

The 7th Tokyo Colloquium of Cognitive Philosophy

Prinz, J.J. 2004.

Gut Reactions: a perceptual theory of emotion

Chap.1 Introduction: Piecing Passions Apart

May 28, 2008

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Preface

Emotion research in cognitive science

- Emotions have been **neglected in cognitive science** despite their obvious importance... Why?
 - Commitment to computational theory
 - Research were done extensively by clinical psychologists
- **Recent advances (especially in neuroscience)** have brought emotions back into center stage
- However, **there's little consensus on what emotions are**

Preface

The purpose of this book

- Provide a theory of emotion which reconciles a number of debates
 - Existing theories...
 - Emphasize some aspects of emotions at the expense of other
 - Tried to accommodate too many aspects
- Prinz's theory: synthesis
 - Simple, uniform account with ample explanatory power
 - Bridges the gap between cognitive and noncognitive theories, between biological reductionism and social constructivism
 - A Procrustean theory; severing off redundant parts

Preface

The Background of Prinz's theory of emotion

- Somatic theory
 - Pioneered by James-Lange
 - Resuscitated by Damasio
 - Emotions=perceptions of patterned changes in the body (gut reactions)
- ↑ a major defect: failing to explain the significance of emotions
 - Contributions to reasoning, action and the election of ends
 - Triggered by judgments, amenable to cultural influence
 - Central to our comprehension of morality and other lofty domains

“Emotions are meaningful ”(p.16)

Preface

questions to somatic theory:

How do mere bodily changes play some roles in mental processes such as reasoning, judging, moral comprehension etc.?

“Why emotions seem so meaningful, intelligible, and rational?” (p.20)

→Prinz tries to answer such questions

Chapter 1.

Introduction:

Piecing Passions Apart



Elements of Emotion (pp.3-4)

The Problem of Parts

- Emotion episodes contain a number of components
 - Thoughts
 - Bodily changes
 - Action tendencies
 - Modulations of mental process (e.g. attention)
 - Conscious feelings

→ Which of these things *is* the emotion?

Can any given part be subtracted?

Are some parts essential?

...The Problem of Parts(PPa)

Theories of Emotion: From Parts to Theories (pp.4-5)

Various theories of emotion

Different theories of emotion give different answers to PPa

1. Appeal to Feeling or bodily change

- Feeling theory

Emotions=conscious feelings

e.g. folk psychology

- Somatic feeling theory

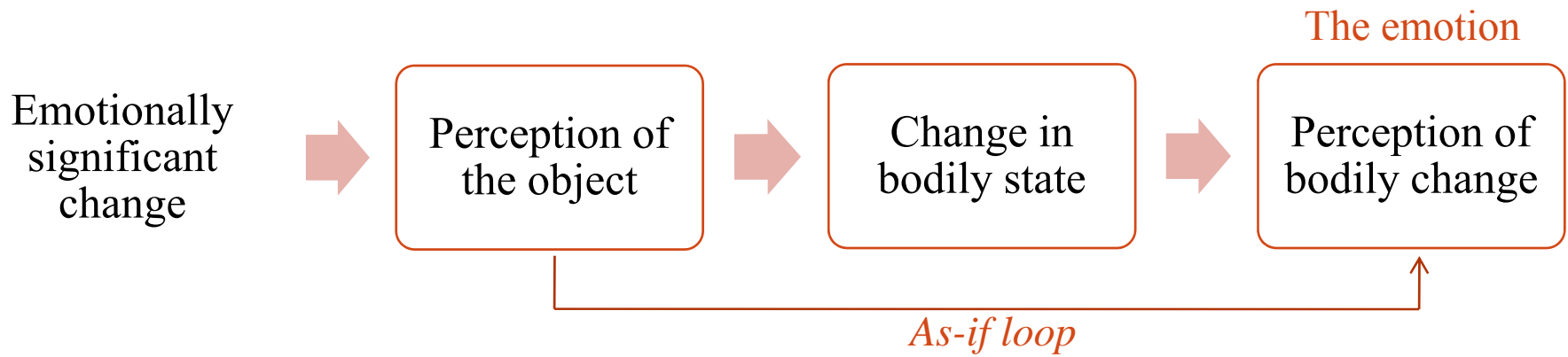
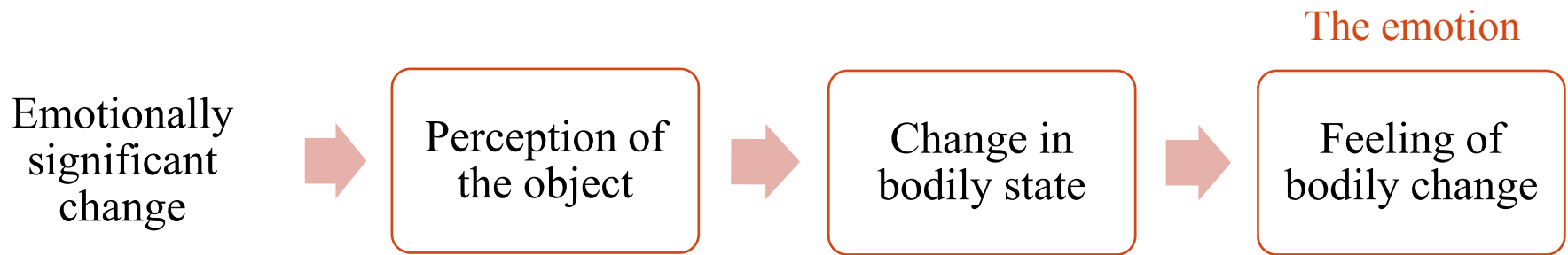
Emotions=feelings of bodily state changes

(“somatic” encompasses any part of the body)

e.g. James-Lange

Theories of Emotion: From Parts to Theories (pp.5-6)

- Recent revival of SF theory by Damasio
 - Expands the range of bodily states to include states of the “internal milieu”
 - Emotional response can occur in the absence of bodily changes when brain centers associated with bodily change are active
(e.g. imagining undergoing an emotion) **“as-if loop”**
 - Emotions are not exhausted by conscious feelings; Unconscious neural responses to changes in bodily states count as emotions



Theories of Emotion: From Parts to Theories

- Recent revival of SF theory by Damasio

Emotions can occur

with no bodily changes nor conscious feelings
if there's an activation in somatic brain centers

→Damasio's revival makes a point of **brain activity**
associated with bodily changes

Theories of Emotion: From Parts to Theories (pp.6-7)

2. Appeal to behavior or behavioral disposition

- Behavioral theory
Emotions=behaviors to which bodily changes dispose us
e.g. Ryle, Skinner
- Behavioral conditioning theory
Emotions=behavioral response to rewards and panishments
e.g. Watson
Rolls (appeals to inner states and processes)

Theories of Emotion: From Parts to Theories (pp.7-9)

3. Appeal to mental processing or cognition

- Processing mode theory
Emotion=systematic changes in faculties of attention, memory and reasoning
e.g. Oatley and Johnson-Laird
- Cognitive theory
Thoughts or “cognitions” are essential to emotions
 - Pure cognitive theory: Emotions=thoughts
 - Earliest: Stoics
 - Bedford
 - Solomon
 - Nussbaum (metacognitive)

Theories of Emotion: From Parts to Theories (pp.9-10)

- Cognitive theory
 - Desires or wishes come into play(Gordon ,Warner)
 - Emotion=imagination based thoughts (Armon-Jones)
 - Emotion=construal (combined with a desire component)(Robinson, Robert)

↑ Pure cognitive theories?

...depends on

how we use the word “cognitive”

(if narrowly) whether desires are reducible to beliefs

Theories of Emotion: From Parts to Theories (p.10)

Various theories of emotion

Emotion episode component	Emotion theory	
Conscious experience	Feeling theories	Somatic feeling theory (hybrid)
Changes in body and face	Somatic theories	
Action tendencies	Behavioral theories	
Modulations of cognitive process	Processing mode theories	
Thoughts	Pure cognitive theories	

Theories of Emotion:

Hybrid theories (pp.10-2)

Hybrid theories

...rule in the history of emotion research

- Aristotle...feeling/behavioral/cognitive
- Descartes...somatic/behavioral/cognitive
- Hume...feeling/behavioral/cognitive
- Spinoza...cognitive/feeling (cf. Greenspan, Nash)

↑ Impure cognitive theory

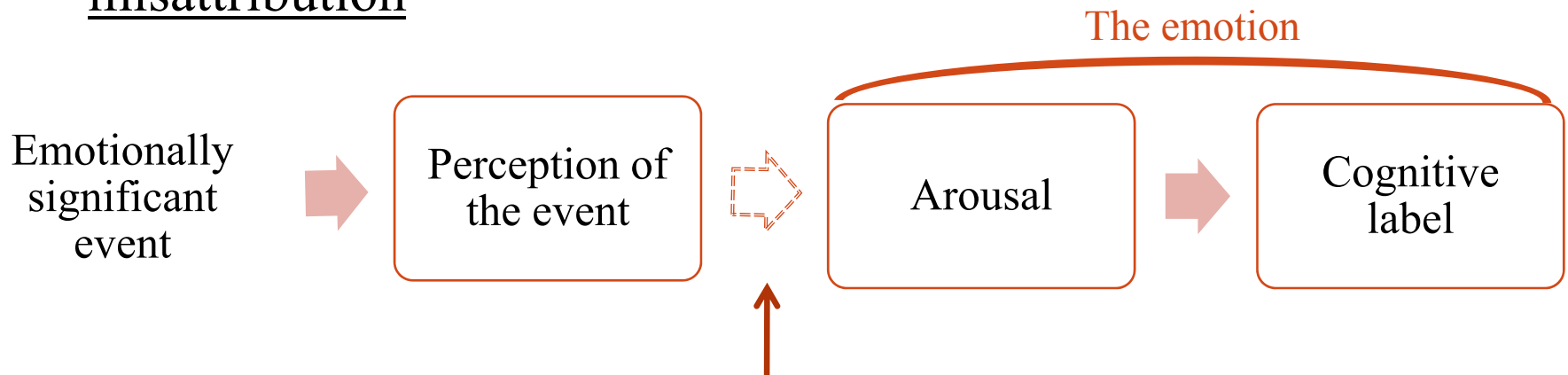
Theories of Emotion:

Hybrid theories (pp.12-13)

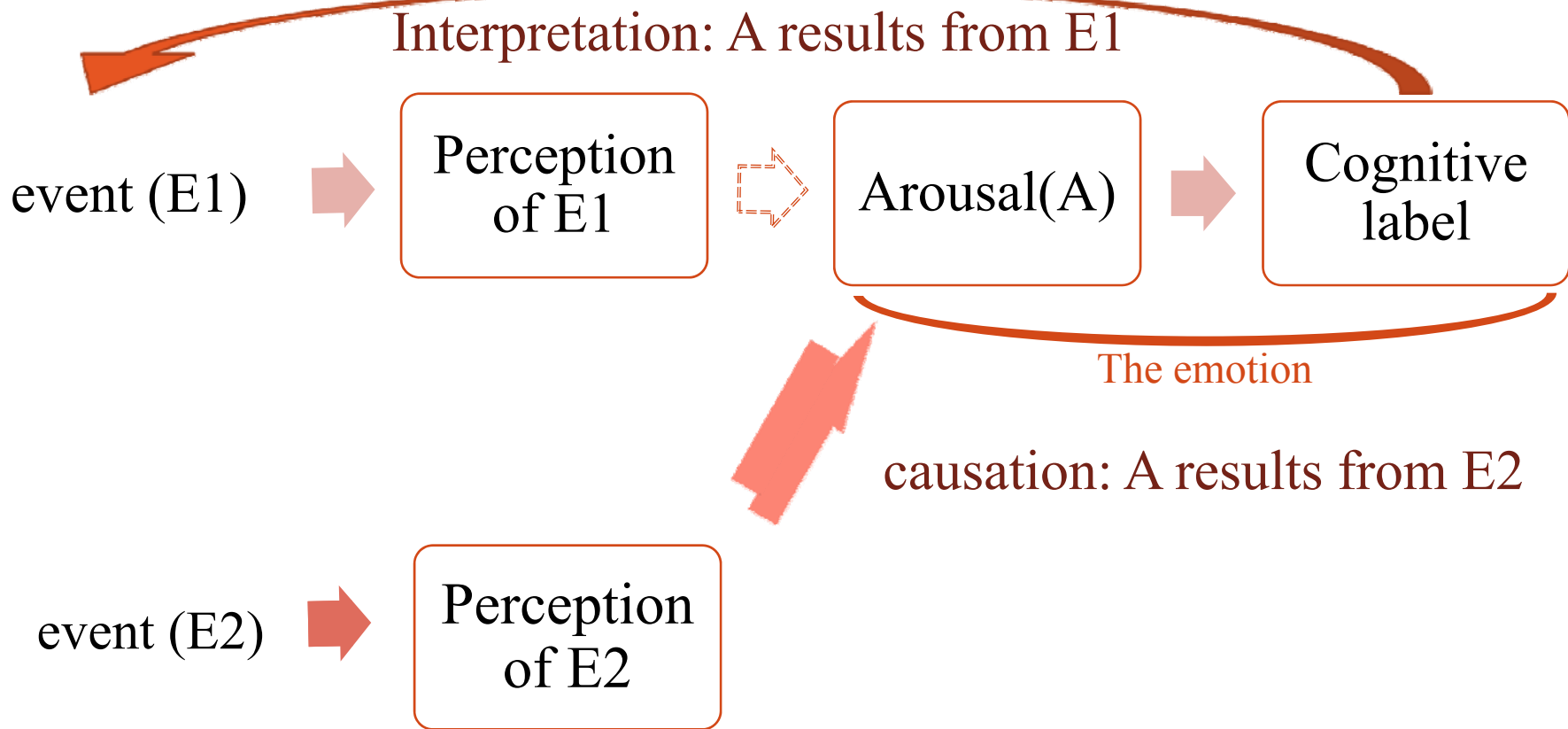
- Cognitive labeling theory (Schachter and Singer)

Bodily change → cognitive interpretation of those states

⇒ It should be possible for emotions to arise through misattribution



**Arousal need not result from the perception of the event
that is interpreted as causing it
(Arousal may have been caused by some other event!)**



The emotion arising through misattribution

Theories of Emotion:

Hybrid theories (p.13)

A famous experiment:

- Subjects were injected “special vitamin” (adrenalin in fact)
- Some of them were told to expect side effects; others were not
- Then all subjects were placed in anger/euphoria condition

⇒informed subjects: show little emotional response

uninformed subjects

in anger condition: show negative emotional response

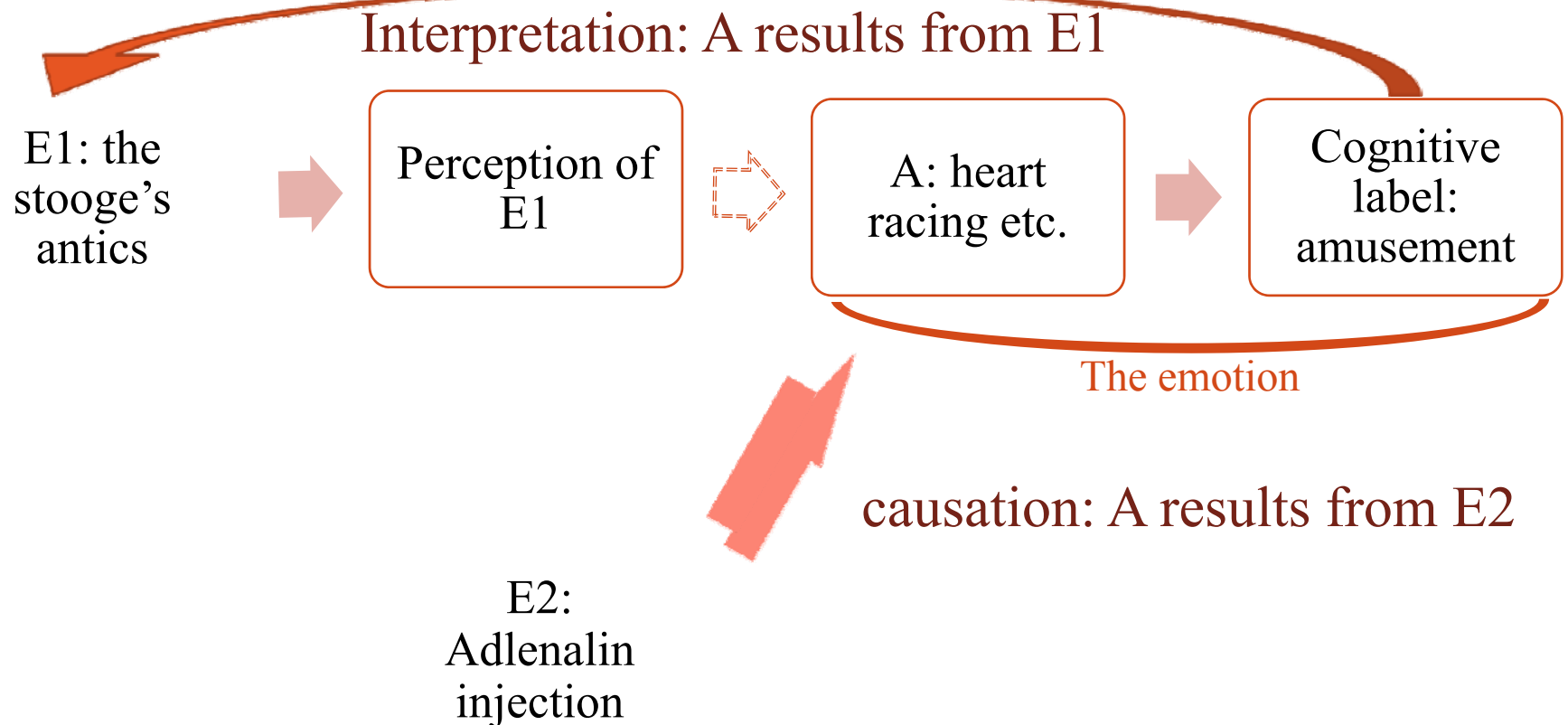
in euphoria condition: show positive emotional response

Schachter&Singer’s explanation of this result...

Emotion depends on interpretation of bodily states

Same bodily state can be labeled differently

(signs of anger/ signs of euphoria/ mere drug side effects)



Interpretation of the results according to Schachter&Singer's theory

...Examined in chap.3

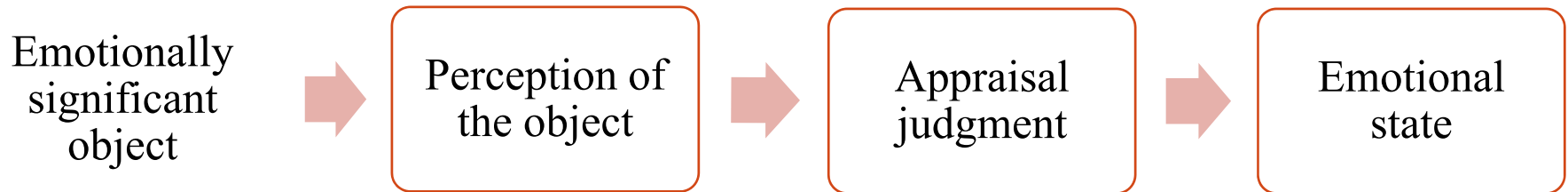
Theories of Emotion:

Hybrid theories (p.13)

- Cognitive cause theory

Emotions arise when we form a thought
and

that thought gives rise to emotional state (feeling, a bodily change, an action tendency etc.)



- Compared to cognitive label theory...

Reverse in order of autonomic response and judgment

Theories of Emotion: Dimensional Appraisal Theories(pp.14-5)

Dimensional Appraisal Theories

...prevailing cognitive causal theories in psychology

- Appraise...see sth as affecting oneself in some way that matters (Arnold's usage)
- All emotions include appraisal judgments
- Appraisal judgments are drawn from a common set of appraisal dimensions

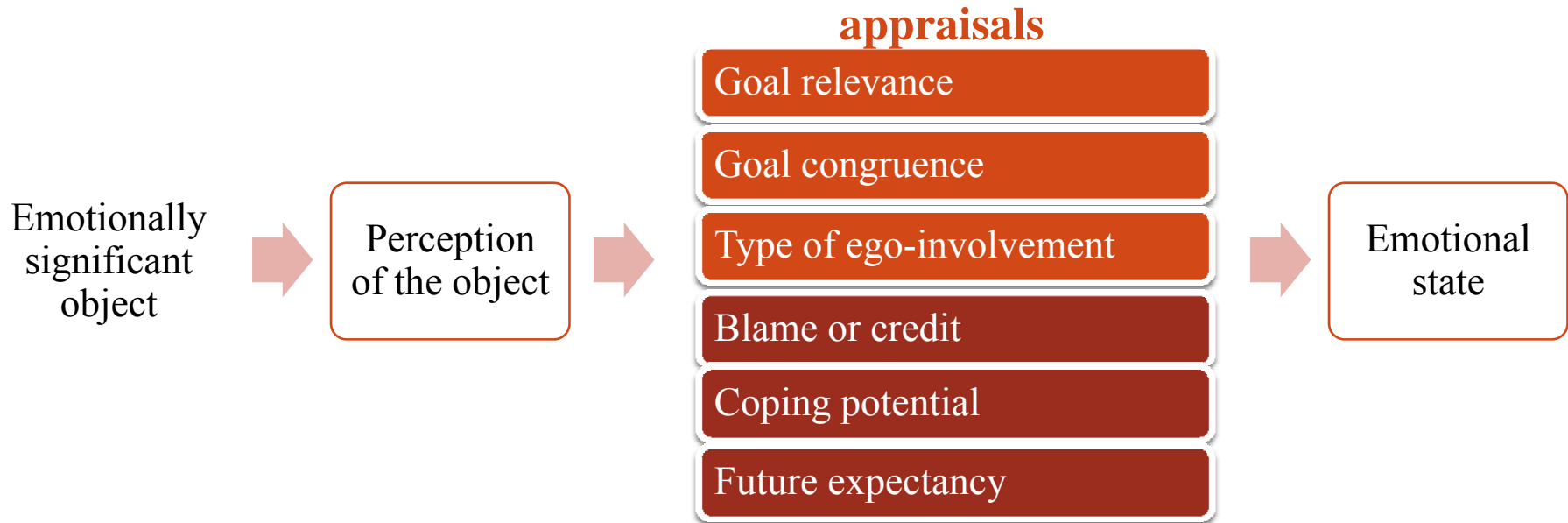
Arnold: 3 dimensions ←too simple

Lazarus: 6 (3 primary/ 3 secondary)

(appraisals are evaluations of what one's relationship to the environment implies for one's well-being)

Theories of Emotion: Dimensional Appraisal Theories(p.15)

- Lazarus' dimensional appraisal theory



- molecular appraisal...actual judgments that people make before arriving at an emotion (products of 6 appraisal dimensions)
- molar appraisal... the gist of actual judgments, which captures “core relational themes(=a relation that pertains to well-being)”

e.g. anger

Appraisal dimensions	Appraisals that generate anger	Core relational theme
Goal relevance	Relevant	A demeaning offence against me and mine
Goal congruence	Incongruent	
Type of ego-involvement	Self-esteem, social-esteem, or identity	
Blame or credit	Someone is to blame	
Coping potential	Attack is viable	
Future expectancy	Goal congruence predicted to increase by attack	

Theories of Emotion:

Dimensional Appraisal Theories

- molecular appraisal...actual representations used in arriving at an emotion state (Situated at Marr's algorithmic level)
- molar appraisal...a summary of actual judgments, which captures core relational themes (Situated at Marr's computational level)
- core relational theme...relation that pertains to well-being, which captures the basic situations that emotions are designed to discriminate

Theories of Emotion: Dimensional Appraisal Theories(p.16)

- Why appraisal theories have appealed to researchers?
...There's a deep intuition that emotions are meaningful

Emotions

- inform us about our relationship to the world
- embody our convictions
- Factor intelligibly into our decisions of life

Lazarus's themes portray the essence of each emotion

→Appraisal theories: one of the dominant forces in contemporary emotional research

Theories of Emotion: Dimensional Appraisal Theories(p.17)

- Underlying theoretical commitments of DA theories
 - Emotions follow on the heels of appraisals
 - Appraisals are cognitive states
 - Appraisals are part into distinct dimentions
- ...Challenged in Chap.2

From Parts to Plenty: The Problem of Plenty (pp. 17-8)

The Problem of Plenty

- Appraisal theory...appraisals are causes of/necessary preconditions for emotions but not components of emotions
- What is the emotions themselves?
 - Lazarus: somatic+cognitive+behavioral
 - Arnold: somatic+cognitive+behavioral +feeling
- ↑ allege that emotions involve all of the emotion episode components... **Ambitious**

From Parts to Plenty: The Problem of Plenty (pp. 17-8)

- Encompassing theory

Hybrid theory which holds that emotions involve all of the emotion episode components... Why?

→ Emotions episodes are complex

→ The Problem of Plenty (PPl) arises

What is an essential function of emotions in virtue of which they may have several essential components?

From Parts to Plenty: The Problem of Plenty(pp.18-19)

Three kinds of hybrids

Multifunctional hybrids

- Emotions are single kind of state which corresponds to two or more different items
- e.g. somatic feeling theory, Aristotle

Multicomponent hybrids

- Emotions are structured entities built of several different kind of states
- e.g. Schater and Singer, Ekman

Precondition hybrids

- Emotions are subset of some components
- Other components are necessary precondition
- e.g. Lazarus, Arnold

From Parts to Plenty: The problem of Plenty(p.19)

- Which of these offer the most elegant solution to PPI?
→ **multifunctional hybrids**
Parts are not really separable; they are different aspects of coherent, selfsame states

Ppa and PPI

Ppa: identifying one particular component
which is the key to coherence

PPI: asking how emotional components hang together
(perhaps due to the key component)

→ **The two problems are deeply linked**

From Parts to Plenty: Coming Attractions(pp.19-20)

The brief Outline of this book

In the chapters follow:

a positive theory of the emotions will be proposed
through 10 questions

1. Do emotions necessary involve cognition?

—No. Emotions are not cognitive. (Ch.2)

2. What do emotions represent?

—Core relational themes. (Ch.3)

3. Are emotions a natural kind?

—Yes. They form a coherent class. (Ch.4)

From Parts to Plenty: Coming Attractions(pp.19-20)

4. Are certain emotions universal and biologically based?

5. Can emotions be culturally determined?

—They have both “nature” and “nurture” dimensions.
(Ch.5-6)

6. How are emotions related to other affective constructs?

—Moods are a special subset of emotions.

Motivations are a separate class of mental states, but emotions do have a motivating component. (Ch.7-8)

7. What distinguishes positive and negative emotions?

— Not by their conscious feelings, but by their “valence”.
(ch.7)

From Parts to Plenty: Coming Attractions(pp.19-20)

8. What is the basis of emotional consciousness?

— (ch.9)

9. Is emotion a form of perception?

—Yes. Emotions are not merely perceptions of the body but also perceptions of our relations to the world.

(Ch. 10)

10. Do emotions have many component parts?

—No. They are simple entities with complex effects and information-processing roles.

They can do plenty without a plurality of parts. (Coda)

The Main Points

- Two Problems of theories of emotion

Emotions contain several components



Which of these is the emotion? (PPa)



Emotions are complex \Rightarrow hybrid theories



How emotional components hang together? (PP1)

The Main Points

- The question is:
How should we make a theory of emotion that can describe it as a complex but coherent state?
(→Prinz's answer: describe it as a multifunctional state)
- Argument which appeals to significance (meaningfulness) of emotion ...used to promote cognitive theory
→Prinz has to answer it with his somatic theory

Thank you for your listening and help !!

