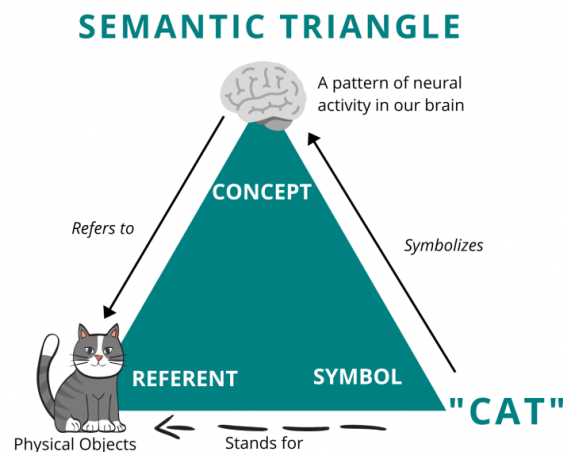
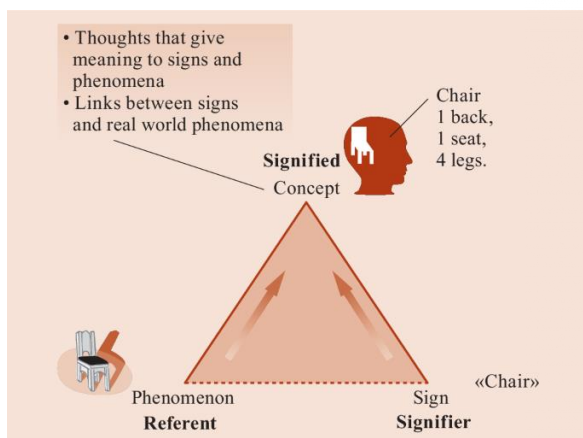


SEMANTICS

Semantics is a branch of linguistics that is concerned with the study of meaning. Studying particular meanings is called **lexical semantics**, while **formal semantics** is the study of meaning and meaning relations without regard to context. In other words, we can look at lexical semantics as being the study of words, their meanings and relations in the structure of sentences, and formal semantics as being the study of ‘grammatical’ meaning regardless of exact words. In this course, we will be trying to cover both aspects.

What is meaning?

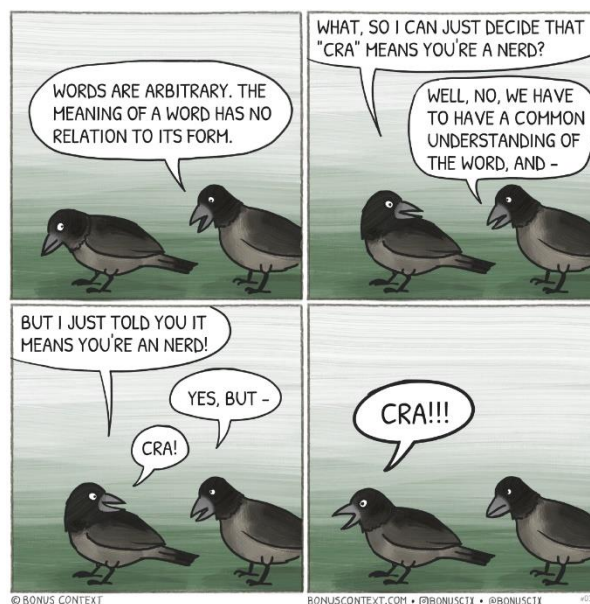
Meaning can be thought of as the relationship between a word, i.e. a sound signal, and the object or notion/concept it represents. We can think of three levels of abstraction here; first off, we have the sign/symbol, which can be a word, i.e. sound signal, or a drawing, an icon, or any symbol of any kind. This symbol (signifier) signifies a concept. This concept is a cognitive abstraction that we have in our minds. If I say ‘democracy’, then I used the symbol /dimo:krazi/ to evoke an abstract concept in your minds: the set of rules and regulations by which the people of a certain country or nation govern said country. This concept has a **referent** in real life, which is the concrete system of political operation called ‘democracy’. To further illustrate this, let us take an actual concrete object. Our class has a board. When I say /bo:rd/, it evokes the concept of a rectangular slab on which a teacher and/or students may use chalk/markers to write down words or draw things. Now, this concept will be used by the mind to relate to a specific **referent** in the real world, which is the one board that our class has.



We call this the semantic triangle. A certain symbol that signifies/symbolizes a concept, which in turn has a referent in real life.

This is all great, but how do we get meaning from a certain symbol? Well, meaning is **conventional** and **arbitrary**. There is no inherent link or logical connection between a certain symbol (signifier) and the concept/referent it represents or refers to (signified). This lack of an inherent link between a signifier and the signified is called the **arbitrariness** of language. Then how is meaning conveyed? Meaning is **conventional**, that is, people who speak a certain language agree on meaning. For example, there is no real link between the word ‘cat’ /kat/ and the quadruped feline animal. English speakers merely ‘agree’ or ‘implicitly know’ that the signal /kat/ refers to this concept. Similarly, Italian ‘gatto(a)’ /gat:o(a)/ follows the same logic. There is no link between this sound signal and the animal it represents, Italians just ‘agree’ on it. Hungarian ‘macska’, Arabic ‘bsayne’ etc.

Then, meaning is never inherent (in spoken languages, unless it is an instance of onomatopoeia), it is agreed upon. Form-meaning relationships are NOT intrinsic. Onomatopoeic words, like ‘buzz’ do have a certain degree of **iconicity**. **Iconicity** is when a certain symbol bears resemblance to the signified concept/referent. Similarly, sign languages also exhibits a degree of iconicity between the signifier and the signified. However, as our concern is spoken language, meaning is built up from arbitrary sound signals. The form has no relation to the meaning.



The concept that a word refers to may be called ‘the sense’ of a word, and the specific thing it refers to in real life is the ‘referent/reference’.

Now that we discussed how meaning is built up in single words from sound signals, how is meaning in a sentence built up?

Usually, meaning is **compositional**, in that the meaning of a sentence is the sum of the morphological words (and sound signals) that it contains. ‘John saw Mary in the store’ can be analyzed by getting the referents of all of these words and lumping it together (in a syntactically

structured way!). ‘John’ as a specific human male, experiencing the event of ‘seeing’ in the past, the object of the event being ‘Mary’, a specific human female, in a ‘store’.

Idioms are an example of **non-compositional** meaning. The sum of the meaning of individual words in an idiom does not lead to an understanding of said idiom. In ‘It is raining cats and dogs’, the meaning conveyed is that it is raining heavily, however, if we were to compositionally interpret this sentence, we would end up thinking that animals are falling from the sky!

Question: What are some idioms that you can think of, either in English or your own language?

A question we might ask ourselves is, if referents of different words are always different, how is compositionality always applicable? In other words, since ‘John saw Mary in the store’ and ‘A man saw a woman in a place’ have different words and referents, how can meaning still be compositional?

This is where we can start our formal semantics analysis. This kind of semantic analysis involves the thematic roles and relations between words (also called theta roles).

It is important, therefore, to define these thematic roles relative to the event (verb) taking place. Each verb has an idiosyncratic meaning in the lexicon, that is, a unique meaning that is determined by the verb itself. For example, the verb ‘eat’ includes features such as the need for an agent, i.e. someone doing the action of eating, while the verb ‘die’ can’t have an agent and only has an experiencer/theme, which, unlike the agent which does or initiates an action, experiences the effect of a certain event (die). Thus, these thematic relations are defined according to each event on its own. We can roughly represent this as: Event X has a subject with a Y role and an object with a Z role, where Y and Z represent one and only one role.

Major thematic roles include, but are not limited to:

1. **Agent:** An **agent** is someone who deliberately performs a certain action, the doer of a verb. Syntactically, the agent is the argument that corresponds to the **human subject** of a transitive verb. For example, in ‘John killed Mary’, ‘John’ is the agent. Animals and forces of nature may not be agents.
2. **Experiencer:** An **experiencer** is the entity that receives sensory or emotional input, in other words, this entity undergoes a sensory or emotional experience. This entity may be a human or an animal (animate). For example, in ‘I heard you talking’, the subject ‘I’ is an experiencer. ‘The dog cried’.
3. **Theme/Patient:** Some linguists make a distinction between themes and patients, while syntacticians usually use ‘theme’ invariably. The theme or patient corresponds to the object of a certain verb. The theme undergoes the effects of a certain agentive verb. The theme may also undergo a change of state and/or location. Examples include (themes are italicized): ‘The predators devoured *the deer*’ ‘I held *the books*’ ‘She returned *the chairs*’ ‘The company paid us *our salaries*’ etc.

4. **Cause:** It is the **insentient** entity or force of nature (inanimate) that brings about a certain event. For example, in ‘The sun melted the ice’, ‘the sun’ is the cause (not the agent!) ‘The wind broke the branches of the tree’ ‘the wind’ is the cause.
5. **Instrument:** Is the tool by which a certain event is done. The italicized words are the instruments in the following sentences ‘*These keys* opened the door.’ ‘I cut the salami with *a knife*’.
6. **Recipient/Goal:** Are the arguments that either receive the ownership/possession of a certain thing, or the locations that serve as endpoints to a certain event. ‘I gave *John* a book’. ‘I sent *her* a letter’ ‘I sent the books to *France*’ etc. **Locations** are generally **goals** while **humans** are **recipients**. In syntax, the indirect object is usually a goal.
7. **Locations:** Are places, i.e. where the event occurs. ‘We had dinner at *the restaurant*’ ‘The engineer works in *the factory*’.

These are certainly not all available thematic roles, but the most common ones.

Exercise: Write some sentences in which there are different/new thematic roles not mentioned above. If you find arguments (noun phrases) which do not fit into any thematic role, then you have discovered a new one. The aim of this exercise is for you to write sentences wherein new thematic roles are discussed. We will be discussing these roles in class. E.g. in the sentence ‘This book costs two thousand forints, what is the thematic role of ‘two thousand forints’? Write more sentences like this and find out new thematic roles.

Some lexical relations:

1. **Antonymy:** If two words have opposite meanings, they are called **antonyms**. These have two types, **gradable:** Can be used in comparative constructions. They are not complementary pairs in that the opposite of one does not necessarily imply the other; ‘old’ and ‘young’ are antonyms, but ‘not old’ does not necessarily imply ‘young’, and ‘not young’ does not imply ‘old’. **Non-gradable:** Complementary pairs, where the negative of one of them implies the other; ‘not dead’ means ‘alive’, ‘dead’ and ‘alive’ are antonyms.
2. **Synonyms:** If two words have very closely related meanings. The similarity in their meanings does not have to be total. ‘Close’ and ‘near’ are synonyms.
3. **Hyponymy and Hypernymy:** It is the relationship between a **subtype** (hyponym; e.g. dog) and the **supertype** (hypernym; animal). The hypernym, thus, is like a general term, and the hyponym is a specific member belonging to that general group.
4. **Homophony:** When two terms that differ in spelling have the same pronunciation, e.g. sea-see insight-incite.
5. **Homonymy:** When two terms have the same spelling and/or pronunciation but two different meanings. Examples include ‘bank’ ‘a place where you deposit your money’ and ‘bank’ as in a river bank.
6. **Polysemy:** When a word has multiple meanings by metaphorical extension. For example, a star can either mean a celestial object or the main actor in a certain movie.

These are not the only lexical relations that exist, but for our purposes, this will suffice.

Truth conditions can either refer to different types of truths in utterances, i.e. **analytic** or **synthetic**, or the different types of truth relationships between sentences, i.e. **entailment** or **presupposition** (also implicature).

Analytic propositions are sentences in which the truth value can be determined solely by their meaning. In other words, an analytic proposition is true or not true merely by the virtue of the meanings conveyed in it. For example, 'A bachelor is an unmarried man'. This sentence is true because this is what the word 'bachelor' means. You do not need real-life knowledge about anyone or any situation in order to prove or disprove the truth of this proposition, it holds true on its own.

Synthetic propositions, on the other hand, rely on utilizing real world knowledge about people and situations in order to determine the truth value of a sentence. 'John is an unmarried man' is only true if we know the referent 'John' to be unmarried in real life.

Entailment is a proposition which logically follows from another sentence. Consider the sentence 'John aced his exams'. This sentence also entails that John passed his exams. **Entailment** can be seen as a superset that automatically holds by virtue of the truth of its subset. If 'Mary loves John passionately', then also 'Mary loves/likes John', but not the other way around. If the superset is true, it does not follow that the subset is true, i.e. if 'John passed his exams', this does not necessarily mean that 'John aced his exams', and likewise if 'Mary loves John', it doesn't necessarily follow that 'Mary loves John passionately'. Another way to see entailment is considering two statements: (a) All students are smart. (b) Mary is a student.

If all (a) is smart (c), and Mary (b) is (a), then Mary is smart, i.e. if $a=c$ and $b=a$, then $b=c$.

Presuppositions are propositions that must be assumed to be true in order to judge the truth of a certain utterance. In 'Mary loves John', we presuppose the existence of a person named 'Mary' and a person named 'John'. Another example includes 'John laughed again' presupposes that John had laughed before. 'Mary passed her phonology exam' presupposes that Mary took phonology as a course, and so on.

Implicature are inferences about the world that we make based on assumptions about the intentions of the speaker. **Implicatures** differ from entailments and presuppositions by the fact that implicatures can be canceled. 'Mary passed 3 exams this semester' implicates that Mary passed only 3 exams, but can easily be canceled by saying 'Mary passed 3 exams this semester, and aced the fourth one!'.
Contradictions/Contradictory propositions are propositions which are always untrue by virtue of their meaning (the opposite of analytic propositions, cf. above). 'A bachelor is a married man' is a contradiction and always will be as such, since the meaning of bachelor negates the meaning of married.

With this, we have finished our seamless transition from **semantics** to **pragmatics**. Which is its own field of study.

Pragmatics is a branch of linguistics which is concerned with contexts and the contribution of context to meaning. Meaning can change depending on the context in which a certain utterance is spoken. In a certain country, 'propaganda' may have a positive connotation, or be associated with something good, but in the United States, such a word is met with great negativity and brings about negative thoughts and emotions. This is so because context matters in the creation of meaning.

Denotational meaning is the literal meaning of a word or an utterance. For example, the word 'blue' denotes a color and evokes that color in our minds when we say the word 'blue'.

Connotational meaning, on the other hand, is the contextual implied feelings or thoughts regarding a word or an utterance. If I say that I am feeling blue, this does not mean that I feel like the color blue, but rather that I am sad or depressed, since feeling 'blue' is associated with negative feelings.

Pragmatics is all about intentions, the context and their interaction.

