Philosophical Foundation for Interaction Design

Matthias RAUTERBERG

饶德伯

2014

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Where innovation starts

The Tao Te Ching

Lao Tzu [5…400 BC]

The Tao that can be spoken of is not the eternal Tao.
The name that can be named is not the eternal name.

The nameless is the beginning of heaven and earth.
The name is the mother of the ten thousand things.

Send your desires away and you will see the mystery.
Be filled with desire
and you will see only the manifestation.

"In the beginning was the Word, and the Word was with God, and the Word was God.
He was in the beginning with God. All things were made through Him, and without Him nothing was made that was made. In Him was life, and the life was the light of men.
And the light shines in the darkness, and the darkness did not comprehend it."
John 1:1-5

REF: Lao Tzu (400 BC) translated by Tolbert McCarroll
http://www.owlnet.rice.edu/~laotzu/text/thetao.txt

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The Four Causes

Carl JUNG [1809–1882]
"archetypes as universal forms"
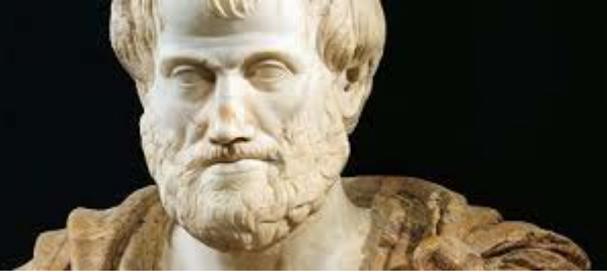
ARISTOTLE [384 – 322 BC]

Into /
Formal

By /
Efficient

For /
Final
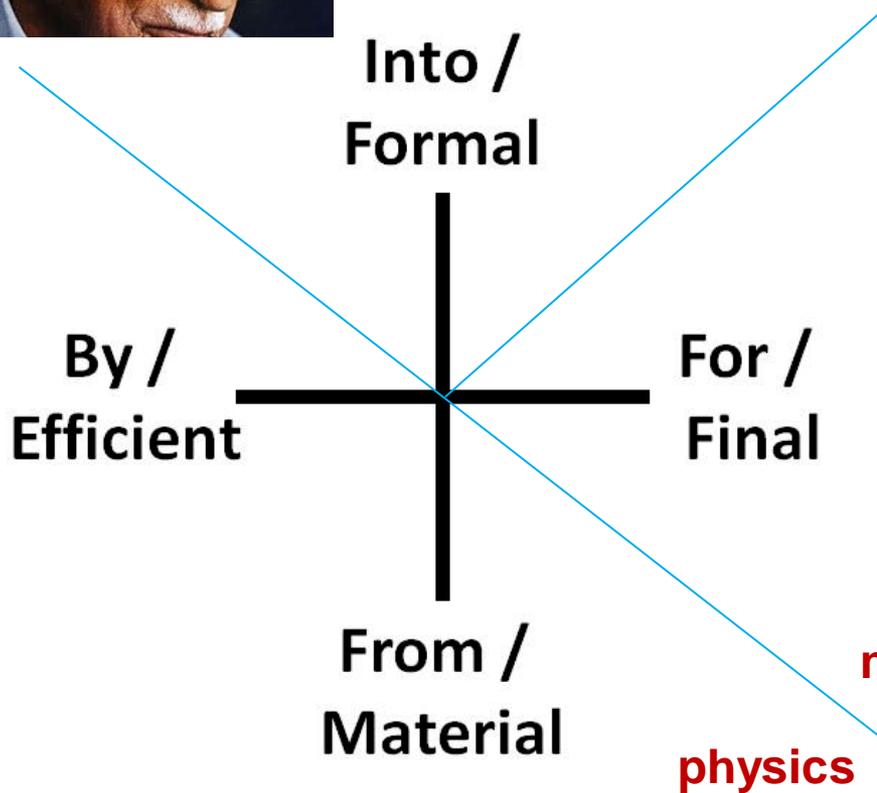
From /
Material

Charles DARWIN [1809–1882]

A Cultural History of
CAUSALITY
Stephen Kern

SCIENCE, MURDER NOVELS, AND SYSTEMS OF THOUGHT

meta-physics

physics
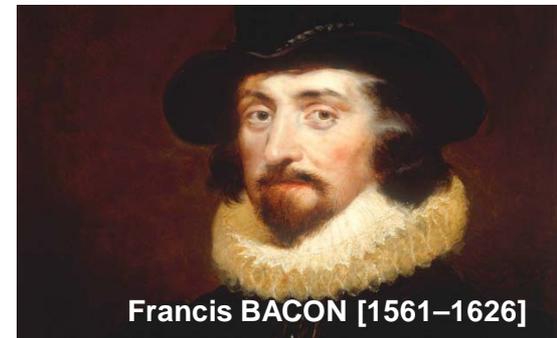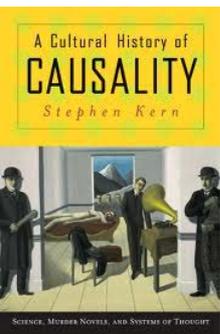
Francis BACON [1561–1626]

From Descartes till Today

René DESCARTES
[1596-1650]

> **res cogitans** - mind
> ─────────────── **GOD** ───
> **res extensa** - body, matter, etc

about 350 years later…

Karl POPPER
[1902-1994]

The Self and Its Brain
KARL POPPER AND JOHN C. ECCLES

John ECCLES
[1903-1997]
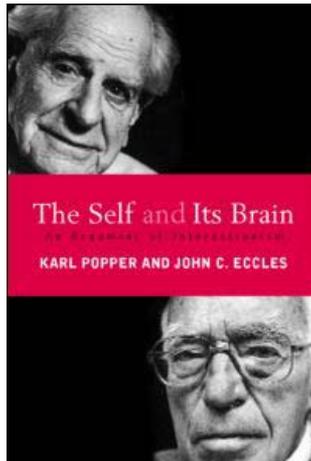
> **World-3:** knowledge in objective sense
> -
> **World-2:** states of consciousness
> -
> **World-1:** physical objects and states

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Critique of Pure Reason

Immanuel KANT [1724-1804]

Kant, requires that we frame the epistemological problem in an entirely different way. The crucial question is not how we can bring ourselves to understand the world, but how the world comes to be understood by us.

Analytic *a priori* judgments include all merely logical truths and straightforward matters of definition; they are necessarily true.

Synthetic *a priori* judgments are the crucial case, since only they could provide new information that is necessarily true.

REF: Kant, I. (1781) Kritik der reinen Vernunft.

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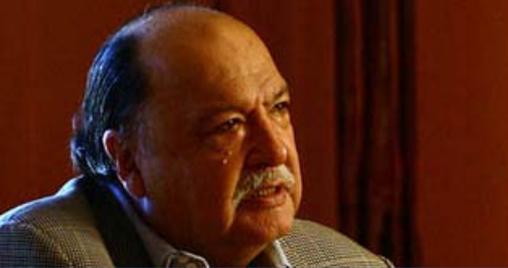
Thrown-ness

Fernando FLORES   **Terry WINOGRAD**

Flores and Winograd (1990) illustrate the 'thrown-ness':

"When giving a lecture, you are in a situation that

(I) you cannot avoid acting (doing nothing is also an action);

(II) you cannot step back and reflect on your actions;

(III) the effects of actions cannot be predicted;

(IV) you do not have a stable representation of the situation;

(V) every representation you have of the 'situation' is an interpretation;

(VI) you cannot handle facts neutrally; you are creating the situation you

are in".

REF: Winograd, T. and Flores, F., "Understanding and being," in: T. Winograd and F. Flores (Eds.), Understanding Computers and Cognition: A new Foundation for Design. Ablex, Norwood, 1990, pp. 27-37

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Thrown-ness of Design

Kees DORST

Dorst characterizes engineering as design activities as 'thrown' into a design 'situation'.

A design situation based on 'thrownness', is a typical situation characterized by

(1) no possibility for 'reflection' (see (I), (II), and (V)), and

**(2) no stable and predictable reality (see (III), (IV), and (VI)).**

The designer creates and synthesizes the situation while he/she is *acting in it*.

REF: Dorst, K., Describing design: a comparison of paradigms. PhD Thesis, Delft University of Technology, The Netherlands, 1997

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The Reflective Practitioner

Concrete experience [1]

Observation and reflection [2]

Forming abstract concepts [3]

Testing in new situations [4]
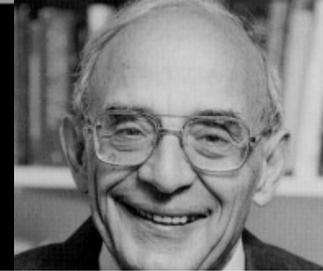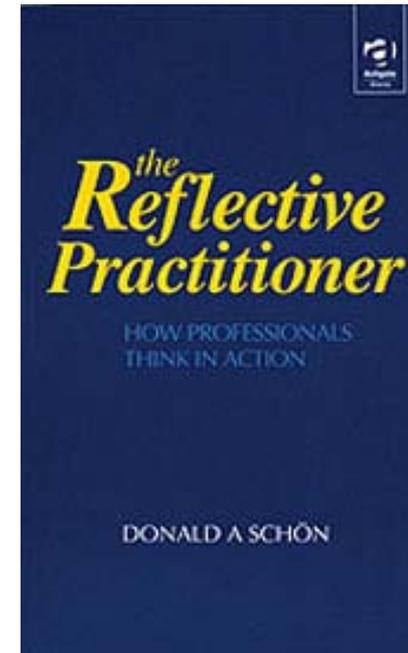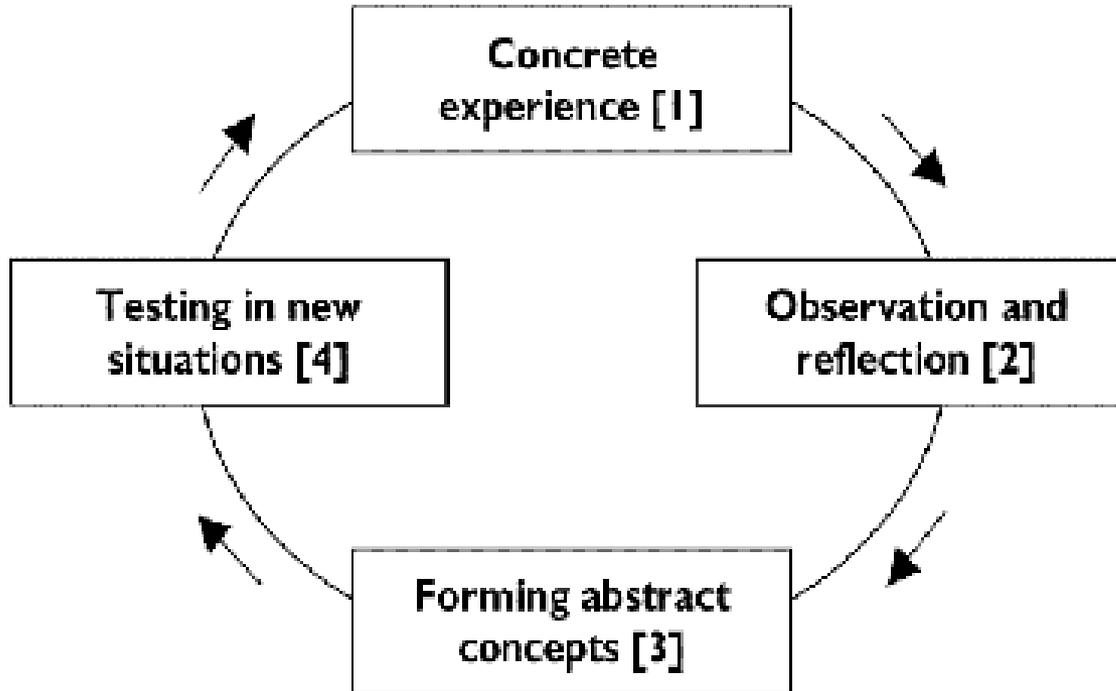
REF: Schön, D. "The reflective practitioner" Basic Books 1983

How to achieve 'Reflective Competence'?
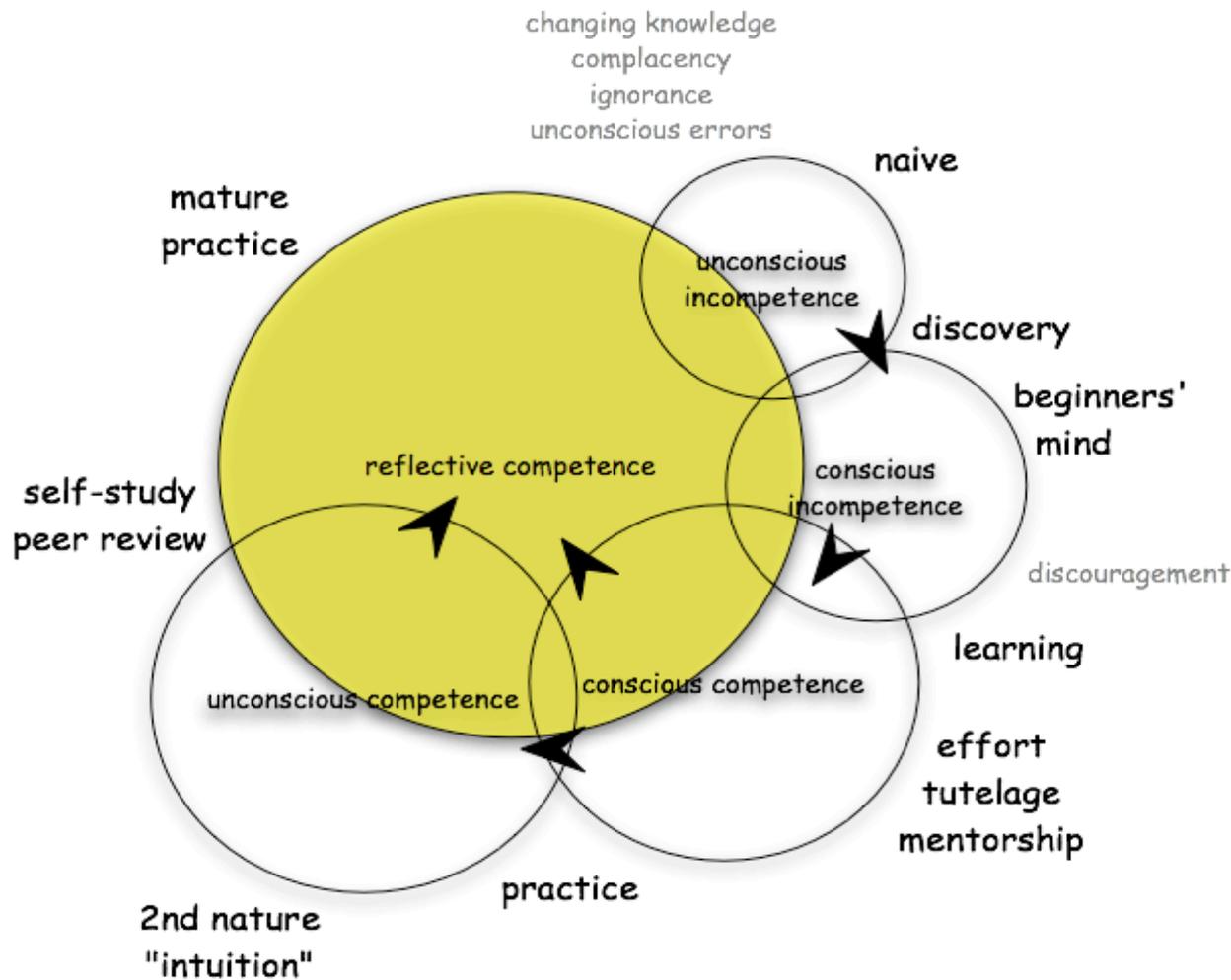
Reflections through the God's Eye View

- **The "God's eye view" is based on the fundamental distinction between:**

- **God**   versus   **the World**
- **Perceiver**   versus   **Perceived**
- **Subject**   versus   **Object**
- **Meta-Physics** versus **Physics**
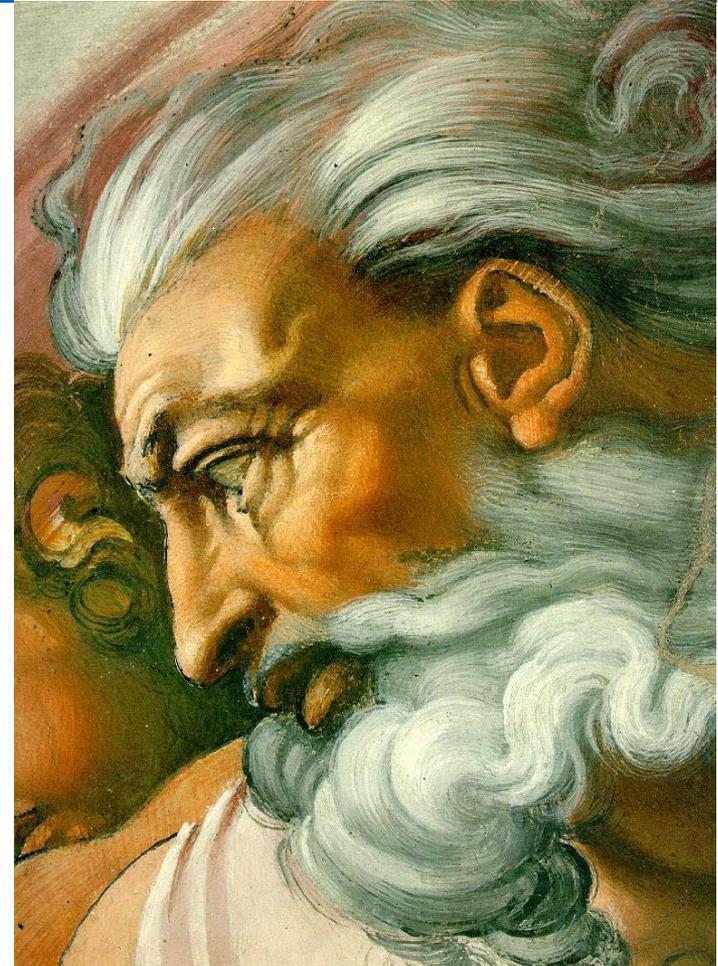
This is the standard view in Science!

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The Cartesian Anxiety
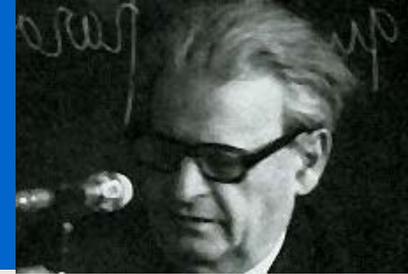
Richard BERNSTEIN
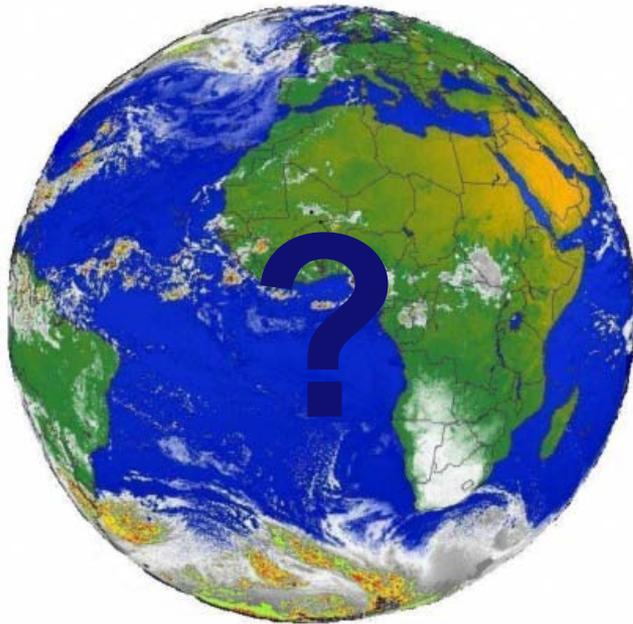
Reality

Mind

REF: Bernstein, RJ. (1983) Beyond Objectivism and Relativism: Science, Hermeneutics, and Praxis.
**Univ. of Pennsylvania Press.**

The Primacy of …
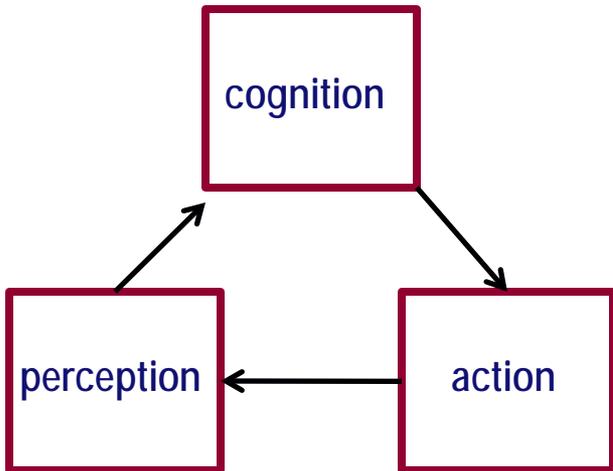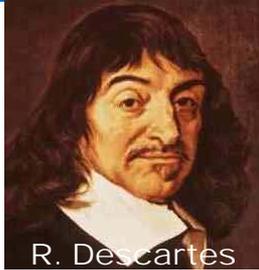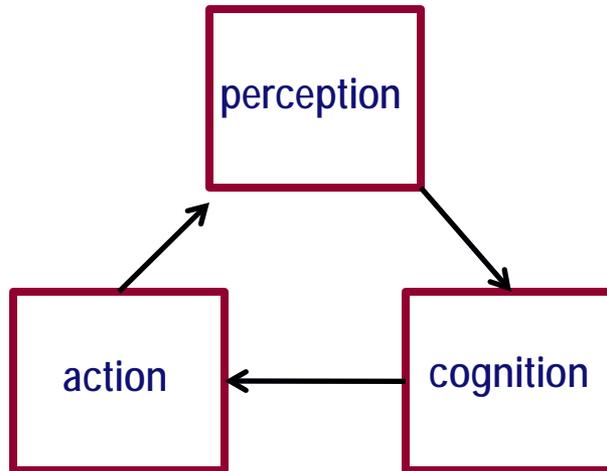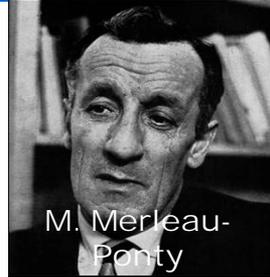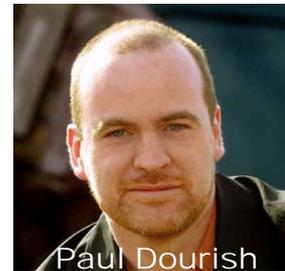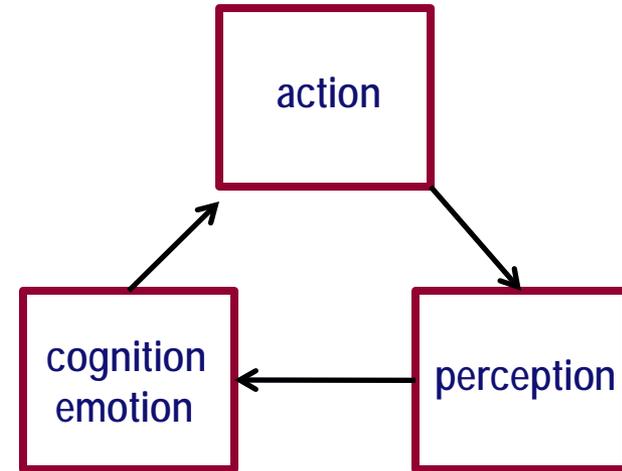
So, what's left after Descartes?
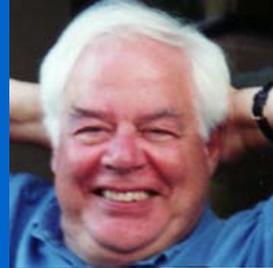
Decrease the "God's Eye View" perspective.

Increase the "First Person View" perspective.

Connect with the environment through action.

Find a proper balance between all three.

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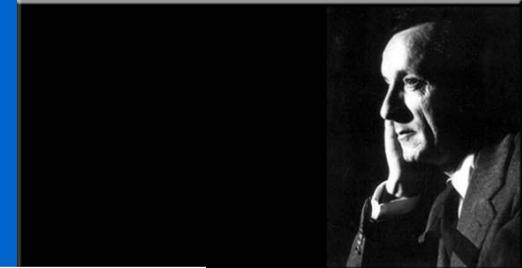
Phenomenology

the very basic barebones resource diagram

gestalt psychology · naturalism · semiotics · experiential · hermeneutics · phenomenology
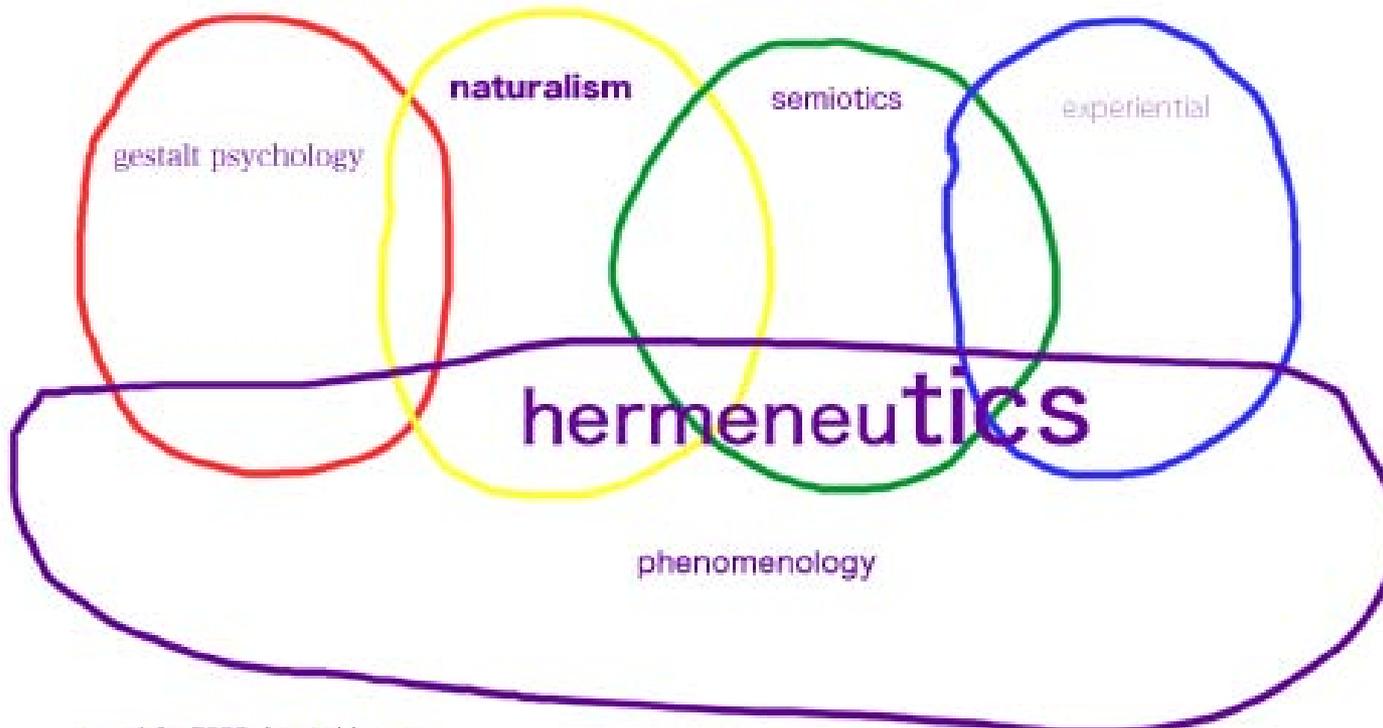
copyright 2008: knut skjærven.

REF: Merleau-Ponty, M. (1945) Phénoménologie de la Perception. Gallimard

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Affordances as Design Grounding

James Jerome GIBSON
[1904-1979]
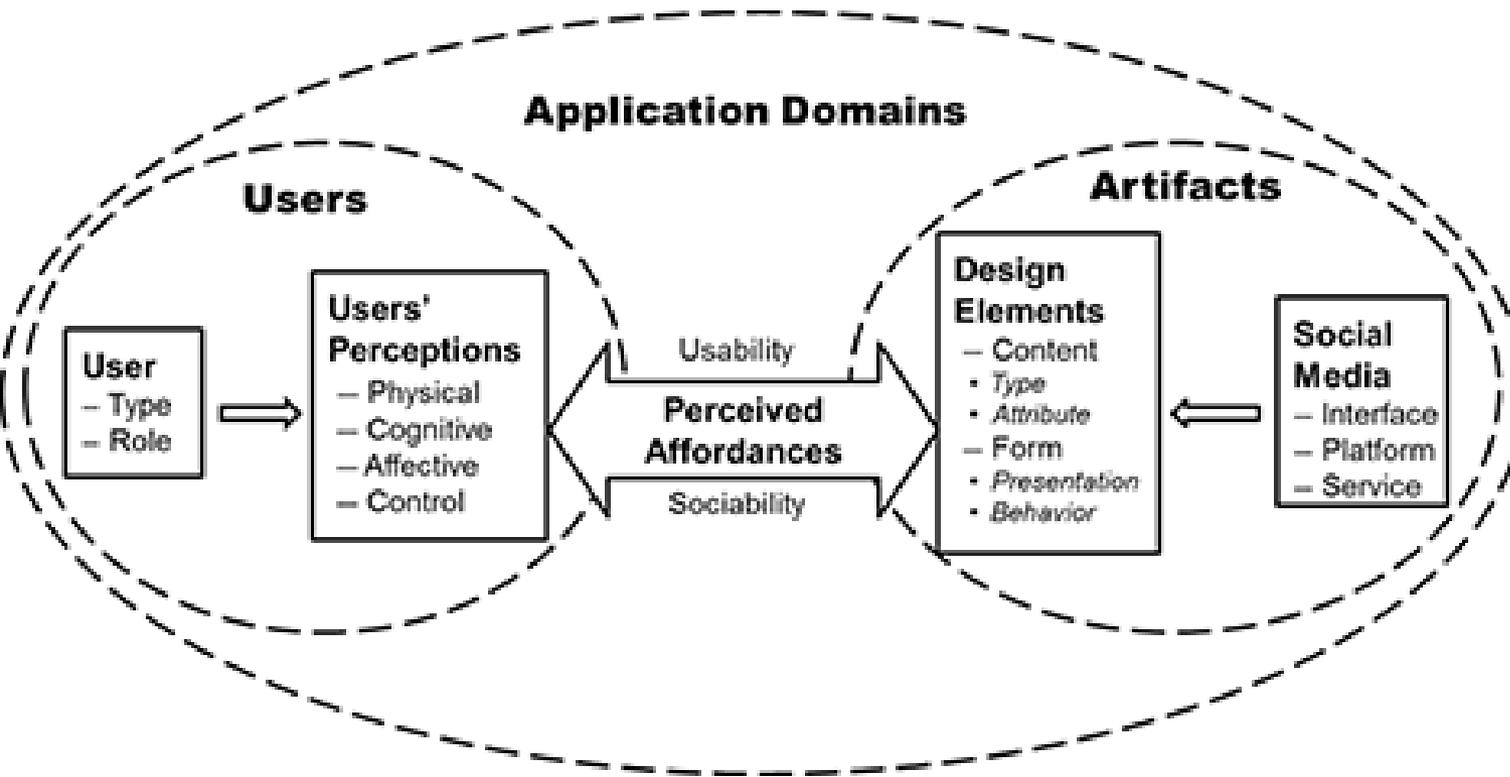
"Humans do not see and act on the physical qualities of things, but on what they mean to them."

Klaus KRIPPENDORFF

REF: Krippendorff, Klaus (2006). *The Semantic Turn; A New Foundation for Design*. Boca Raton, London, New York: Taylor&Francis, CRC Press.

Designing Systems from Inside Out!
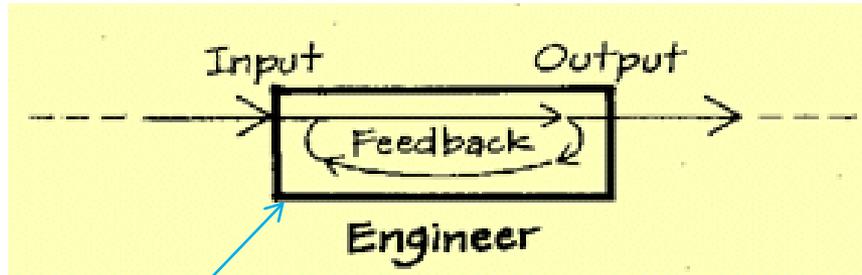
System boundaries
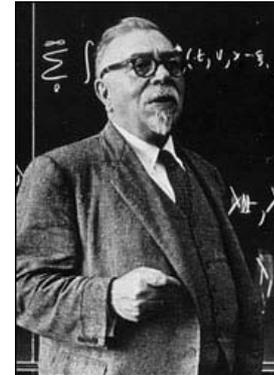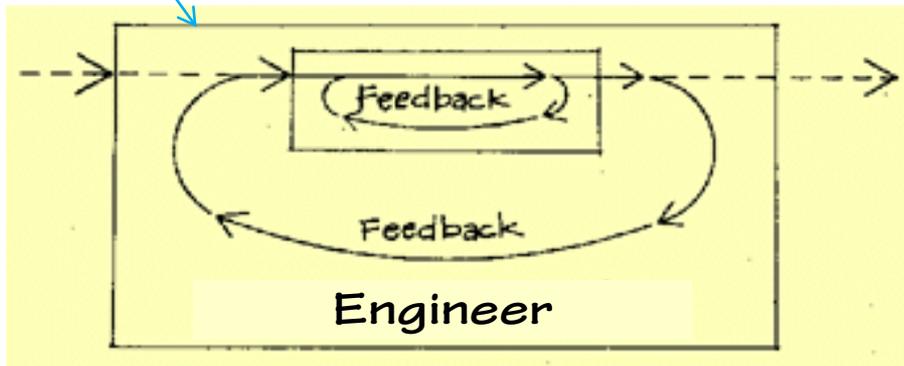
Norbert WIENER
[1894 – 1964]

Gregory BATESON
[1904-1980]
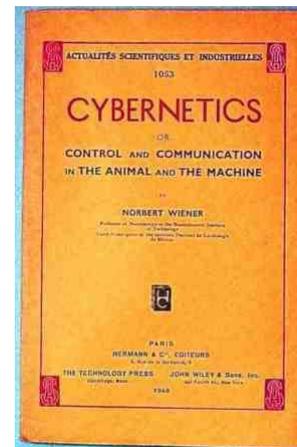
Margaret MEAD
[1901-1978]

SOURCE: CoEvolutionary Quarterly, June 1976, Issue no. 10, pp. 32-44.

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What we need is Conscious Design!

'aware':
knowing about
relationships, facts, etc.

'responsible':
being committed to action of ethical value

Our Future lies in OUR hands…

The End

René MAGRITTE
[1898-1967]

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