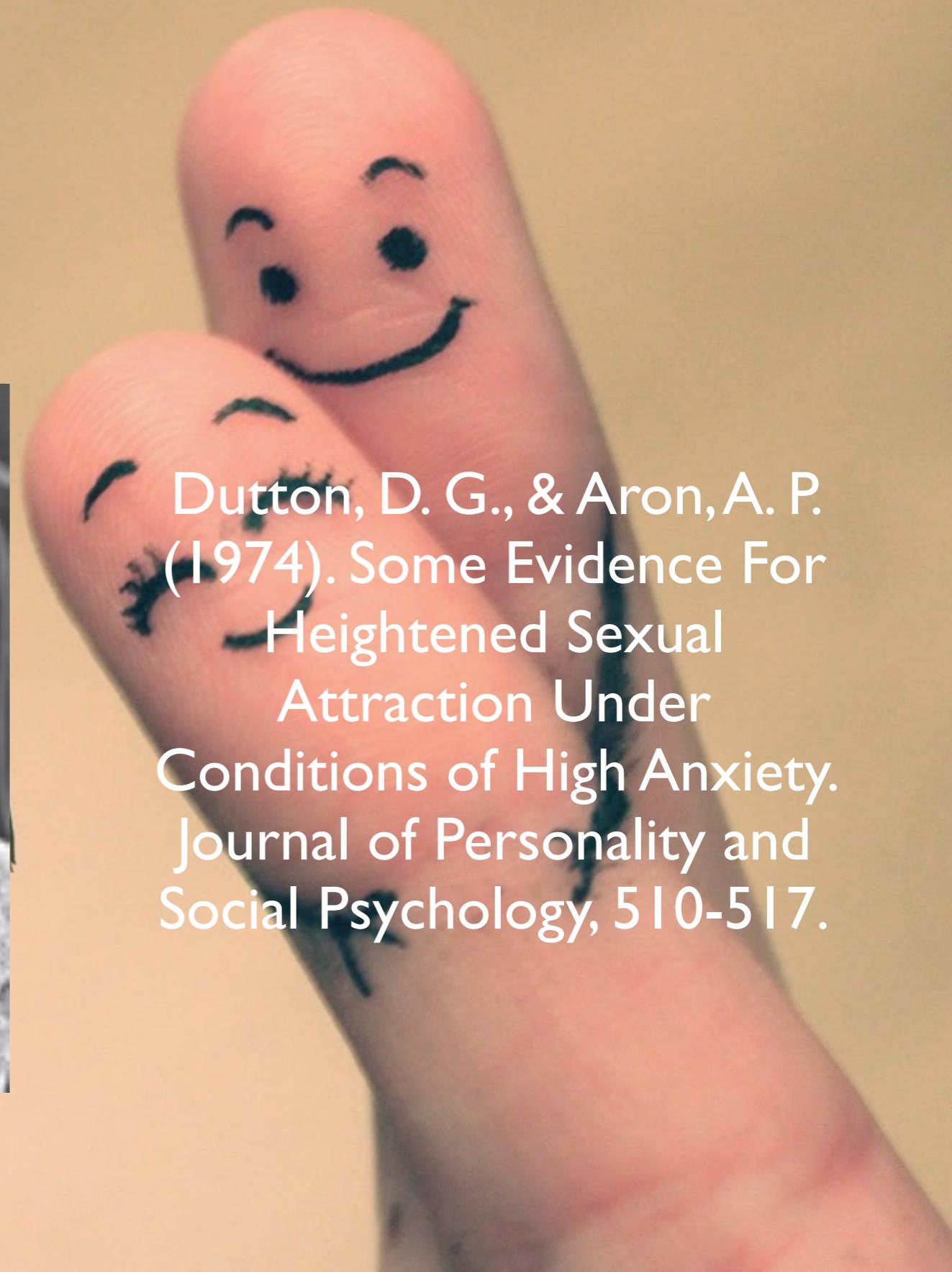


Prior conundrums solved....

- Are *there really enough different possible physiological responses for every emotion?*
- *Explains how the same stimulus produces a different emotion in different people & instances.*

(Slightly more contemporary) forms of this theory remain widely accepted today

Can these guys help you fall in love?



Dutton, D. G., & Aron, A. P. (1974). Some Evidence For Heightened Sexual Attraction Under Conditions of High Anxiety. *Journal of Personality and Social Psychology*, 510-517.



<https://www.ket.org/program/this-emotional-life/racing-hearts/>