

ESSLLI 2011 - Topics in Philosophy of Language

Lecture 3

**Alternative accounts of context-dependence**

***Stalnaker & update semantics***

***Barwise & Perry & situation semantics***

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## 3.1: double-indexing vs. two-dimensionalism

### **Stalnaker's picture and its impact**

## Stalnaker's “Assertion” (1978)

- propositions, speaker presuppositions, context sets
- propositional concepts (matrices) and indexicality
- Stalnaker's conversational maxims; 'what is said' as the diagonal proposition

## Propositions

*Possible worlds* are primitives. A *proposition* is just a set of possible worlds. Eg the proposition that Chirac is the President of France in 2008 is the set of those and only those worlds in which Chirac is the President of France in 2008. In some of those worlds, it's raining in Paris on the 5<sup>th</sup> of December 2008, in others, it isn't. A possible world “decides” every possible issue. A proposition doesn't.

If  $S$  is context-insensitive (= contains neither indexicals nor presupposition-triggers), then the proposition it expresses is the set of worlds  $\{w\}$  such that  $[[S]]_w^M = T$

## Sets of propositions

Given a *set of propositions*, that is to say, a class of sets of possible worlds, you may define a single set of possible worlds by taking the *intersection* of those sets. This intersection will then consist of those and only those worlds in which all of those propositions are true. If there is inconsistency, we'll only get an empty set.

## Speaker presupposition

A speaker presupposition is *a proposition* that the speaker takes for the purpose of the conversation to be true, and takes her audience to also presuppose the proposition.

Stalnaker's notion of presupposition is entirely *pragmatic*. It doesn't differentiate among what depends on grammar or the lexicon, or on encyclopedic knowledge, or on purely occasional facts.

## Context set

*A context, or context-set, is the set of propositions that are presupposed at a given stage of conversation. It is also a set of possible worlds (the intersection of those propositions). (Note the difference with Kaplan's and Lewis's notions of context.)*

## Propositional concepts and 2-dimensional matrices

A possible world has two roles:

- (i) determine what the words uttered express;
- (ii) determine the truth value of what is expressed.

A propositional concept is a function from possible worlds to propositions, ie a function that, given a possible world, returns some *set* of possible worlds.

In principle, it may be just a *partial* function.



## Example 1. “You are a fool.”

	1	2	3
1: RS's world	T	F	T
2: O'Leary's world	T	F	T
3: Daniels' world	F	T	F

What plays the role of Kaplanian contexts are possible worlds (“what determines what is said”).

## Example 2. (rigidified) definite descriptions

**“The actual President of France is Jacques Chirac.”**

Expresses different propositions in (relevantly) different worlds, but always a necessary proposition. (e.g., as used in our world today, the proposition that Sarkozy = Chirac.)

**“The President of France is Jacques Chirac.”**

Expresses the same proposition in every world, but each time a contingent proposition, true in those worlds in which Chirac is President. (NB: Time-dependence is handled at the level of *which proposition* gets expressed.)

## Stalnaker's “principles” (cf. Grice's “maxims”):

1. A proposition asserted is always true in some but not all of the possible worlds in the context set.
2. Any assertive utterance should express a proposition, relative to each possible world in the context set, and that proposition should have a truth value in each possible world in the context set.
3. The same proposition is expressed relative to each possible world in the context set.

## Grice's “Conversational maxims”:

1. QUANTITY: (i) Make your contribution as informative as is required for the current purposes of exchange.  
(ii) Don't make it more informative than that.
2. QUALITY: Try to make your contribution one that is true:  
(i) Don't say what you believe to be false.  
(ii) Don't say that for which you lack sufficient evidence.
3. RELEVANCE: Be relevant.
4. MANNER: avoid obscurity of expression; avoid ambiguity;  
be brief; be orderly.

In Stalnaker's framework, when a principle is violated, one typically concludes:

1. that the context set isn't what it seems to be,

*or*

2. that the speaker didn't say (mean) what he seemed to say (mean).

Principle 1 (“A proposition asserted is always true in some but not all of the possible worlds in the context set”) prevents from asserting things that are trivially true (=uninformative), and from asserting something incompatible with something that is presupposed.

Example: the informativity of identity statements.

Informativity is measured in terms of *elimination* of possible worlds from the context set. Assertion narrows down the set of “live options”, possible alternatives as to what the actual world might be. A foundational idea of update semantics.

Principle 2 (“A proposition is expressed relative to each world of the context set, and it has a truth value at each world of the context set”) states that the propositional content is never a *partial* function, and that propositions aren't partial functions either (they are *total* functions from worlds to truth values).

**Accommodation.** “John stopped smoking” eliminates not only worlds in which John is still smoking (regular update) but also those in which he hasn't been smoking (principle 2).

Principle 3 (“The same proposition is expressed relative to each possible world in the context set”) prevents ambiguity (lexical, referential, or of any other kind).

In order to bring assertion into conformity with this principle, when we have referential ambiguity (eg the case of “You are a fool”), we will take it that what is asserted is **the diagonal proposition**.

One consequence is that neither indexicals nor proper names will be, strictly speaking, directly referential. They are so only to the extent that in any normal context set, there is a presupposition at work about who or what is being referred to.



3.2: breaking off with the Fregean heritage

**Barwise & Perry's *Situations & Attitudes* (1983)**

# Gotlob Frege's impact on natural lang. semantics

## 1. *Sense*

On Frege's picture, sense is the "glue" that connects the world, the mind and the language. A linguistic expression (sentence) *expresses* a sense, the mind *grasps* it, and the world *verifies* it (or, conversely, sense *stands for/picks out* stuff in the world).

## 2. *Reference & Truth*

Sense determines reference. In the sentential case, sense is a thought (*Gedanke*), and its reference, a truth value. All true thoughts have the same reference, and so do all false thoughts.

### 3. *Eternalism*

Senses are "eternal": a thought has always had, and will always have, the same reference. Any given sentence uniquely expresses such an eternal sense. Thus "I am sitting" as uttered by me is not the same *linguistic expression* as "I am sitting" as uttered by you.

### 4. *Compositionality*

The sense of the whole is determined by the senses of the components. Similarly for reference.

Consequence: if you substitute a component by another one with the same sense/reference, the sense/reference of the whole will remain unchanged.

## *Situation theory: towards a change of paradigm*

Jon Barwise (logician) & John Perry (philosopher) together put forward a very different sort of proposal, in their book *Situations and Attitudes* (MIT 1983, CSLI augmented 1999).

Some background: **Barwise's** interest in perception reports:

*John saw that Amy used his car./John saw Amy used his car.*

Impossible to see how one could adopt Fregean theory of attitude reports to perception reports. For Frege, because of compositionality at the level of reference, what an embedded sentence *refers to* is not a truth value, but it's (customary) sense. Semantic ascent vs. semantic innocence.

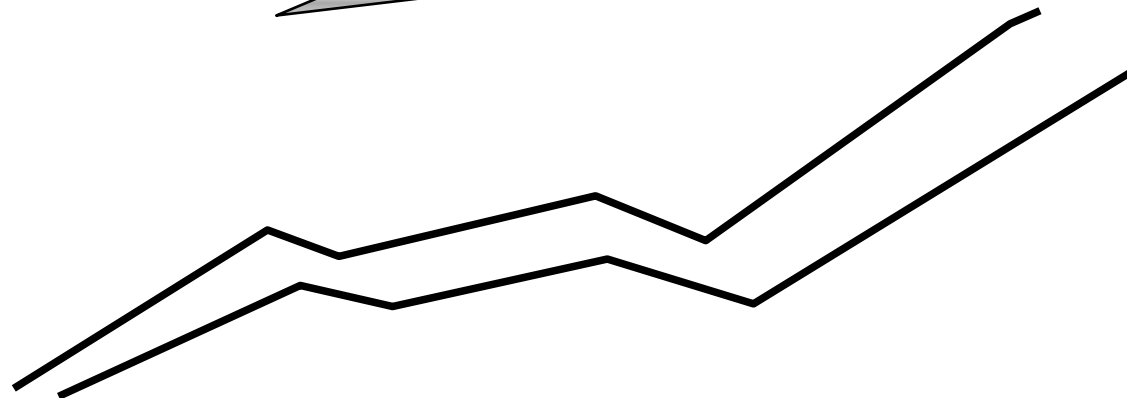
More background: Perry's work on the "Essential Indexical"  
(*Frege on Demonstratives* 1977, *The Problem of the EI* 1979)



**Bahia**

Mt. Tallac trail will get me out  
of the wilderness.

**That trail will get me out  
of the wilderness!**



He is about to be  
attacked by a bear



**Bahia**

I'm about to be  
attacked by a bear!



**Dalibor**

Perry observed that Fregean senses are not the right sort of entity that can both be the content of belief and account for action. His distinction between **belief-state (role)** and **belief-content** is often conflated with Kaplan's character vs. content.

## Six main tenets of Situation Theory

### 1. *The primacy of situations*

From ontological *and* epistemological point of view, reality consists of situations, while other categories, such as individuals, properties, or locations, arise as *uniformities* across situations

### 2. *Partiality*

Information is, as a matter of rule rather than exception, *partial*: it tells us something only about a certain part of reality, leaving the rest open.

Consequence: we get *positive* facts and *negative* facts. But often it is simply not settled whether some fact *f* obtains in situation *s*.

### *3. The efficiency of language*

A core feature of language, namely that by using the same words we can exploit the properties of the context to express different things. Together with *compositionality* (at the meaning level), efficiency accounts for *productivity*: we can express infinitely many things given only a finite vocabulary + a small nb of rules.

### *4. The relational theory of meaning*

Meaning is not a self-standing entity (note contrast with Frege), but merely a relation between situations. Examples:

Smoke means fire. / A smoke alarm means fire. /

A utterance of "There is fire" means fire.

In the case of linguistic meaning, meaning relates utterance situations to described situations.



## 5. *Uniformities and Constraints*

Agents get attuned to various uniformities across situations, so they can classify reality in ways that help them cope with new situations and pick up information about one situation from another (cf. influence of Dretske (info) & Gibson (perception)). *Relational* uniformities are *constraints*. Meanings are constraints. Constraints are typically *conditional* (upon other constraints). *Truth* itself is merely a uniformity, a way of classifying reality.

## 6. *Semantic Innocence*

An account of attitude reports on which the embedded sentence has the same meaning as it does on its own (cf. rejection of F.'s semantic ascent). In relation to this, partial situations vs. sets of possible worlds in Hintikka-style doxastic-epistemic logic accounts.

So much for today.

Thank you for your attention.



Questions? Objections? Suggestions?