

Emergence : All in the Minds

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Just to be clear

⇒ weltanschauung

⇒ perspective

⇒ reference frame dependence

⇒ belief system

⇒ mental model

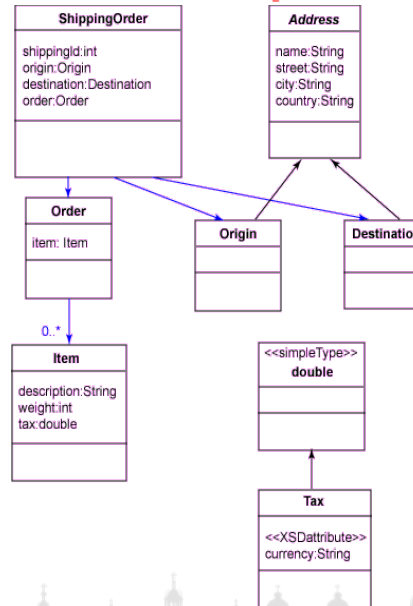
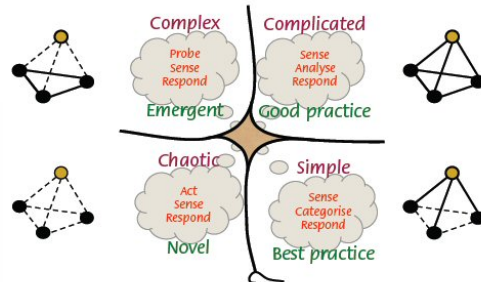
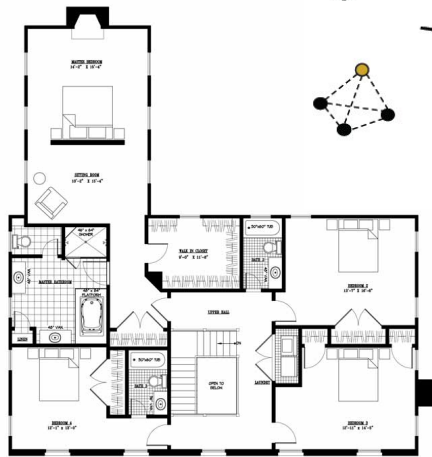
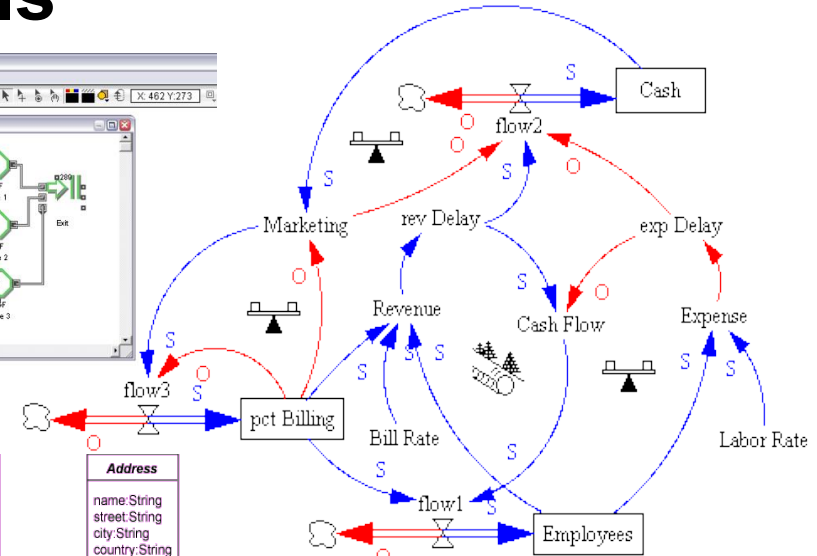
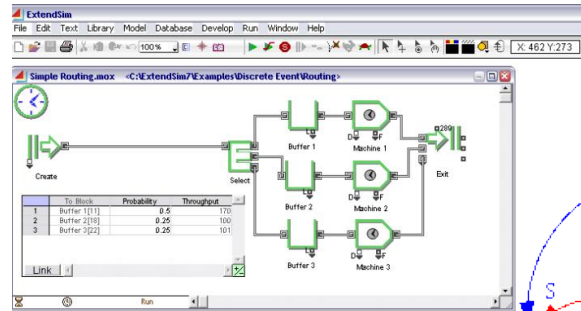
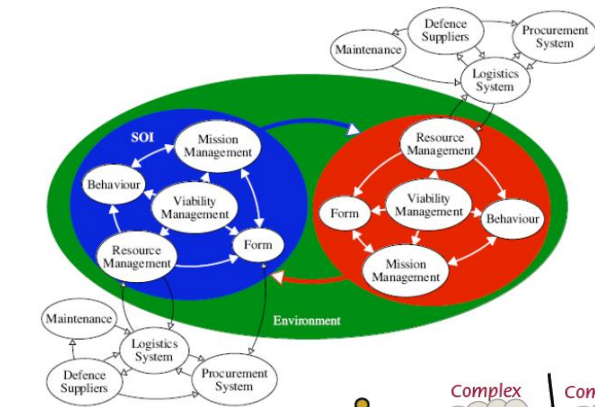
“Mental models are deeply held internal images of how the world works, images that limit us to familiar ways of thinking and acting. Very often, we are not consciously aware of our mental models or the effects they have on our behaviour.” (Peter Senge)

After lunch nap

- ✱close your eyes
 - ✱picture the hotel in your mind
 - ✱questions about your image
-
- ✱there will be no surprises or tricks....

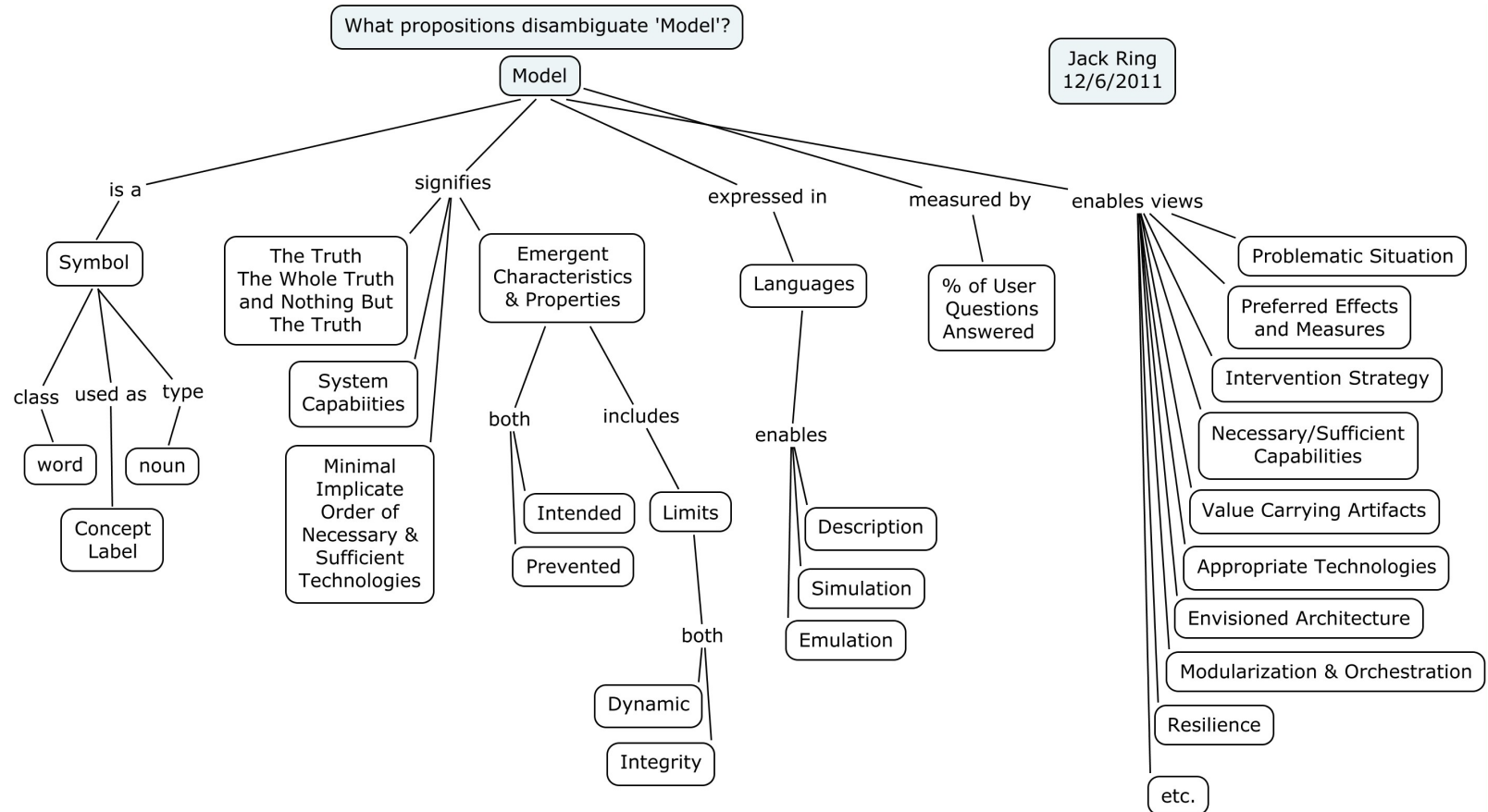


Clarification on models

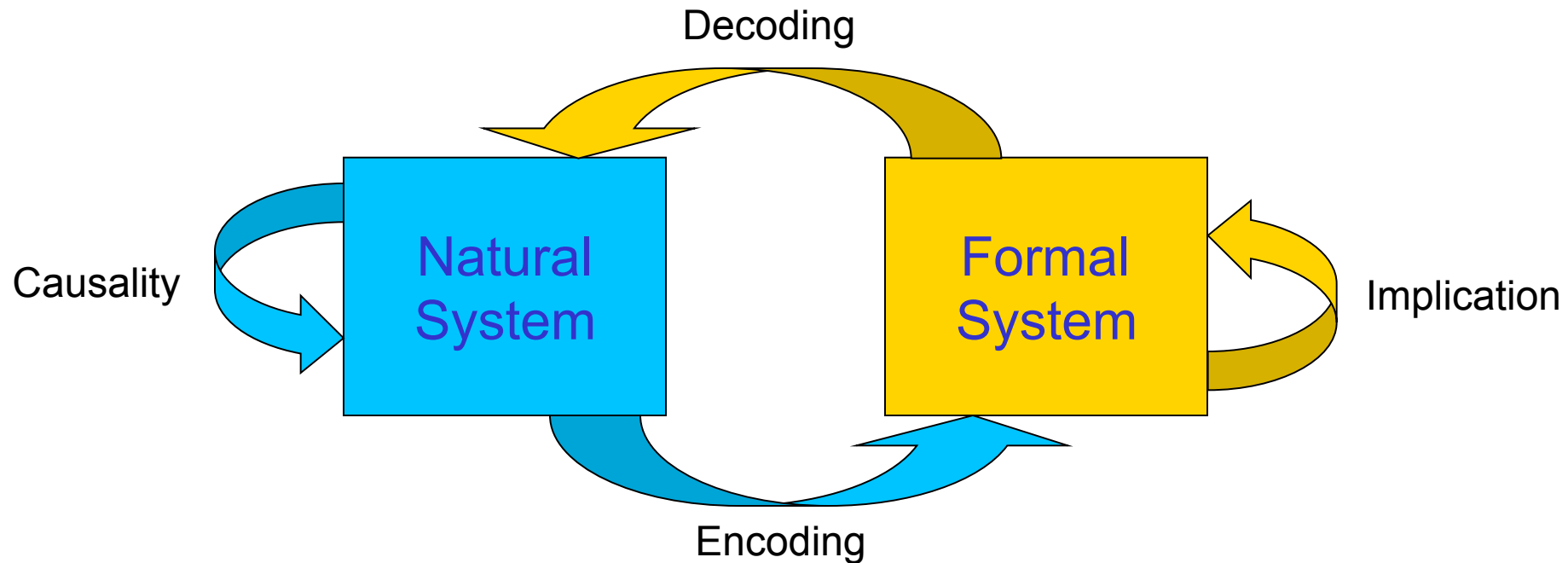


This screenshot shows a data table with multiple columns and rows. The columns include 'Date', 'Time', 'Location', 'Status', 'Value', and 'Category'. The table contains numerical and categorical data, with some cells highlighted in green and red.

Model



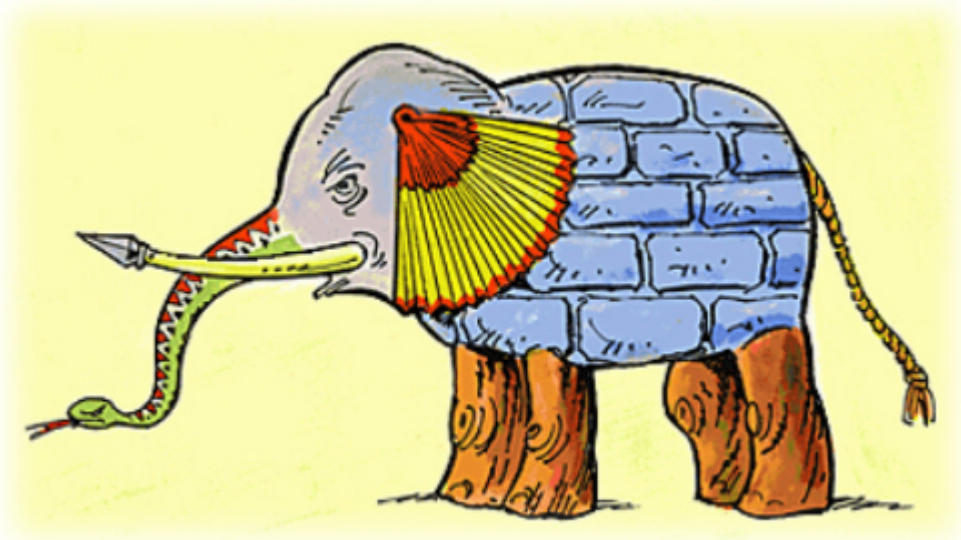
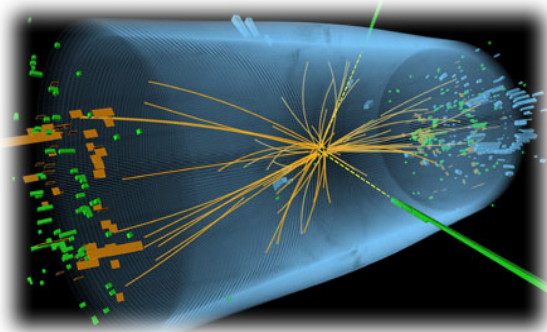
Modeling relation



Simplification



Limited scope



After lunch nap - continued

- ⇒ a communications system
- ⇒ what is 'important' in such a system
- ⇒ build a mental model of all the parts of the system



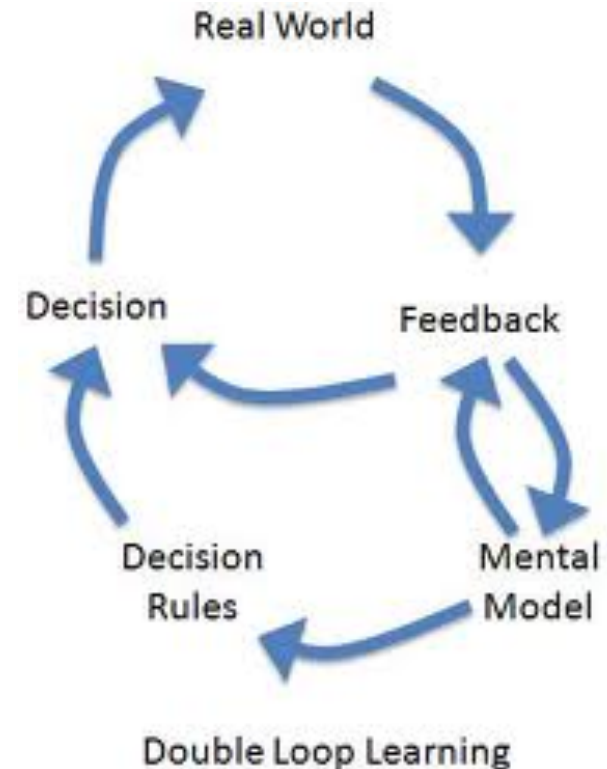
Aspects of supportability

- ✦ how often do failures occur
- ✦ how long to replace
- ✦ how long to repair
- ✦ cost to repair/replace
- ✦ how many spares
- ✦ are specialist tools needed
- ✦ what is the upgrade path
- ✦ what is the risk of obsolescence
- ✦ ...



Verification

- ⇒ poor at verifying our mental models
- ⇒ actually - often just poor at verification



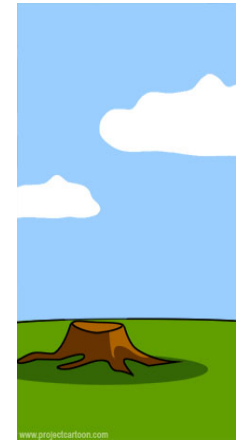
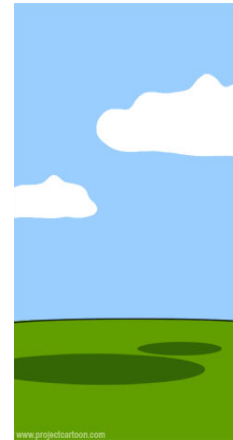
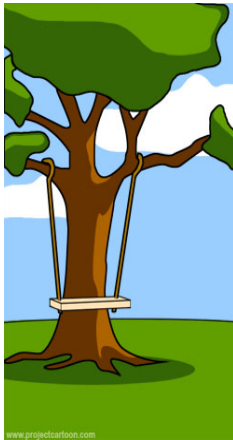
Self re-inforcing

- collect evidence that supports our models
- ignore things that do not fit with our model or our focus
 - In fact we may not be aware of their existence at all



Photos provided by Daniel Simons. Photo illustration by Diana Yates.

Differing expectations



Thinking inside someone else's head



A paradoxical conclusion

☞ all of this has come biased by my mental models – why should you believe it?



I try thinking out of the box, but my mind just wanders all over the place