Philosophische Semantik

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Manuel Bremer

Vorlesung 7

Semantischer Externalismus

Externalismus

„Externalismus" bezeichnet im Allgemeinen Theorien (des Wissen oder der Sprache), welche zuverlässige Verbindungen zwischen kognitivem System und Wirklichkeit in der Mittelpunkt stellen, *unabhängig davon* ob das kognitive System von den Verbindungen oder ihrer Zuverlässigkeit weiß.

Hier interessieren uns zwei Komplexe:

1.   Die zuverlässige Anbindung von Konzepten an Eigenschaften
         (‚hooking up to a property')   [diese Vorlesung]

2.   Das Verwenden von Ausdrücken mit objektivem Gehalt, obwohl man ihre Bedeutung unzureichend kennt.   [nächste Vorlesung]

Anmerkung: Externalismus im hier zu erläuternden Sinne widerspricht nicht dem Vorliegen einer internen Semantik (letzte Vorlesung). Die interne Semantik repräsentiert die Verhältnisse, welche der Externalismus erklärt.

<u>Objektiver Gehalt</u>

Concepts in the RTM-sense explain the correlation of concepts with properties in the world (as their *objective* content). The objective content of a concept is some property in reality.
A concept as a specific *Language of Thought* type (tokened on occasions of thought) also has its syntactic shape and features, which provide it with a mode of presenting the content. A concept in CA is thus more than a mere content connected representation.
Concepts such specified have a *content* and *a mode of presentation* (by being *Language of Thought* symbol types/tokens). CA thus combines the benefits of an informational account of objective content with the Fregean idea of modes of presentations. These modes of presentations occur already at the conceptual level itself. There may be more modes of presentation further up in the level of representation in as much as we know about analytic dependencies. Since analytic dependencies need not be shared by lexical items with the same objective content they acquire *a secondary mode of presentation*, still not a Fregean sense in determining reference, but yet a Fregean sense in being intersubjective.

<u>Ontologische Modellierung erforderlich</u>

• The account of objective content is externalist and close to theories of information flow and accounts of *informational content* in situation semantics.

• Because it also trades in modes of presentations a lot of the criticisms put forth against semantic externalism do not apply!

• The contents of concepts are properties. These are objectively given (structures of reality). The content of a sentence can thus be presented by *infons* or tuple-like states of affairs.

• RTM needs a corresponding metaphysics.

• RTM in its relation to general questions of representation is the place for metaphysical theory, semantics comes in only second.

• Inasmuch as there is no corresponding meaning postulate or definition some claim may not be semantically necessary in some language, although it is *metaphysically necessary*. Thus there is a further notion of necessity. Metaphysical necessity is stronger than nomic necessity if the structure of what some stuff is is independent of the dispositional powers of that stuff (if the second order facts which constitute the natural laws are independent of the first order facts).

Routen zu Eigenschaften

Routes and procedures of verification are not part of the core meaning of a word then. A lexical entry might be associated with a link to access procedures, but these are not meaning constitutive. One may possess the concept without being able to verify its applications. One can understand the content of a sentence without knowing how to verify or justify it.

Access procedures do not have to have the strength of definitional equivalence. Prototypicality effects have their place here. These procedures are not compositional (as concepts are) and they need not be strict, but only reliable.

There are procedures of recognitional ties to concepts, but no recognitional concepts, the conditions of possession of which would be constitutive epistemic conditions.

In CA as presented here there are two ways of connecting up to reality. One concerns the original route the concept was established, the other might gives justificationist ideas their place.

Informationsfluss

Information flow depends on relationships in a distributed system (e.g., a telephone connection). How the system is carved up is part of the model of the information flow to be explained. What might be a part in one situation/model (e.g., the telephone machine) might be a distributed system of its own in another situation/model. The parts of a distributed system are related to each other by the system as a whole. Regularities ensure the uniform behaviour of the system. You can see, for instance, a flashlight as a distributed system in which the parts are connected by being parts of the same system. Information flow depends on non-accidental connections (like between a switch and a light bulb lightening). Information flow depends on a *reliable* process. In the example: You use knowledge of such reliable processes reasoning from the information that the light is on to the information that the switch has been pressed. That does not mean that INFORMATION FLOW – as might be RELIABILITY – can be analysed using the concept of causality. The direction of information flow is not necessarily aligned with the direction of causation (you can derive information about the cause from the effect). Informational dependence, therefore, is not causal. In case of loose connections a causal connection might be not sufficient for information flow. So a causal connection is neither necessary for information flow (arriving at information from the effect to its cause) nor sufficient.

<u>Informationsträger</u>

A lot of things are said to *carry* information:

The rifle shot carried the information that the king was dead to the whole city. The e-mail message bore the information that Albert would be late for dinner.

A common denominator is that in all cases some object having some property matters: a´s being F carries the information that b is G (for instance the light being $\mathbb{ON}$ carries the information that the switch is $\mathbb{PRESSED}$).

<u>Informationen haben</u>

For a cognitive system *x* with prior information *K* a part a of a distributed system being *F* carries the information that another part *b* of that system is *G* if *x* could legitimately infer from the constraints of the distributed system, given some local logic, that *b* is *G* from *a* is *F* together with *x*´s prior information *K* (but not from *K* alone).

So the cognitive system reasons along the constraints and given partial knowledge of one end of the system derives information about another part of the system.

This reasoning uses a representation not only of the system as a whole but also of the system's parts and their properties.

Information verarbeiten

To model information flow we need *a cognitive system.* A cognitive system is an object that is able to know or to process information:

1. The system is able to *extract* digital information from analogue repre-sentations of its environment (i.e. token LoT-symbols given stimulation, by means of transduction …)

2. The system then can use its initial information to *derive* more information by some mechanisms.

Beispiel

Smoke means fire. That is: If S_1 is the type of situations where smoke is present, and S_2 is the type of situations where there is fire, these situations are linked by a (natural) constraint. An agent can pick up information (that there is a situation of type S_2) by observing that there is a situation of type S_1 if the agent is aware of or attuned to the constraint. Constraints can be written:

$$S´ \Rightarrow S´´$$

where S´ and S´´ are situation types. Constraints are involved in meaning relations as well; for example: "fire" and FIRE are hooked up to FIRE. This is a constraint linking an utterance situation type or a tokening of a LoT-symbol to a type of situation where fire is present. Attuned agents with respect to this constraint understand the expression "fire" or possess the concept FIRE. An externalist account of meaning, therefore, can be based on constraints. The constraints give information what other kind of situation is involved here.

Let us look at the example in more detail: The situation types mentioned can be modelled:

$$S = [s*| s* \models <SMOKEY, t*,1>]$$

$$S´= [s*| s* \models <FIREY, t*, 1>]$$

$$S´´ = [s*´| s*´ \models <TOKENS, a*, FIRE, t*,1>]$$

with the two constraints

(C1) $S \Rightarrow S´$

(C2) $S´´ \Rightarrow S´$

We can now understand the idea of information flow within this model. Consider the constraints and situation types we just have given. Suppose $s_1:S$ (i.e., situation s_1 is of type S). Being aware of the constraint (C1) or being simply attuned to it we have the information that there is a situation s_2 (maybe $s_2 = s_1$) with $s_2:S´$ so that s_1 and s_2 are co-temporal, i.e. $t*$ has to be anchored to the same time interval. Being attuned to (C2) we believe – *ceteris paribus* – fire to be present once the thought of fire being present occurs to us.

<u>Informationsgehalt von Begriffen/LoT-Repräsentationen</u>

• Concepts carry information not just as natural signs or as indicators (like a thermostat). Their representational function is assigned or has developed.

• For natural signs their correlation to some situation is completely given and constrained independently of the presence or even existence of cognitive systems. For some natural indicators within living systems (like an amoeba) there is no need for an embedding cognitive representational system. For these kinds of signs there is no misrepresentation. They follow at most the simple fire-smoke type of constraint.

• Representations occur if within a cognitive system or by a group of users of the signs one specific part of the circumstances which can be indicated under normal circumstances is filtered out so that the sign acquires the function of providing information about this only. A sign indicating some property and some corresponding appropriate behaviour can get selected for this function and thereby comes to represent that property, its representational relation explaining both the presence of the behaviour as well as the invention of its representational symbol type.

<u>Regularitäten in denen ein Begriff steht</u>

For concepts it is not as if a collection of prefabricated tokens waits for an assignment of meaning and a corresponding use due to meaning. The very token α is tokened on some occasion because of the regularities which make up its occurrence in relation to the inner and outer environment. Some regularities make up the occurrence of its type, and by this the symbol type itself. Some of these regularities constitute its meaning by hooking it up to some circumstances (containing the objective content of the concept).

If tokened due to these circumstances the concept (respectively the meaning of a word) is involved in causal mechanisms. The concept is involved in these causal mechanisms because of its content. Pieces of the world the concept is developed to refer to are partial causal antecedents of its being tokened.

Begriffserwerb

Most atomic concepts have to be acquired.
They are acquired in a reliable way by the corresponding innate mechanisms
of connecting the mind/brain to reality.
Acquiring the concept DOORKNOB requires acquaintance (transduced sensory
causal contact) with DOORKNOB. Hooking the concept up to the property
involves being attuned to clues that correspond to the presence of the
property.
These clues need not be accessible to conscious. The relation between the thus
cognitively present clues and the concept nevertheless is *evidential* in the
weak sense that the clues significantly raise the probability of the property
being instantiated in the source. One thus learns to use clues.
This evidential link – to stress this one again – is just motivational: it is not
acquiring knowledge about doorknobs or constituting DOORKNOB. The sheer
plenitude of different clues working on different occasions excludes them
from being constitutive.
Recognitional capacities are not constitutive, so that there are no recognitional
concepts.

Stereotype und Prototypen

Here prototypical effects and stereotypes play an important role. Being non-compositional and being barely intersubjectively accessible stereotypes cannot be the concepts, but they can be the typical stepping stone to acquire a concept and recognize the presence of its referent in a situation.
Our mind/brains work in a fashion that links to properties by intervening structures that show stereotype effects. (We may very well identify soccer games by a stereotype of a scene including a pitch and teams, instead of working to SOCCER by way of BALL GAME and what not.)
Identifying properties is in this way mind dependent. We tend to hook up to those properties that we are able to stereotypically identify. We also identify other properties (e.g. in science), but generalizing over experience to stereotypes as indicating some property is the usual experiential way to hook up to some property (i.e. acquiring some concept). This mind dependence, of course, does not make the properties referred to in any sense less 'real'. The observation concerns our limited access to structures of reality, not some limitation of reality relative to our constructive powers, or whatever.

Situationsunabhängigkeit und Rechtfertigungsprozeduren

Apart from malfunction concepts being triggered by the presence of their
referents does not supersede the quest for truth and justification.
The major innovation coming with human concepts being part of a
compositionally complex representational system is *displaced reference*, or,
with linguistic symbols, *displaced speech*.
Thinking or talking about what is not obvious or present enables deliberate
planning and recollected history. Concepts occur in such displaced thought
and talk because of their inferential connections. Present beliefs and one's
background knowledge force upon us – with different strength of comparable
plausibility, maybe – other beliefs as conclusions and predictions.
Tracing concepts such employed from their situation of usage to their
situation of justification ('verification'), which may given enough background
theory *be* the present situation, requires procedures of justification or short
routes of *prima facie* credibility instalment on those beliefs.