Universität Potsdam
SoSe 2009
MM3 Cross-Linguistic Semantics
Malte Zimmermann

Introduction: *Universals & Variation*

1. Possible Areas of Semantic Universality and Semantic Variation

- *Background Assumptions on semantic Interpretation:*

i. The meanings of complex expressions, such as e.g. sentences, arise compositionally from the meanings of their parts (words, functional morphemes, …)

ii. The compositional derivation of meanings depends systematically on the syntactic structure of complex expressions.

iii. Semantic composition procedures apply in parallel to syntactic composition.

iv. Sentence meanings can be pragmatically enriched depending on context (domain restriction, pronoun resolution etc.) and can give rise to additional meaning components in form of presuppositions, implicatures etc.

- *Different Semantic Layers:*

i. the inventory of ***lexical/ content morphemes*** (N, V, A)

ii. the mechanisms that ***compose meanings*** ('semantic glue')

- the inventory of functional glue morphemes (D, Num, Neg, T, Asp, etc.)

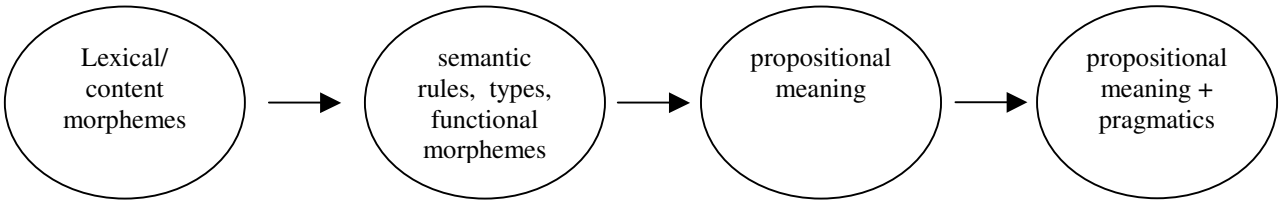
  e.g. structurally (un)realized, overt vs. covert, semantic interpretation

- the inventory of composition principles

iii. the inventory of propositional meanings (= sentence denotations) in terms of truth-conditions = *the expressive power of language*

iv. the mechanisms of pragmatics

- trade-offs between asserted and presupposed aspects of meaning
- availability of presuppositions and implicatures



2. Linguistic Relativity (Sapir/Whorf) or the Myth of the Noble Savage

- *The Linguistic Relativity Hypothesis*:

  Languages inevitably differ in their expressive power, i.e. in the range of propositional meaning expressible, where these differences are possibly triggered by differences at the other levels, e.g. gaps in the inventory of lexical or functional items.

→ Some languages lack the formal means to talk about particular cognitive objects, and speakers of these languages cannot even perceive these objects

→ Language by its structure *determines* or *reflects* the way in which we look at and think about the world

- *some infamous references*

(1) "The Hopi language contains no reference to 'time', either explicit or implicit." (Whorf 1940, cited in Carroll 1956:58)

→ PREDICTION: Hopi's cannot perceive nor talk about time as a salient cognitive category

→ incorrect ! see Malotki, E. (1983). Hopi Time. A Linguistic Analysis of the Temporal Concepts in the Hopi Language. **677 pages**. Berlin: Mouton.

(2) "We have the same word for falling snow, snow on the ground, snow packed hard like ice, slushy snow, wind-driven flying snow – whatever the situation may be. To an Eskimo, this all-inclusive category may be almost unthinkable; he would say that falling snow, slushy snow, and so on, are sensuously and operationally different, different things to contend with; he uses different words for them and for other kinds of snow." (Whorf 1940, cited in Carroll 1956: 216)

→ ASSUMPTION: Eskimo's can make much more intricate and sophisticated statements about snow than we can

→ incorrect (Engl. *snow, slush, sleet, powder* etc.) and uninteresting! see Pullum (1989) for relevant discussion.

(3) "As a people the Pirahã are lively, curious, suspicious, and very loud. Other than the full moon ritual there is little that is regular in their life. They find food and eat when they are hungry, the[n] sleep when they are tired. Marriage, like their homes and other belongings, is not meant to be permanent. They live life a day at a time and do not look to the future. Their village is alive twenty-four hours a day with constant chatter and movement. The local traders say they 'talk like chickens and act like monkeys.' They are pleasure seekers fond of bead necklaces, sugar cane, and whiskey. The Pirahã are not literate and, while they have been offered the opportunity to learn to read and write, they have no interest. But they are curious and like playing with crayons and pencils and paper." (Everett 1998)

→ Methodological lesson to be learnt: When investigating other languages for whatever linguistic aspect, but in particular their interpretation, we should be aware of potential differences to German, English and other European languages, without falling into the trap of exoticism. see Nevins et al. (2007) for relevant discussion.

- BUT: this does not automatically show that all languages have the same expressive power (see below)

3. Universals and Variation in Propositional Meaning (+ Presuppositions):

- *Potential Universal I: Strong Effability Hypothesis* (Katz 1976:37, van Benthem 1991)

  Every proposition is the sense of some sentence in each natural language.

  = All languages can express the same set of propositions

(4) "The latent content of all languages is the same." (Sapir 1921)

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- *Potential Universal II: Translatability* (Katz (1976: 39)

  For any pair of natural languages and for any sentence S in one and any sense σ of S. there is at least one sentence S' in the other language, such that σ is a sense of S'.

→ "Any meaning that can be expressed in any given language can also be expressed in any other language" (vF & M 2007:4) (*weaker reformulation*)

- potential, but surmountable problems for *Translatability*:

- lack of lexical content words (see Quine 1960 on the putative translation of *Neutrinos lack mass* into some jungle language)

  Katz (1976): temporary vocabulary gap that can be filled by borrowing or new word coinage, not a fundamental deficiency of language

- not all senses that can be conveyed by a single sentence in one language can be conveyed by a single sentence in another, BUT THEY CAN BE CONVEYED:

(5) *Comparative Constructions in English & Motu* (Austronesian, Papua New Guinea)

Mary is taller than Frank	≈	(Mary	na	lata)	to	(Frank	na	kwadogi)
		Mary		tall	but	Frank		short

(lit.) 'Mary is tall, but Frank is short.'

→ Translatability + coinage of new words + complex rephrasing?

- *Keenan's challenge* (1974: 194):

  Languages differ systematically with respect to presupposition structure

i. (6) cannot be translated into English while preserving the presupposition structure

(6) Zot ha-isha she-ani makir et ha-ish she-natan la et ha-sefer
this the woman that I know the man that gave to her the book

(7) a.*This is the woman that I know the man that gave (her) the book.

b. ≈ I know a man that gave some woman the book and this is that woman.

→ (6) & (7b) differ in the asserted and presupposed parts of the information.

ii. More generally:

How to translate the difference between *he* (masc.) and *she* (fem.), where the gender specification arguably comes in form of a presupposition into a language without gender distinctions in the pronominal system, such as Finnish?

(8) a. He / She went to Finnland. b. Hän meni Suom-een
3sg went Finnland-to

→ loss of presuppositional meaning, but the asserted meaning (*x went to Finnland*) remains constant: [[(8b)]] ≠ *x went to Finland and x is male/ female*

iii. see also Matthweson (2006a) on the absence of presuppositions in Salish translations of English (SESSION 2)

- *weakened translatability* (working hypothesis)

Translatability at the level of core truth-conditional content + coinage of new words + complex rephrasing

4. Different varieties of weakened translatability

Even if we grant that language can express by and large the same set of core truth-conditional contents, there may still be variation to a greater or lesser extent, with the various hypotheses listed in order of increasing strength.

- ***Different inventory of semantic rules (possibly triggered by syntactic differences)***

  Languages may avail themselves of ***different interpretive rules*** (function application, predicate modification, restriction, selectionfunction composition, association with focus, etc.), but to the same end, namely to express equivalent sentence denotations in terms of truth conditions (Chung & Ladusaw 2004)

- ***Transparent Mapping Hypothesis*** (Matthewson 2001):

  Languages have the same set of interpretive rules (e.g. FA), but differences in surface syntax (order of elements, pro-argument languages, e.g. Jelinek 1995, Baker 1995) trigger minor differences in the semantic composition procedure (to the same end)

i. Different semantic types for identical syntactic objects:

   adnominal quantifiers in English (<et,ett>) and Lilloet Salish (<e,ett>) (SESSION 4)

ii. Absence of particular functional elements in a language:

   Presence vs. absence of adnominal quantifiers in English vs. Mohawk (Baker 1995) and Straits Salish (Jelinek 1995); absence of Det-*most*, absence of T (SESSION 4)

iii. structural status of negation marker: syntactic head, adverb, verbal suffix

- **The Universal Hypothesis:**
  No cross-linguistic variation in the *semantic* component (rules of interpretation and the range of *truth-conditional* sentence denotations remains constant), but languages may differ as to which kinds of semantic information they encode overtly or covertly (in form of functional elements)

→ e.g. tense languages (German) vs. aspect languages (Hausa) vs. mixed languages (English) (SESSION 10)

(8) "the true difference between languages is not in what may or may not be expressed but in what must or must not be conveyed by the speakers [in form of overt encoding, MZ]" (Jacobson 1959)

The *Universal Hypothesis* is the strongest hypothesis, as it is the easiest to falsify on empirical grounds, and to be adopted as *null hypothesis* for methodological reasons. (vF & M 2007)

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5. Working Assumptions for this Class & Questions

- *Working Assumptions: The Null Hypotheses*

i. All natural languages have the same expressive power at the core level of truth-conditions (no variation at level of sentence interpretations): Katz (1976), Sapir (1921).

TO BE CHECKED !

ii. All natural languages have the same basic set of interpretive rules at their disposal (Function Application, Predicate Modification, Function Composition, Restrict?).

TO BE CHECKED ! → SESSION 3, SESSION 4, SESSION 5, SESSION 8

iii. All natural languages have the same inventory of overt or covert functional expressions (T, Asp, D, Num), and these elements have the same interpretations across languages.

TO BE CHECKED! → SESSION 6, SESSION 7, SESSION 10, SESSION 11

All natural languages have the same syntactic structures that serve as input for semantic interpretation (see May 1991 vs. Immler 1991 for opposing views).

TO BE CHECKED ! → SESSION 4

iv. All natural languages assign the same (range of) semantic types to the same syntactic categories (AP, NP, VP, DP, CP, …)

TO BE CHECKED ! → SESSION 6

- *Overall Questions*

- Where do we find semantic variation in natural language?
- Which aspects of semantic interpretation are invariant / universal?