

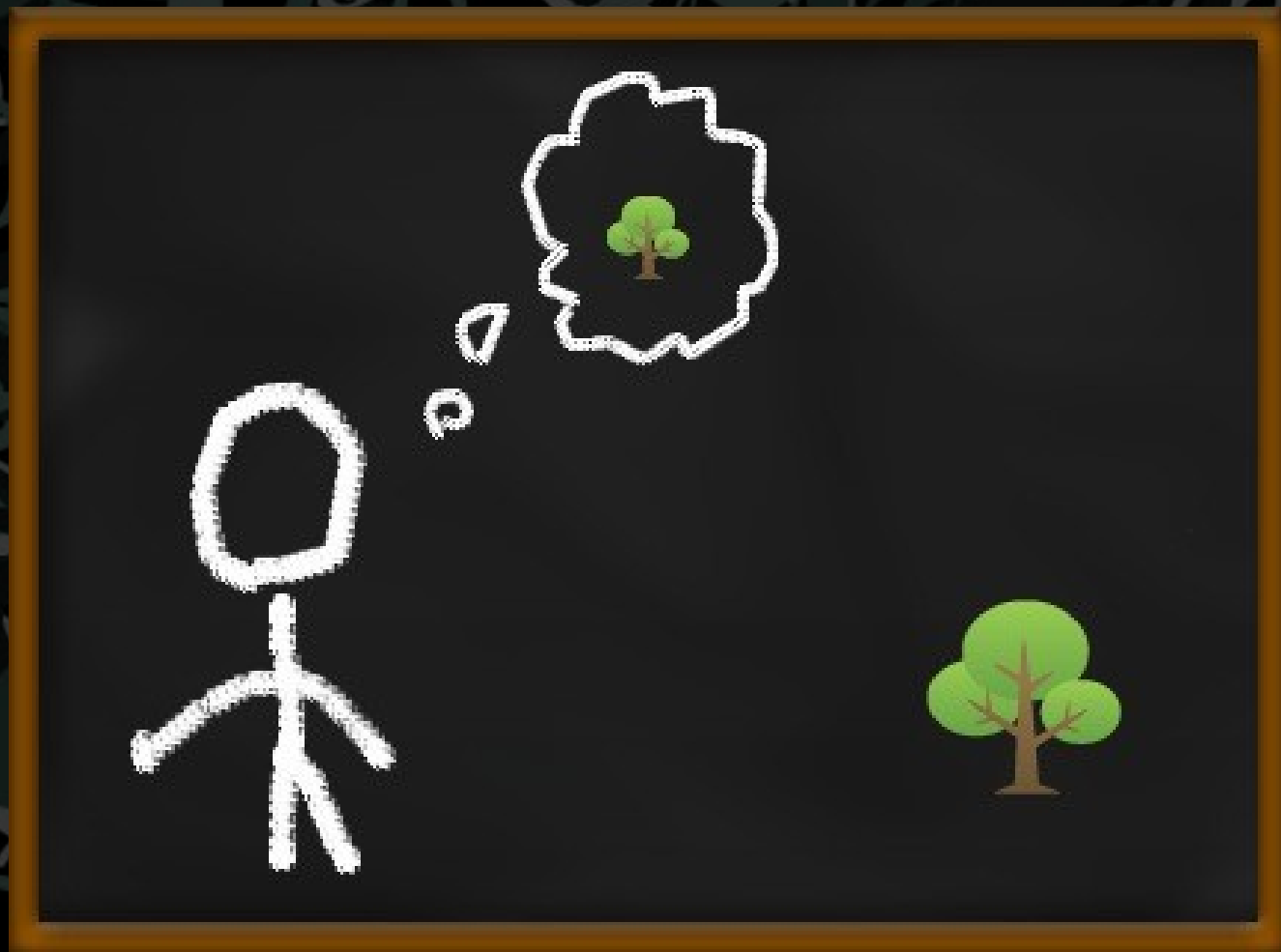


Channels, Minds and Other Remnants of Situation Semantics

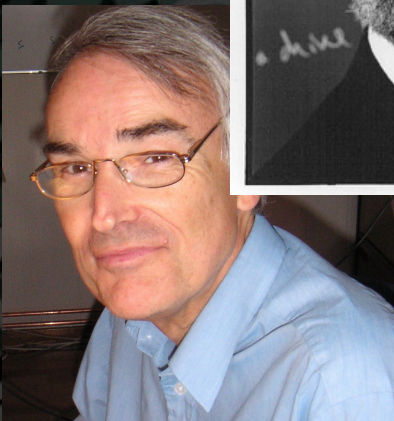
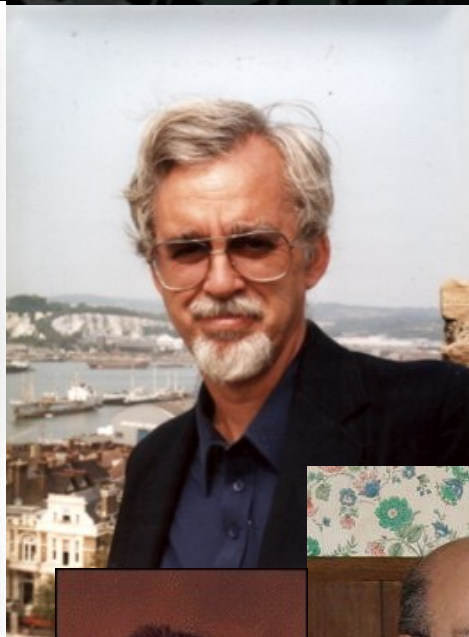
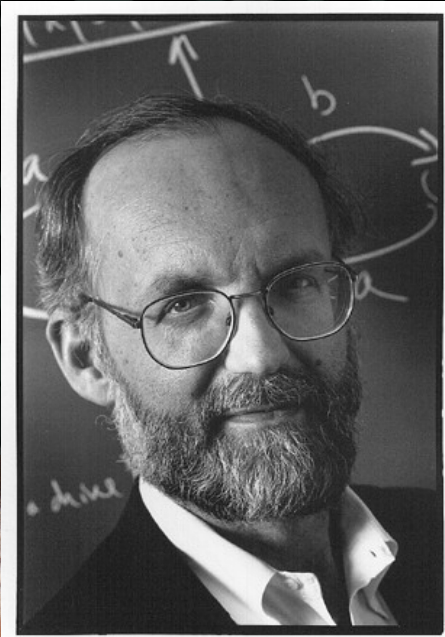
Jeremy Seligman



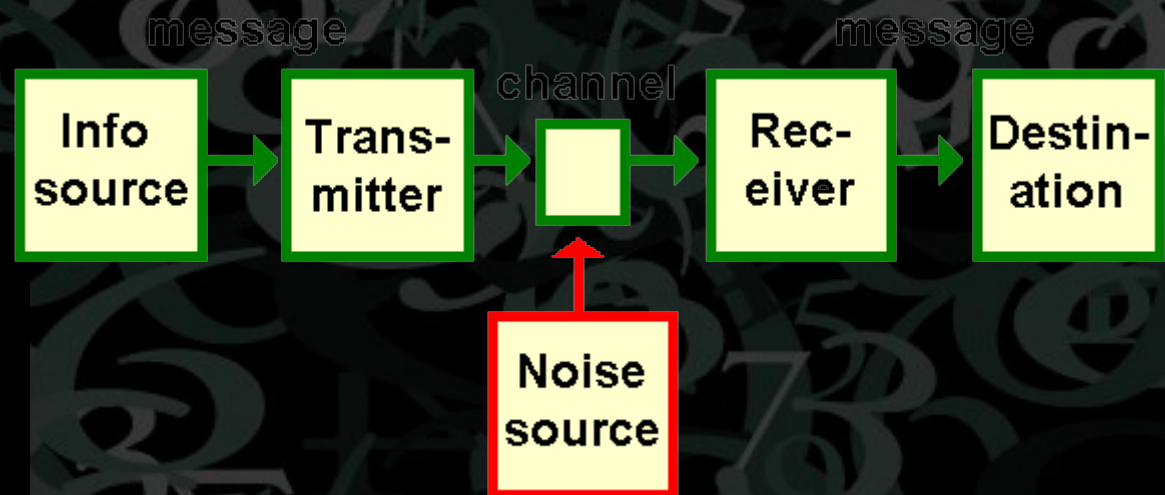
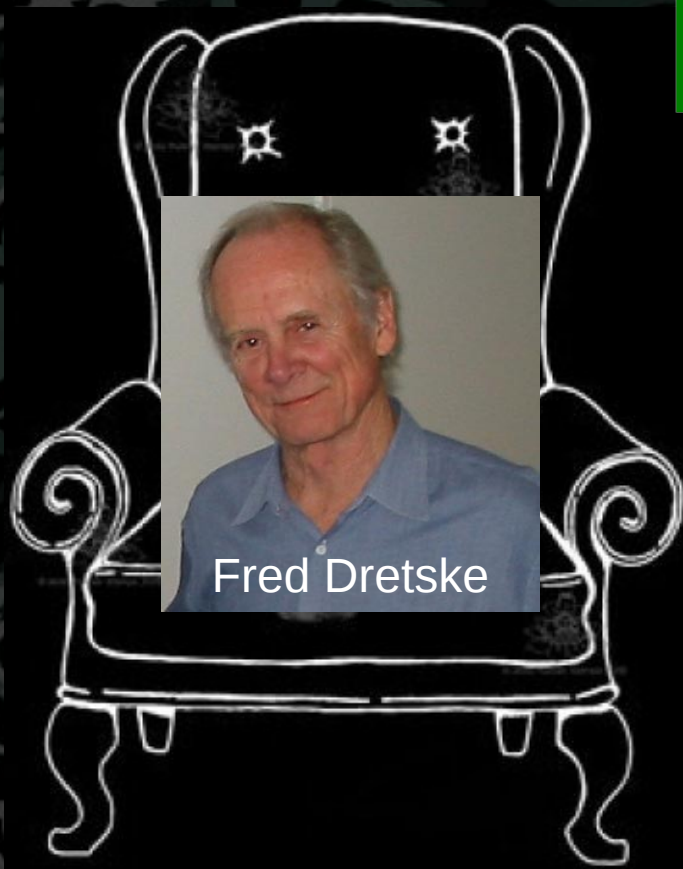
Intentionality



Situation Theory



Knowledge and the flow of information



$$I(X; Y) = \mathbb{E}_{X,Y}[SI(x, y)] = \sum_{x,y} p(x, y) \log \frac{p(x, y)}{p(x)p(y)}$$

Information conditions not truth conditions



"CONSTRAINTS"

Intentionality supervenes on information



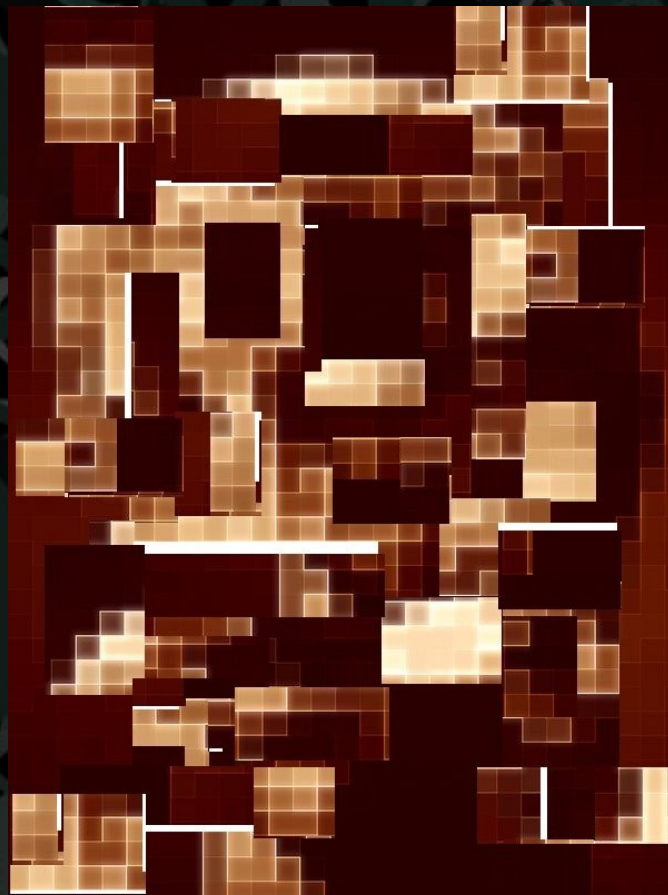
The diagram consists of three horizontal, light blue, arrow-shaped bars pointing to the right, stacked vertically. Each bar contains a label. The top bar is labeled 'Intentional', the middle bar is labeled 'Informational', and the bottom bar is labeled 'Physical'. The bars are set against a dark background with a complex, swirling pattern of light green and white numbers and symbols.

Intentional

Informational

Physical

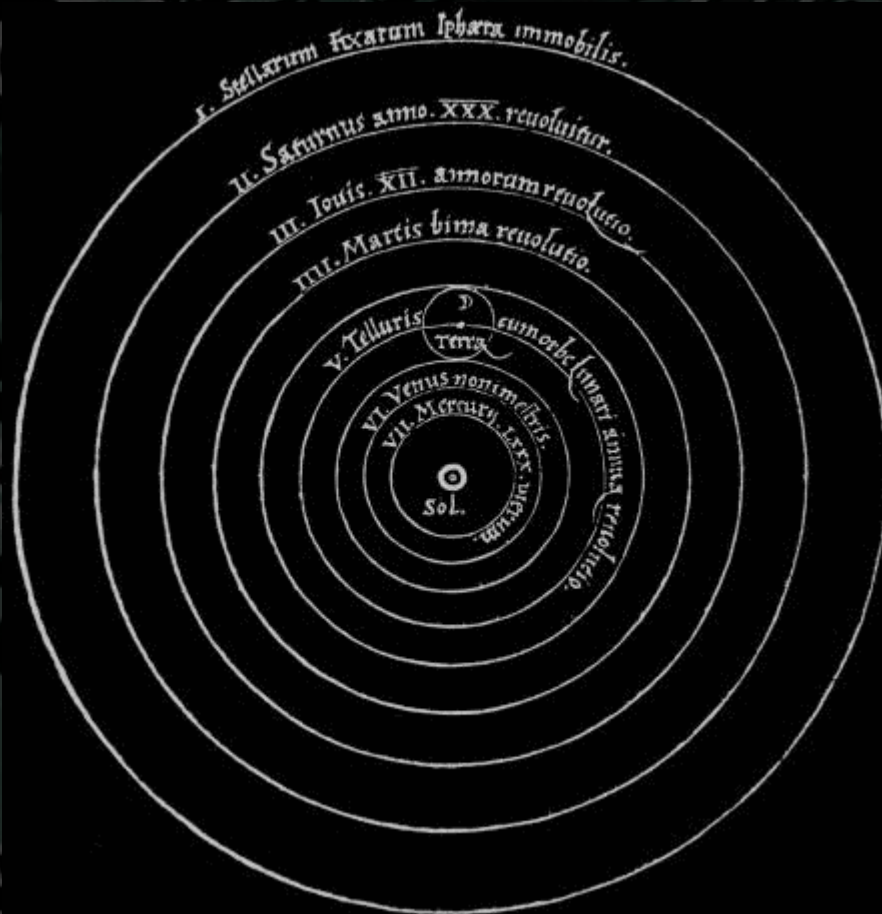
No information without
classification



No information without
classification

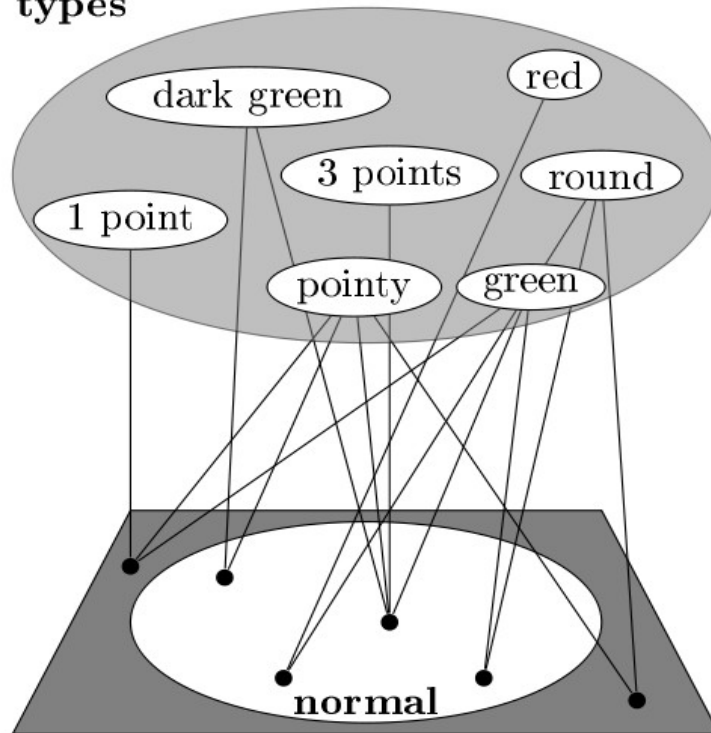


Structured Experience



Structured Experience

types



1 point \vdash pointy
3 points \vdash pointy
pointy, round \vdash
red, green \vdash
red, dark green \vdash

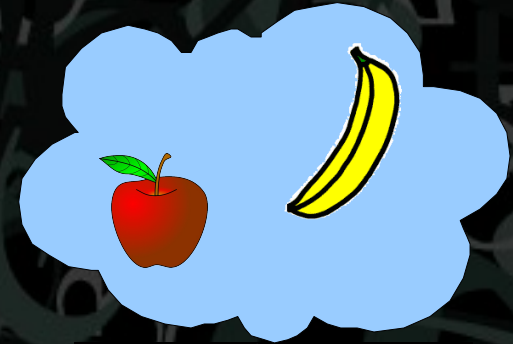
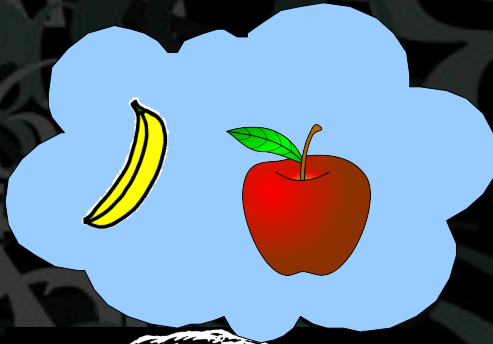
tokens

a.k.a. Local logic

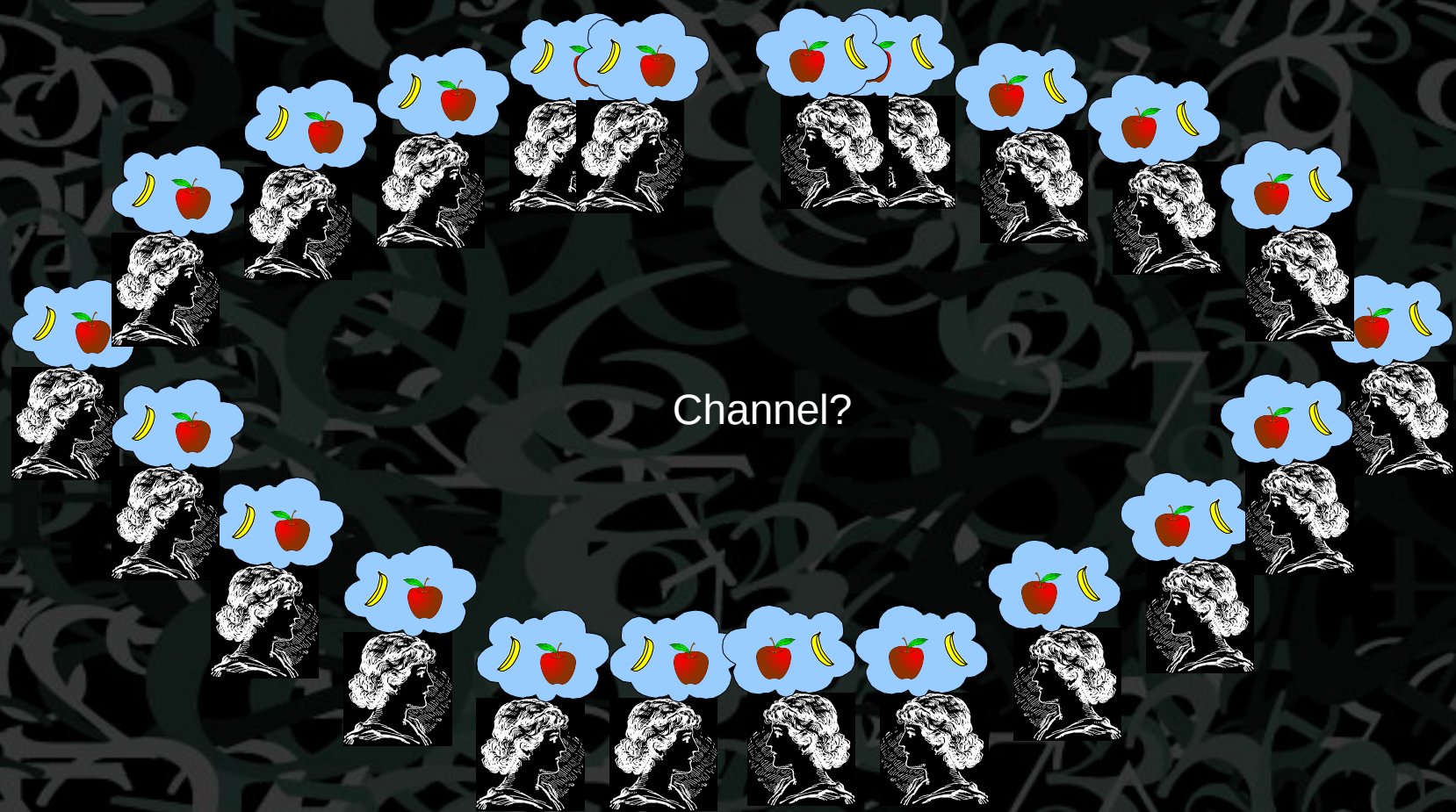
Channels: the coordination of our worlds



Perspectives



Perspectives



Information dynamics

	A	B	C
a	0	1	0
b	1	1	0
c	0	1	1

	A	B	C	D
a	0	1	0	0
b	1	1	0	0
c	0	1	1	0
c	0	1	1	1

Splitting: duplicate tokens, add types

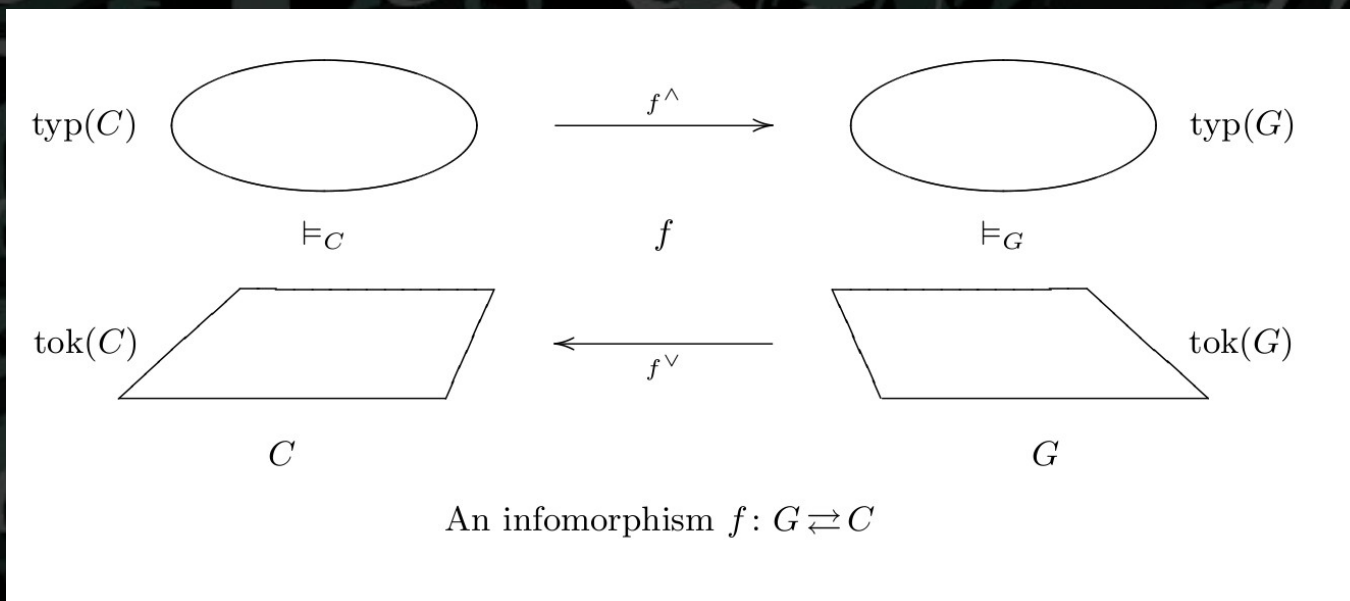
Information dynamics

	A	B	C	D
a	0	0	0	0
b	1	1	0	1
c	0	1	1	1
d	0	1	1	0

	A	BD	C
a	0	0	0
b	1	1	0
c	0	1	1

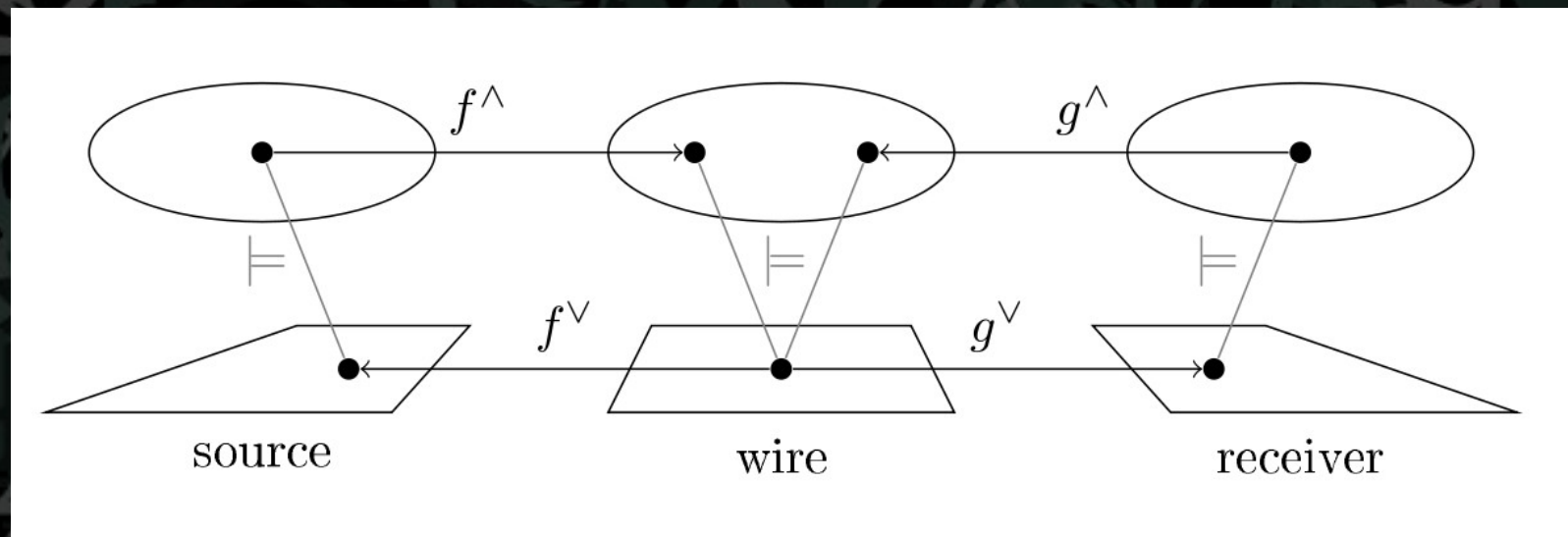
Eliminate: delete tokens, identify types

Informational dynamics



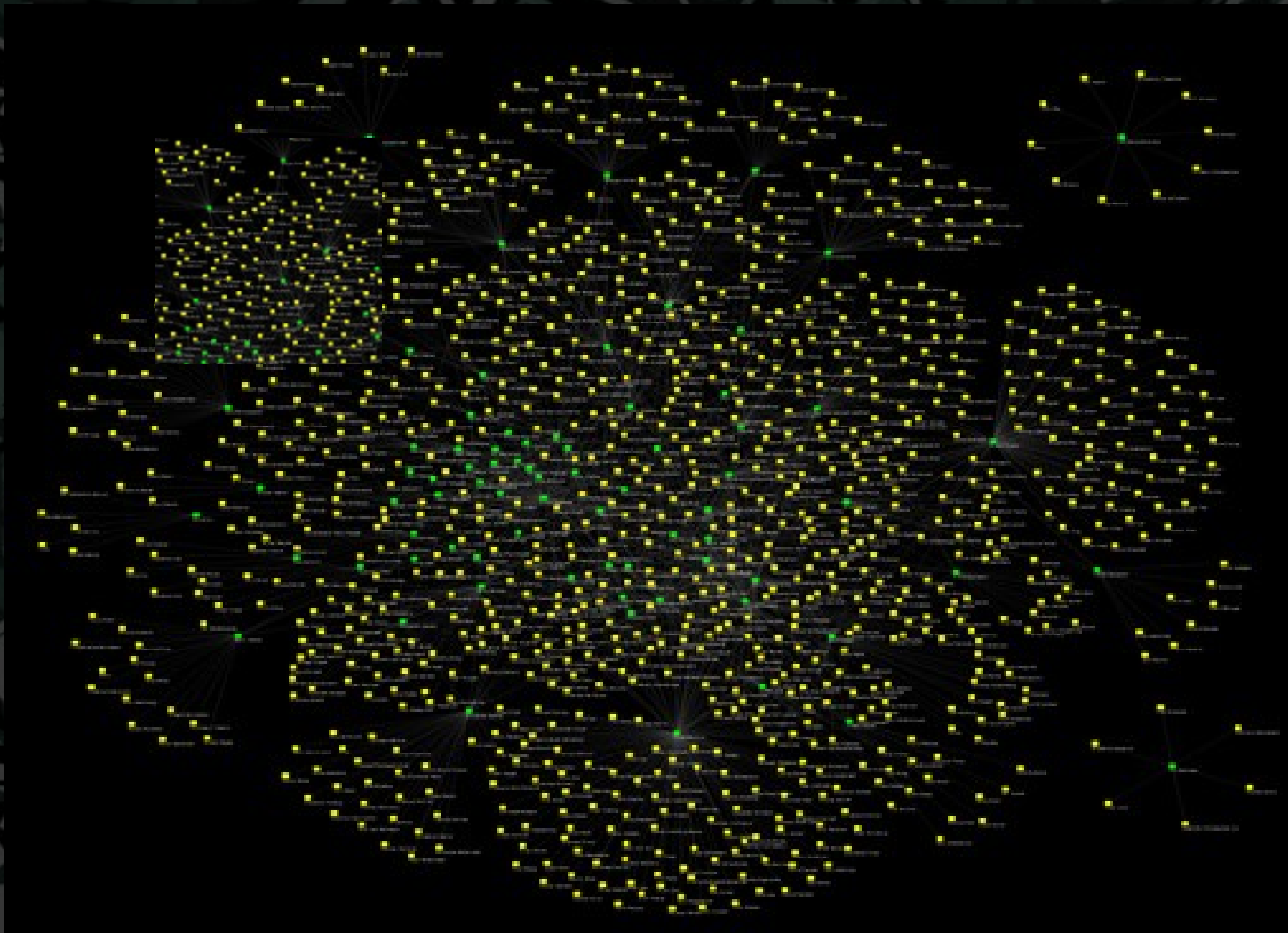
a.k.a Chu space transformation

Channel



Projection of local logics along channels

Distributed Content



Semantics or Engineering?



“These semantic aspects of communication are irrelevant to the engineering problem.”

Claude Shannon, 1948