agency_19_march_2024_abridged

[Note that this Portable Format Document (to print out onto pieces of white paper which are each 8.5 inches wide and 11 inches tall using black ink, sans-serif font, and 11 point font size) contains plain-text content only and that not all the content which is featured on the web page named Karlina Object dot WordPress dot Com forward slash Agency is featured also in this document].

https://karlinaobject.wordpress.com/agency/

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AGENCY

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image_link:
https://raw.githubusercontent.com/karlinarayberinger/KARLINA_OBJECT_summer_2023_starter_pack/main/perception_decision_execution_flowchart.png

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An all-encompassing multiverse is spatially and temporally boundless, unchanging, and encompassing of every path.

Agency is carving exactly one linear path through that all-encompassing multiverse.

The following terms and their respective definitions describe agency as an emergent property of a sufficiently complex information processing system which enables that information processing system to (a) generate a virtual model of what appears to that information processing system to be that information processing system's encompassing physical environment and (b) to interact with that environment such that the information processing agent is able to achieve that information processing agent's goals.

To view hidden text inside of the preformatted text boxes below, scroll horizontally.

(Note that, in the preformatted text boxes which describe PERCEPTION, DECISION, and EXECUTION as functions, the time increment unit of one (1) could potentially vary in temporal length. What that one (1) represents is the discrete progression of the

PERCEPTION-DECISION-EXECUTION cycle in terms of one of those three steps being completed within a finite amount of time).

AGENCY: an information processing agent appearing to itself to have some degree of control over which phenomena appear and which phenomena disappear inside of that information processing agent's frame of reference as time elapses according to that particular frame of reference.

INFORMATION_PROCESSING_AGENT: a partition of nature which is smaller than the whole of nature which takes the form of some allocation of space, time, matter, and energy which renders perceptions, makes decisions using a process of elimination to reduce multiple behavior options down to exactly one option, and executes such decision-making outcomes as a means to attain that information processing agent's goals.

An information processing agent is essentially a computer which is capable of learning from its experiences as time elapses along that information processing agent's encompassing space-time continuum. In particular, that information processing agent accumulates memories which enable that information processing agent to notice patterns about which types of phenomena appear to be causally related such that the information processing agent can infer which behaviors are most probabilistically likely to enable that information processing agent to achieve its goals.

GOAL: a set of environmental conditions which an information processing agent imagines (and which are not yet being observed by that information processing agent as features of that information processing agent's current environment) and which compel that information processing agent to select specific thoughts and behaviors which that information processing agent thinks will be sufficiently likely to cause those imagined environmental conditions to manifest as phenomena in that information processing agent's environment (and be rendered in that information processing agent's frame of reference) at a specific "point" in that information processing agent's future.

An example of rudimentary goal-oriented behavior is a C++ program which sets an int type variable named X to some random integer using a specific function which returns an int type value and then, if the value of X is not equal to the "goal state" of 9, that random integer function will be called and the value of X will be set to the value returned by that function until the value of X is equal to the "goal state" of 9.

int GOAL = 9; // The GOAL value does not determine exactly how many times the while loop in the program will be executed when the code is executed by a computer. Instead, the GOAL value constrains the computer's behavior such that the while loop stops looping if and when the GOAL value is obtained by X.
int X = generate_random_integer();
while (X != GOAL) X = generate_random_integer(); // The generate_random_integer() function is called indefinitely many times until the value stored in X is equal to the value stored in GOAL.

ENVIRONMENT: a set of phenomena which an information processing agent renders and perceives as being external to that information processing agent's spatially finite and temporally finite body.

Note that it is possible for an information processing agent to perceive the absence of a boundary between its body and its environment. If that is the case, that information processing agent would perceive itself as having no agency (and agency is defined as an information processing agent appearing to itself to have some degree of control over which phenomena appear and which phenomena disappear inside of that information processing agent's frame of reference as time elapses according to that frame of reference).

PERCEPTION: an information processing agent rendering phenomena inside of that agent's frame of reference as a result of that information processing agent (a) receiving "low level" (i.e. relatively concrete) sensory input data through that information processing agent's sensory apparatus, (b) retrieving "middle level" sensory and conceptual throughput data which that information processing agent previously encoded and stored as memories inside of that information processing agent's long-term memory apparatus, and (c) generating "high level" (i.e. relatively abstract) conceptual throughput data which that information processing agent synthesizes from retrieved memories and from incoming sensory input using that information processing agent's short-term memory apparatus.

```
/**
 * An information processing agent's most
 * recent perception could be described as a
 * function whose input is that information
 * processing agent's most recent execution
 * (or, if that information processing agent
 * recently acquired agency, that information
 * processing agent's most recent perception
 * could be described as a function of
 * pre-agential factors in that information processing
 * agent's temporally larger encompassing environment).
```

```
 */
perception := execution(time_i). // perception occurs at time_i + 1
```

DECISION: an information processing agent (a) imagining a finite set of multiple options for how that information processing agent could behave in order to achieve that information processing agent's goals and then (b) using an algorithmic process of elimination to reduce that set of options down to exactly one option (and that one remaining option is what the information processing agent selects as the planned action to physically implement).

```
/**
 * An information processing agent's most
 * recent decision could be described as a
 * function whose input is that information
 * processing agent's most recent perception.
 */
decision := perception(time_i). // decision occurs at time_i + 1
```

EXECUTION: an information processing agent performing physical work by manipulating objects in that information processing agent's physical environment (including that information processing agent's own body) in order to implement a behavior at time X (and immediately after that information processing agent imagined a set of multiple different behaviors which that information processing agent could select exactly one of to implement at time X in order to achieve that information processing agent's goals).

```
/**
 * An information processing agent's most
 * recent execution could be described as a
 * function whose input is that information
 * processing agent's most recent decision.
 */
execution := decision(time_i). // execution occurs at time_i + 1
```