

Week 3: Variable Characters, Constant Contents

The behavior of deictics in speech reports – and other environments – can be accounted for in a **two-dimensional semantics**, where semantic values depend on two variables, or parameters, the situation of **utterance** and the situation of **evaluation**.

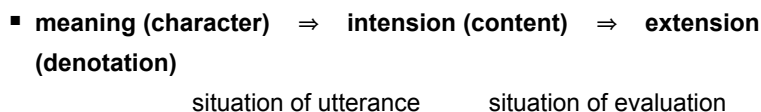
The latter can be **shifted** in certain environments while the former cannot; and since the values of deictics only vary with the former, they are unshiftable too.

When I utter something, I emit a meaning. This meaning immediately meets the **situation of utterance**, where it may become partially saturated, – certain parts of the utterance get their semantic values fixed. The deictic parts. Then the meaning meets the **situation of evaluation**, which saturates the rest.

For a simple sentence, without any situation-shifting functors, the situation of utterance does double duty – it coincides with the situation of evaluation.

The meaning is thus a “two-step” function: a function from situations to functions from situations to denotations, or **extensions**. It is also called the **character**.

The “intermediate” meaning, the function from situations to extensions, is the expression’s **intension**. The complete picture is thus:



Deictics are expressions that depend solely on the situation of utterance.

Note on terminology: situations of utterance or evaluation are often referred to as **contexts**.

But what are contexts, or situations (of utterance/evaluation) really? Most will say: at a minimum, something for which three functions are defined, that of the **world**, that of the **time** and that of the **agent** – in utterance situations: the **speaker**; semantically equivalently, triples consisting of world, time and agent. These are the **parameters**.

Let us treat them as something for which those three functions + two more are defined: the ‘other’ – or the **hearer** – and the ‘center’ – or the **place**.



This theory is largely due to David **Kaplan** ([1977/89](#)) “Demonstratives: an essay on ...”, in J. Almog, J. Perry and H. Wettstein (eds.), *Themes from Kaplan*, Oxford: Oxford University Press, 481–563, and ([1979](#)) “On the logic of demonstratives”, *Journal of Philosophical Logic* **8**, 81–98.



The meaning of an expression α is commonly written as $\llbracket \alpha \rrbracket$.

Let us use i, j etc. as variables for situations.

- $\llbracket \alpha \rrbracket(i)$ (also written as $\llbracket \alpha \rrbracket^i$ or $\llbracket \alpha \rrbracket_i$) is the intension of α at i , and
- $\llbracket \alpha \rrbracket(i)(j)$ (also written as $\llbracket \alpha \rrbracket^i(j)$, $\llbracket \alpha \rrbracket_i(j)$ or $\llbracket \alpha \rrbracket_{i,j}$) is the extension of α at i and j .

The meaning of the first person singular pronoun can be defined thus:

- $\llbracket I \rrbracket = \lambda i \lambda j$ the speaker of i , $1(i)$

And the meaning of the temporal adverb *now* could be defined thus:

- $\llbracket now \rrbracket = \lambda i \lambda j$ the (salient time surrounding the) time of i , $t(i)$

Note the **vacuous abstraction** over j here: the **intension is a constant function**.

The **meaning** is not a constant function though – the intension depends on i .

This is the definition of deictics in the theory: an item α is deictic iff

- for all i and j, j^* , $\llbracket \alpha \rrbracket^i(j) = \llbracket \alpha \rrbracket^i(j^*)$ but for some i, i^* , $\llbracket \alpha \rrbracket^i \neq \llbracket \alpha \rrbracket^{i^*}$

By comparison, proper names are customarily taken to depend on neither situation,

i or j , for their extensions:

- for all i, i^* and j, j^* , $\llbracket \alpha \rrbracket^i(j) = \llbracket \alpha \rrbracket^{i^*}(j^*)$

But most lexical items are mirror images of deictics: the semantic value does not vary with the situation of utterance but does vary with the situation of evaluation:

- for all i, i^* , $\llbracket \alpha \rrbracket^i = \llbracket \alpha \rrbracket^{i^*}$ but for (all i and) some j, j^* , $\llbracket \alpha \rrbracket^i(j) \neq \llbracket \alpha \rrbracket^i(j^*)$

The benefit: j can shift but i stays the same

The difference between i and j is not so much in their essence as in their function: the situation of utterance is unaffected by any situation-shifting operations.

One might think, for example, that *here* means the same as *where I am now*, but the contrast between (5) and (6) shows that this is not so:

(5) My husband fears that you are where I am now.

(6) My husband fears that you are here.

A fine survey is given by Ede **Zimmermann** (2012) “Context dependence”, in C.

Maienborn, K. von Heusinger and P. Portner (eds.), *Semantics: an International Handbook of Natural Language Meaning, Volume 3*, Berlin: de Gruyter Mouton, 2360–2407.

See also the compact survey given by Philippe **Schlenker** (2010): “Indexicals”, forthcoming in S. Hansson and V. Hendricks (eds.), *Handbook of Formal Philosophy*.

Or also the “Lecture Notes on Indexicality” by Irene **Heim** (2004).



Recall *All my loving* ((4)):

Is there a difference between (10) and (11)? If so, why?

(10) I'll pretend that I'm kissing The lips I am missing

(11) I'll pretend that I'm kissing The lips I am missing today

What my husband fears according to (5) is the set of j^* such that the hearer of i is in j^* at the location where the speaker of i is in j^* at the time of i ("wherever that may be"), while what my husband fears according to (6) is the set of situations j^* such that the hearer of i is in j^* at **the place of i** . *Here* depends on i only, which cannot be shifted, whereas *where I am now* depends on j too, which is here shifted to j^* .

We sometimes playfully violate this unshiftability: *tomorrow today will be yesterday; today was tomorrow yesterday...*

Now consider the speech report (7).

(7) She told me she loves you.

The semantic value of *tell* takes three arguments: a proposition and two individuals;

here the proposition is, for any i , the intension of the clause *she loves you* at i (assuming that *she* refers to Sue):

(8) $\llbracket \text{she loves you} \rrbracket^i = \lambda j^* \text{ Sue loves the hearer of } i \text{ in } j^* =$

(6) the set of situations j^* where Sue loves the hearer of i

Here j^* acts as the situation of evaluation; j is shifted to j^* .

Now for her to have communicated this content to me, she could not have said (9):

(9) I love you.

For this *you* would have referred not to the hearer of i but to the hearer of another situation of utterance, call it k ; she would in fact have expressed the proposition that she loves the **speaker** of i .

Using an analysis of verbs like *tell* based on Kaplan (1977/89: 554), we have:

- $\llbracket (7) \rrbracket^i(j)$ is true iff Sue told me a sentence meaning C such that $C^k = (8)$, where k comes from i by substituting her for the speaker, me for the hearer, and ...

Then it becomes clear that (9) is right as far as *I* is concerned, but wrong regarding *you*.

If we had only one situation variable, we would not be able to explain this – or generally to explain how one sentence can express different propositions on different occasions, or conversely, how one proposition can be expressed by two non-equivalent sentences, if only they are uttered on different occasions of the right kind.
