Minimally Cognitive Behavior
Evolution & Analysis of Brain-Body-Env Systems

Applications to Cognition?
The term cognition (Latin: cognoscere, "to know" or "to recognize") refers to a faculty for processing information, applying knowledge, and changing preferences.

The earliest entries for the word "cognitive" take it to mean roughly pertaining "to the action or process of knowing".

High level functions carried out by the human brain, including comprehension and use of speech, visual perception and construction, calculation ability, attention (information processing), memory, and executive functions such as planning, problem-solving, and self-monitoring.

The mental process of knowing, including awareness, perception, reasoning, and judgment.

of, relating to, being, or involving conscious intellectual activity (as thinking, reasoning, or remembering)

that operation of the mind process by which we become aware of objects of thought and perception, including all aspects of perceiving, thinking, and remembering.

the higher mental processes, including understanding, reasoning, knowledge, and intellectual capacity

The term "cognitive" in "cognitive science" is "used for any kind of mental operation or structure that can be studied in precise terms"

Animal cognition is the study of the processes used to generate adaptive or flexible behavior in different animal species.
A Pragmatic Definition of Cognition

A behavior is cognitive when the majority of a room full of cognitive scientists are interested in it.

Complicated Enough to be Cognitively-Interesting

But

Simple Enough to Evolve and Analyze

Minimally-Cognitive Behavior
A Visually-Guided Agent
Catching Objects
Visually-Guided Walking
Pointing
Catching Objects with an Opaque Hand
Perceiving Passability
Short-Term Memory
Short-Term Memory Analysis
Object Categorization
Relational Categorization

Relational Judgments over Space

Relational Judgments over Time
Selective Attention

Memory

Passing Objects
Selecting Attention Task Analysis

4.1 Selection patterns

4.2 Memory problems

4.3 Short-term memory problems

4.4 'Cheat' heuristics and their limitations

4.5 Other problems

5. Taxonomy

6. Conclusions