Natural vs non-natural meaning/content

Factive: if there is no fire, the smoke doesn’t mean fire

Non-factive: if there is no fire, ‘fire’ still means fire

Means/Represents/Indicates

1. Fire is likely given the smoke
2. The smoke provides strong evidence for fire

Probability
Evidence

Bayes factor even if prior probability of $H$ is very low

1 without 2: Prob(true theory of physics|Trump lost) = 1, but Trump losing does not indicate the true physical theory since it is not evidence for it.

2 without 1: Positive Bayes factor even if prior probability of $H$ is very low

Probability
Evidence

Fire

Strength of informational connection

Contents not just a function of individual strength of informational connection but also informational connections of other representations (holism) constrained by simplicity, naturalness, informativeness

Best summary

The referent of a representation $R$ relative to a certain epoch is the world item mapped to it by the best interpretation function for that epoch, where the best is a matter of:

- Fit
- Simplicity
- Naturalness
- Informativeness

Averaged over representations of the relevant type for that epoch

Bernie = the proposition that Sanders wore mittens
BERNIE = the mental representation of

How does the theory assign the content Bernie to BERNIE?

Bernie is likely given that S believes BERNIE

$S$ believes BERNIE is evidence for Bernie:

$$\text{Prob}(S \text{ believes } BERNIE | Bernie) > 1$$

$$\text{Prob}(S \text{ believes } BERNIE | \text{not-Bernie})$$
Suppose S often systematically mistakes big gloves in the dark for mittens.

S believes BERNIE is evidence for Bernie
S believes BERNIE is evidence for Bernie or Big gloves in the dark

The content of BERNIE is Bernie or Big gloves in the dark

Unnatural

Stronger

Suppose: every nearby world in which Bernie goes outside he wears mittens and he doesn’t wear mittens indoors.

BERNIE is likely given that S believes Bernie
BERNIE is evidence for Went outside:

Prob (S believes BERNIE | Went outside) > 1

Prob (S believes BERNIE | not-Went outside)

Went outside is likely given that S believes BERNIE

S believes BERNIE is evidence for Went outside:

BERNIE
Went outside

Equally good

Solution: holistic measurement of fit

E.g. in relation to WEARS MITTENS

What is the argument that an interpretation that makes 67% of the subjects’ beliefs true is more likely to yield the correct content facts than one that makes 66% of the subjects’ beliefs true?

Best interpretation maximizes truth of subjects’ beliefs
Best interpretation maximizes rationality of subjects’ beliefs

Interpretivism

Interpretivism

Best interpretation maximizes truth of subjects’ beliefs
Best interpretation maximizes rationality of subjects’ beliefs

Maybe a non-reductive theory would be better

Find a reductive relation that can be used in a theory of content that entails our intuitive judgments about contents
and in principle could be used to predict and explain behavior

Consonant with realism about content
As theorists we want informative theories but does a theory’s informativeness make it more likely to be true?

"Informativeness: Summaries of informational connections are better to the extent that they tell us more about how a subject’s mental representations are correlated with features of the environment."

As theorists we want informative theories but does a theory’s informativeness make it more likely to be true?

“Simplicity: The simplicity desideratum requires that the interpretation function be concisely specifiable in a suitable vocabulary.”

How could this use of simplicity be justified by simplicity as a guide to truth?

An interpretation function that is an infinite list of arguments and values might not be implementable in the brain, but what about other uses of the “concise specifiability” desideratum?

"Simplicity: The simplicity desideratum requires that the interpretation function be concisely specifiable in a suitable vocabulary.”

How could this use of simplicity be justified by simplicity as a guide to truth?

"Mental sentences that are never tokened or only very infrequently tokened (e.g. due to complexity) should count for less."

How could this use of simplicity be justified by simplicity as a guide to truth?

We want simple theories because they are more likely to be true.

"Naturalness matters in semantics because we intend-- defeasibly and implicitly-- to refer to the nearest natural property. Natural kinds are reference magnets.

"Jade"

I wonder, though, whether Veronica’s use of these notions can always be so justified.

"Given the assumption that highly unnatural/disjunctive predicates count against simplicity, simplicity considerations will favor interpretation functions that map our atomic concepts to natural properties/relations over ones that map them to less natural properties/relations."

Justifiable for reference of concepts because of our intentions, but not reference of percepts.

Redness of isolated objects: triples of reflectances

Redness of glass: transmission properties

Redness of light

Relativity to lighting and lighting of other objects

No red pixels

Justifiable for reference of concepts because of our intentions, but not reference of percepts.
Is there a natural objective property common to all these red items?

**Is there a natural objective property common to all these red items?**

**What is common to these cases is their effect on our phenomenology.**

**Not useful for a reductionist.**

**All happen at the same time**

- Mars is in retrograde motion
- Mars is at its largest
- Mars is at its brightest
- Mars is in “opposition to the sun”

**Mars rises when the sun sets and sets when the sun rises.**

**What could explain this coincidence?**

**Mars**

**Sun**

**Earth**

**Mars**

**Simplicity in science is a guide to truth**

“Simplicity: The simplicity desideratum requires that the interpretation function be concisely specifiable in a suitable vocabulary.”

“Given the assumption that highly unnatural/disjunctive predicates count against simplicity, simplicity considerations will favor interpretation functions that map our atomic concepts to natural properties/relations over ones that map them to less natural properties/relations.”

This can be justified for conceptual but not perceptual representations, but not because of any generalized simplicity.