

😊 Cogn. architecture of distinguishing criteria

DC: partial function from "objects" D to partially ordered set (prob. values) H

D: input as: sensoric input, actions, content of memory, language terms, other DCs? ?  
H: expresses to which degree is the input object an instantiation of what this DC distinguishes

properties of properties  
relations between properties  
properties of situations  
e.g. dangerous

Other

Boolean  
hill -> steep forested hill

Prototype - maximum of the funktion H

possible for: dog, chair, red  
not possible for: furniture, fruit, animal

X is similar to Y at least as much as to Z  
on partially ordered H similarity can be defined

Operation on DCs

is refined by learning

transformations  
can construct new DC  
can derive new DCs from the old ones

I: interpretation, mapping from inputs (environment, language) to meanings  
not everything is perceivable, only certain inputs  
inputs that I can register, limited also by organism's situation (action, time, place)  
reacts only to inputs chosen by S or in vicinity  
I transforms analogue inputs to discrete meanings

S: focus of attention, choice of inputs based on context (needs, goals, intentions)

A: action, assigns actions to some meanings (in environment, language output, reasoning)  
triggers change of representation, e.g. composition of DCs? ?

DC of observable objects, properties, relations, situations, events, classes of observable objects

protosemantics

instincts - innate fixed plans

protoinference

tricks, lessons from failures

Proto-level

emitting and receiving signals corresponding to some protomeanings

protocommunication

requires metarepr. - repr. of a partner in communication

solving of group conflicts by signals

boolean

noun phrases

apply only to the selected significant DCs

constructors of DC

2-language

DC of bear + DC of change from living to dead = DC dead bear

it is a specialization of DC of change - link to a specific class/object

joining of DC of object/class and DC of change

simple sentence semantics

relations between events

one precedes the other

recursive embedding of components

dependency on context

transf. of situation "unreachable bananas" to "reachable bananas"

functions defined on functions

can be performed on whole classes of situations

transformation of DC of some situation to a goal

Semantics of verbs

Syntax, propositional representation

time, place, means

structured verb phrases

different variants of transformations by adding parameters

constructors on DC of change, on plans

other: metaphors, analogies

(hypothetic) reasoning

Classification and orientation in the terrain (v teréne?)

Conceptual machinery (base of meanings)

Elementary DC

correspond to natural concepts by relation S

objects (individuals) e.g. Australia, Michael Jackson

natural classes e.g. rocks, bears

natural properties e.g. blue, sour

natural relations under, taller

requires ability to generalize

e.g. this red apple is on the oak table

DC of a (unique) situation works as its fuzzy identifier

are constructed from elementary DCs

functions applied on values of other functions (elem. DCs)

are desired situation, they exist only as meanings

construed by

by decomposition of DCs, substitution of the parts and recombination we construct DCs of the goal which is different from the existing situation in some aspects.

to determine the desired we need metarepresentation

DC for hungry, satiate, what makes change

or some innate unconscious mechanisms S

are related to the ability of self-reflexion and metarepresentation

DCs that distinguish DCs

by generalizing, clustering (?) of situations

recognizes more complex situation (type) by some of its symptoms

if apple is green it is unripe

transformation of class of situation with fixed input and output

this rat has just found his way through the maze

types of events

knowledge base

DCs of situation

Goals

DS Types of situations (Rules)

Event

inference mechanism

DCs of the changes in the environment

Plans

ability to decompose a scene by substituting one part by the other

designed (deliberate) change in the environment

ability to recognize which actions lead to the change

DC of sequenced actions that will lead from the situation to the other, changed action

is hypothetic

Methods

plans that were succesful (compiled chunks, routines)

on the basis of types of situations and types of events

semantics related to action