

A Difference That Makes a Difference  
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# **Modeling Cultural Evolution** **through a Holographic Information Model**

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<http://kmr.csc.kth.se/wp>

# What is a model?

A model is a representation of structure

[David Hestenes]

# Basic properties of a model

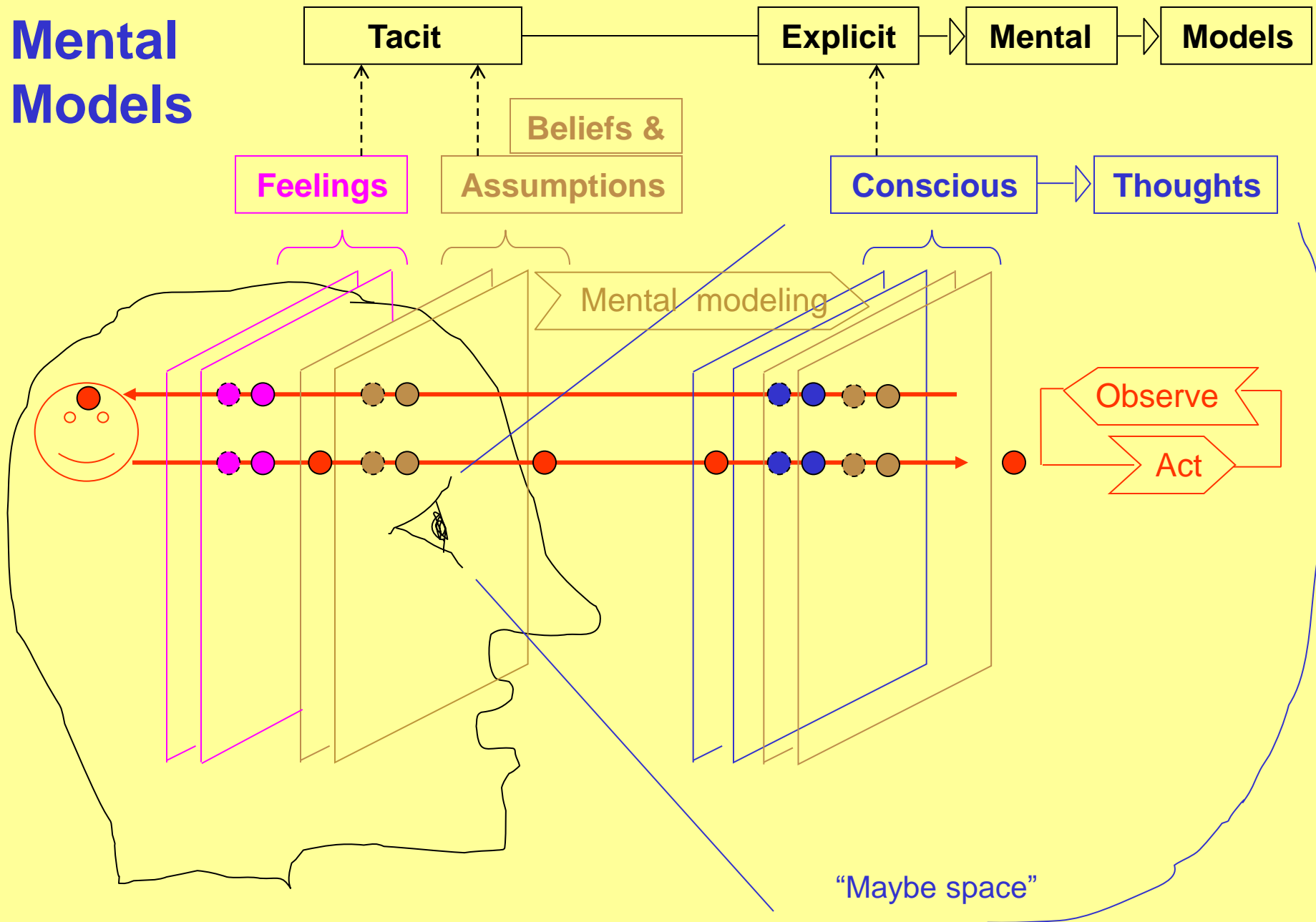
A model is created:

- within a **context**
- for a **purpose**
- with respect to a **target group**

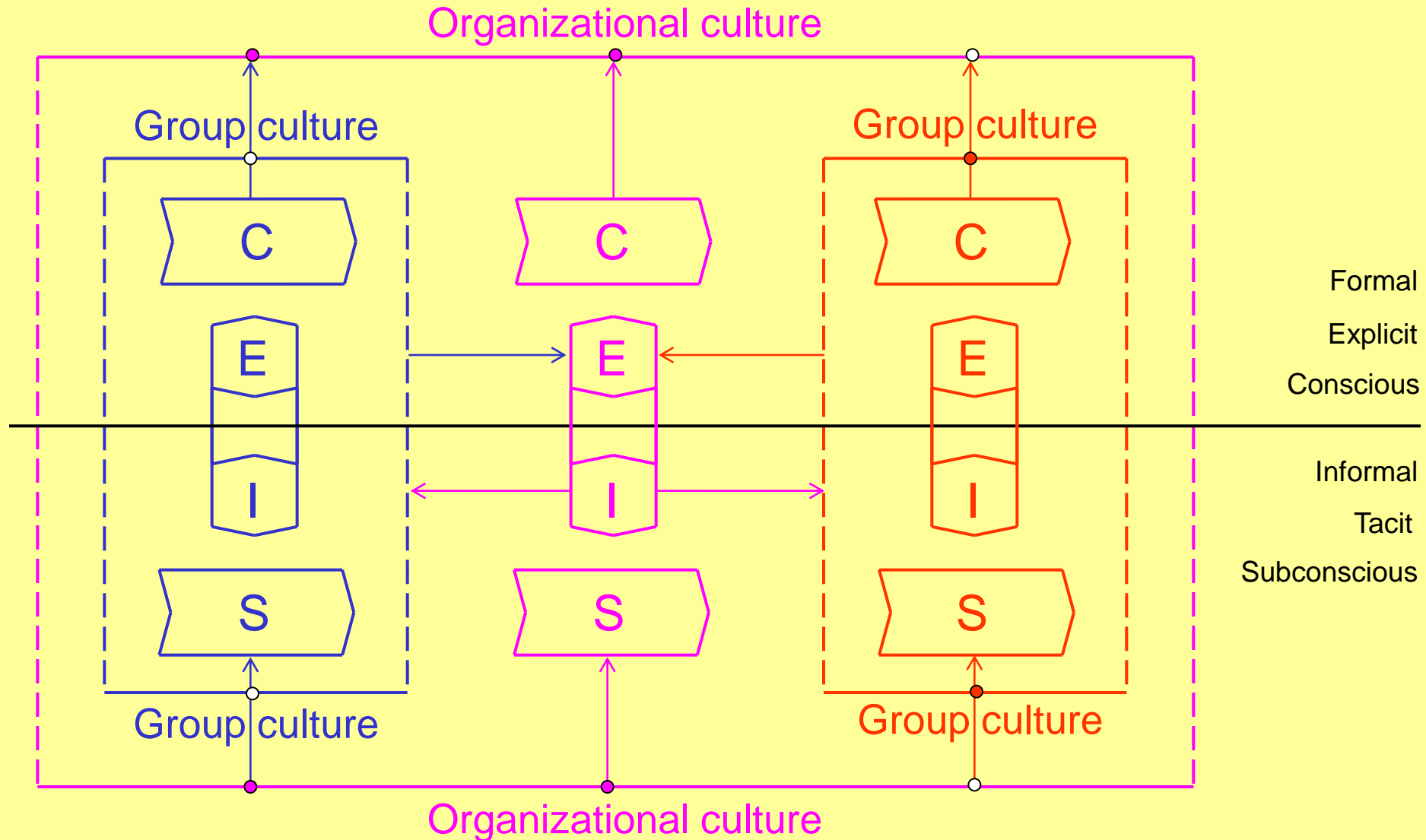
The models I will discuss have been created:

- within the **context of human communication**
- for the **purpose of creating 'placeholders' for describing and discussing cultural evolution**
- with respect to the **target group of the interested public**

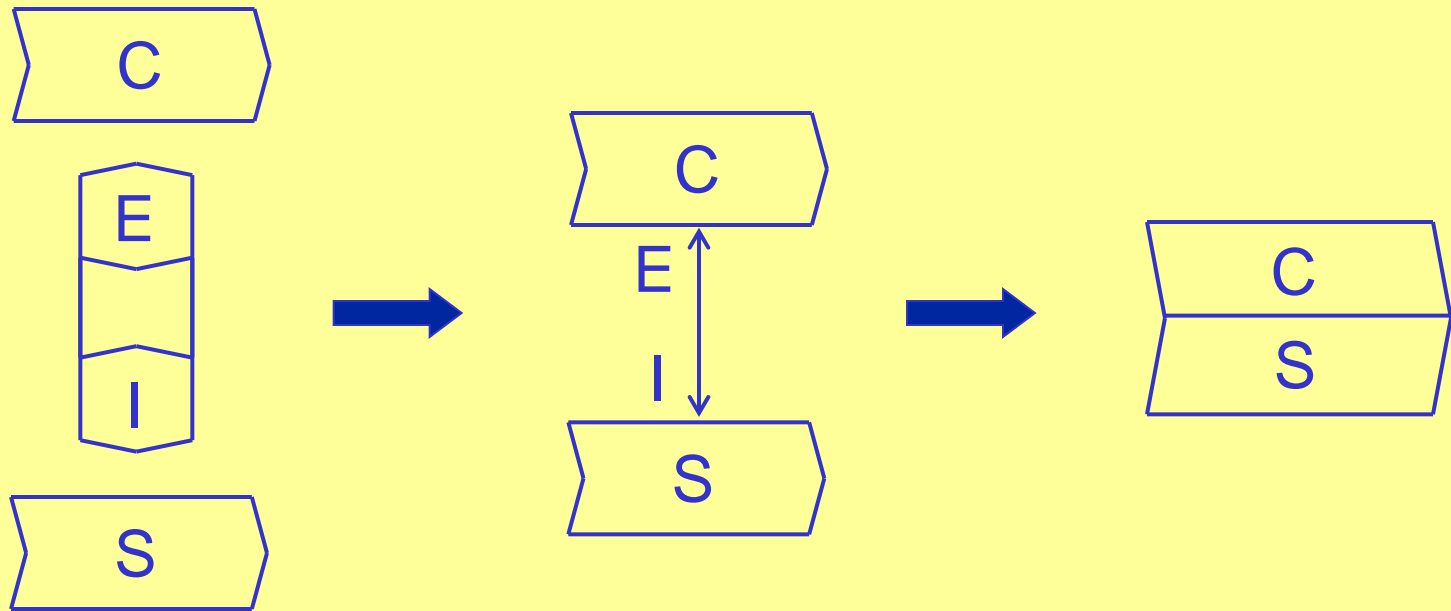
# Mental Models



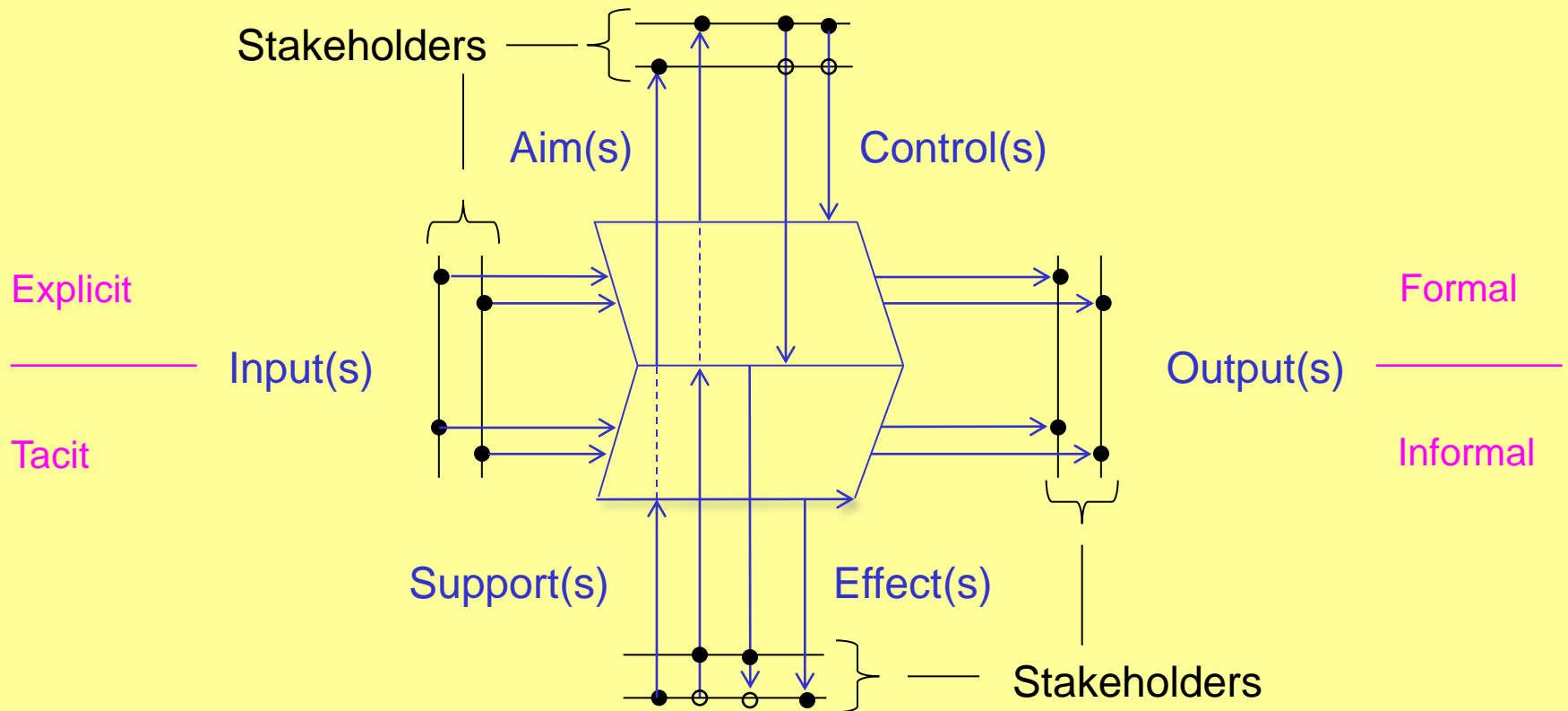
# Inter- and Intra Group Communication



# Notational Simplification

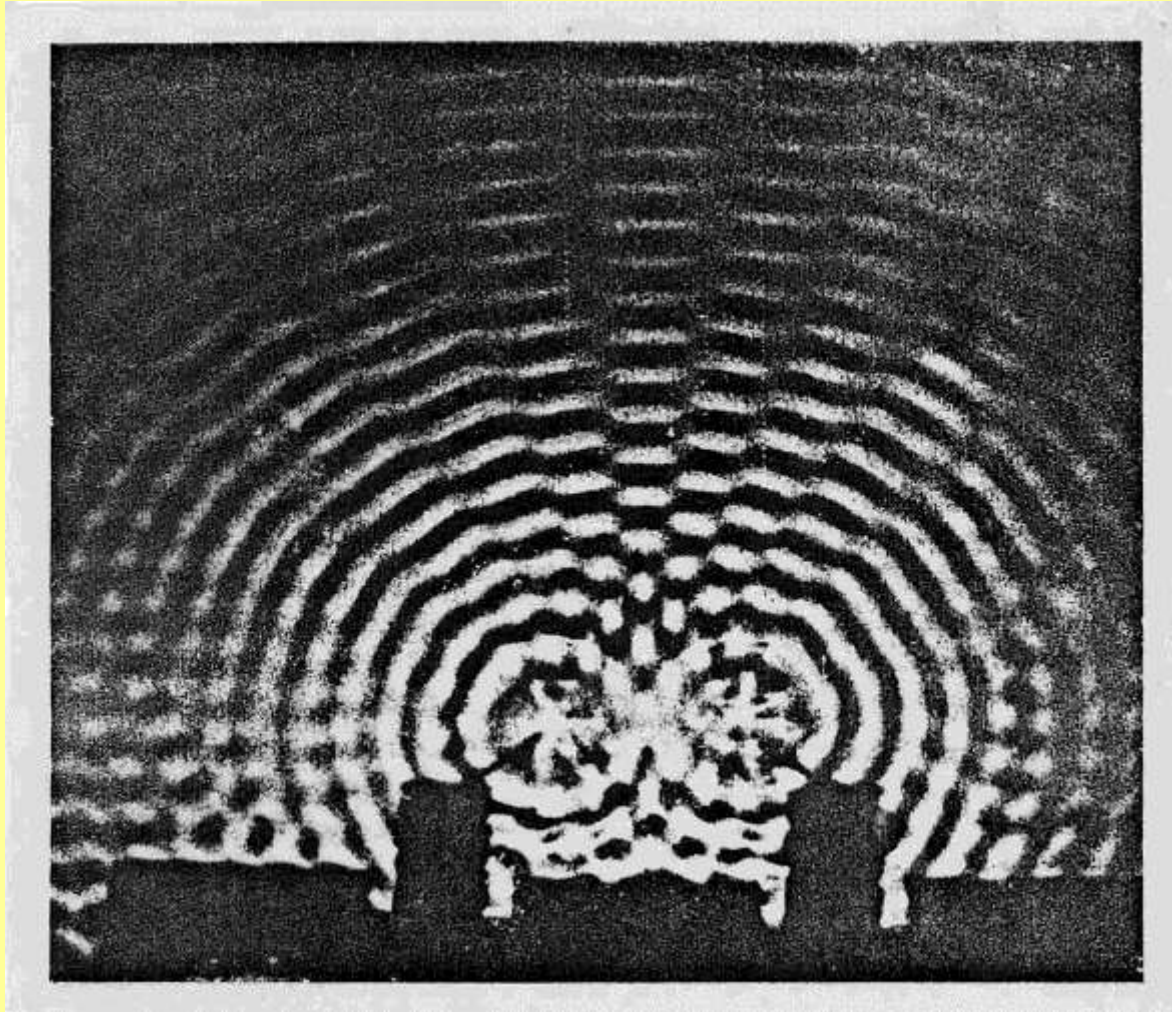


# Explicit/Tacit Process @ work



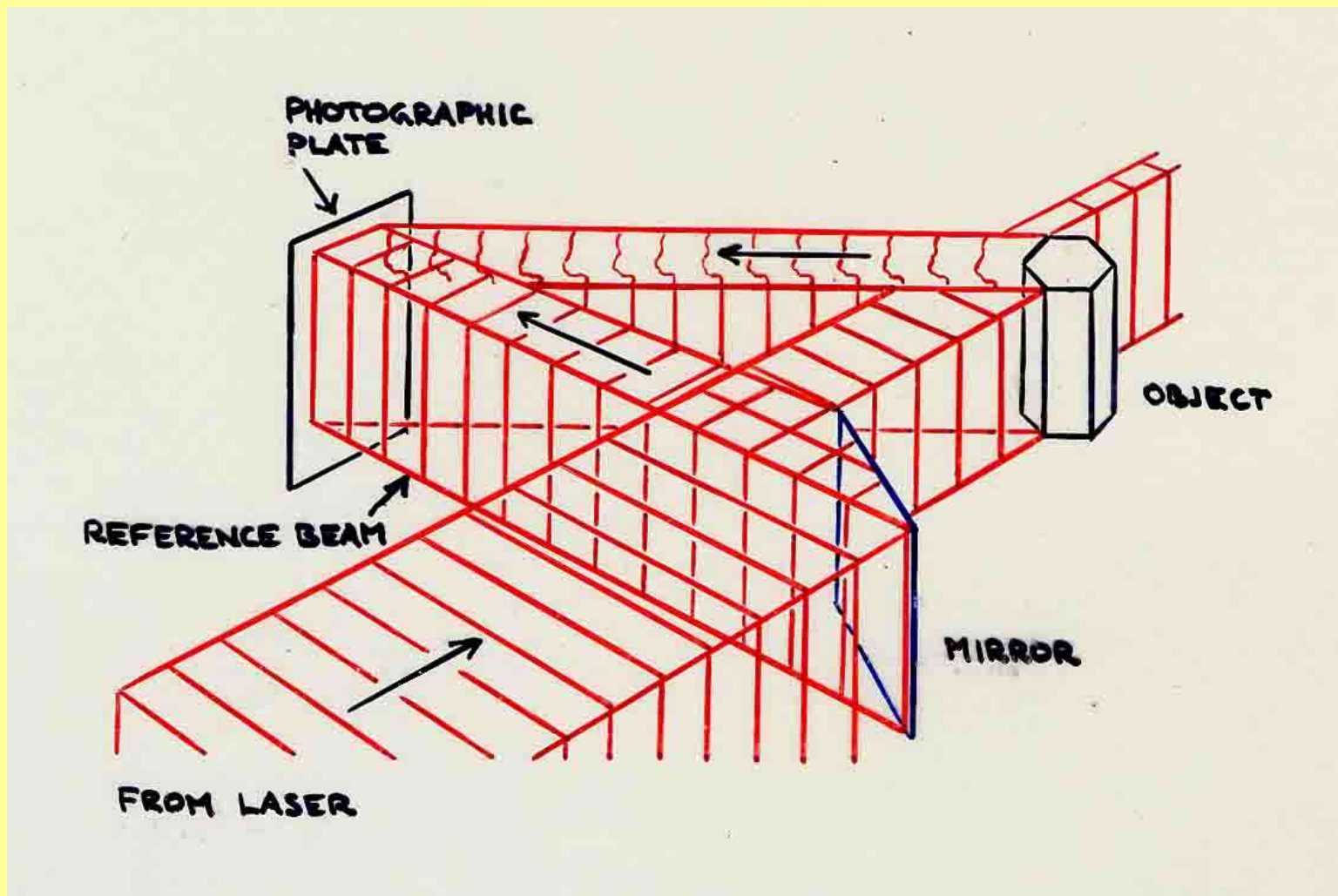
Naeve, A., et al. (2007), *A SECI-based Framework for Professional Learning Processes*, PROLEARN Deliverable D1.10, July 2007, <http://tinyurl.com/38grfjq>

# The interference pattern of two circular waves

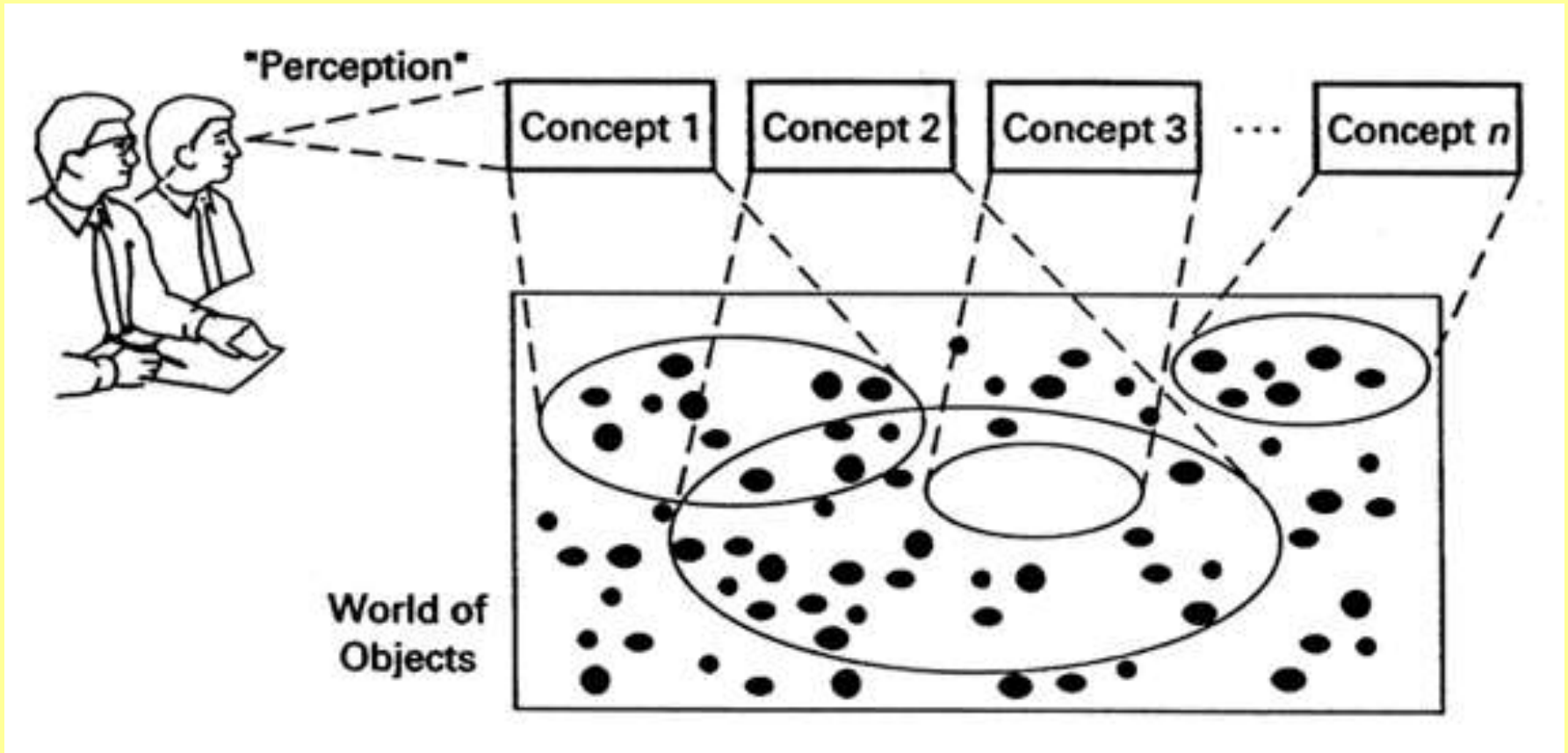




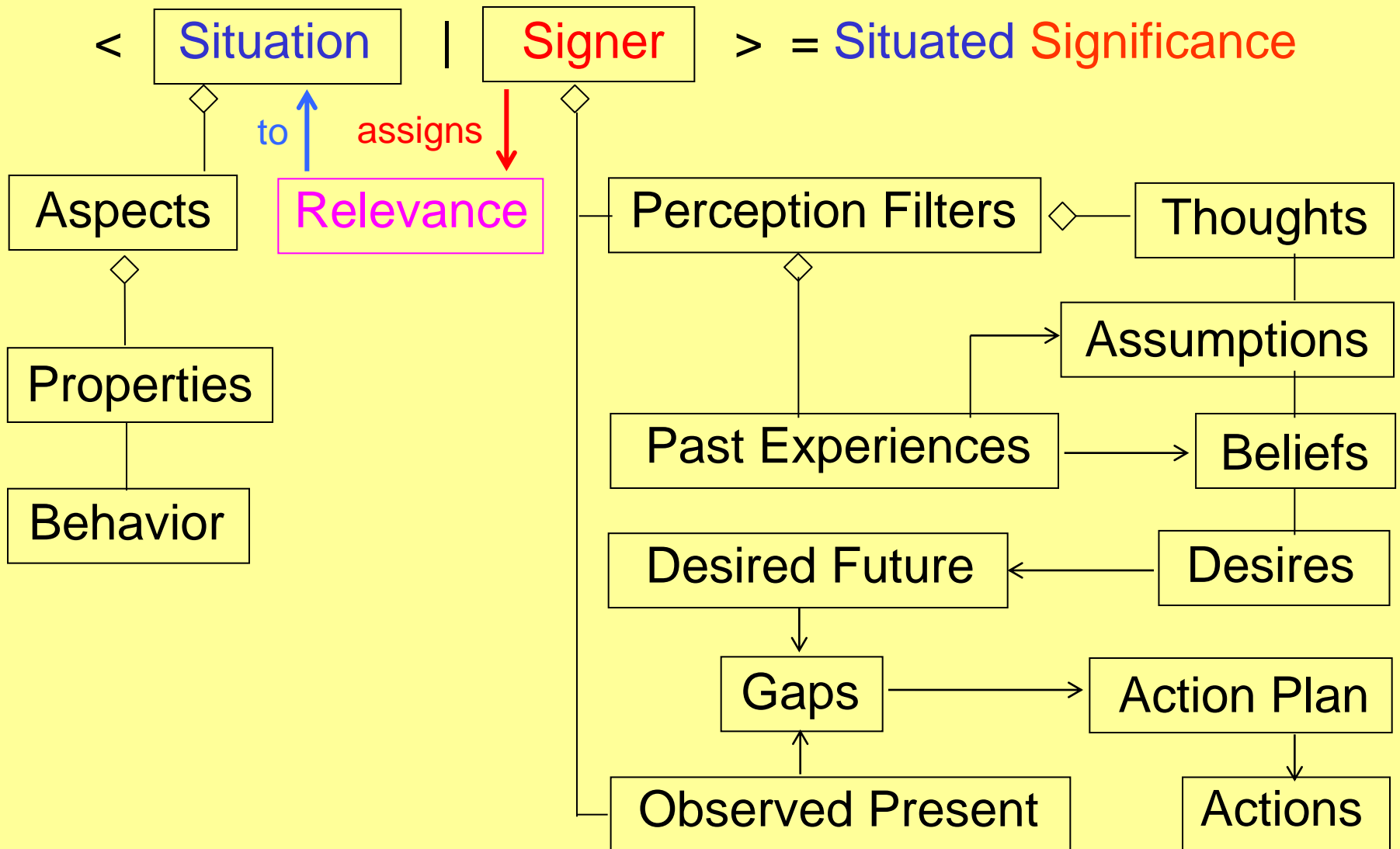
# The basic holographic setup



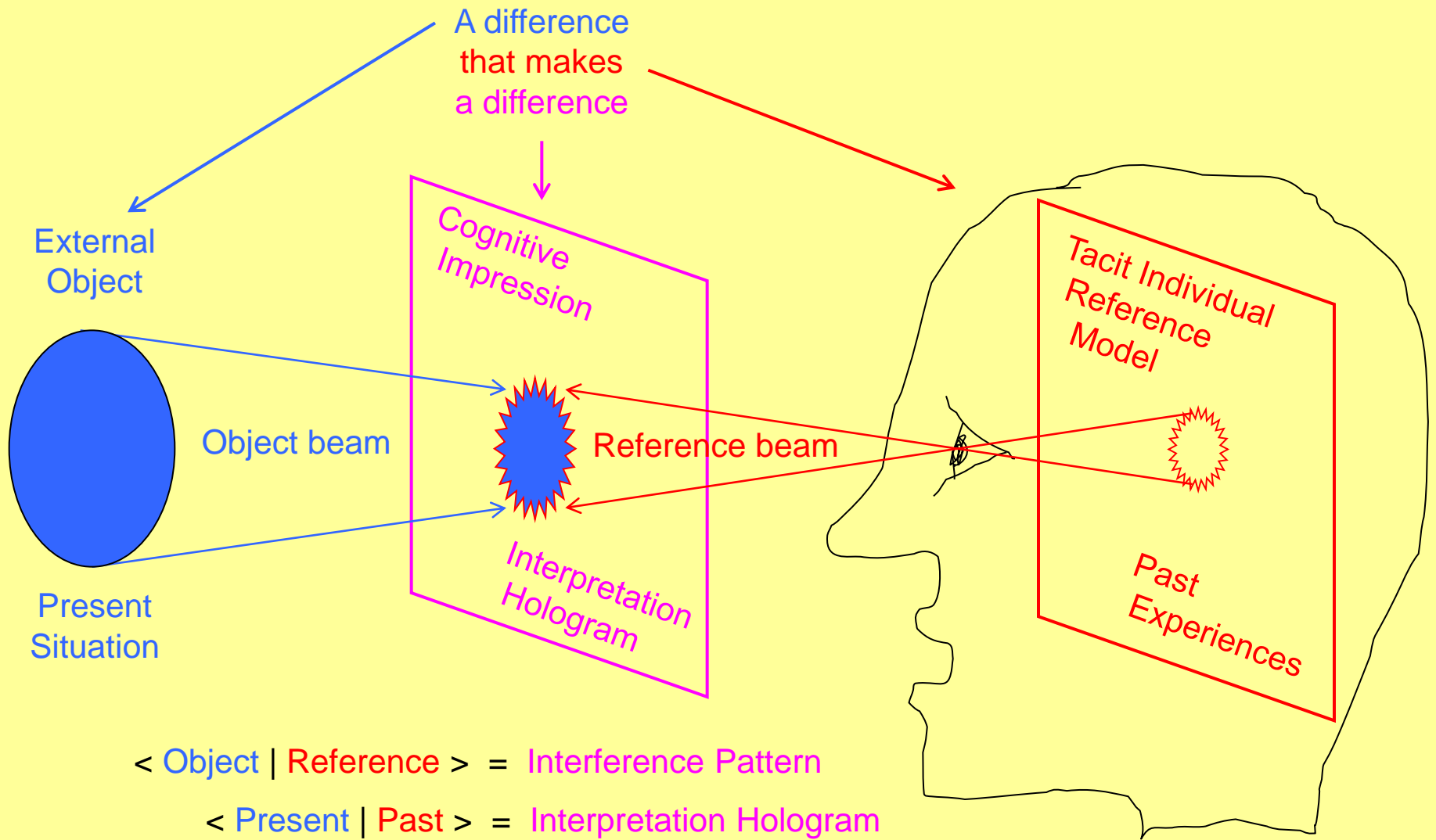
# Perceiving objects through concepts



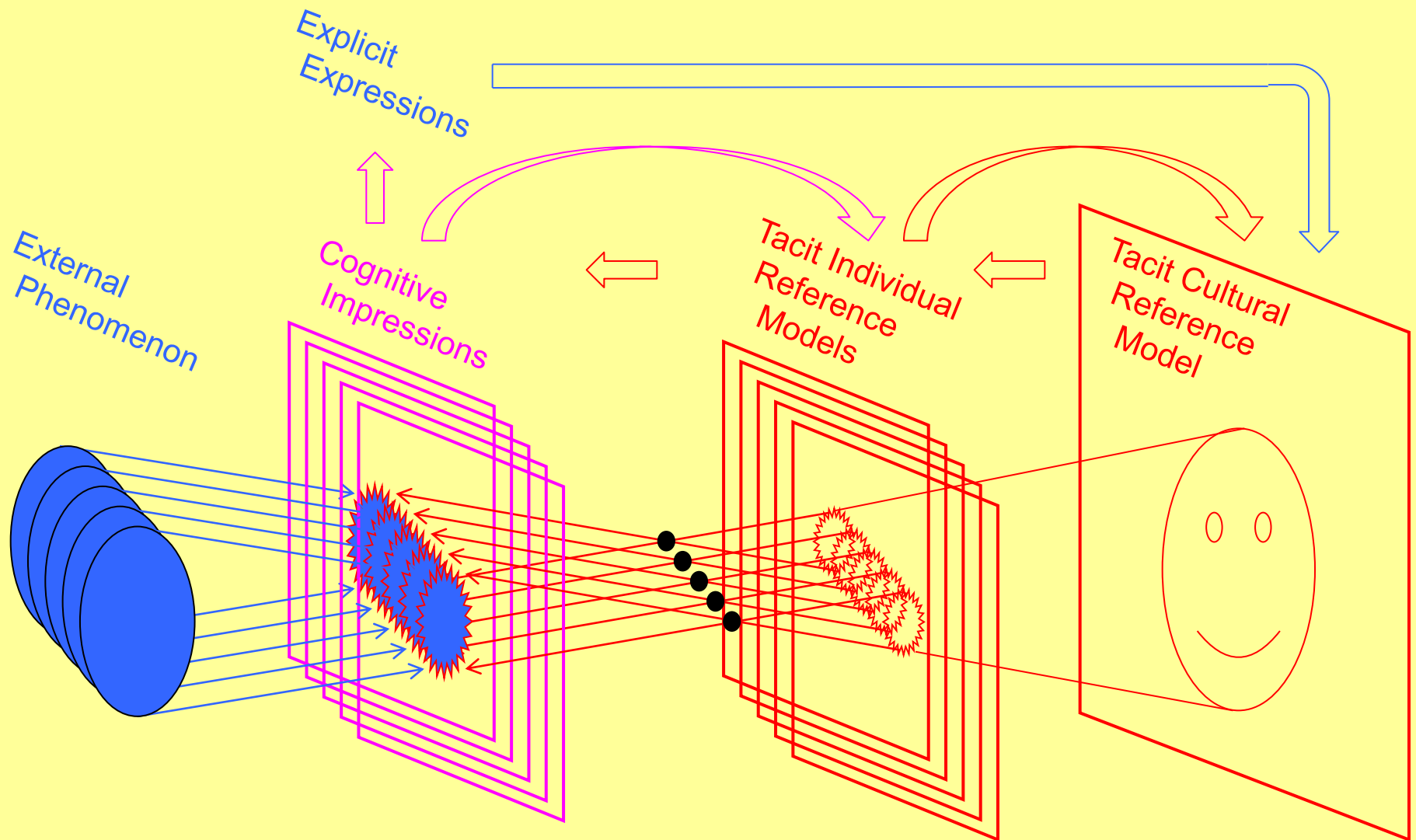
# Assigning Situated Significance to Aspects



# Interpreting an Object through a Model

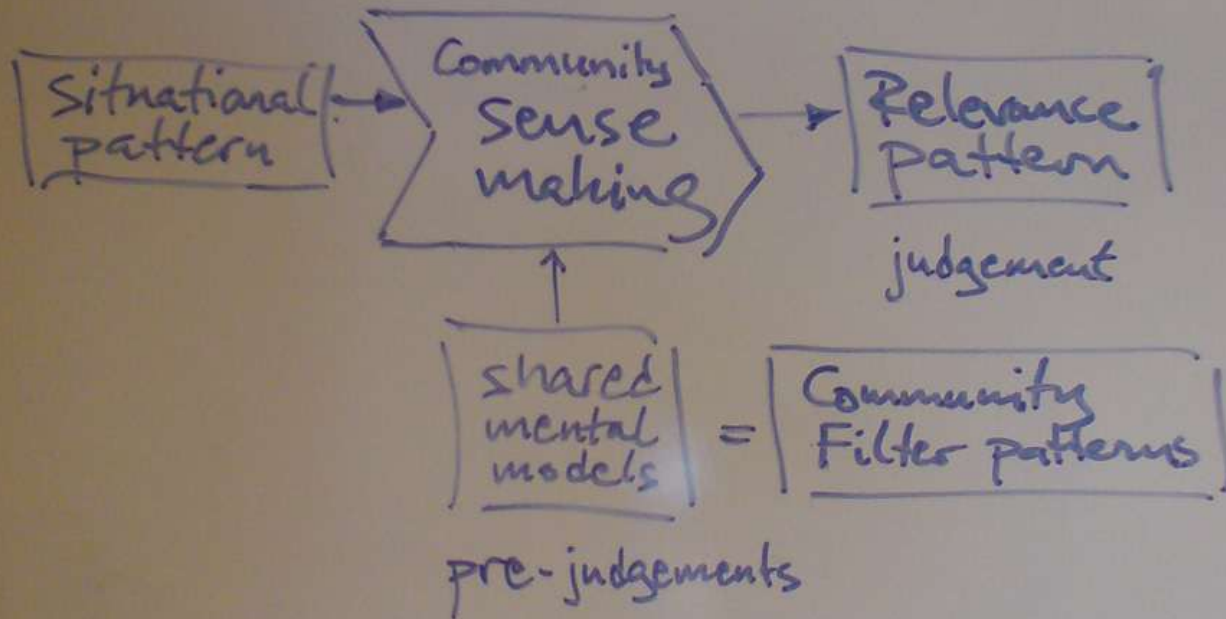


# Evolving a Cultural Reference Model

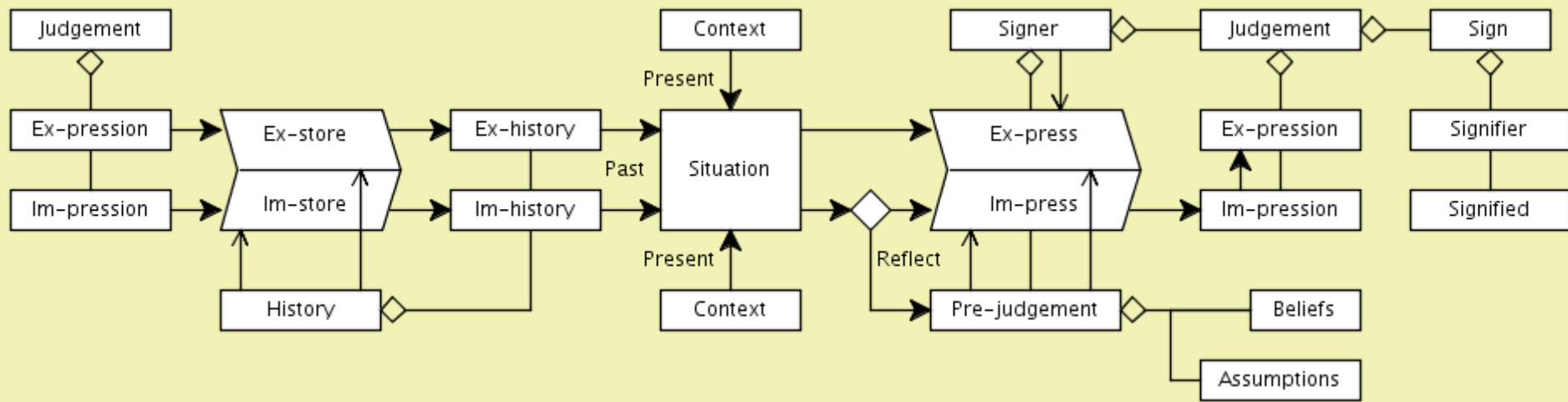


Hologram = Interference pattern

< Situation | Filter > = Relevance



# Storing Im- and Ex-pressed Situations



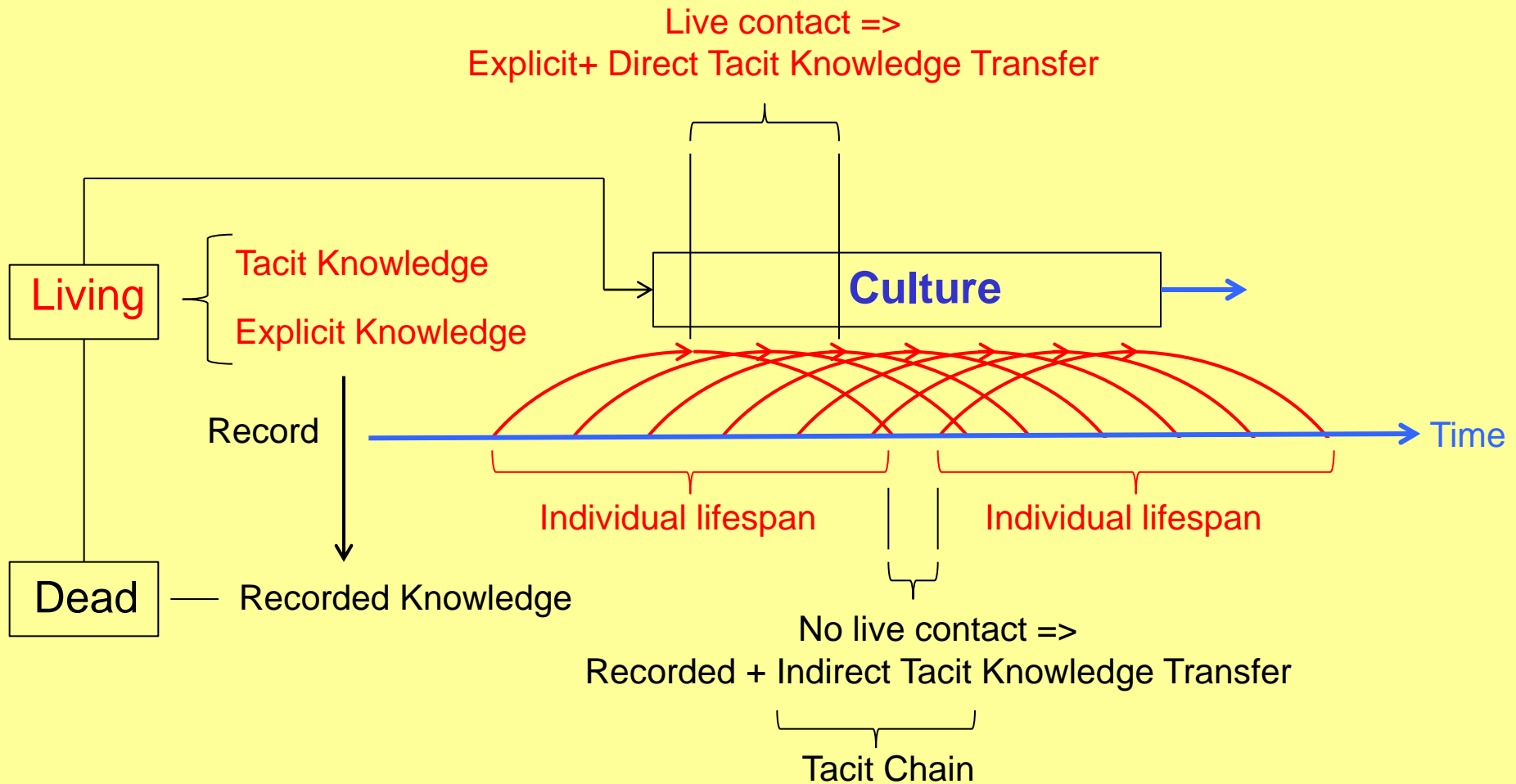
FLOW = NOW = STORY

STORE = THEN = HISTORY =  $\int$  STORY

< Situation | Pre-judgement > = Judgement = Im-pression

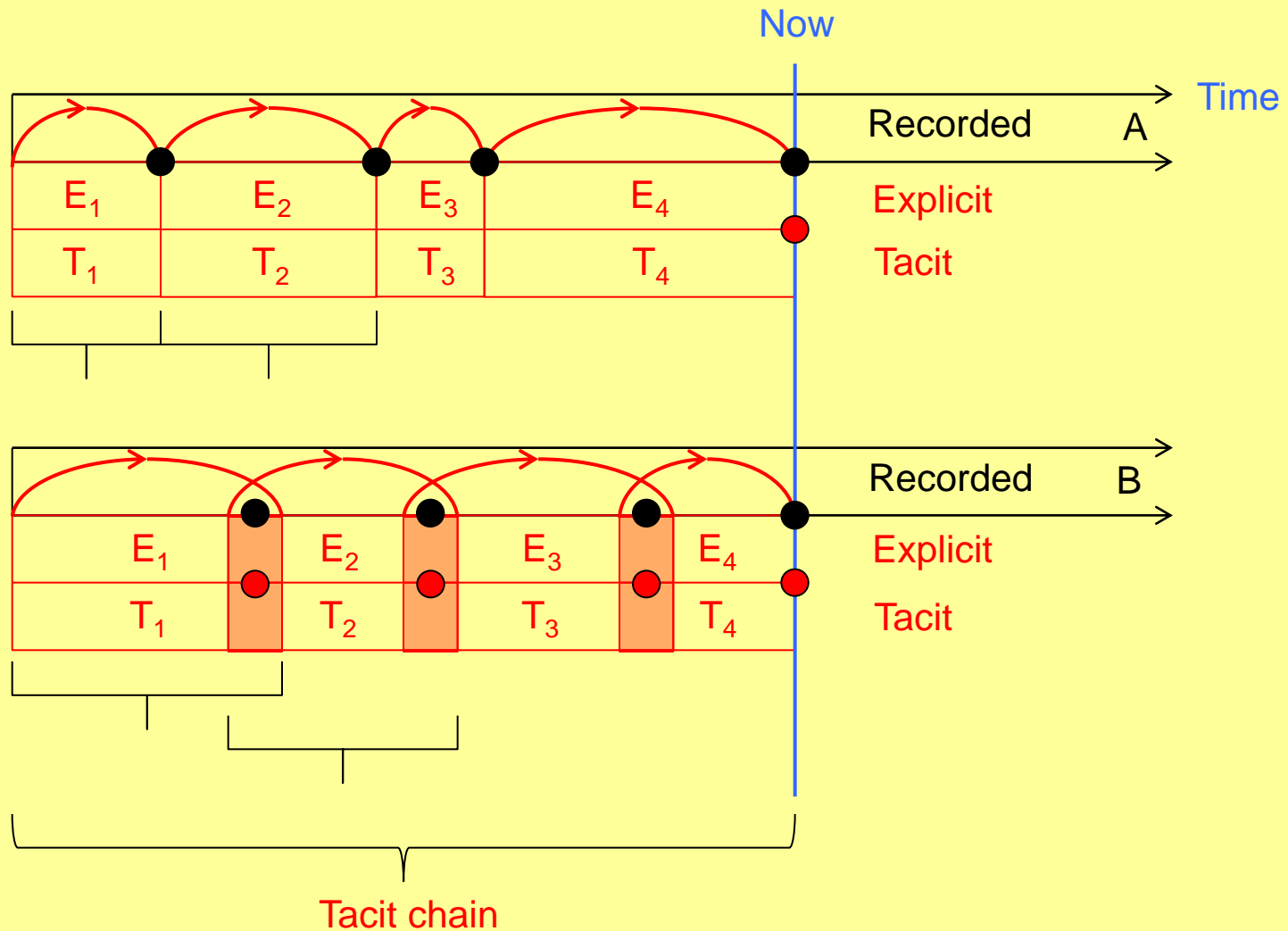
< Im-pression | Externalize > = Ex-pression

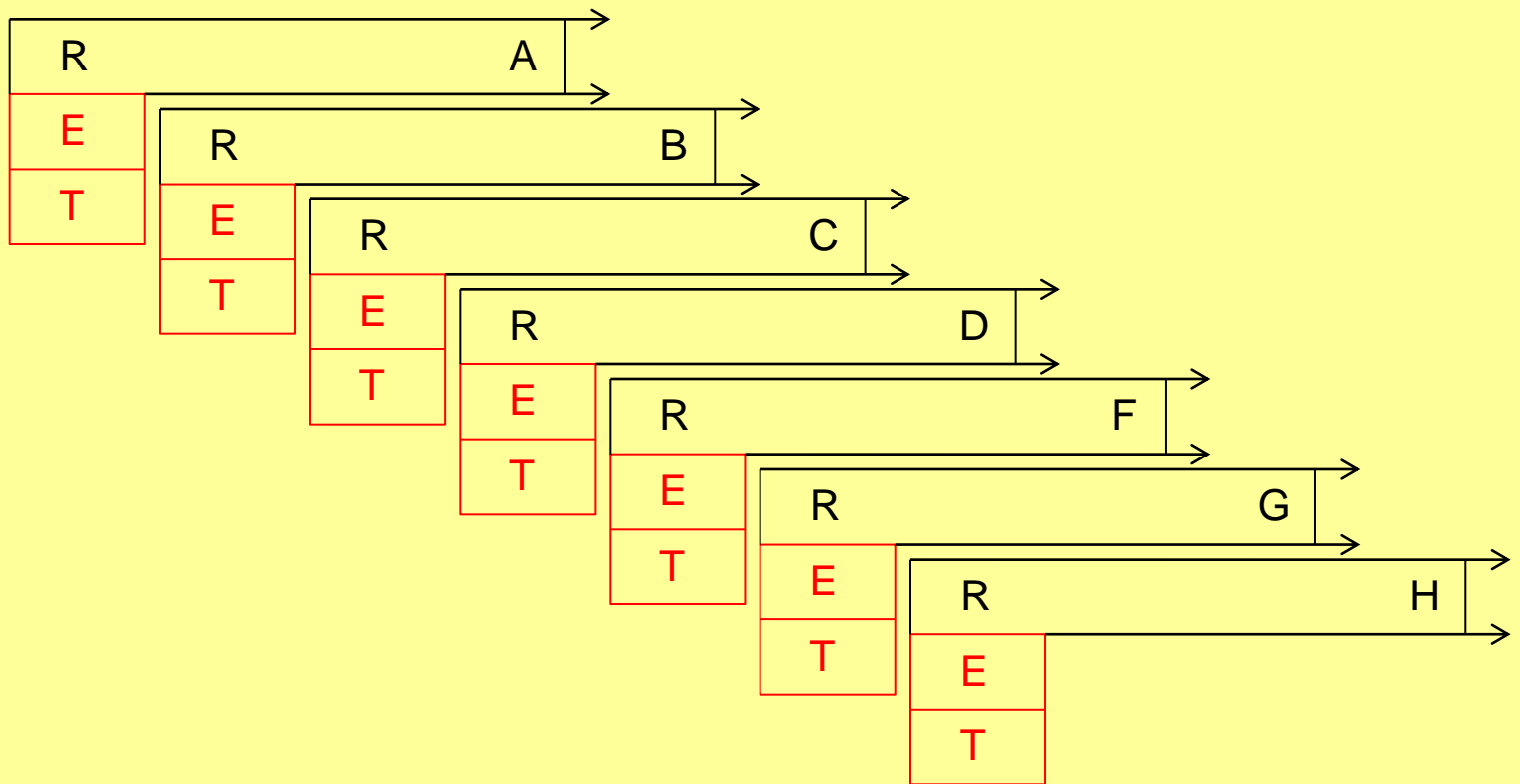
# Cultural translation by the living and the dead

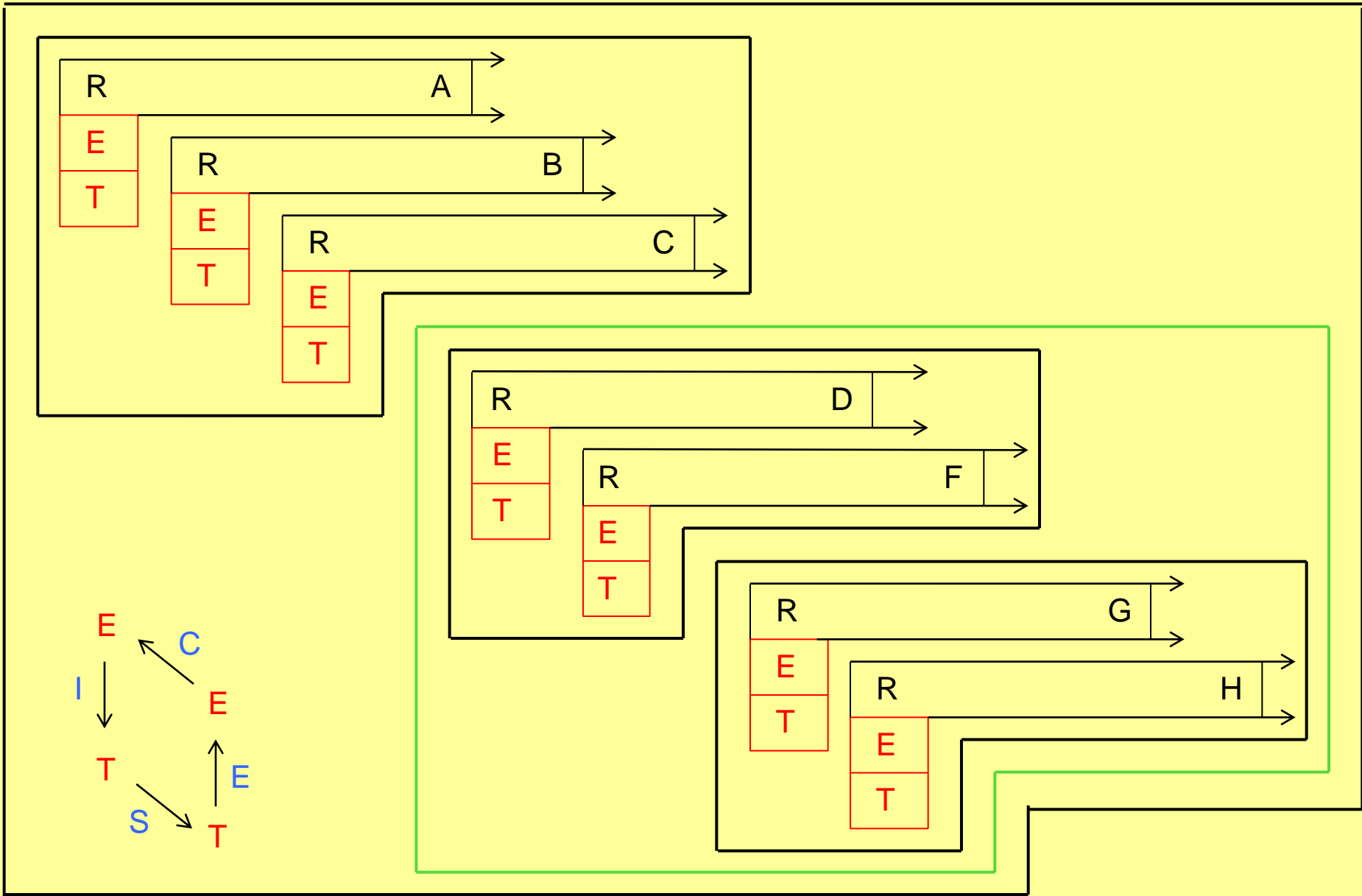


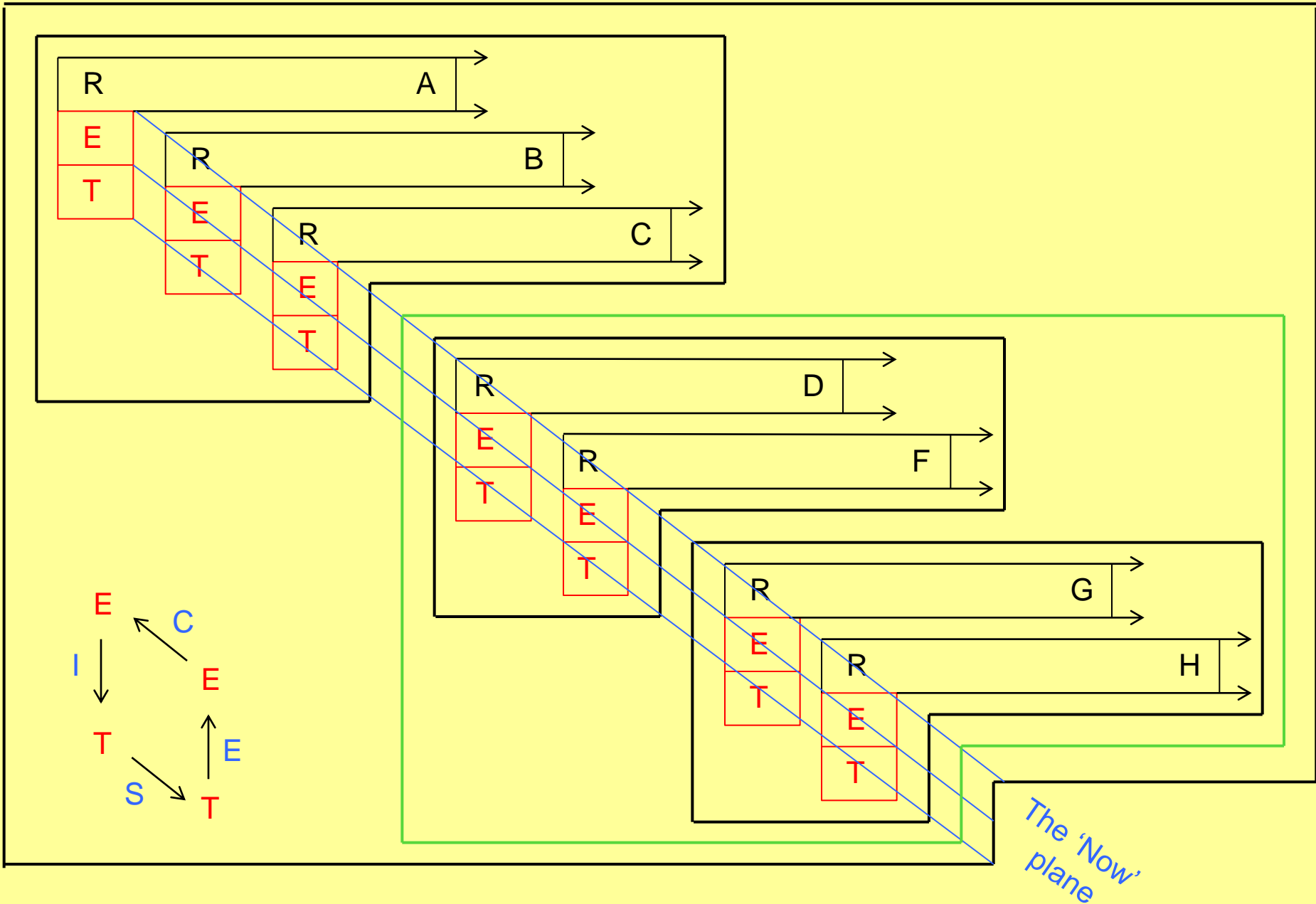


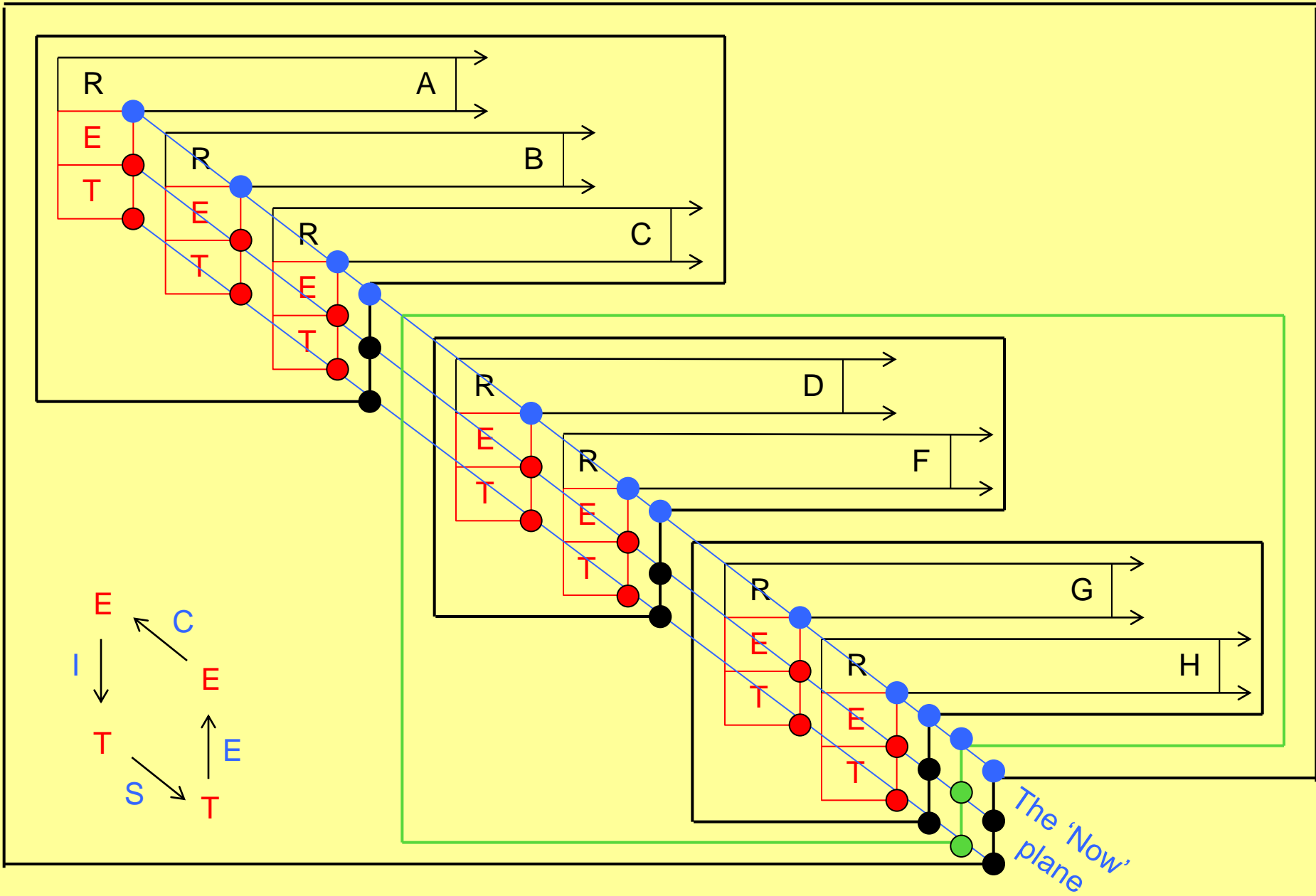
# Recorded and Tacit Knowledge Transfer



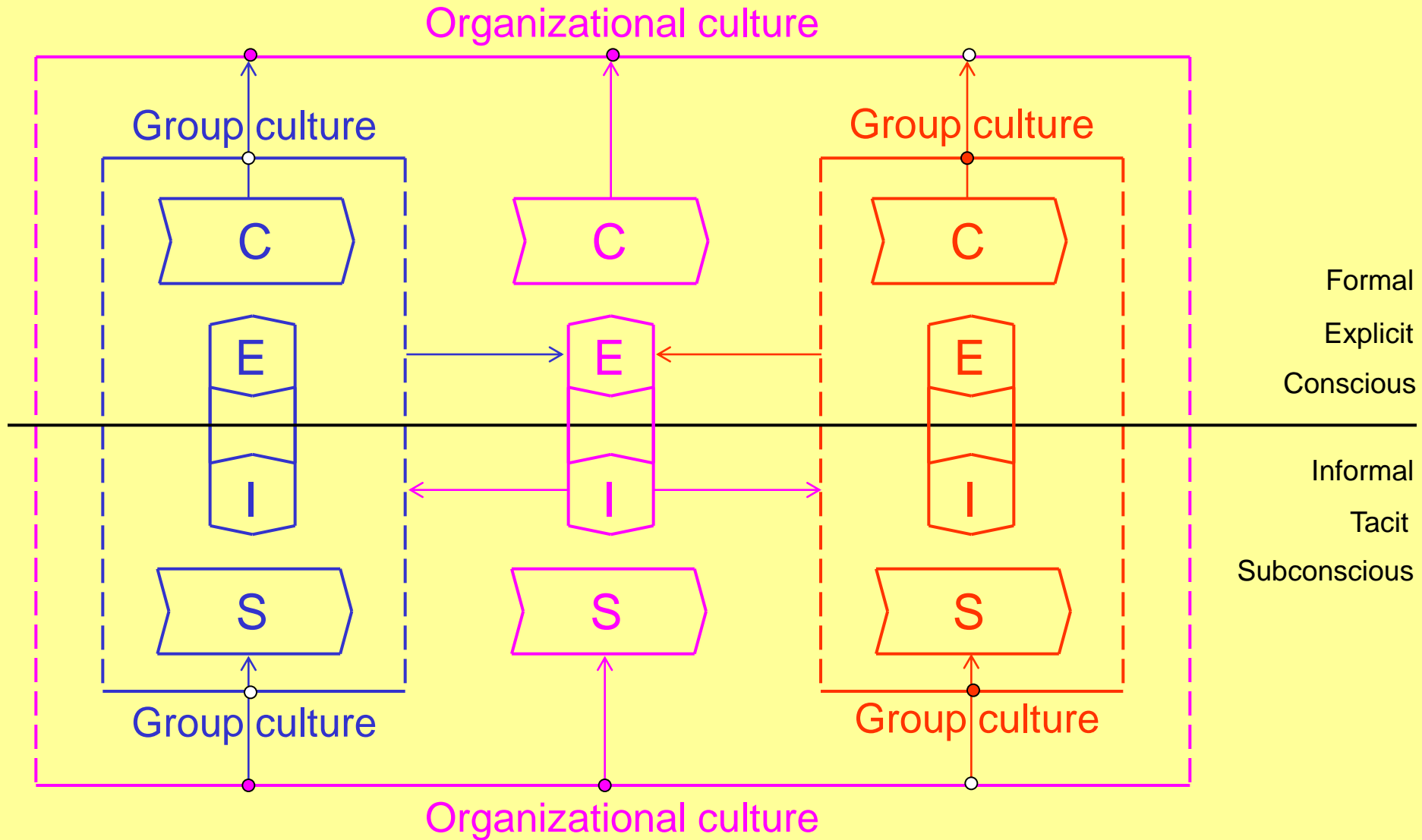




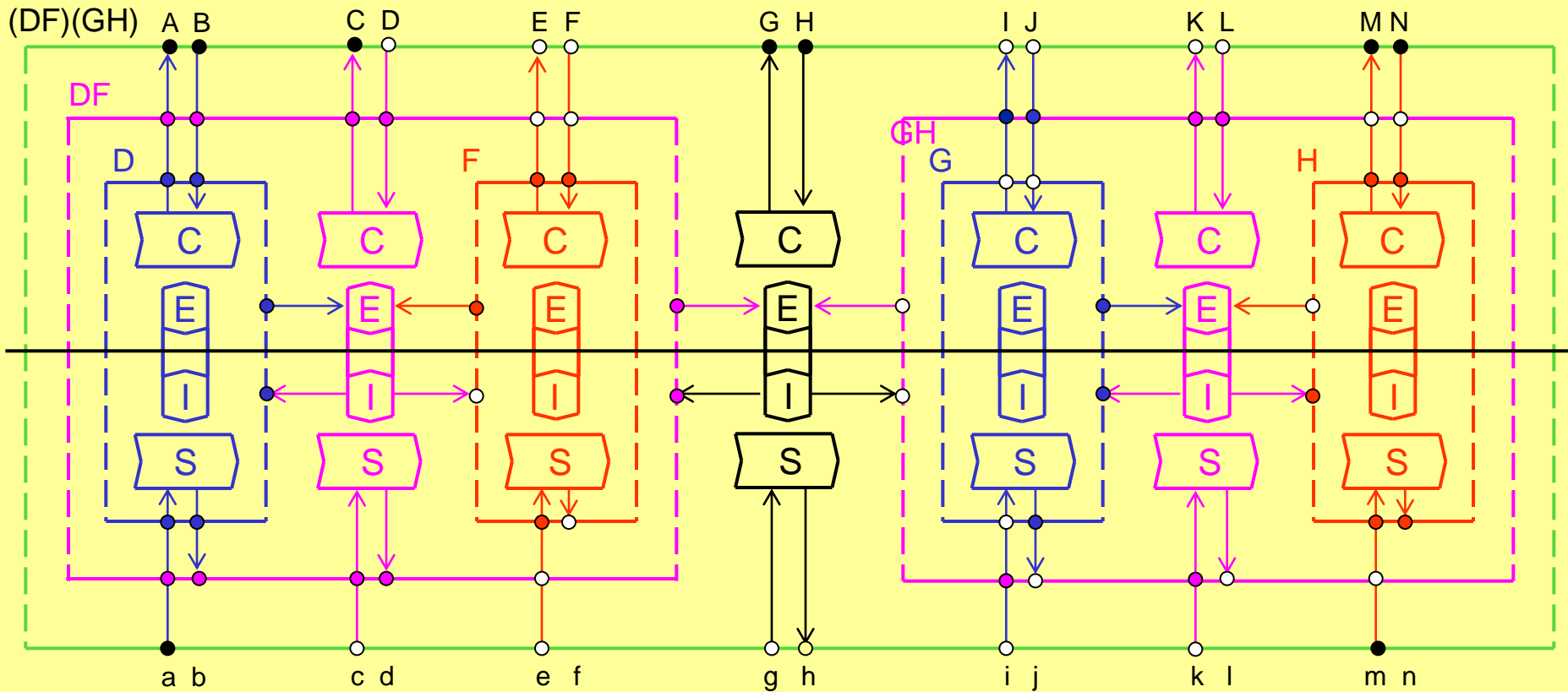




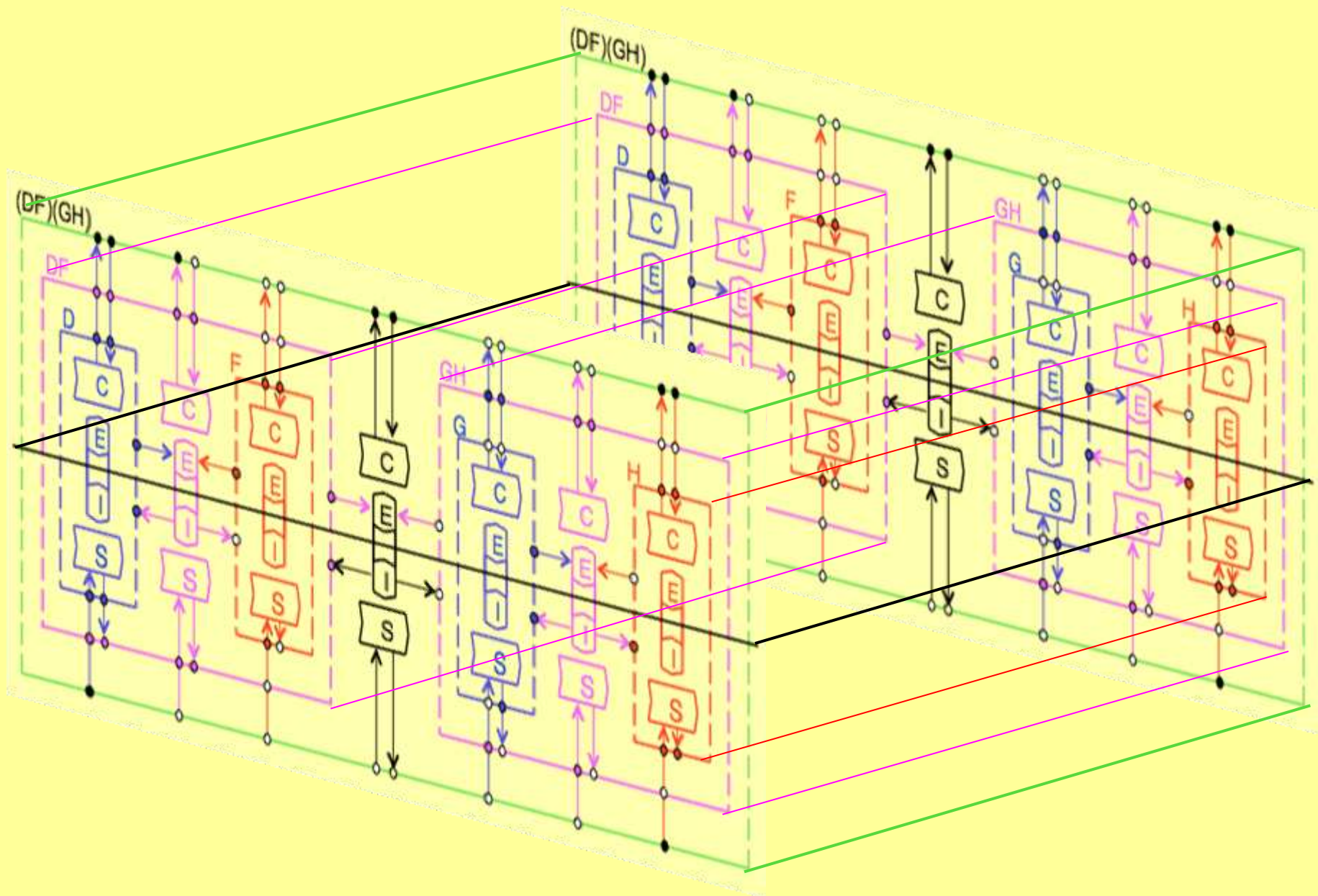
# Recursive SECI-based Communication



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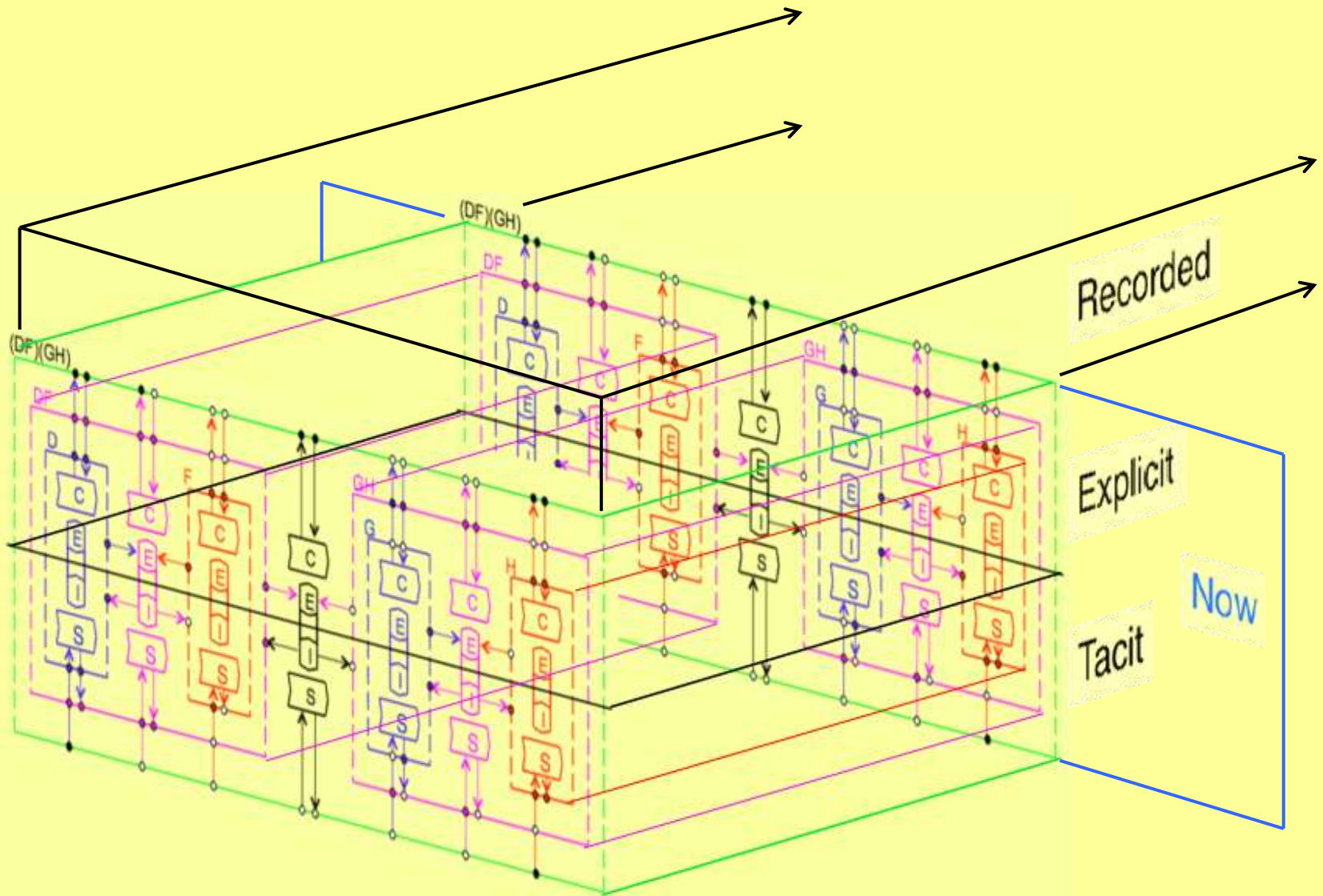


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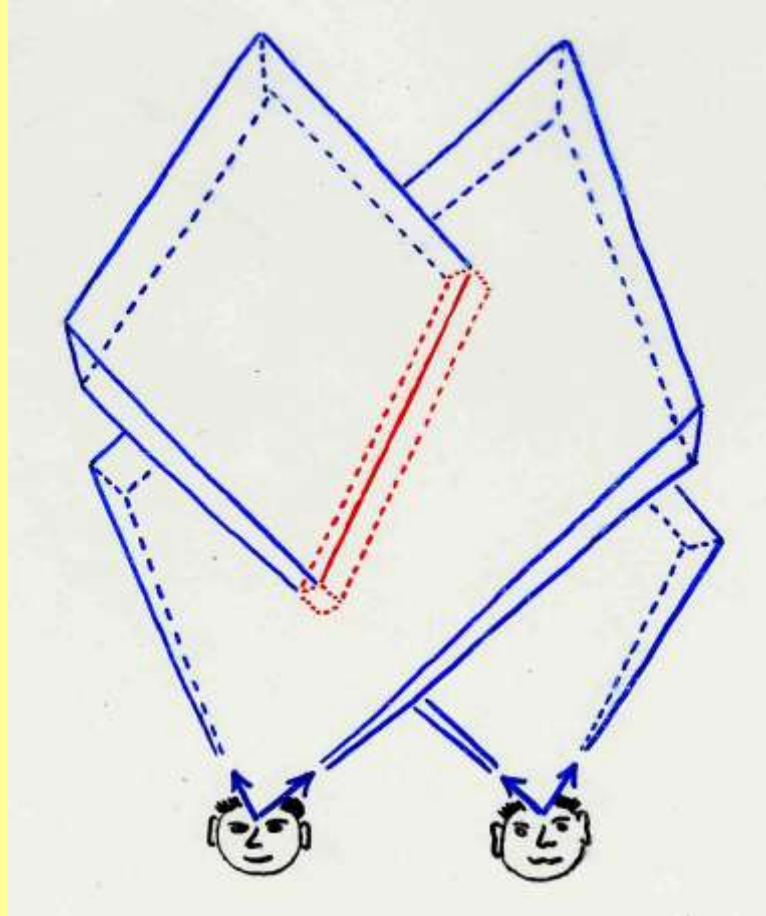




# Cultural interactions over time

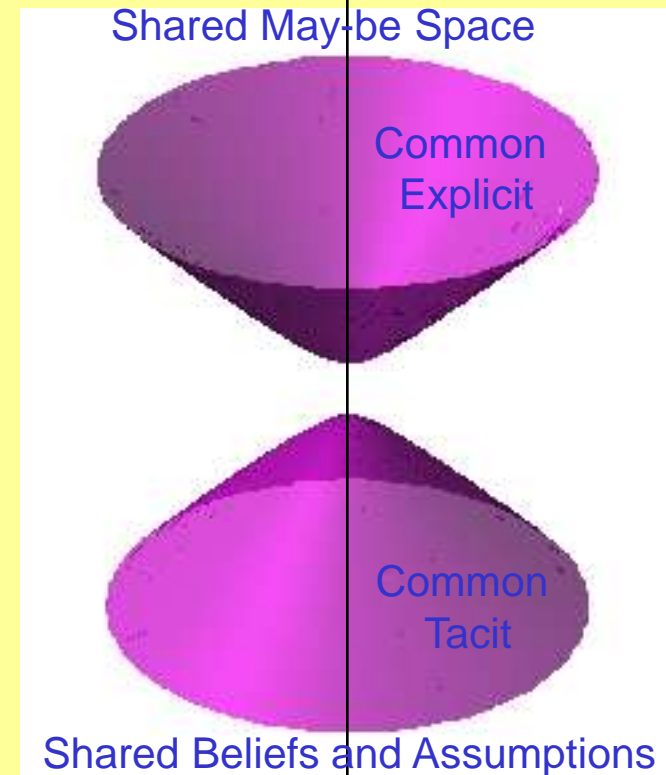
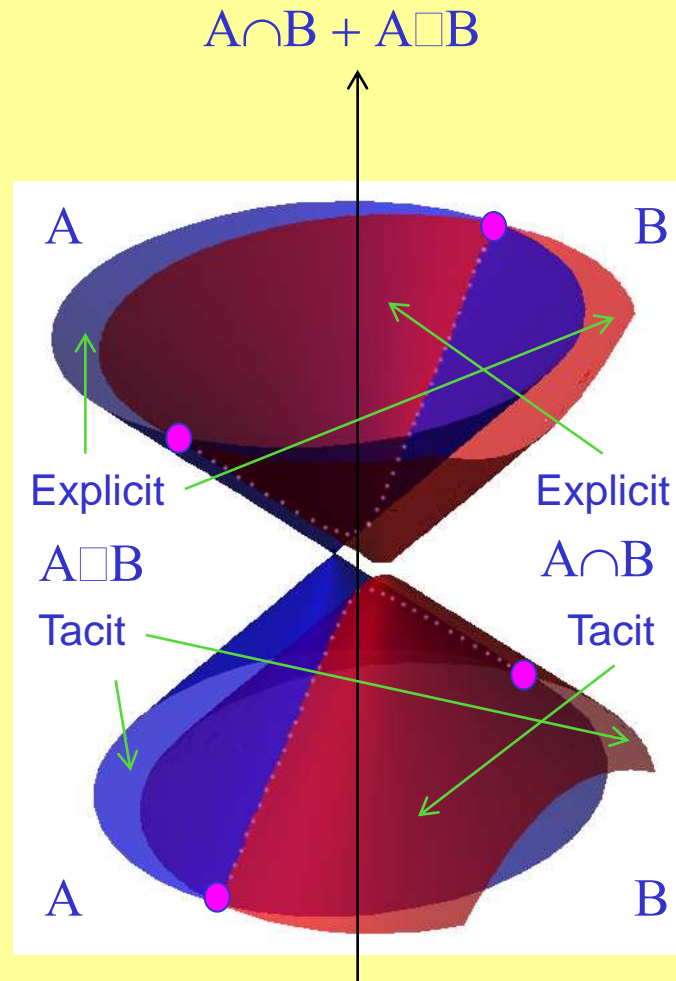
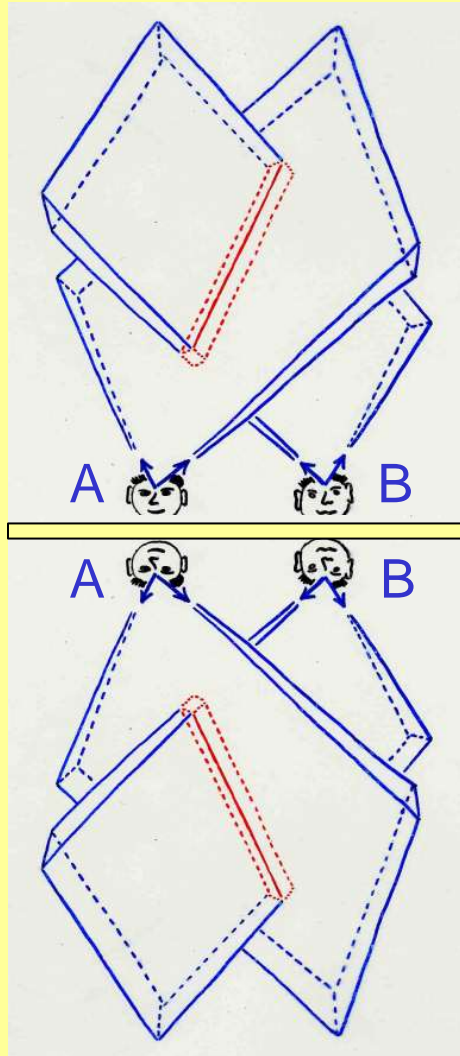


# Spaces of communication and aloneness

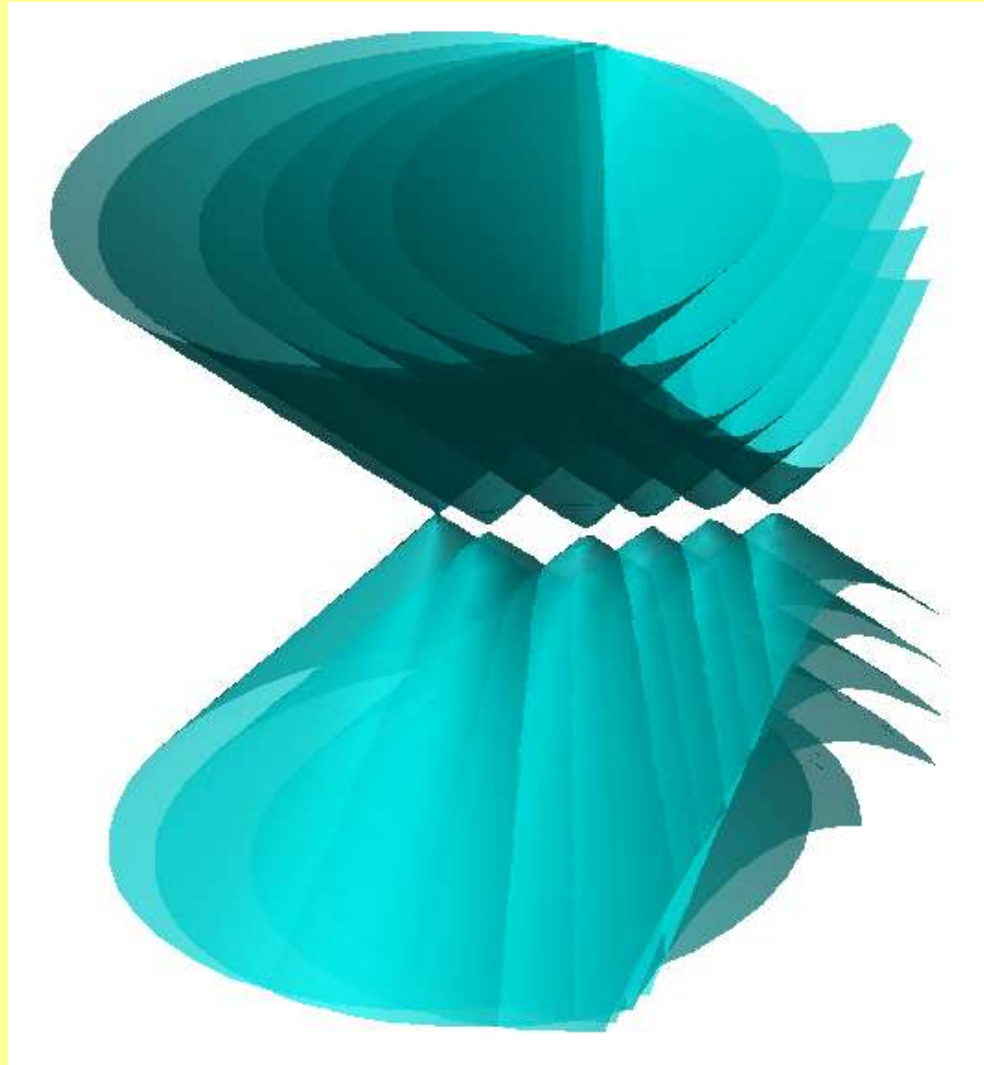


Ambjörn Naeve, San Francisco, 1976

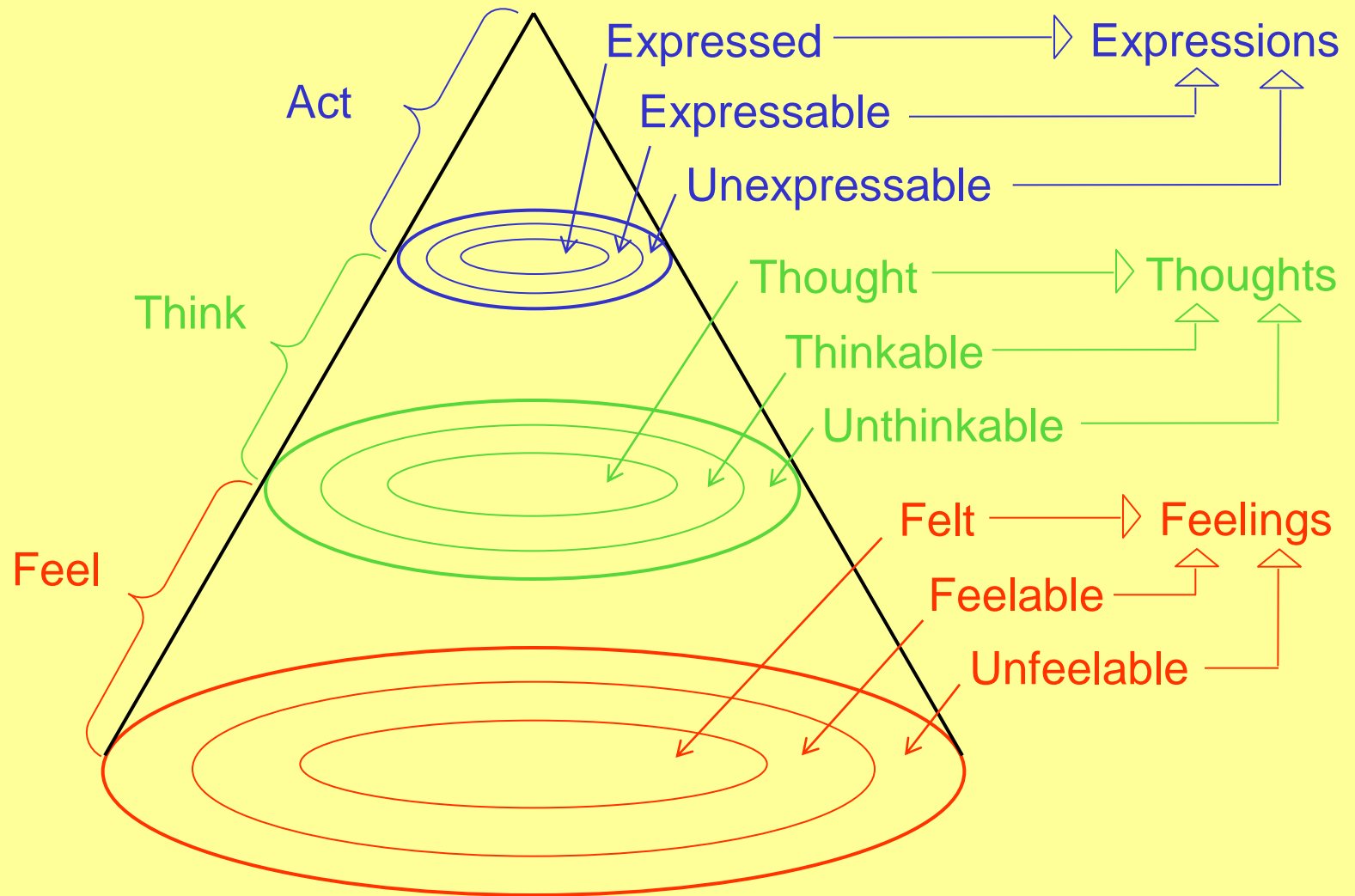
# Explicit/Tacit connection between A and B



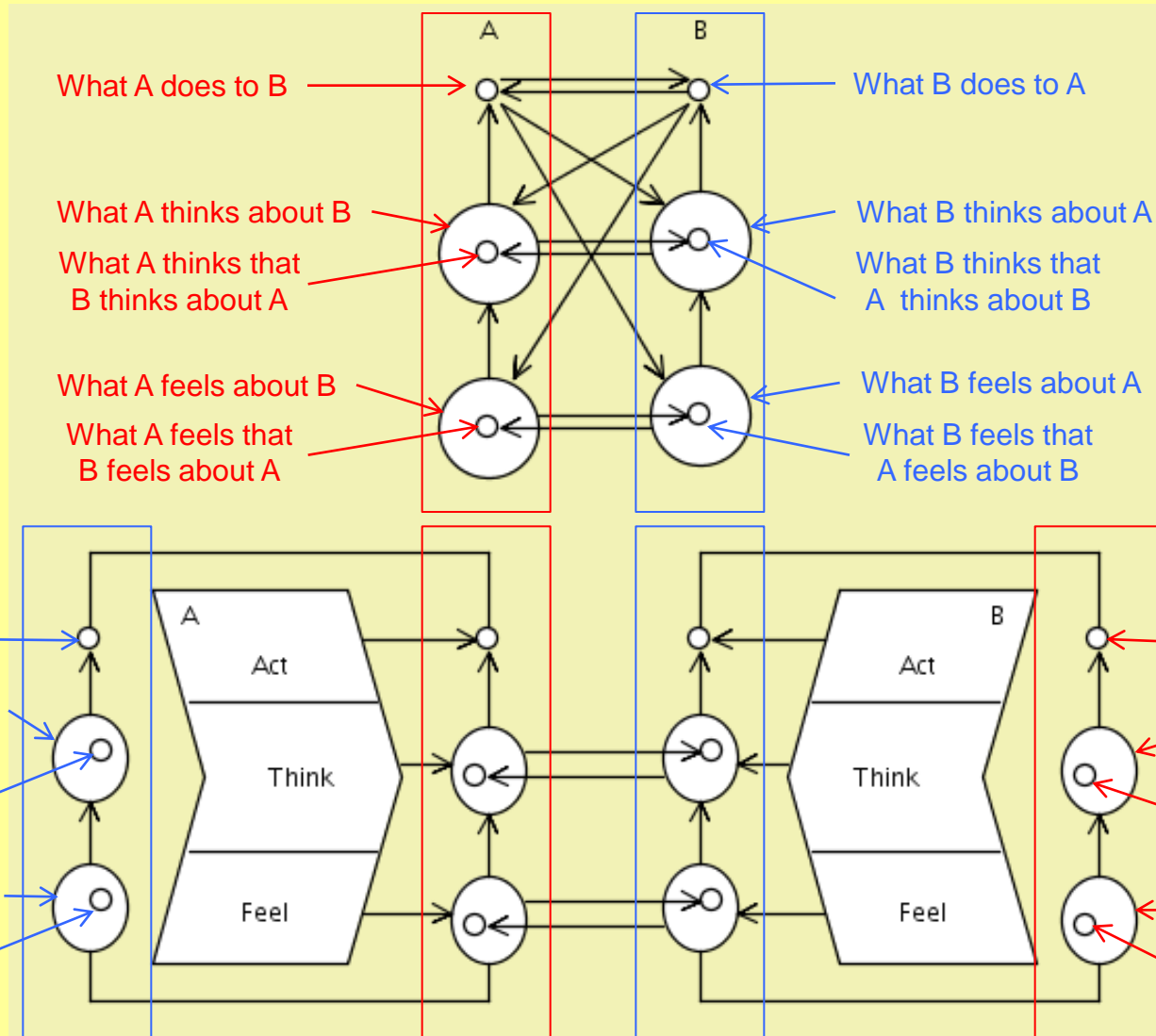
# Tacit connectivity path



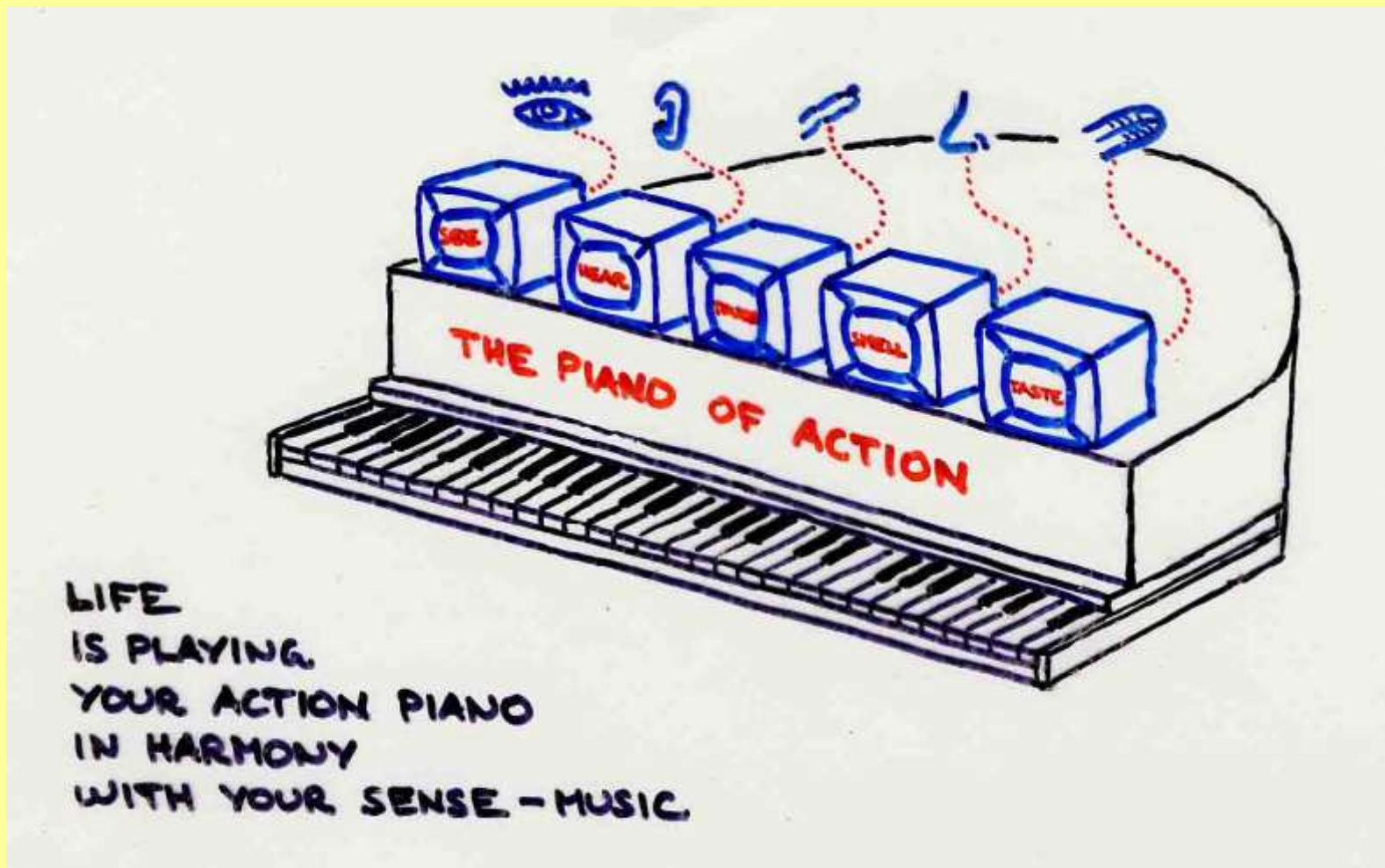
# The Human Atoll



# Communication model for Human Atolls



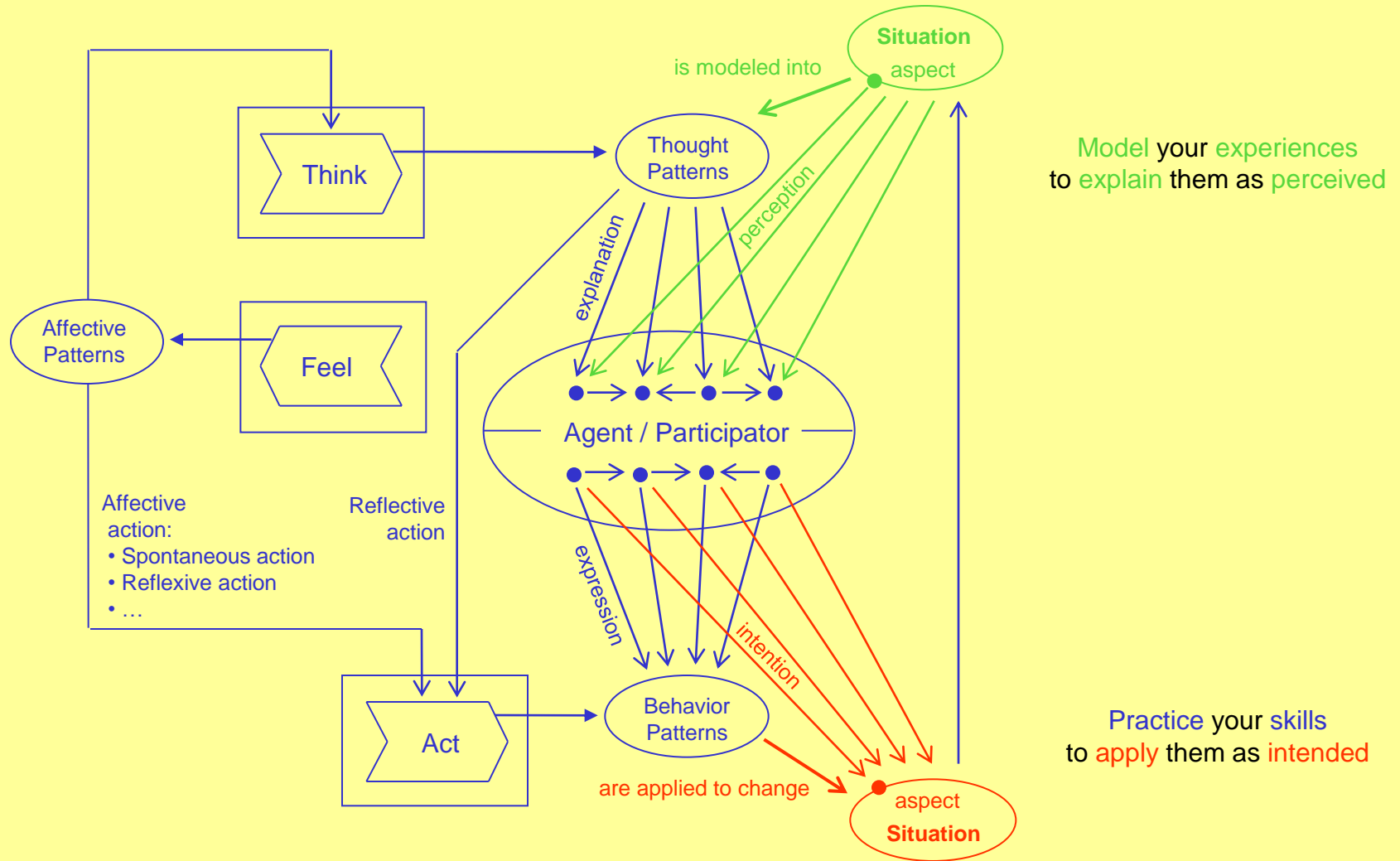
# The feedback loop of life



Ambjörn Naeve, San Francisco, 1976

# The action reflection loop

explain as perceived - apply as intended





# # means good enough

## Ideas and Skills

