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HOLISTIC DESIGN

HOLISTIC DESIGN AND PHILOSOPHY

Holistic Design and Philosophy:

- ✗ All areas of design
- ✗ All aspects of design

THEMES

- ✕ Design in human life
- ✕ Emotion in Design
- ✕ Improving Design

DESIGN IS EVERYWHERE!



DESIGNED PRODUCTS



DESIGNED ENVIRONMENTS

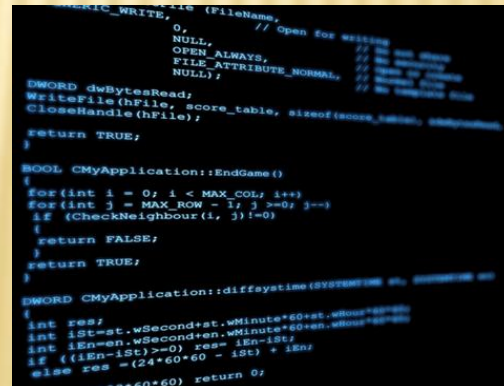
- ✖ Urban
- ✖ Office
- ✖ Sub-urban
- ✖ Parks and public spaces
- ✖ Roadway and footpath
- ✖ Farming and horticultural
- ✖ Harbors and marinas
- ✖ Rivers and estuaries
- ✖ Wildernesses
- ✖ Education
- ✖ Homes



DESIGNED ORGANIZATIONS

- ✗ Educational institutions
- ✗ Governments
- ✗ Businesses and corporations
- ✗ Military organizations
- ✗ Nation states
- ✗ Non-government organizations
- ✗ Unions
- ✗ Family structures
- ✗ Religions
- ✗ Social groups

DESIGNED SERVICES



- ✖ Banking
- ✖ Retail
- ✖ Education
- ✖ Nursing
- ✖ Building
- ✖ Law
- ✖ Police

DESIGNED SYSTEMS

- ✖ Transport
- ✖ Accounting systems
- ✖ Communication systems
- ✖ Legal systems
- ✖ Logistic systems – e.g. moving food
- ✖ Manufacturing systems
- ✖ Design systems
- ✖ Health record systems



DESIGNED BEHAVIOURS

- ✖ Retail care
- ✖ Social interactions
- ✖ Religious ceremonies, prayers and rituals
- ✖ Air traffic control
- ✖ Vehicle driving behaviors
- ✖ Mating rituals
- ✖ Police behaviors
- ✖ Military protocols



2FET-DESIGN

- ✗ Everyone uses designed things as design tools for their own lives, e.g.
 - + Train timetables – to design travel plans
 - + Advertisements – to design shopping lists
 - + Mortgage calculators – design house buying plans
 - + Products -design social interactions

DEPARTURES			
Dep. Time	Tracks	Terminal	Arr
12:40	8	Iksan	16
2:50	7	Yeosu	18
3:05	8	Mokpo	18
3:10	9	Mokpo	18
3:40	8	Iksan	18
3:45	9	Gwangju	18



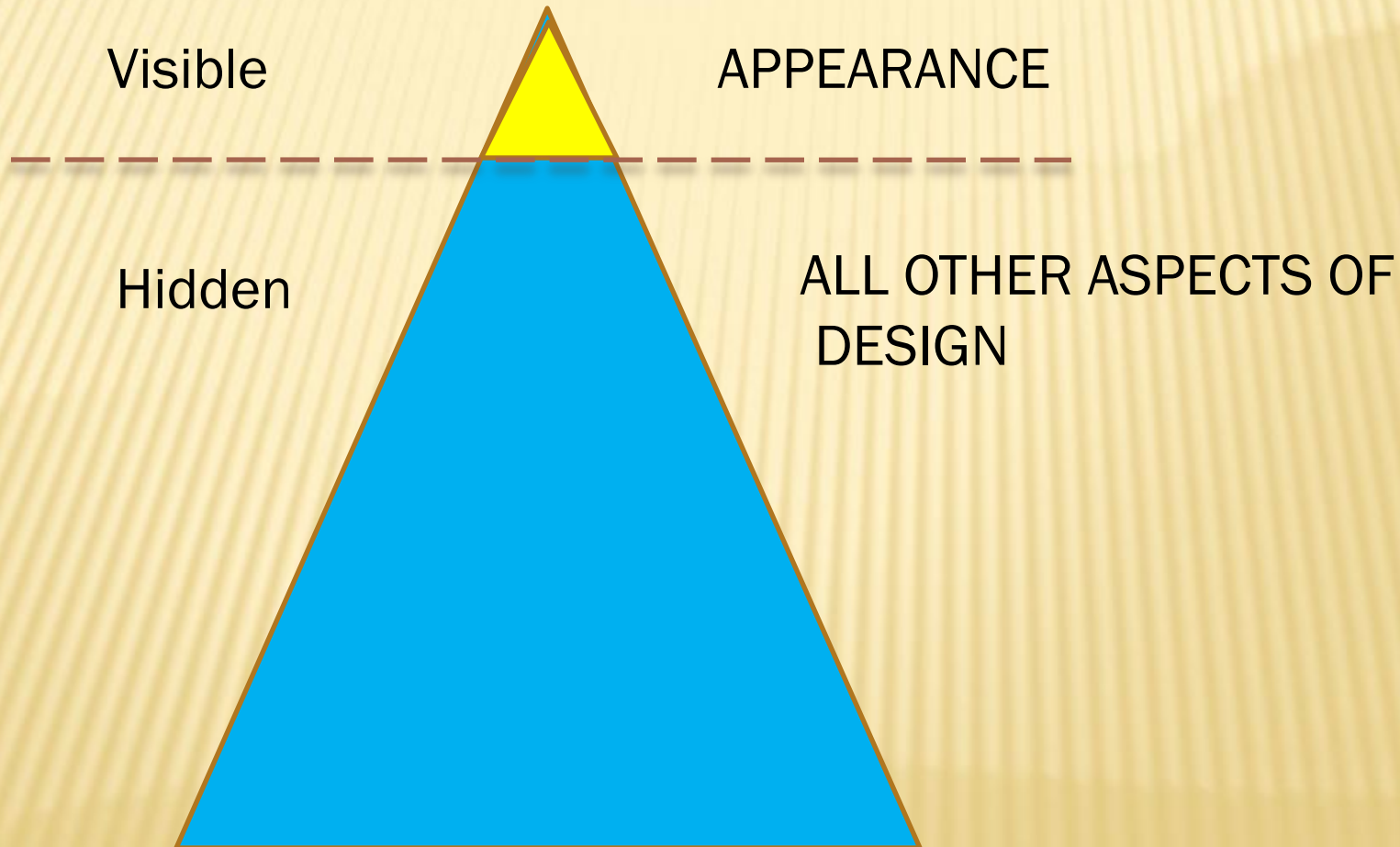
DEFINITIONS OF DESIGN

- ✗ A *design* – a *specification* or *plan* for making or doing something
- ✗ To *design* – to create a *design*

SCOPE OF DESIGN

- ✕ Almost all of our lives
- ✕ 800 different areas of design activity
 - + 45% Technical design
 - + 5% Art and Design
 - + 50% Other Design

MOST DESIGN ACTIVITY IS HIDDEN



EXAMPLE: IPHONE



Visible

PRODUCT APPEARANCE
AND INTERFACE

Hidden

SOFTWARE

COMPUTER HARDWARE

NETWORK SYSTEMS

CULTURE

LOGISTICS AND TRANSPORT

DESIGN ACTIVITIES

BUSINESS PROCESSES

ACCOUNTING SYSTEMS

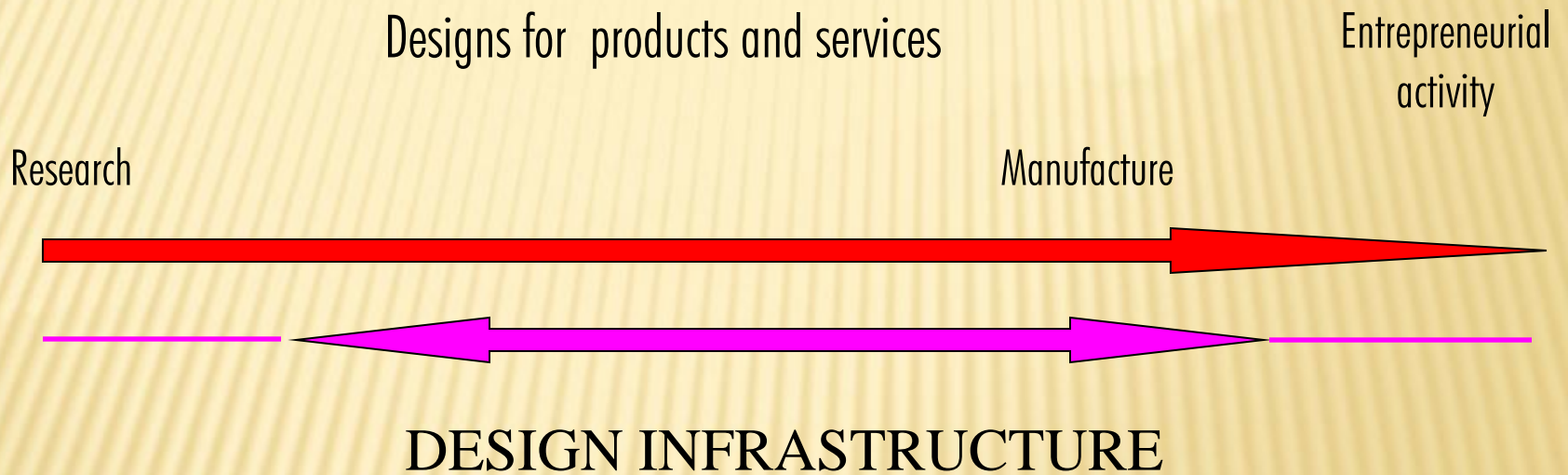
ORGANISATION DESIGN

EXAMPLE - IKEA BOOKSHELF 1



- ✗ four different timber elements
- ✗ coach bolts
- ✗ plated twisted nails
- ✗ zinc plated cross brace
- ✗ small zinc plated screws.
- ✗ glass fibre reinforced plastic strap
- ✗ zinc-plated steel crimp
- ✗ labels with barcodes
- ✗ assembly instructions
- ✗ pressure sensitive non-setting adhesive.
- ✗ plastic sheet wrapping

DESIGN INFRASTRUCTURE



DESIGN INFRASTRUCTURE

design professionals

businesses undertaking design

departments undertaking design
within organisations

organisations commissioning
design activity

hardware and software tools
available to support design

organisations educating designers

national design policies

design researchers

design centres

government agencies to promote design

associations representing those undertaking
design

government agencies to develop design-
focused policies

organisations commissioning and funding
design research

organisations educating design researchers

organisations undertaking design research

organisations representing design research

Human Aspects of Design

HUMAN ASPECTS OF DESIGN

- ✗ Design is intelligent human behavior
- ✗ Design improves our lives
- ✗ A relatively hidden skill
- ✗ A generic human skill
- ✗ Humans use design tools
- ✗ Design is part of an evolutionary process improving humankind and our lot

DESIGN AND EMOTION

Emotion and feelings are:

- ✗ Central to design activity
- ✗ The basis of creativity
- ✗ The essence of cognition

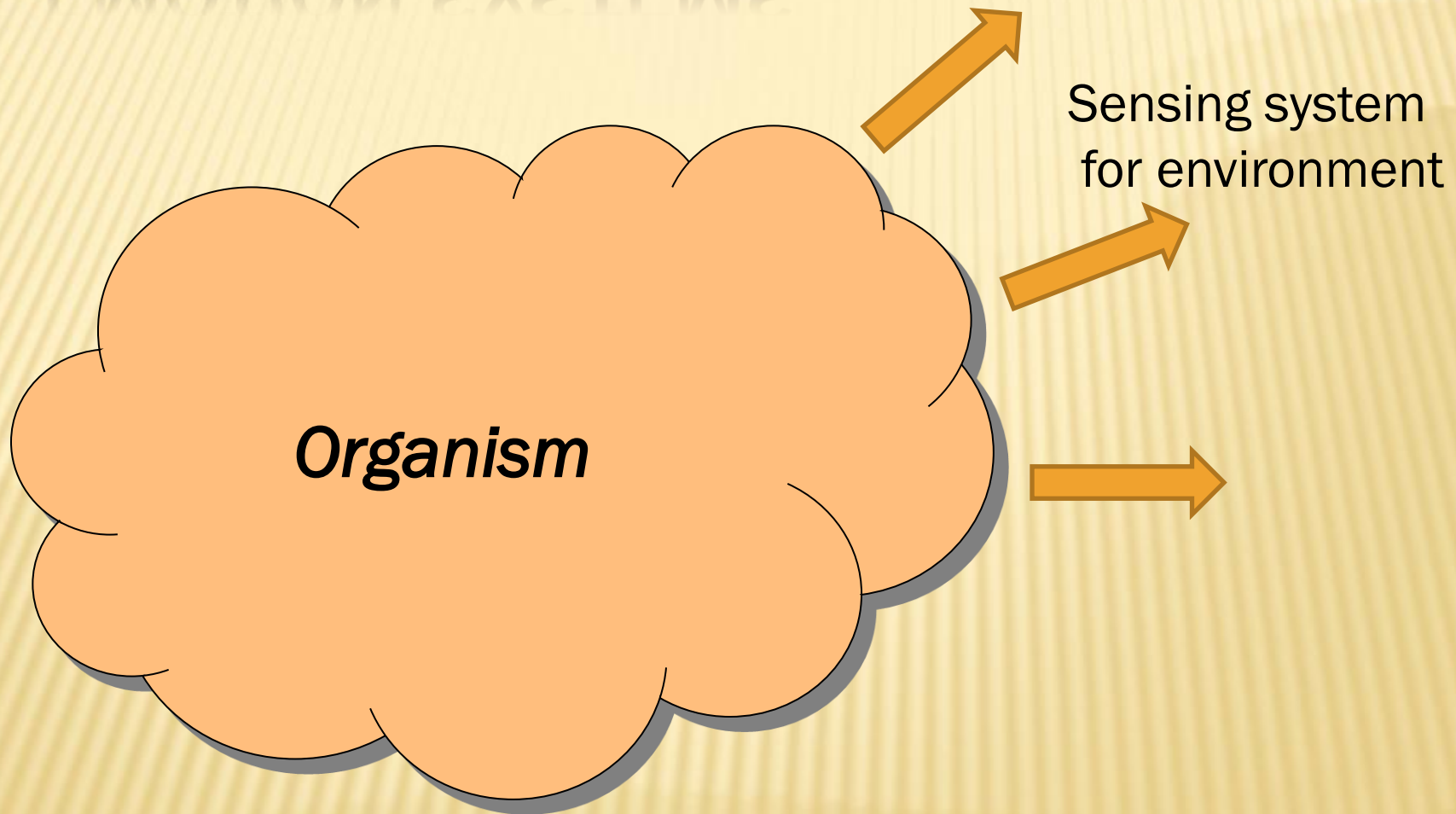
EMOTION AND CLOSURE

- ✕ Packing for a trip
- ✕ Tidying a room
- ✕ Which partial design is worth more effort?
- ✕ When is a design finished?

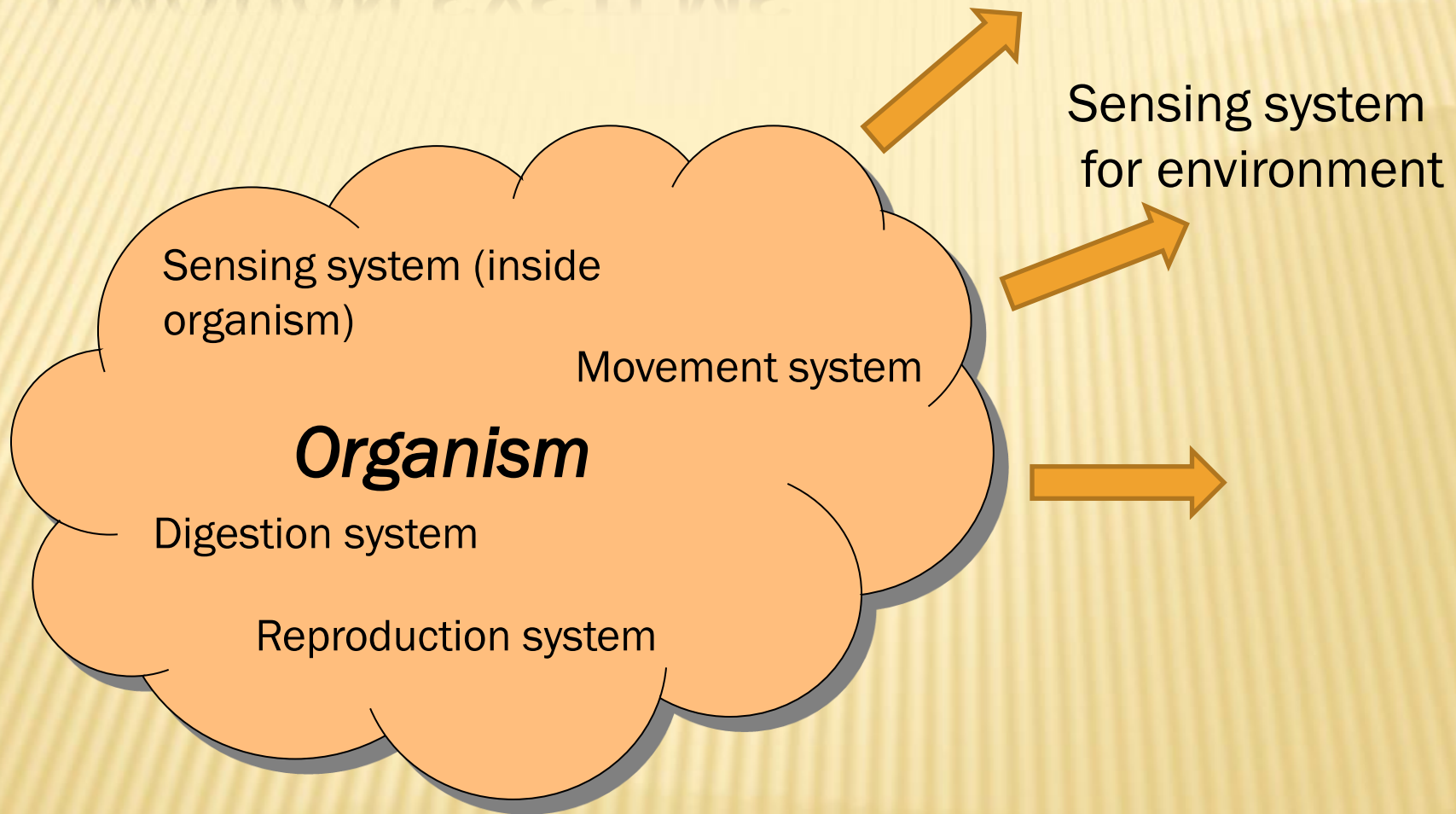
DAMASIO, DESIGN AND EMOTION

- ✗ Damasio provides a useful understanding of emotion in design
- ✗ He distinguishes:
 - + Emotion
 - + Feelings
 - + Sense of self feeling an emotion

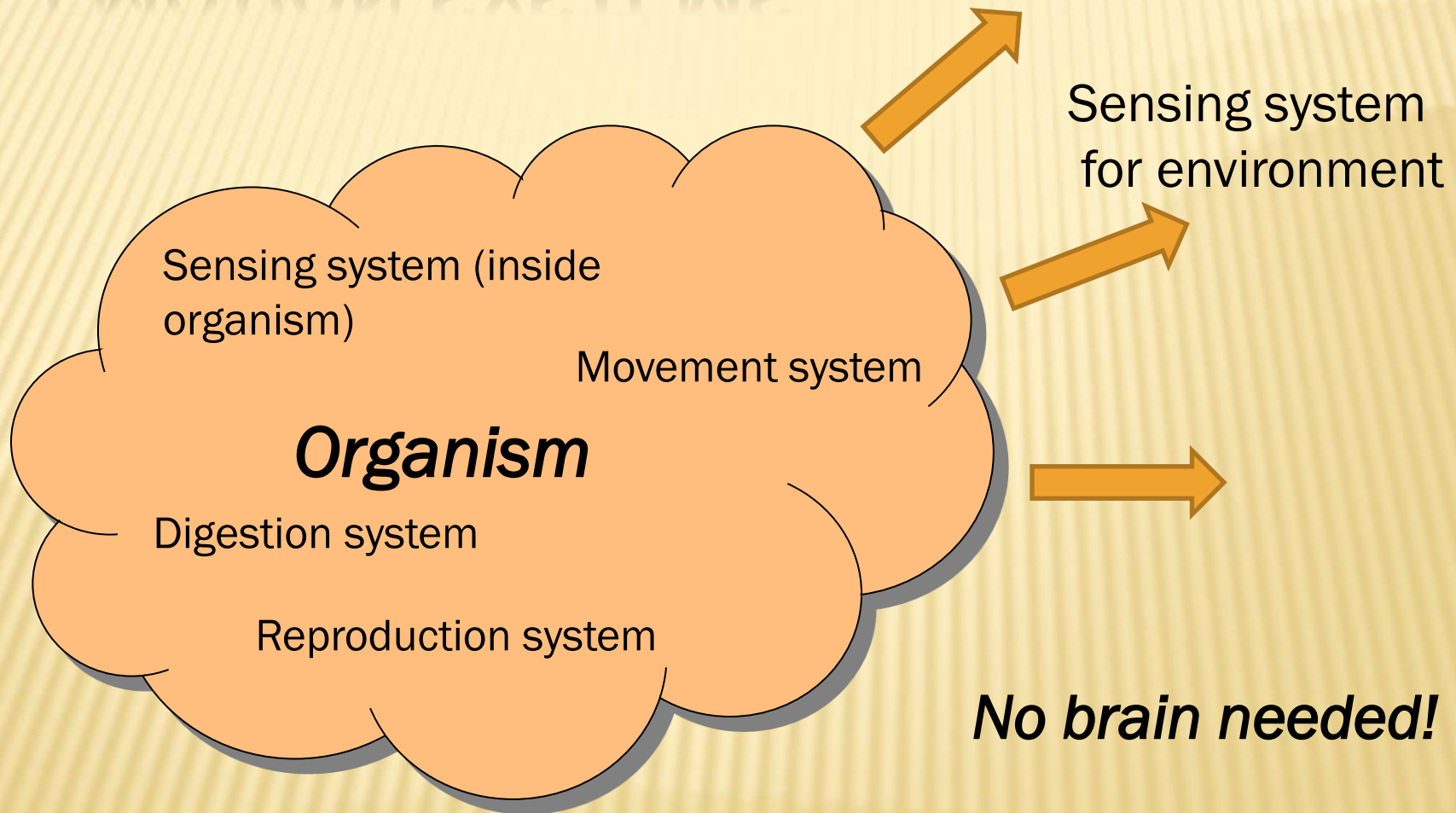
EMOTION SYSTEMS



EMOTION SYSTEMS



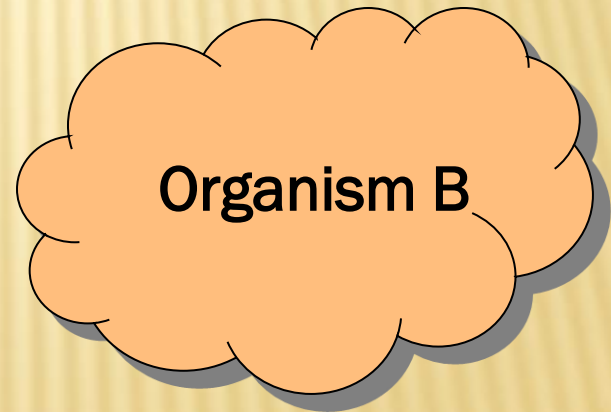
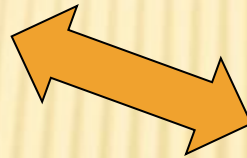
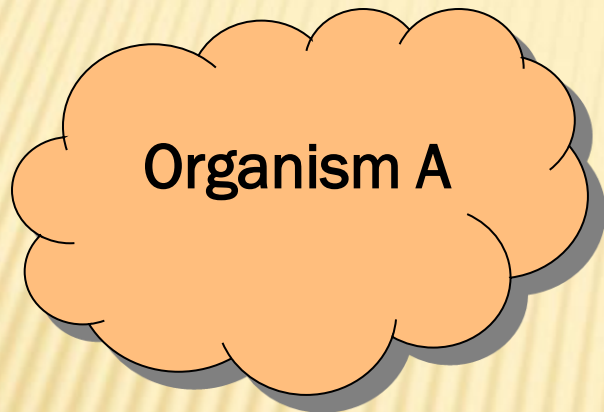
EMOTION SYSTEMS



Processes that connect systems and result in survival, continuity, learning & development

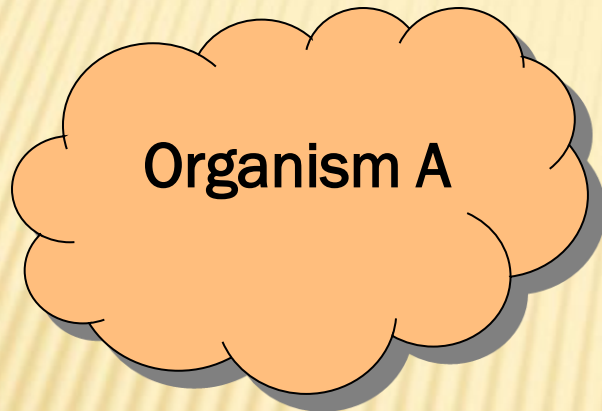
EMOTION BEHAVIOUR

*Move away from? Attack?
Eat? Mate with? Have fun
with?*

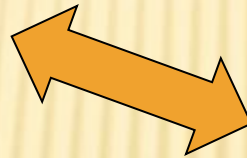


EMOTION BEHAVIOUR

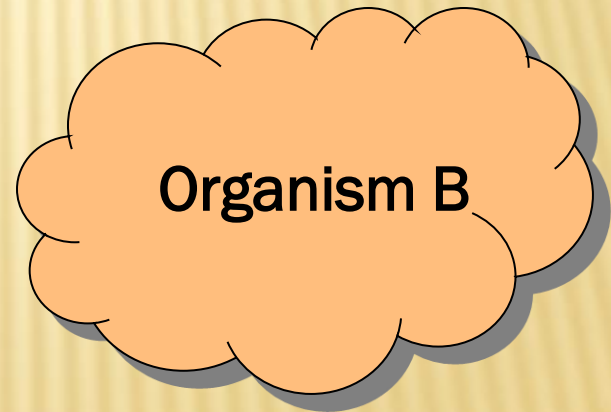
Changes inside A



*Move away from? Attack?
Eat? Mate with? Have fun
with?*



Changes inside B



The changes are emotions

DAMASIO - EMOTION

- ✗ ***Emotion*** – body changes from perception of an object
 - + Internal milieu - endocrine system
 - + Visceral– blood flow, skin, gut etc
 - + Musculoskeletal - muscle tone, posture, facial appearance etc
- ✗ Animals also show emotions



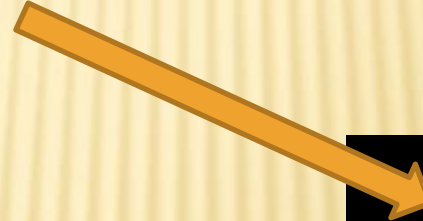
DAMASIO – FEELING AN EMOTION

Feeling of an emotion

Neurological *image* representing
the *emotion*

Usually **unconscious**.

Different from the physicality of
the emotion



DAMASIO - SELF FEELING AN EMOTION

✗ Sense of **self** feeling an emotion



SELF AND CONSCIOUSNESS

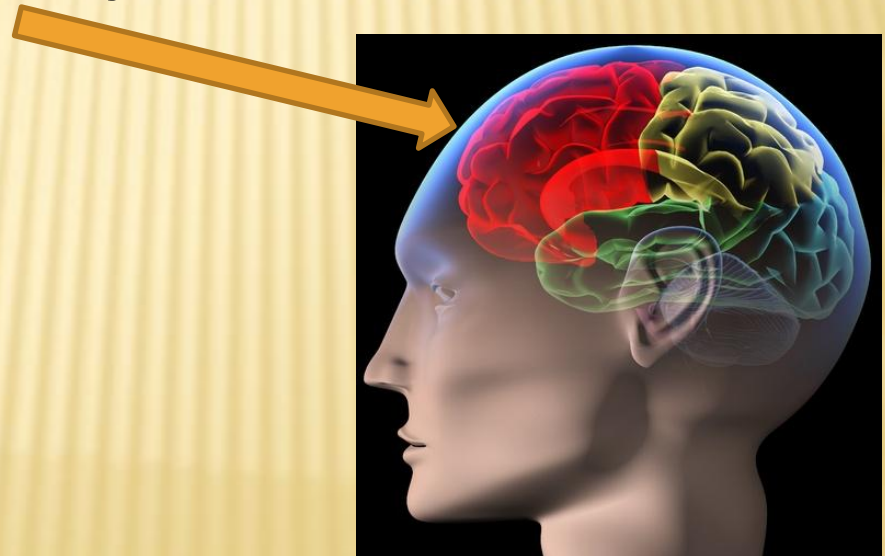
Damasio distinguishes:

- ✗ Proto-self
- ✗ Core –consciousness
- ✗ Extended (autobiographical) consciousness

PROTO-SELF

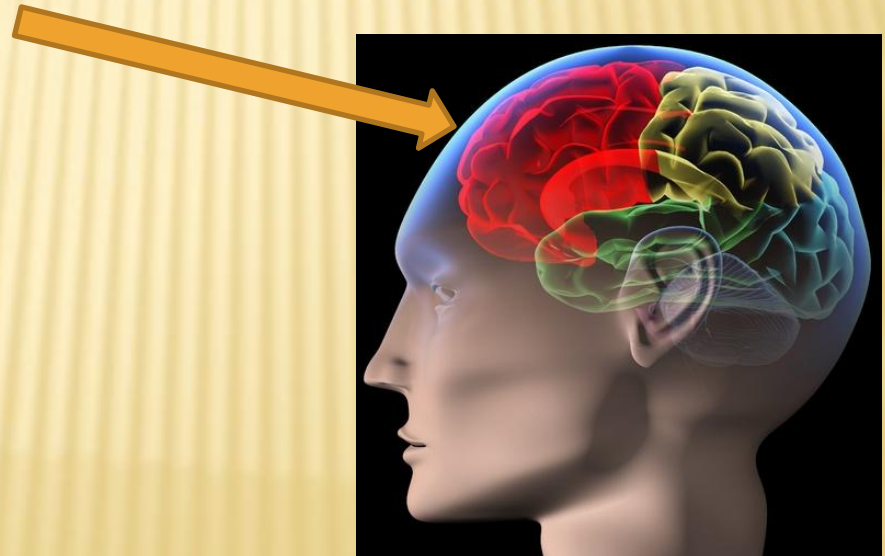
- ✗ *A neurological image* of all aspects of the body at a moment in time. This is homeostatic and unconscious.

Neurological *image* representing
all aspects of the state of *body*



PERCEIVING AN OBJECT

Image representing changes in the *body*
due to perceiving an *object*



CORE CONSCIOUSNESS

Neurological 2nd order *image* representing moment by moment differences between proto-self and changes due to perceiving an *object*

Core –consciousness is the basic sense of the existence of oneself

Does not depend on language



‘AS IF’ LOOPS

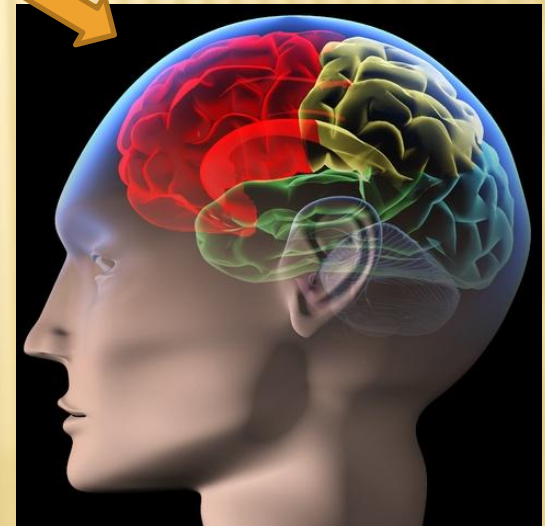
Memories and thoughts are **objects** and have similar emotional effects to real objects



Memories and thoughts trigger emotions and feelings



Emotions and feelings facilitate memories and thoughts

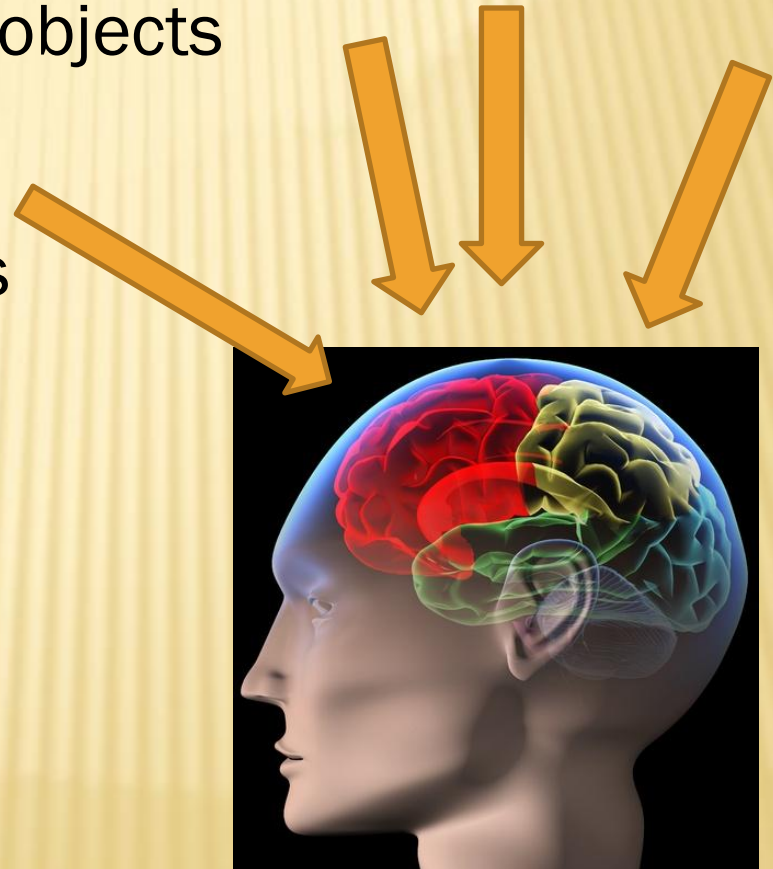


EXTENDED CONSCIOUSNESS

Memories, experiences, thoughts, fantasies
In a person's history – all objects

Core-consciousness converts
to memories and
autobiographical self

The basis of design,
creativity, intuition, ethics,
free will....

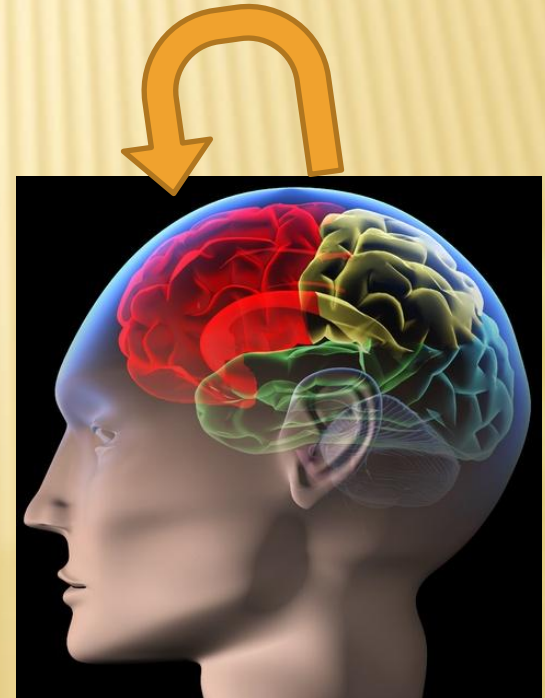


Implications for Holistic Design and Philosophy

LEARNING, EMPATHY AND CULTURE

- ✗ **Remembering** memories results in core consciousness processes that emphasize and associate with emotions .
- ✗ Gives the ability to identify objects (real, social, conceptual, imagined etc), associate objects with emotions and behaviours and attribute **meaning**.

This provides the basis for learning, empathy, culture, conditioning etc



DESIGN CREATIVITY – BASTICK AND DAMASIO

- ✗ Thoughts about design problems and solutions result in overlays of emotional states and increased or reduced relaxation.

Emotions in the body result in thoughts of possible solutions - creativity



Changes in feelings of body tension guide successful cognitive judgements

IMPROVING CREATIVITY

- ✖ Pleasant relaxed physiological states are associated with fast, idea-rich creativity.
- ✖ Stressful feeling states are associated with slow and repetitive cognition.

CREATIVE COLLABORATION

- ✖ Stressed and unhappy collaborators not likely to produce their most creative work
- ✖ Over-relaxed collaborators are unlikely to be efficient at repetitive checking and evaluation processes.

STYLE, AESTHETICS AND ETHICS

- ✗ ‘Style objects’ influence individuals’ emotions, feelings and cognition
- ✗ Multilevel processes in which a single stimuli result in multiple overlays of emotion states changed by:
 - + current thoughts
 - + cultural background
 - + moods
 - + social and other external and internal factors.

POWER AND DESIGN

- ✖ Power results in emotions
- ✖ Power cues associated thoughts
- ✖ Influences how individuals view problems and create solutions
- ✖ May result in inappropriate solutions.

SUMMARY

- ✗ Design is everywhere
- ✗ Design is an important human activity
- ✗ Depends on emotions and feelings
- ✗ New findings about emotion can improve how we create and use designed outcomes.

HOLISTIC DESIGN

Thank you for your attention

Questions?

CONTACT DETAILS

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SOME OUTSTANDING QUESTIONS

- ✘ Which parts of designing involve emotions? How? What do they do? How essential are they?
- ✘ Which parts of designing involve feelings? How? What do they do? How essential are they?
- ✘ How important is the ability to represent the world in imagination with feelings and emotions? Why?
- ✘ How important is it to be able to distinguish between reality and fantasy when everything is full of emotion and feelings? Why?