

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Department of Brain and Cognitive Sciences
9.68 Affect ... Spring 2013
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The Feeling / Unfeeling Brain

An Introduction to the
Neuropsychology of Affect

We are organisms.

Outline of Topics

- 1 - One “person,” One body, One “mind”
- 2 - Unit of Study: bodily systems
 - The body as a system of systems
 - Organism
 - Organ systems (nervous system; central/peripheral)
 - Organs (brain and spinal cord)
 - Tissues and cells
 - Organelles (axons, dendrites, synapses)
 - Hormones, Transmitters, Neurochemistry
- 3 – The Limbic System

HUMAN SYSTEMS - LEVELS AND ASPECTS

MICRO ----- MACRO
 LEVELS-----neurobiological----psychological----psychosocial----sociocultural

From Cells

To Societies

organism(s)
organ system(s)
brain(s)

person (s)
individual(s)

group(s)
communities

scientific
"paradigm(s)"

cognitive	S A P E C T	o	u	neocortex	"head"	thought(s)	belief(s)	o	worldview(s)	epistemological
		e	r			MENS "mental life"	"attitudes	v	"observation(s)"	"theoretical"
		n	i	limbic system	"heart"	feeling(s)	value(s)	r	valuesystem(s)	axiological
affective	E C			emotions						
		r	r					t		
expressive	C T S	i	i					e		
		c	n	core	"hand"	action(s)	practice(s)	v	lifestyle(s)	methodological
		s	r			MANUS "behavior(s)"		e	"participation"	"empirical" "experimental"

DOMAINS OF INQUIRY

PHYSICS CHEMISTRY BIOLOGY NEUROPSYCHOLOGY COSMOLOGY
 SOCIAL PSYCHOLOGY ECOLOGY

Relations obtaining within/between/among HUMAN SYSTEMS are illustrated in terms of three principal ASPECTS and levels of organization. The scheme is intended to imply the structural and functional indefiniteness (or "fuzziness") of boundaries between the "cells" depicted here. Extensive overlapping, alternation and interpenetration of these aspects and levels is also assumed, as is the existence of extensive, mutually recurrent, interplay within, between and among the levels and aspects illustrated. For more extensive discussion and justification, see: Chorover, SL and Chorover, B. "Towards a Theory of Human Systems" (1981) and/or Chorover, SL "Paradigms Lost and Regained" - Changing Beliefs, Values and Practices in Neuropsychology" (1991)

What are Emotions?

emovere = outward movement
(emotions – unlike “feelings” –
are therefore overt and hence
“objectively” or “consensually”
observable actions or gestures or
postures or expressions)

The Neuropsychology of Affect

Demasio's distinction:

Emotions = bodily expressions

Feelings = bodily sensations
(perceptions; consciousness)

2 - Units of Study: systems in contexts

The body as a system of systems

Organism

Organ systems (nervous system;
central/peripheral

Organs (brain and spinal cord)

Tissues and cells

Organelles (axons, dendrites,
synapses)

Hormones, Transmitters,
Neurochemistry

**How
Are
You
Feeling?**

Tissues and cells

Organelles (axons, dendrites, synapses)

Hormones, Transmitters, Neurochemistry

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9.68 Affect: Neurobiological, Psychological and Sociocultural Counterparts of "Feelings"
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