

The Limits of Concepts and Conceptual Abilities

Joel Parthemore

Centre for Cognitive Semiotics, Lunds Universitet, Lund, Sweden



Centre for Cognitive Semiotics
LUND UNIVERSITY



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Outline

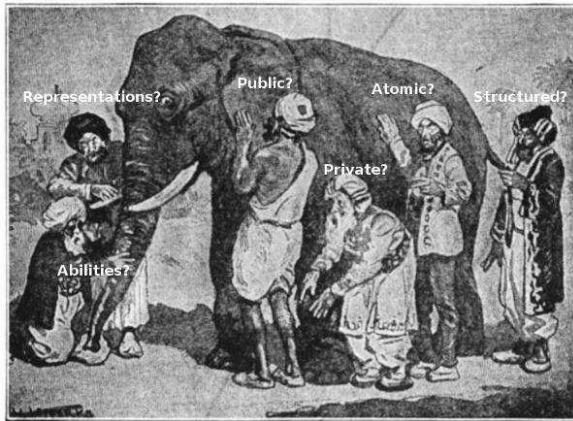
- 1 Introduction
- 2 The Hard Problem of Concepts
- 3 The Pieces of the Puzzle
 - Self-Reference
 - Simplification
 - Necessary Fictions
 - Self-Referential Paradox
- 4 The Toggling Effect

F.A. Hayek



“... Because of constitutional limitations of our mind, we shall never be able to achieve more than an explanation of the principle on which mind operates, and shall never succeed in fully explaining any particular mental act.” – F.A. Hayek, The Sensory Order.

Blind Men and the Elephant



Main Theses I

- Concepts are the building blocks of consciousness, and of cognition more broadly. Understanding consciousness requires understanding concepts.
- Concepts relate to consciousness through the medium of experience.
- Experience gives rise to concepts, which in turn give rise to experience.

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Main Theses II

- We have a certain conceptual “blindness”: unable to set aside our conceptual nature, even for a moment, to see concepts “as they are”.
- Concepts / theories of concepts best approached pragmatically: no one right answer.
- Concepts are a kind of *necessary fiction*: simplifying the world to make it comprehensible, distorting in pursuit of understanding.
- Paradoxes arise wherever we press too hard against the boundaries of our conceptual abilities. To explore the paradoxes is to explore the boundaries.
- Acknowledging and understanding our conceptual boundaries *extends* our conceptual reach! It absolves us of duties we cannot fulfill and allows us to see the value in *some* competing and seemingly mutually exclusive perspectives.

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Why not...?

- Why not start with concepts as non-representational abilities (perhaps *per* Millikan, abilities to *form* representations) and derive concepts as representations?
- Why not start with first-order concepts (which cannot take other concepts as their referents) and derive second- and higher-order ones?
- Why not start with concepts as fundamentally public entities and derive concepts as private entities that can vary from one individual to another?

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Why these strategies won't work.

- Expressed one way, the problem is that of the ineliminable observer: we can bring the observer into the foreground or push the observer into the background, but there is no reason to think we can eliminate the observer (and her influence) altogether!
- Expressed another, it is the problem of experience and its habit of mixing the seemingly objective with the unavoidable subjective and intersubjective.
- Bottom line: experience must be taken as foundational!

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The Hard Problem of Concepts

“The really hard problem of consciousness is the problem of experience. . . . Why should physical processing give rise to a rich inner life at all? It seems objectively unreasonable that it should, and yet it does.” – David Chalmers, Facing up to the hard problem of consciousness.

The really hard problem of concepts is the problem of experience. How does physical processing give rise to the richly structured conceptual thought that structures experience? It seems that logically it must do, somehow; but the moment we try to see how, conceptually structured experience intrudes!

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The Puzzle of Concepts



Pieces of the Puzzle

self-reference: Theorizing about concepts is not only necessarily a reflective activity by an experiencing agent; it is self-referential in a way that raises certain logical difficulties. I conclude that this self-reference is, despite appearances, a *distorting* self-reference.

simplification: The way concepts structure experience is to simplify it in such a way that any original content is lost.

necessary fictions: The illusion provided by concepts is that, in general, the original content is *not* lost. Concept pulls apart from referent only when we reflect on the matter, but the reflection is not the non-reflective use. Concepts possessed and employed non-reflectively make no such distinction.

paradox: Experience places limits on our conceptual understanding by our inability to set that experience aside. Attempting to do so anyway, or failing to acknowledge the three points above, leads one into self-referential paradoxes.

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Nature of the Game

Mind, *n.*: *A mysterious form of matter secreted by the brain. Its chief activity consists in the endeavor to ascertain its own nature, the futility of the attempt being due to the fact that it has nothing but itself to know itself with* – Ambrose Bierce, The Devil's Dictionary.

“When the mind's focus is the focusing mind, new problems arise. The object and the instrument of the inquiry become one and logic is compromised. The mind is unable to decode itself or find its identity” – Zoltan Torey, The Crucible of Consciousness.

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Change of Focus

- As with consciousness studies, theories of concepts take empirical study of the world – the usual domain of science – and turn it around, to focus attention on ourselves, and not just any aspect of ourselves, but that aspect that seems most essential to making us who we are: our minds.
- Theories of concepts are always put forward from within a pre-existing conceptual structure which they then purport to uphold.
- The heart of the problem is the threat of (vicious or merely pernicious) circularity: an endlessly receding target!

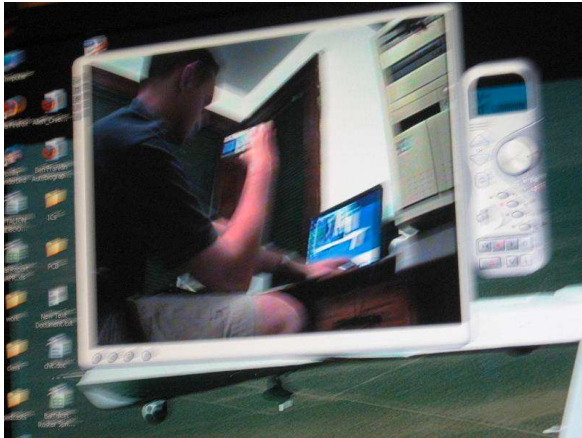
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Visual Self-Reference



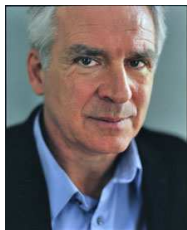
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Lossy Compression



*“The prime problem is that the information received by the receptors is too rich and too unstructured. What is needed is some way of transforming and organizing the input into a mode that can be handled on the conceptual or symbolic level. This basically involves finding a more economic form of representation: going from the subconceptual to the conceptual level usually involves a **reduction of the number of dimensions that are represented...**”* – Peter Gärdenfors, *Conceptual Spaces: The Geometry of Thought*.

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Necessary Fictions

**Things that we recognize, logically, cannot be (quite) true,
but that we cannot do without.**

When ultimate truth outstrips our capacity for understanding, *and we recognize that*, then necessary fictions must suffice!

Concepts-as-necessary fictions enable us to understand the world at the same time they distance us from it.

- Three key fictions:
 - The world-as-perceived just *is* the world: perception is, at least for the most part, transparent.
 - Concepts and their referents reliably and unproblematically pull apart.
 - The world is not continuous but is organized into discrete categories with neatly defined boundaries.

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Paradox

Any set of circumstances such that one has equally valid and compelling grounds for concluding both a proposition p and its negation $\sim p$, such that it is impossible to choose between them without deriving a contradiction.

Paradoxes arise when one pushes the necessary fictions too far.
One ends up with either:

- An eternally receding target, *or...*
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An Endless Oscillation



"[The Epimenides Paradox] is a statement that rudely violates the usually assumed dichotomy of statements into true and false, because if you tentatively think it is true, then it immediately backfires on you and makes you think it is false. But once you've decided it is false, a similar backfiring returns you to the idea that it must be true" – Douglas Hofstadter, Gödel, Escher, Bach

Another Oscillation

“... We may take an object and just by focusing on it we notice almost at once that it (the content component) begins to recede and become overlaid by the nonthematic sensation that the whole experience is our own doing. However, this same sense of self-contribution, too, begins at once to fade, allowing the attention to swing back once more to the object in focus, from there to fade in turn, accentuating the self-sensation once more before the attentional pendulum swings back to the object again.” – Zoltan Torey, The Crucible of Consciousness

And Another

- Reflecting on our reflections to get at the “actual” facts of the matter (endlessly receding target).
- Reflecting on what “must” be going on when we are not reflecting on what is going on (endless oscillation).
- An “innocent inconsistency”.

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Toggling Table I

Concepts as...	Concepts as...
things we may reflect upon	things we possess and employ non-reflectively
intentionally imposed "top down"	activity derived "bottom up"
product of rational thought (rationalism)	product of empirical discovery (concept empiricism)
objects of perception	means of perceiving objects
consciously accessible	partly or substantially not consciously accessible
knowledge that	knowledge how
symbolic entities	skillful abilities
"mental" representations	abilities to form representations

Toggling Table II

Concepts as...	Concepts as...
sub-propositional components of thought	subconscious components of interaction
abstract and “mental”	concrete and “physical”
abstracted from context	sensitive to context
“internal” to agent	“external” to agent – in environment
static	dynamic
discrete (individuable)	continuous
easily tied to language	clearly distinct from language
private entities	public entities

Take-Home Messages

- Acknowledging the boundedness of conceptual understanding is *not* the same as embracing mysterianism!
- Sciences of concepts and of consciousness remind us of what we should have remembered all along:
 - The observer is *always* present, even if in the background.
 - The subjective is inextricably bound up with the objective.
 - Science yields not timeless understandings freed from cultural and historical contexts but working hypotheses.
 - Truth is a work in progress.

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