

«WHAT IS SEMANTICS?» BY:

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Semantics is the study of linguistic meaning: that is, the meaning of words, phrases, and sentences. Unlike pragmatics, semantics is part of grammar proper, the study of the internal structure of language. Unfortunately, because semantics is the most poorly understood component of grammar, it can be one of the most difficult areas of linguistics to study. The fact is that no one has yet developed a comprehensive, authoritative theory of linguistic meaning. Nonetheless, we can discuss some of the phenomena that have been studied within the domain of semantics and some of the theories that have been developed to explain them.

Background

Contributions to semantics have come essentially from two sources – linguistics and philosophy. Linguists have contributed primarily to the study of the core meaning or sense of individual words. One method that they have used to characterize the sense of words is called **lexical decomposition**. This method represents the sense of a word in terms of the **semantic features** that comprise it. For example, these words can be partly characterized by specifying a value (+ or –) for the features [adult] and [male], as follows.

	man	woman	boy	girl
[adult]	+	+	–	–
[male]	+	–	+	–

Lexical decomposition as a method for characterizing the sense of words, has several advantages. First, it explains our intuitions as speakers of English that the meanings of **man** and **boy** are more closely related than are the meanings of **man** and **girl**. **Man** and **boy** have the same value for one of these features [male], whereas **man** and **girl** do not have the same value for either of these features. Second, it is easy to characterize the senses of additional words by adding features. For example, we can account for part of the meanings of **stallion**, **mare**, **colt**, and **filly** simply by adding the feature [human], as follows.

	man	woman	boy	girl	stallion	mare	colt	filly
[adult]	+	+	–	–	+	+	–	–
[male]	+	–	+	–	+	–	+	–
[human]	+	+	+	+	–	–	–	–

Finally, this method allows us, at least in principle, to characterize the senses of a potentially infinite set of words with a finite number of semantic features. In general, the fewer the number of statements required by a theory to account for a given set of observations, the more highly valued the theory.

On the other hand, lexical decomposition has several practical limitations. First, linguists have been unable to agree on exactly how many and which features constitute the universal set of semantic properties, especially once we go beyond the handful of features, already mentioned. Moreover, nouns, especially concrete nouns, seem to lend themselves to lexical decomposition more readily than do other parts of speech. For example, what features could be used to characterize the sense of **carefully**, **bel-ligerent**, and **assassinate**, not to mention **the**, **of** and **however**? In sum, then, lexical decomposition in terms of semantic features provides a useful, if some what limited, account of the meaning of words.

Philosophers, on the other hand, have contributed primarily to the study of the meaning of sentences. However, rather than trying to characterize the core meaning or sense of sentences directly – which, as we have just seen, is a difficult undertaking – they have approached the semantics of sentences from two other directions: the study of **reference** and the study of **truth conditions**. Reference is the study of what objects are referred to by linguistic expressions (i.e., words, phrases, sentences, and so on). For example, in the sentence **Washington, DC, is the capital of the United States**, the expressions **Washington, DC**, and **the capital of the United States** refer to the same entity, namely **Washington, DC**.

Truth-conditional semantics, on the other hand, is the study of the conditions under which a statement can be judged true or false. In actuality, much of what goes under the name of truth conditions involves truth relations that hold between sentences. For example, if the sentence **Fred is 80 years old** is true, then the sentence **Fred is over 50 years old** is necessarily, true.

Both the study of reference and the study of truth conditions have advantages as well as limitations. The major advantage of the both avenues of inquiry is that they have very restricted domains, which can be probed in a reasonable amount of detail. The drawback, of course, is that both of them overlook a great deal of what might fall within the domain of "meaning". For example, in the sentence **Washington, DC, is the capital of the United States**, determining the referents of **Washington, DC**, and **the capital of the United States** skirts the question of what these expressions "mean."

So far, we have considered semantics from the point of view of the contributors to the theory: linguists, who have studied meaning through lexical decomposition, and philosophers, who have studied meaning through reference and truth conditions. If we abstract away from the material we've been discussing, we can divide the study of semantics into three areas: **sense**, **reference**, and **truth**. Lets now consider each one in turn.

Sense

The study of sense (or meaning) can be divided into two areas: speaker-sense and linguistic sense. **Speaker-sense** is the speaker's intention in producing some linguistic expression. For example, if someone utters the sentence **Fred is a real genius** sarcastically, then the speaker-sense of the sentence might be 'Fred is below average in intelligence.' Speaker-sense, because it has to do with nonliteral meaning, is outside the domain of semantics; rather, it is part of pragmatics. **Linguistic-sense**, on the other

hand, is the meaning of a linguistic expression as part of a language. For example, if the sentence **Fred is a real genius** means literally something like 'Fred has a truly superior intellect,' then linguistic-sense is within the domain of semantics, since it deals solely with literal meaning and is independent of speaker, hearer, and situational context.

Reference

The study of reference, like the study of sense, can be divided into two areas: speaker-reference and linguistic-reference. **Speaker-reference** is what the speaker is referring to by using some linguistic expression. For example, if someone utters the sentence **Here comes Queen Elizabeth** facetiously, to refer to a snobbish acquaintance, then the speaker-reference of the expression **Queen Elizabeth** is the acquaintance. Speaker-reference, because it varies according to the speaker and context, is outside the domain of semantics; instead it is part of pragmatics. **Linguistic-reference**, on the other hand, is the systematic denotation of some linguistic expression as part of a language. For example, the linguistic expression **Queen Elizabeth** in the sentence **Here comes Queen Elizabeth** refers in fact to the public figure Queen Elizabeth. Linguistic-reference, in contrast to speaker-reference, is within the domain of semantics, since it deals with reference that is a systematic function of the language itself, rather than of the speaker and context.

Let's now consider some concepts that seem useful in thinking and talking about reference (**referent**, **extension**, **prototype**, and **stereotype**); then we will take a look at some different types of linguistic reference (**coreference**, **anaphora**, and **deixis**).

Referent. The entity identified by the use of a referring expression such as a noun or noun phrase is the referent of that expression. If, for example, you point to a particular robin and say **That bird looks sick**, then the referent for the referring expression **That bird** is the particular robin you are pointing at.

Extension. Extension refers to the set of all potential referents for a referring expression. For example, the extension of **bird** is the set of all entities (past, present, and future) that could systematically be referred to by the expression **bird**. In other words, the extension of **bird** is the set of all birds.

Prototype. A typical member of the extension of a referring expression is a prototype of that expression. For example, a robin or a blue bird might be a prototype of **bird**; a pelican or an ostrich, since each is somewhat atypical, would not be.

Stereotype. A list of characteristics describing a prototype is said to be a stereotype. For example, the stereotype of **bird** might be something like the following: has two legs and two wings, has feathers, is about six to eight inches from head to tail, makes a chirping noise, lays eggs, builds nests, and so on.

Coreference. Two linguistic expressions that refer to the same real – world entity are said to be coreferential. Consider, for example, the sentence **Jay Leno is the host of the Tonight Show**. The expression **Jay Leno** and **the host of the Tonight Show** are coreferential because they both refer to the same entity, namely the person Jay Leno. Note, however, the coreferential expressions do not "mean" the same thing; that is, they are not synonymous. For example, before Jay Leno hosted the **Tonight Show**, Johnny Carson held that position; thus, there was a period of time when **Johnny Carson** was coreferential with **host of the Tonight Show**. However, we cannot describe **Johnny Carson** and **Jay Leno** as "meaning" the same thing. The fact that

they are not synonymous is illustrated by the unacceptability of the sentence **Jay Leno used to be Johnny Carson**.

Anaphora. A linguistic expression that refers to another linguistic expression is said to be anaphoric or anaphor. Consider the sentence **Mary wants to play whoever thinks himself capable of beating her**. In this sentence the linguistic expression **himself** necessarily refers to **whoever**; thus **himself** is being used anaphorically in this case. Note, moreover, that it would be inaccurate to claim that **whoever** and **himself** are coreferential (i.e., that they have the same extralinguistic referent). This is because there may in fact not be anyone who thinks himself capable of beating Mary; that is, there may not be any extralinguistic referent for **whoever** and **himself**.

It is common, however, for coreference and anaphora to coincide. Consider, for example, the sentence **The media reported that Congress voted themselves a raise**. The expression **Congress** and **themselves** are coreferential since they refer to the same real-world entity, namely the legislative branch of the federal government. At the same time, **themselves** is an anaphor since it necessarily refers to the expression **Congress**. Note that there is no reading of this sentence such that **themselves** can be constructed as referring to the expression **the media**. In sum, coreference deals with the relation of linguistic expression to some entity in the real world, past, present, or future; anaphora deals with the relation between two linguistic expressions.

Deixis. A deictic expression has one meaning but can refer to different entities depending on the speaker and his or her spatial and temporal orientation. Obvious examples are expressions such as **you** and **I**, **here** and **there**, and **right** and **left**. Assume, for instance, that Jack and Jill are speaking to each other face to face. When Jack is speaking, **I** refers to Jack, and **you** refers to Jill. When Jill is speaking, the referents for these expressions reverse. Likewise, when Jack is speaking, **here** refers to a position near Jack, and **there** refers to a position near Jill. When Jill speaks, the referents for these expressions reverse. Similarly, **right** and **left** can refer to the same location, depending upon whether Jack or Jill is speaking; his left is her right, and vice versa. Likewise, expressions such as **yesterday**, **today**, and **tomorrow** are deictic. Jack may say to Jill, **Yesterday I told you I would pay you tomorrow, which is today**.

Note, moreover, that deixis can intersect with anaphora. Consider, for example, the sentence **Members of Congress believe they deserve a raise**. The expression **they** can refer either to the expression **members of Congress** or to some other plural entity in the context of the utterance. When, as in the first case, a pronoun refers to another linguistic expression, it is used anaphorically; when, as in the second case, it refers to some entity in the extralinguistic context, it is used deictically.

Truth

The study of truth conditions in semantics falls into two basic categories. The study of different types of truth embodied in individual sentences (**analytic**, **contradictory**, and **synthetic**) and the study of different types of truth relation that hold between sentences (**entailment** and **presupposition**).

Analytic Sentences. An analytic sentence is one that is necessarily true simply by virtue of the words in it. For example, the sentence **A bachelor is an unmarried man** is true not because the word is the way it is, but because the English language is the way it is. Part of our knowledge of ordinary English is that **bachelor** "means" **an unmarried man**, thus to say that one is the other must necessarily be true. We do not

need to check on the outside world to verify the truth of this sentence. We might say that analytic sentences are "true by definition." Analytic sentences are sometimes referred to as **linguistic truths**, because they are true by virtue of the language itself.

Contradictory Sentences. Contradictory sentences are just the opposite of analytic sentences. While analytic sentences are necessarily true as a result of the words in them, contradictory sentences are necessarily false for the same reason. The following sentences are all contradictory: **A bachelor is a married man**, **A blue gas is colorless**, **A square has five equal sides**. In each case, we know the sentence is false because we know the meaning of the words in it: part of the meaning of **bachelor** is 'unmarried'; part of the meaning of **blue** is 'has color'; part of the meaning **square** is 'four-sided'. It is not necessary to refer to the outside world in order to judge each of these sentences false. Consequently contradictory sentences are sometimes referred to as **linguistic falsities**, because they are false by virtue of the language itself.

Synthetic Sentences. Synthetic sentences may be true or false depending upon how the world is. In contrast to analytic and contradictory sentences, synthetic sentences are not true or false because of the words that comprise them, but rather because they do or do not accurately describe some state of affairs in the world. For example, the sentence **My next door neighbor, Bud Brown, is married** is a synthetic sentence. Note that you cannot judge its truth or falsity by inspecting the words in the sentence. Rather, you must verify the truth or falsity of this sentence empirically, for example by checking the marriage records at the courthouse. Other examples of synthetic sentences include **Nitrous oxide is blue**, **Nitrous oxide is not blue**, **Bud Brown's house has five sides**, and **Bud Brown's house does not have five sides**. In each case, the truth or falsity of the sentence can be verified only by consulting the state of affairs that holds in the world. Thus, synthetic sentences are sometimes referred to as **empirical truths or falsities**, because they are true or false by virtue of the state of the extralinguistic world.

Entailment. An entailment is a proposition (expressed in a sentence) that follows necessarily from another sentence. For example, **Martina aced chemistry** entails **Martina passed chemistry**, because one cannot ace chemistry without passing chemistry. The test for entailment is as follows: sentence (a) entails sentence (b) if the truth of sentence (a) ensures the truth of sentence (b) and if the falsity of sentence (b) ensures the falsity of sentence (a). Our example sentences pass both tests. First, the truth of sentence (a) ensures the truth of sentence (b). Note that if Martina aced chemistry, she necessarily passed chemistry. Second, the falsity of sentence (b) ensures the falsity of sentence (a). If Martina didn't pass chemistry, she necessarily didn't ace chemistry.

Note, however, that the relation of entailment is unidirectional. For example, consider our example sentences again, but in opposite order: (b) **Martina passed chemistry** and (a) **Martina aced chemistry**. In this case, sentence (b) does not entail (a) (if Martina passed chemistry, she did not necessarily ace chemistry – she may have made a c); and the falsity of (a) does not ensure the falsity of (b) (if Martina did not ace chemistry, it is not necessarily the case that she did not pass chemistry – she may, once again, have made a c). In short, then, it should be clear that the relation of entailment is unidirectional.

This is not to say, however, that there cannot be a pair of sentences such that each entails the other. Rather, when such a relation holds, it is called **paraphrase**. For example, the sentences **Martina passed chemistry** and **What Martina passed was chemistry** are paraphrases of each other. Note, incidentally, that entailment describes the same relationship between sentences that hyponymy describes between words. Likewise, paraphrase describes the same relationship between sentences that synonymy describes between words. These relations are illustrated in figure 1.

	SENTENCES	WORDS
unidirectional	entailment (Martina aced chemistry → Martina passed chemistry)	Hyponymy (hate → dislike)
bidirectional	paraphrase (Martina passed chemistry ↔ What Martina passed was chemistry)	synonymy (hate → despise)

Figure 1 Inclusion analogues between sentences and words presupposition

Presupposition. A presupposition is a proposition (expressed in a sentence) that must be assumed to be true in order to judge the truth or falsity of another sentence. For example, **Martina aced chemistry** presupposes **Martina took chemistry**, because acing chemistry assumes the person in question actually took chemistry. The simplest test for presupposition depends upon the fact that a sentence and its denial (i.e., the negative version of the sentence) have the set of presuppositions. This test is known as **constancy under negation**. Thus, if sentence (a) **Martina aced chemistry** presupposes sentence (b) **Martina took chemistry**, then the denial of sentence (a) **Martina did not ace chemistry** also presupposes sentence (b) **Martina took chemistry**. If Martina take chemistry, then **Martina did not ace chemistry** cannot be judged true or false.

The relationship between entailment and presupposition is illustrated in Figure 2. Figure 2 should be read as follows: **Martina aced chemistry** entails **Martina passed chemistry**. Both of those sentences, in turn, presuppose **Martina took chemistry**.



Figure 2 Relationship between entailment and presupposition

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SEMANTİKA NƏDİR?

KƏRİM NƏZƏRİ BƏQA

XÜLASƏ

Semantik nəzəriyyəyə yardım iki əsas mənbədən gəlmişdir: dilçilik ifadələrinin (xüsusilə sözlər) mənası və ya əsas mahiyyəti ilə ənənəvi olaraq maraqlanan dilçilikdən və dilçilik ifadələri və cümlənin həqiqiliyinin nümunələri ilə ənənəvi olaraq maraqlanan filosoflardan. Mənanın öyrənilməsində leksiki bölünmə, semantik xüsusiyyətlər, leksik ikimənalılıq, sinonim, hiponimiya, qismən uyğunluq və antonim kimi anlayışlardan istifadə edilir. Nümunələrin öyrənilməsində referent, əlavə edilmə, prototip, stereotip, konferensiya (eyni sinfi və ya fərdi müəyyən edən bir dilçilik ifadələrinə nisbətən daha çox), anafora və işarəli sözlər kimi anlayışlardan istifadə edilir. Nəhayət, həqiqiliyin şərtinin öyrənilməsi analitik, ziddiyyət və sintetik cümlələr, həmçinin sözlərləri arasında əlaqə və fərziyyə anlayışlarını nəzərdə tutur.

ЧТО ТАКОЕ СЕМАНТИКА?

КАРИМ НАЗАРИ БЕГА

РЕЗЮМЕ

Поддержка семантической теории создана из двух источников: значение выражений языкознания (особые слова) или языкознания, традиционно интересующегося основной сущностью и выражений языкознания и философов, традиционно интересующихся образцами действительности. В изучении значения используются лексическое разделение, семантические особенности, лексическая двузначность, синонимы, гипонимия, частичное соответствие и антонимы. В изучении образцов используются такие понятия как референт, дополнение прототип, стереотип, конференция (относительно больше выражения языкознания, устанавливающего тот же класс или индивид), анафора. Наконец, изучение условий действительности предусматривает аналитические, контрастные и синтетические предложения, а так же понятия гипотезы и связи между предложениями.