Introduction to SEMANTICS
John I. Saeed – Chapter I

- SEMANTICS as a branch of linguistics
- SEMANTICS & SEMIOTICS
- WORD MEANING & SENTENCE MEANING
- REFERENCE AND SENSE
- UTTERANCES, SENTENCES and PROPOSITIONS
- LITERAL AND NON-LITERAL MEANING
- SEMANTICS & PRAGMATICS
Semantics is the study of meaning communicated through language.
A person has different types of linguistic knowledge

Semantics is one of the **levels of analysis** in linguistic description:

- Phonology
- Syntax
- Semantics
Speaker’s semantic knowledge:

- SEMANTICS describes **semantic knowledge** of a speaker, e.g.,

  1) the speaker’s ability to know when **the same situation is presented in different ways:**
     
     *Bill is Jane’s brother. Jane is Bill’s sister.*

  2) when a sentence is **ambiguous:**
     
     *They are hunting dogs.*
     *I saw the man with the binoculars.*
     *The fisherman went to the bank.*
when words, phrases or sentences **have more than one possible meaning** and therefore can possibly cause **confusion**
Speaker’s semantic knowledge includes the speaker’s ability to know

3) when two sentences contradict each other:

Susan is at home. – Susan is not at home.
John is alive. – John is dead.
When the truth of one sentence necessarily implies the falseness of another sentence, and vice versa.
includes the speaker’s ability to know

4) when one sentence entails another one:

* Jack swims beautifully entails Jack swims.

* The president was assassinated. entails The president is dead.
Semantics: ENTAILMENT

- Relationship between two sentences, where the truth of one necessitates the truth of the other
- If we know sentence A, we automatically know sentence B.
- Unidirectional:
  - while the sentence *Jack swims beautifully* entails *Jack swims*, the reverse is not true.
1) Rachel is John‘s wife. John is married.
2) Free whales.
3) Mary is an only child. Mary‘s brother is called Joseph.
4) Fido is a dog. Fido is a mammal.
5) Lee kissed Kim passionately. Kim was kissed.
How do people communicate and understand meanings?

Using **language**

&

People have the habit of **identifying and creating signs**: of making one thing stand for another

Those **vultures** mean that there’s a **dead animal up ahead**.

His **high temperature** may mean he has a **virus**.

The **red flag** means it’s **dangerous to swim**.

Those **stripes on his uniform** mean that he is a **sergeant**.
Study of the use of *sign systems*

- de Saussure (1974): semantics is part of semiotics
- the process of creating and interpreting symbols
  = *signification*

- Semioticians study the types of relationships between the *sign* and the *object* it represents, or, in de Saussure‘s terminology, between the SIGNIFIER and SIGNIFIED.
SEMIOISTICS: C. S. Pierce

- **ICON, INDEX, SYMBOL** (↔ types of signs)

  **ICON**: similarity between the sign and what it represents (e.g., portrait and its real-life subject)

  **INDEX**: sign is closely associated with its signified, often in a causal relationship (e.g., smoke is an index of fire)

  **SYMBOL**: only conventional link between the sign and its signified (e.g., mourning in some cultures symbolized by wearing black clothes)
Those **vultures** mean that there’s a **dead animal up ahead**.

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ICON? INDEX? SYMBOL?
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1.3 Three challenges in doing semantics

The issues in analysing the meaning of linguistic expressions are related to:

* Circularity
* Status of linguistic knowledge
* Context
1 Circularity

- **Definitions theory:**
  To give the meaning of linguistic expressions we should establish definitions of the meanings of words
  ➔ Leads to **circularity**
  ➔ We need to state the meaning of a word in words ➔ the definition consists of ’new words‘ ➔ the definitions of the ’new words‘ are needed, too ...
  ➔ Can we step outside language in order to describe it?
2 Status of linguistic knowledge

- How to make sure that our definitions of a word’s meaning are exact?
- Meanings of words – in the minds of native speakers
  - A: A whale is a mammal.
  - B: A whale is a fish.
- → does the word whale has the same meaning when uttered by A and B?
- 2 native speakers differ in their understanding of the meaning. Whose meaning to choose? [idiolect]
- Is there a distinction between linguistic knowledge X encyclopaedic knowledge?
3 Context

* Context contributes to meaning.

* Marvelous weather you have here in Ireland.
  * Said on a sunny day
  * Said when the rain is pouring down  
    \(\Rightarrow\) 2 different meanings

* It’s late.
  
  Possible interpretations: Let’s turn down the music. Let’s go to bed. I will not eat chocolate any more.
1.4 Meeting the challenges

- How to do semantic analysis properly?
- **1 CIRCULARITY**
  - design a semantic metalanguage with which to describe the semantic units and rules of all languages.

Ex. *grammar of English written in Czech*
  - Which language is metalanguage?

Ideal – metalanguage neutral with respect to natural languages + clarity, economy, consistency...
2 As concerns the status of semantic vs. encyclopedic knowledge, the real issue is:

* What amount of knowledge is necessary to know in order to use a word?
* (e.g., one knows that a *whale* is a large animal living in the sea but one does not know that *whale* is a mammal – can one still successfully use the word?)
3 Context

Traditional solution how to deal with context:
* split an expression’s meaning between the conventional/ literal meaning and the meaning including local contextual effects

Investigate the role of context in communication → establish theories of how speakers amalgamate knowledge of context with linguistic knowledge → leads to interest in listener’s (active) role
1.5 Semantics in a Model of Grammar

* Semantics – one of the layers of linguistic analysis
* Semantics – one of the modules of linguistic knowledge (cf. flowchart style diagram, p. 9)

* **Meaning is a product of all linguistic levels.**
* Any **change of form** will produce **differences of meaning.**
  * → COGNITIVE GRAMMAR (theory): meaning cannot be identified as a separate level, autonomous from the study of other levels of grammar
1.5 Semantics in a Model of Grammar

- Many linguists believe that certain distinctions are useful:
  - Linguistic vs. Non-linguistic knowledge
    - Within linguistic knowledge:
      - Module for pronunciation
      - Module for grammar
      - Module for meaning
  - Word meaning vs. Sentence meaning
1.5.2 Word meaning vs. sentence meaning

- Mental store of words = mental lexicon (finite body of language, part of which must be semantic)
- **PRODUCTIVITY** = creating new words or sentences
  - Difference:
    - words – low productivity X sentences – high productivity
1.5.2 Word meaning vs. sentence meaning

- **Chomsky** – generative grammar
  - A relatively small number of **combinatory rules** may allow speakers to use a finite set of words to create a very large number of sentences

- The rules for sentence formations must be **recursive** (allowing repetition)
  → you can always add another clause to a sentence:
    - I bought [NP a book].
    - I bought [NP [NP a book] and [NP a magazine]].
1.5.2 Word meaning vs. sentence meaning

Sentence meaning is **COMPOSITIONAL** = the meaning of an expression is determined by the meaning of its component parts and the way in which they are combined.

How can we connect semantic information in the lexicon with the compositional meaning of sentences?

→ semantic rules and grammatic rules are inextricably bound together
1.6.1 Reference and Sense

Meaning of linguistic expressions derives from 2 sources:

- The **language** they are part of
- The **world** they describe

Words stand in a relationship to the world.
1.6.1 Reference and Sense

* He saw Paul. She bought a dog.
* → the underlined words identify, pick out or REFER to specific entities in the world.
* → they also derive their value from their position within a language system.

* REFERENCE = the relationship by which hooks onto the world
SENSE (meaning) of elements influences the semantic links between elements within the vocabulary system.

de Saussure: sheep (EN) – mouton (FR) can be used to refer in a similar way X they are in different systems → have different ranges

EN: sheep – mutton X FR mouton – mouton
FR: plural = 2 or more X Arabic (dual forms) = 3 or more
1.6.2 Utterances, Sentences and Propositions

- **UTTERANCES** – created by speaking/ writing a piece of language
- **SENTENCES** – abstract grammatical elements obtained from utterances
  - Ex. 4 utterances of the same sentence
- **PROPOSITIONS** – abstractions from sentences; grammatical differences (e.g., active vs. passive) irrelevant; the truth value matters
A: Caesar invaded Gaul.
B: Gaul was invaded by Caesar.
→ from a logician’s perspective these sentences are equivalent. Whenever A is true, B is true.

Common proposition: CAESAR INVRADED GAUL.
Formula for the proposition: invade (Caesar, Gaule)

In propositions, information structure does not matter either.
1.6.3 Literal and non-literal meaning

- **Literal:** speaker speaks in a neutral, factually accurate way
- **Non-literal:** speaker deliberately describes something in untrue or impossible terms
  - *I am hungry*
  - *I am starving*
  - *I could eat a horse.*
  - *My stomach thinks my throat's cut.*
1.6.3 Literal and non-literal meaning

- Non-literal uses – traditionally: figurative (metaphor, irony, metonymy...)

- Difficult: to draw a line between literal and non-literal uses of language.
  
  Meanings of words shift to fit new conditions, e.g. by metaphorical extension
1.6.3 Literal and non-literal meaning

- Metaphorical extension:
  - *surfing* the internet; *(mouse)*

- **Fossilized expressions** – their metaphorical quality is no longer apparent to speakers:
  - *catch a *shuttle* – related to looms and sewing machine
George Lakoff

- Metaphor is an integral part of human categorization
- Identifying central metaphors around which the whole semantic fields are systematically organized.

TIME IS MONEY

- You’re wasting my time.
- How do you spend your time these days?
- This gadget will save you hours.
- That flat time cost me an hour.
- I’ve invested a lot of time in her.
For many linguists: *spend* – an example of a **faded or dead** metaphor

- **Literal language theory** – non-literal uses of language require a different processing strategy; motivation to interpret the semantically odd phrases, make inferences
- X Lakoff (cognitive semantics) – LLT is mistaken in viewing metaphor as something extra to ordinary literal language
1.6.4 Semantics and Pragmatics

- Related, complementary fields of study

- Charles Morris (1940s) – division of semiotics:
  - Syntax – the formal relation of signs to each other
  - **Semantics** – the relations of signs to the objects to which the signs are applicable
  - **Pragmatics** – the relations of signs to interpreters
1.6.4 Semantics and Pragmatics

- Rudolf Carnap – pragmatics as the study of the speaker‘s/hearer‘s interpretation of language

- Meaning described in relation to speakers and hearers = pragmatics

- Meaning abstracted away from users = semantics

- Sentence meaning (semantics) vs. Speaker meaning (pragmatics)
To interpret the sentence *Is he awake?*, both semantic knowledge and pragmatic competence are needed.

- *He* – male entity (semantics)
- Who is referred to by „he“ (pragmatics)
- (The use of pronoun is dependent on contextual support)
What we have covered today:

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- UTTERANCES, SENTENCES and PROPOSITIONS
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Thank you for your attention!