Lexical Conditions

All lexical words can be regarded, from a formal point of view, as predicates at an appropriately abstract level of representation. At surface level, languages encode lexical meaning in a variety of categories such as verbs, adjectives, adverbs, prepositions, numerals, and sometimes even in morphological affixes. At a sufficiently abstract level of semantic representation all these categories can be considered 'predicates.'

All a predicate can do is make sentences, i.e., linguistic structures that carry a truth value with respect to some state of affairs. In principle, a sentence consists of an n-ary predicate combined with n terms. Definite terms normally denote an address in a given discourse domain (see *Discourse Domain*). Occasionally, a definite term position is filled by a variable, i.e., a symbol that carries the instruction to replace it by all the definite terms from a given range. In that case the structure is not a sentence but a set of sentences, each with a truth value, or, in standard terminology, a 'sentential function.' Some term positions may, or must, be filled again by sentences or sentential functions, which makes for a recursive syntax and thus, in principle, for an infinite number of sentences. If a sentence has a truth value the addresses denoted by its definite terms are cognitive representations of real or imagined entities in the actual world, and the sentential terms also have a definable counterpart in the actual world. The entities and other real world counterparts are the so-called 'term extensions.'

Assertions occurring in linguistic interaction are uttered surface sentences. But clearly, if all adjectives, prepositions, adverbs, etc. as they occur in surface sentences are to be seen as predicates, the level of abstract semantic representation at which they all form sentences or sentential functions must be structurally very different from the corresponding surface structure, even though the two are semantically equivalent. The abstract semantic representation is built up recursively from predicates and terms, where a term may again be a sentence. Surface structures, obviously, conform to a much more richly defined structural format. The rule system mapping the abstract structures on the surface and vice versa is called by some the 'grammar,' and by others the 'semantic interpretation,' of the language in question.

A sentence acquires its truth value as follows. An n-ary predicate P^n is a function from n-tuples of term extensions to truth values. Less formally, P^n is a 'filter,' a set of conditions, which can be applied to objects or pairs, triples, etc. of objects. If the object, or pair, triple, etc. of objects, passes the filter, i.e., fulfills the conditions, then the sentence in question is true. These conditions are called 'lexical conditions.' Thus, for example, the conditions that determine whether a sentence like *This animal is a dog* is true are the lexical conditions associated with the predicate *dog*, applied to whatever object is referred to by the definite term, *this animal*. Only if that object fulfills the conditions that are necessary for doghood, is the sentence true.

Analyzing all lexical meanings as predicate meanings has the advantage of a uniform format of lexical specification for all lexical items. Each lexical meaning can now be defined as the set of conditions that must be fulfilled by any n-tuple of term extensions if a true sentence is to come about. Formally, it can be stated that the extension of an n-ary predicate P^n is the set of n-tuples of world objects that fulfill the conditions set for P^n. Or, with 'σ' denoting the function delivering extensions:

$$\sigma(P^n) = \{\langle e_1, \ldots, e_n\rangle \mid \ldots \text{(lexical conditions)} \ldots\}.$$

In presupposition theory, where at least some presuppositions of sentences are derived from the lexical conditions of predicates (see Fillmore 1971), a distinction can be made between two kinds of lexical conditions: the 'preconditions' and the 'satisfaction conditions' (see *Presupposition*). If a precondition is not fulfilled, the sentence suffers from 'presupposition failure,' a condition which, according to some (in particular Strawson 1950), leads to a lack of truth value and, according to others (Blau 1978; Seuren 1985), to a third truth value, strong or radical falsity. If a satisfaction condition is not fulfilled the sentence is simply, or, in the view of those who advocate a third truth value, minimally false. The latter view requires a 'trivalent logic,' where the notion of falsity is divided into two subspecies of falsity. (Such a trivalent logic is, therefore, nothing but a refinement of standard bivalent logic.) In presupposition theory, the lexical conditions of a predicate P^n can thus be presented in the following general format:

$$\sigma(P^n) = \{\langle e_1, \ldots, e_n\rangle\colon \ldots \text{(preconditions)} \ldots \mid \ldots \text{(satisfaction conditions)} \ldots\}.$$

See also: Categorial Presupposition; Discourse Semantics; Existence Predicate (Discourse Semantics); Factivity; Presupposition; Existential Presupposition.

Bibliography

Blau U 1978 *Die dreiwertige Logik der Sprache. Ihre Syntax. Semantik und Anwendung in der Sprachanalyse.* De Gruyter. Berlin

Fillmore C J 1971 Types of lexical information. In: Steinberg D, Jakobovits L (eds.) *Semantics: An Interdisciplinary Reader in Philosophy Linguistics and Psychology*. Cambridge University Press, Cambridge

Seuren P A M 1985 *Discourse Semantics*. Blackwell, Oxford

Strawson P F 1950 On referring. *Mind* **59**: 320–44

P. A. M. Seuren