



Hanse-Wissenschaftskolleg
Institute for Advanced Study



antÉ

Institute for Research in Anticipatory Systems
 The University of Texas at Dallas

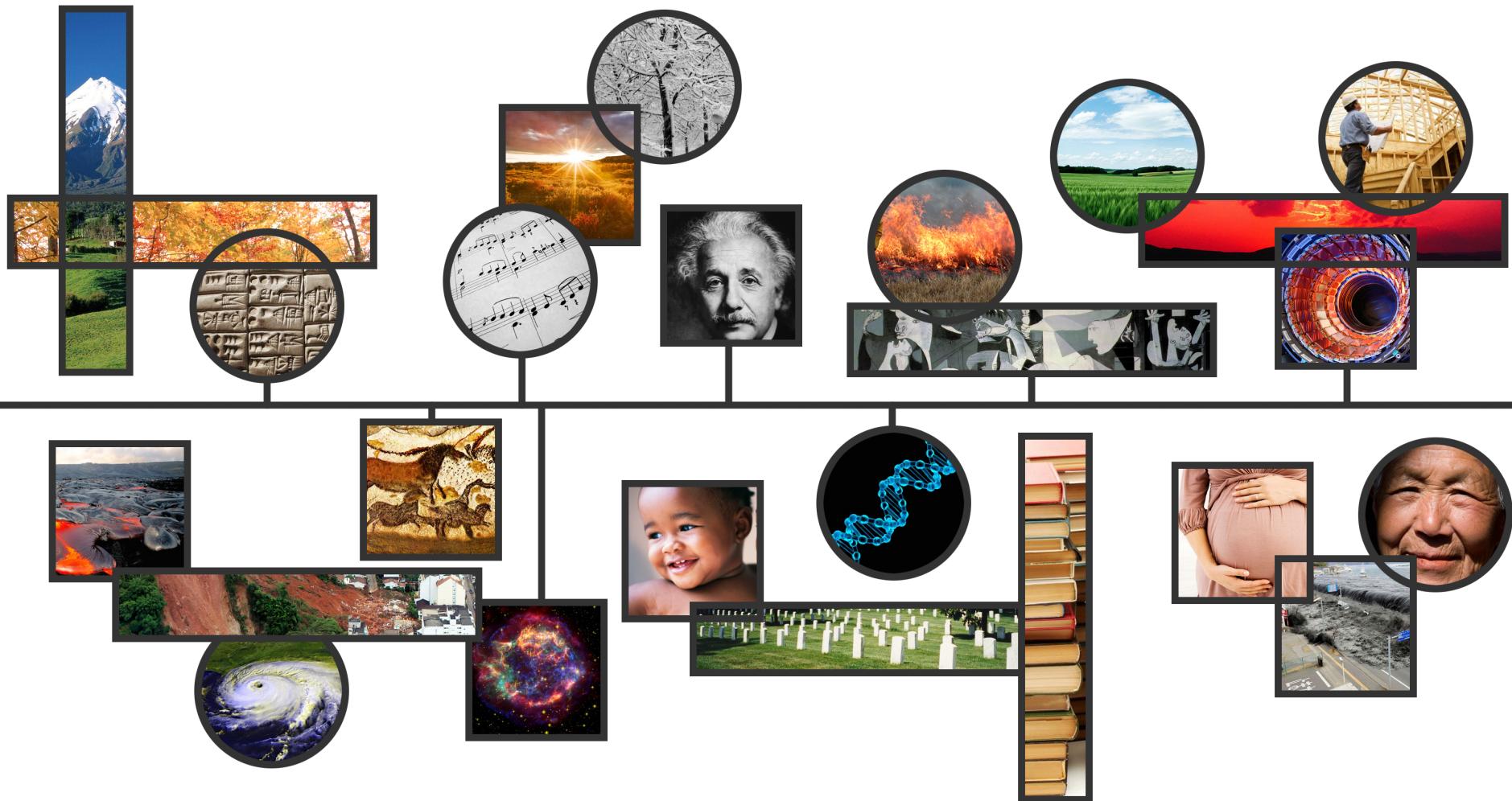
What is and what is NOT anticipation?

Anticipation in Cognitive Literary and Cultural Studies

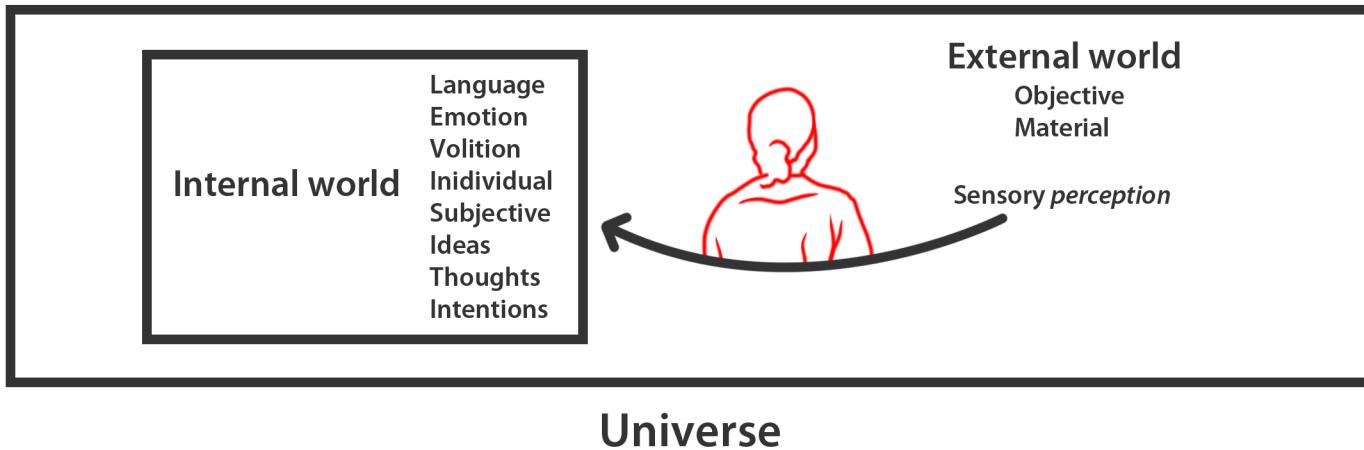
Scientific Retreat

October 10 – 12, 2015

CHANGE - The mother of all that is



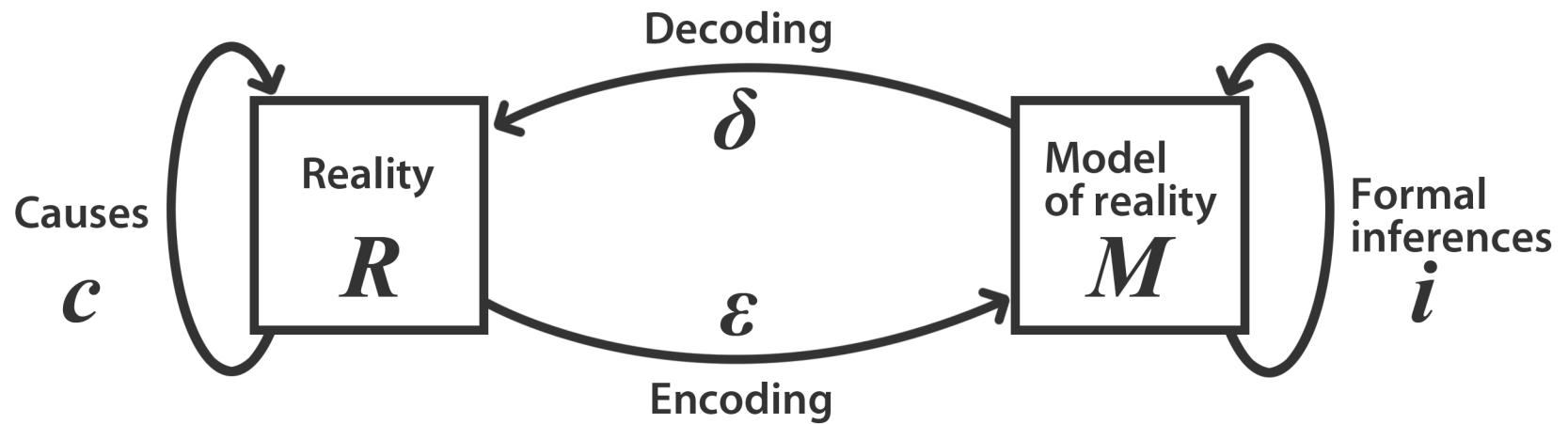
Knowing about the changing world is knowing about our own change as we examine reality



Nadin: The human being receives information and generates information

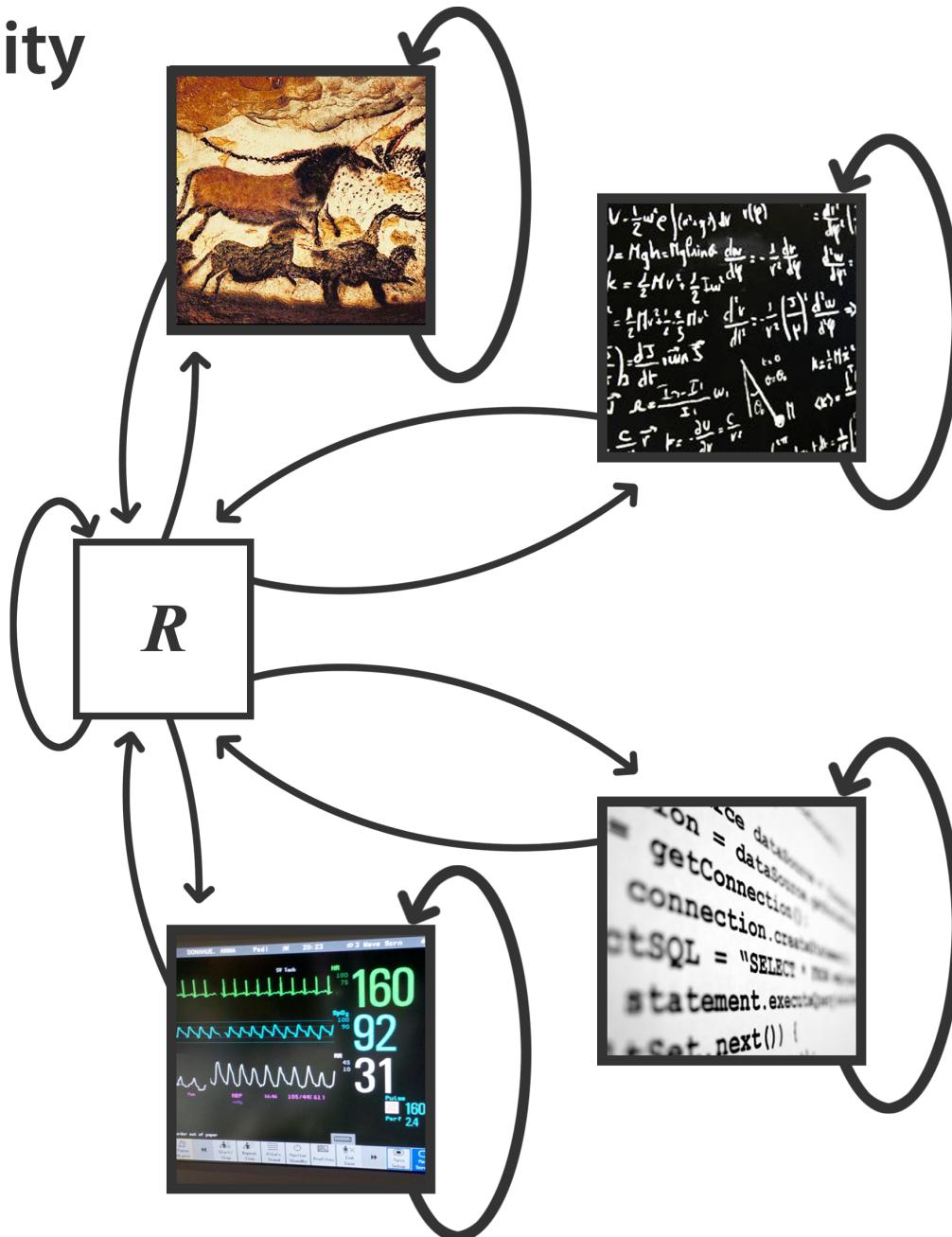


Mapping from reality to knowledge and back to reality

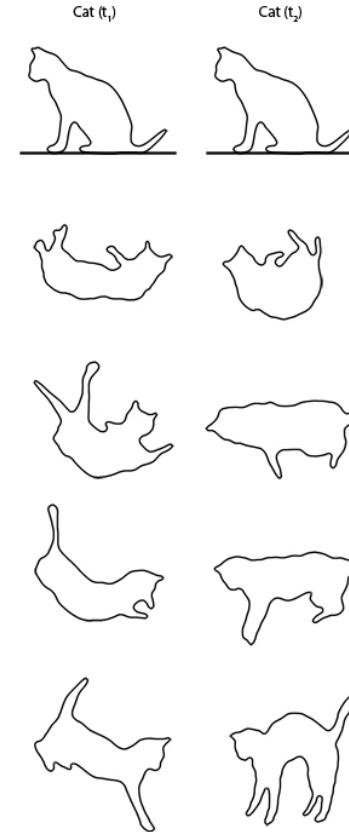


$$c = \delta \circ i \circ \epsilon$$

Models of reality



Dynamics of the physical is different from the dynamics of the living



Reactive vs. Anticipatory

Dealing with the future



→ Expectation



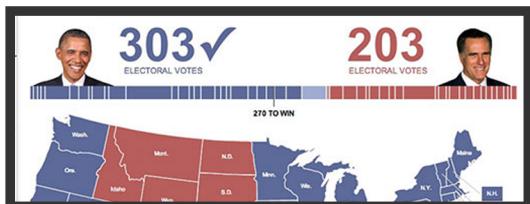
Premonition



Planning



Guess



Forecast

Prolepsis

→ Inference

Foretelling

→ Prediction

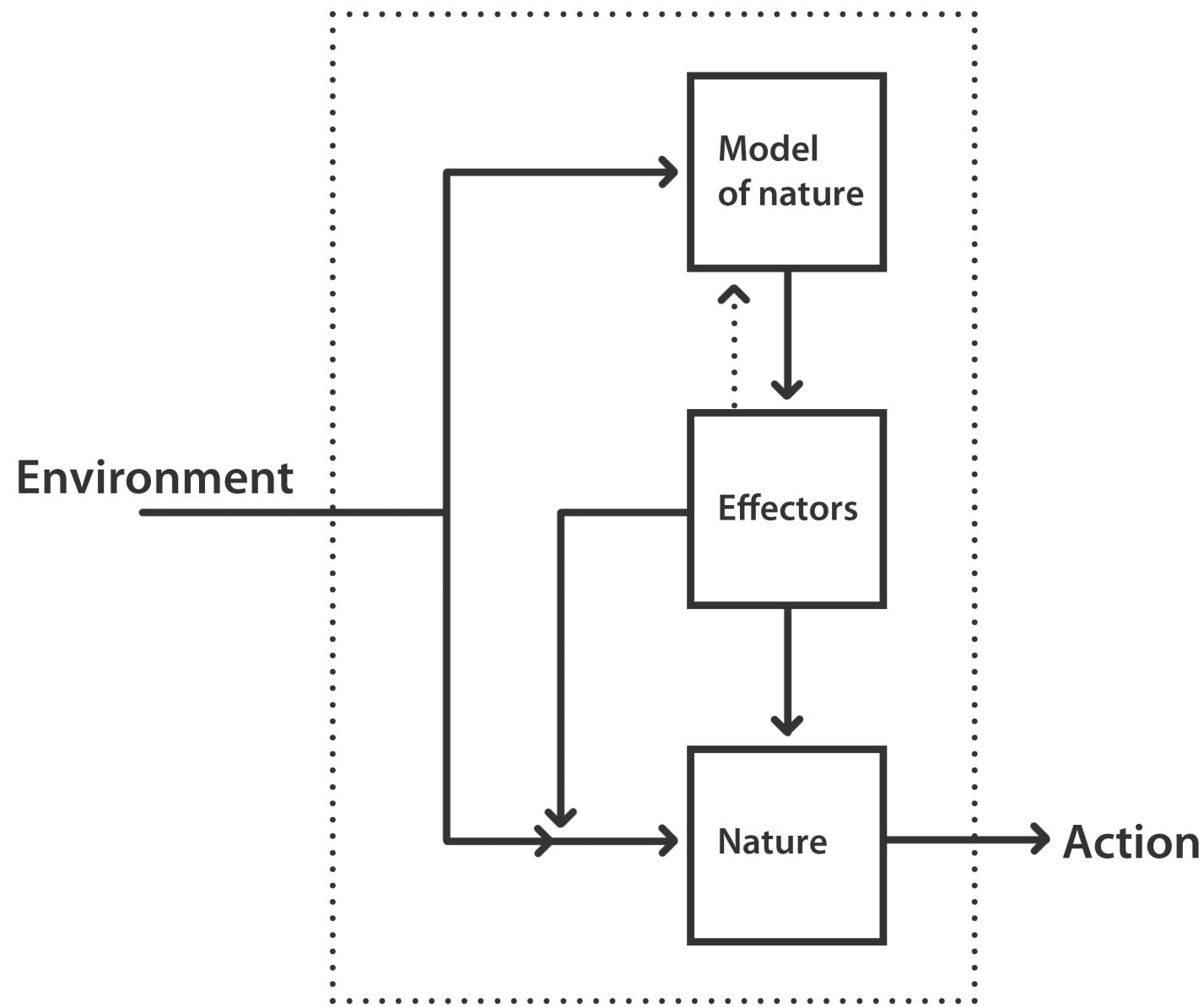
Think of the economy as being more like a cat than a washing machine

(cf. Nassim Nicholas Taleb—Learning to Live with Volatility, Nov. 2012)



Do you want to have good economic predictions?

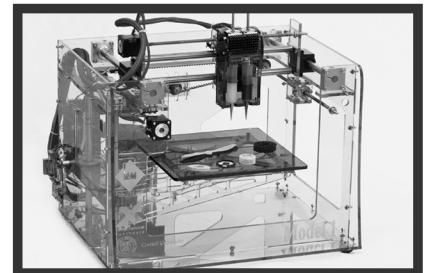
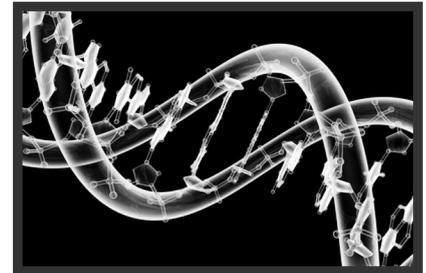
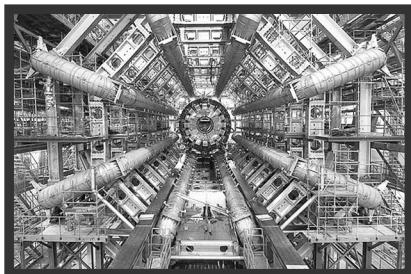
Anticipatory system



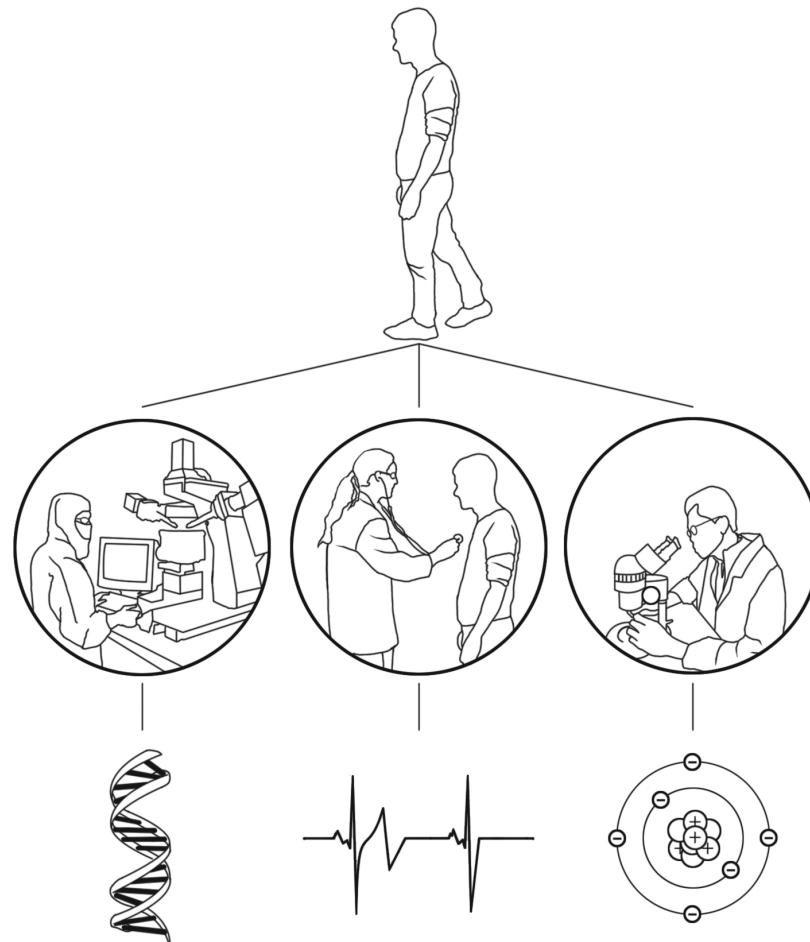
Anticipation is always expressed in action



Hacking is anticipatory

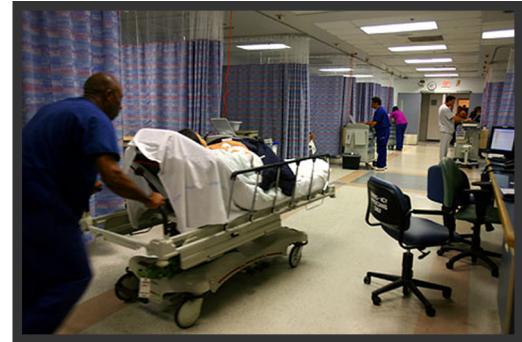


Reductionism: project a view upon the world and expect the world to behave accordingly



Who wants us to behave like a machine?

Limits of prediction



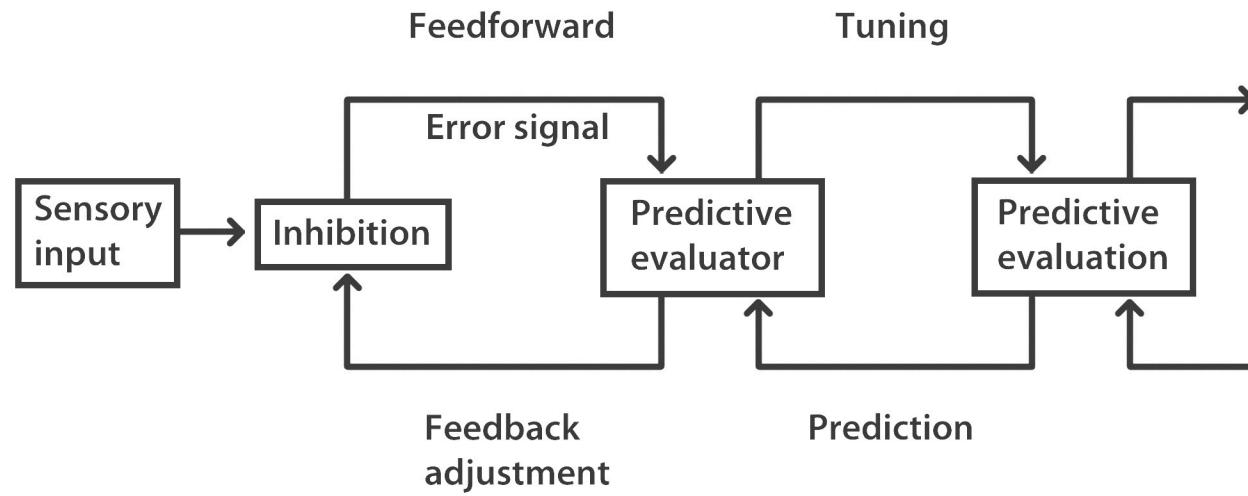
Living under the conditions of risk

The consequences of ignoring anticipation

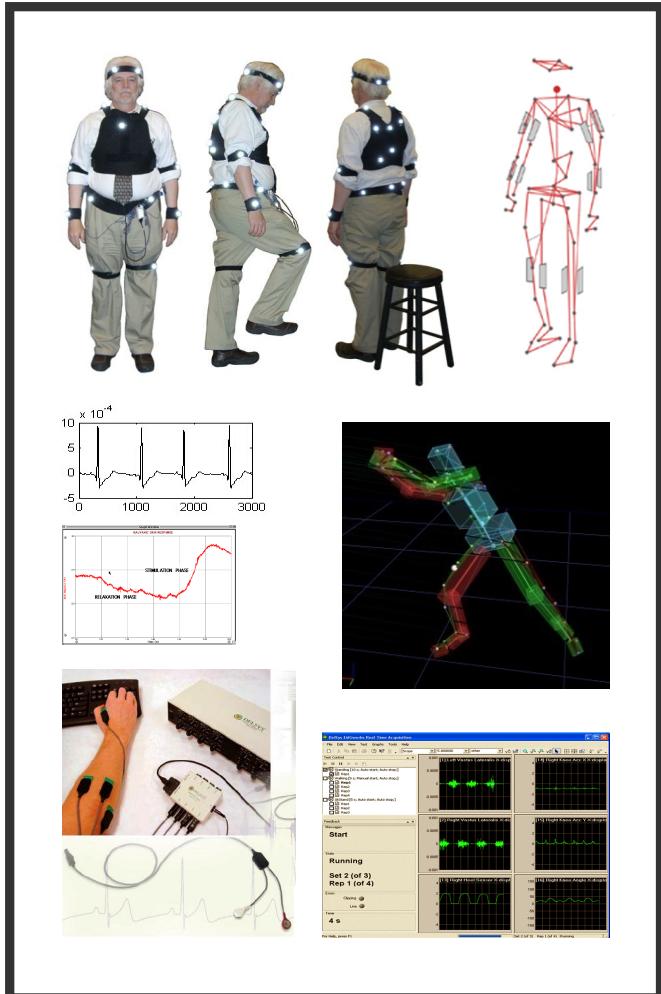


There is no creativity in the absence of anticipation.

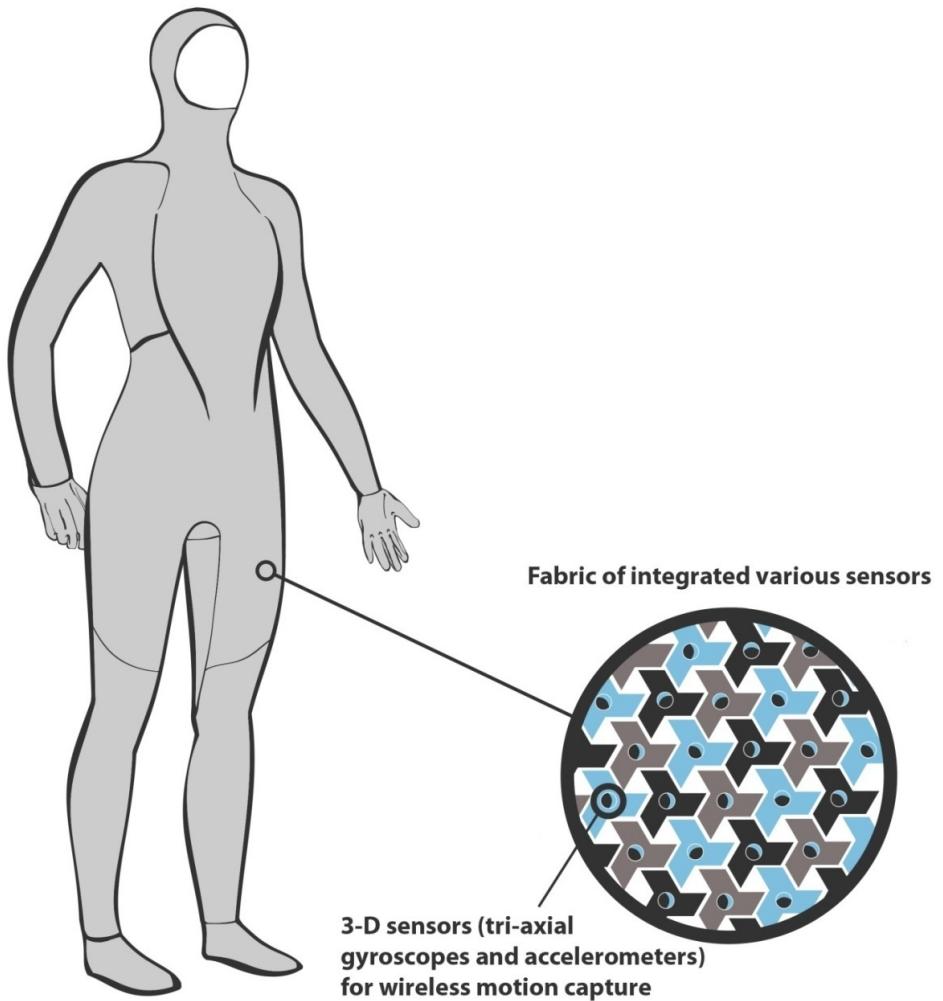
Information from the world - sensory perception



AnticipationScope™ and Anticipatory Profile™



Present

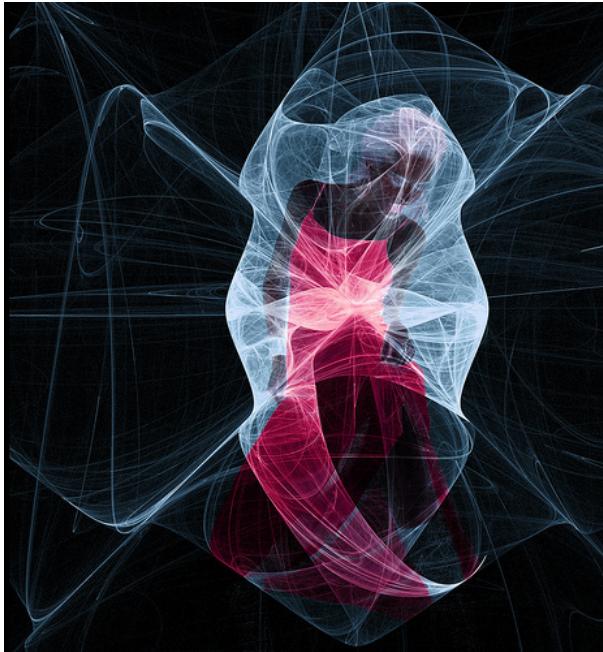


Future

Anticipation—A New Frontier in Science

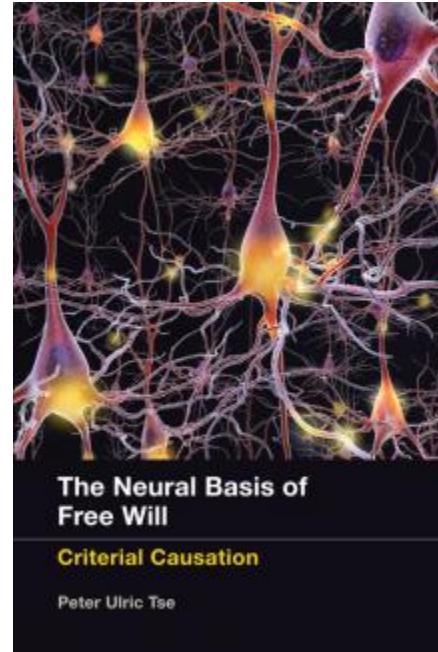
Determinism meets non-determinism

New Research Suggests Humans Can Sense Future Events Without Any Known Clues



Julia Mossbridge, lead author of the study and research associate in the Visual Perception, Cognition and Neuroscience Laboratory at Northwestern University

Jeffrey M. Zacks, PhD Washington University (St. Louis), Predictive Perception, *Journal of Cognitive Neuroscience*



The Neural Basis of
Free Will
Criterial Causation
Peter Ulric Tse

Peter Ulric Tse is Professor of Cognitive Neuroscience in the Department of Psychological and Brain Sciences at Dartmouth College