

# Metaphors for Mind and Consciousness

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# Mind and Learning - Front-End Evaluation

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### PURPOSE

This report summarizes one of a set of front-end studies conducted as part of the Mind and Learning Planning Grant to begin to characterize how visitors describe the mind and how it works. The goal of this particular study was to get a sense of the types of metaphors that people use to describe the mind and consciousness. Identifying metaphors that visitors use for these constructs can be informative in guiding how exhibits and programs can describe the mind and consciousness for easier conceptual accessibility

### METHOD

#### *Data Collection*

Visitor responses were collected over a 10 day period, from 12/15/01 to 12/21/01 and from 1/2/02 to 1/4/02. Data were collected through a question and answer table that was placed unattended in the prototype area on the Exploratorium floor. A sign above the table encouraged visitors to complete the following sentences:

A mind is like a ...

because ...

Consciousness is like a ...

because...

placed in a looseleaf binder on the question and answer desk. We hoped that this format would encourage a range of visitor responses. Alternatively, to provide some guidance for visitor input,

we seeded the binder with responses from the Exploratorium staff. Also, three staff responses were posted above the desk to attract attention.

Visitor responses were collected at the end of most days. The original seeds were left in the binder to encourage visitors on subsequent days to contribute.

### **Data Corpus**

We collected 59 visitor responses. This count does not include visitor scribbles and other non-task related inputs (e.g., “Tania was here”).

### **Analysis**

We looked for common metaphors through which visitors described the mind and consciousness. In this analysis, we focused primarily on visitors’ explanations of why they choose the metaphor. This is because a metaphor can share different similarities depending on interpretation, and the explanation often makes the visitors’ interpretations more explicit.

Note that some visitor responses can be sorted into more than 1 category. This can occur when the explanation describes more than one quality that is shared between the mind (or consciousness) and its metaphor.

## **RESULTS**

Table 1 gives a breakdown of the common metaphors visitors used to describe the mind. This table also provides examples for each metaphor category in order to give the reader a better sense of what types of visitors’ response would be encompassed in each category.

**Table 1. The Mind is Like a ...**

<b>Category</b>	<b>Count</b> (out of 59)	<b>Example</b> The Mind is like a...
Storage / Container	11	V29: storage room because it stores lots of stuff
Something that expands / can be added to	8	V4: expanding universe, broadening in all directions without boundaries because it can grow and grow and grow forever if you nourish it
Something never ending	5	V21: the energizer bunny because it keeps going, and going, and going...
Something with access / use limitations	4	V13: large sponge too big for us to get our hands around because it can soak up so much, but we can only squeeze out a little at a time leaving the rest unused

<b>Category</b>	<b>Count</b> (out of 59)	<b>Example</b> The Mind is like a...
Whole from Parts	4	V37: Puzzle because It has thousands ... millions of pieces, when they combined together, the mind will become apparent
Change / Movement	3	V1: bouncy ball because it bounces from one place to another and you control where it goes.
Control	3	V9: remote control because you can control anything from there
Reflection / Perception	3	V57: Mirror because It sees only reflections of its surroundings
Brain	2	V46: Brain because That is what it is
Something that Defies Understanding	2	V33: fictitious explanation of behavior because no one has every seen measured or observed the mind
Exploration Tool / Object of Discovery	2	V5: planet because it continues to make us explore the unknown
Helper	2	V38: Computer because It stores infor, and helps you with things
Thinker/Knower	2	V56: A book that give's you ansewrs because It should know a lot of things
Something to be eaten	1	V25: taco because it is hungry
Physical Attributes	1	V23: a raisin because its all wrinkly
Physical Boundaries	1	V11: universe in a nutshell because it has infinite space in an enclosed space
Processor/Translator	1	V34: processor because it translates spiritual phenomena into thoughts
Worker	1	V40: A rock climber because It needs lots of tools to work and climb
Unknown	6	V53: Fake person
No response given	1	

Table 2 presents the common metaphors visitors used to describe consciousness

**Table 2. Consciousness is like a ...**

<b>Category</b>	<b>Count</b> (out of 62)	<b>Example</b> Consciousness is like a...
On/ Off	5	V21: lightbulb, cause wen yr awake its on, wen yr asleep its not?
Hides	4	V37: An egyptian pyramid because It has so many misleading paths, but the right one will take us to the treasure room !!
Final Manifestation / Goal	4	V24: piece of fruit because as in the tree the consciousness is the final manifestation of growth
Dream	4	V42: Dream because You don't really know whether you are really conscious
Guide / Conscience	3	V38: Guide that is with you all the time because It guides you throughout life, helping you choose the right thing to do.
Reflection	3	V39: Reflections of GOD because He is the creator
Alive	2	V6: iguana.. alive and always changing because God made it that way
Control	2	V44: Person who tells you not and to do things because It tells you how to or not to do things
Changing	2	V6: iguana.. alive and always changing because God made it that way
Freedom / Flying	2	V5: the wing of a bird because it gives flight to the freedom to be
Surrounds	2	V4: tight transparent envelope around your body because it exposes and hides and hugs all at once
Interpreter	2	V41: Picture / painting because It speaks to you, yet every time you come back to it, it has something different to say. It is colors, textures, feelings
Knowledge	2	V58: Knowledge of what is going on around us. Our senses are stimulation and we are aware of what is going on when we forget if we aren't stimulated again because That's what I think

Category	Count (out of 62)	Example Consciousness is like a...
Exposes	1	V4: tight transparent envelope around your body because it exposes and hides and hugs all at once
Recharged	1	V13: A light run on a battery because it can only run so long, go out then need to be recharged
Constraints	1	V22: boardgame because many rules constrict the probability of achieving the main goal
Measures	1	V50: Ruler because It measures your behavior
Quest	1	V49: Search of the internet A quest for knowledge because Of search for opportunity & ways of communication to benefit our choice of life
Unknown	3	V43: Pudding because Shakes
No response given	14	

### OVERALL COMMENTS AND NEXT STEPS

Fewer visitors contributed metaphors for consciousness as did metaphors for the mind. This could reflect a bias in the data collection. For example, because the consciousness metaphor always followed the request for a mind metaphor, some visitors may have found the question redundant with the mind or may simply have run out of time. However, it is also possible that visitors have a harder time defining what is consciousness or thinking of a metaphor to describe this phenomenon that can be quite difficult to talk about. This is also reflected in the absence of a clearly dominant metaphor category for consciousness. That is, it was much harder to determine categories of consciousness metaphors than it was for mind metaphors. This may present an access challenge as we begin to explore ways of communicating interesting ideas about the nature of consciousness.

Note that this approach is just one method of obtaining visitors' descriptions of mind and consciousness. It is not the only way, and in order to build a better sense of what people think about when they think about mind and consciousness, other means (i.e., interviews with different questions) will supplement these findings.

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