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LEXICAL AMBIGUITY COMPARED TO SYNTACTIC / OR STRUCTURAL AMBIGUITY

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Abstract: Language is an important tool for us to communicate and transfer information day by day. It is really hard to imagine a situation without language delivery. Furthermore, a natural language is not so perfectly designed to transfer all the information in an expected way. More or less, some gaps in a language cannot be avoided, such as the ambiguity of a language which causes confusion in people's common utterances. There are frequently ambiguous words and sentences appearing in our utterances which acquire more succinct clarification from speakers. Various interpretations of the same utterance may lead to various interpretations and to the difficulty of comprehension of listeners. Taken for granted, ambiguous sentences and words can be quite often interpreted in an accurate way when they are used in reality; moreover, writers and speakers use this characteristic of ambiguity to make an artistic impact on their language.
Both syntactic and lexical ambiguity, are ruled by the same types of knowledge representations and processing mechanisms. Highly similarly empirical, theoretical and methodological issues have arisen in both the lexical and syntactic domains; the role of frequency information, the types of information involved in contextual constraints, the extent to which contextual information constrains the interpretation of ambiguities and whether the processing system is modular or interactive. Even though structural ambiguities are rarely noticed in ordinary language use, yet, they are extremely common like lexical ambiguities. They are a major contributor to the large number of parses produced by computational parsing systems. Syntactic and lexical ambiguity is very pervasive in linguistics and although the language intentions might have an objective sensationalistic interpretation, it can also be a misconstrued manipulative device. Recent types of theorizing eliminate the strong distinction between accessing a meaning and constructing a syntactic representation, which was central to previous accounts. These parallels between the domains are not coincidental; they reflect common underlying processes and types of knowledge representations. The parallels derive from the fact that the syntactic ambiguities in question are based on ambiguities at the lexical level. The same ambiguity resolution mechanisms apply in both domains because both involve ambiguities over various types of lexical representations.
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LEXICAL AMBIGUITY

Lexical ambiguity is one of the most difficult problems in language processing studies and thus, not surprisingly, it is at the core of lexical semantics research. It is a linguistic term for a word's capacity to carry two or more obviously different meanings. Linguistically, lexical ambiguity arises when a word or concept has an inherently diffuse meaning based on widespread or informal usage.
As such lexical ambiguity occurs when the structure of the sentence, rather than the meanings of the words, causes the problem, as in "call me a cab," because it's not clear whether the "cab" (name me a cab) part applies to the person or the vehicle (call a taxi for me). The meaning of the individual words is clear; it's their usage of construction that causes the problem.
Lexical ambiguity is in fact quite common in natural language. An utterance may very well lead to more than one interpretation just because one of the words has more than one meaning. According to theoretical linguistic accounts, lexical ambiguity is not a uniform phenomenon. Each meaning of a given ambiguous lexical item (irrespective of whether it is homonymous or polysemous) is stored separately in the mental lexicon (Kempson, 1977; Weinreich, 1966). Within its specification, there is information about the syntactic category of the item (i.e., DOG) as well as its broader meaning category (i.e., GENUS) (Pustejovsky, 1995).
Oaks (1994: 378) defines lexical ambiguity as conveyed by ''a word with more than one possible meaning in a context''. In particular, the lexical ambiguity that Oaks illustrates without focusing on it in his article is a same-class ambiguity in which, unlike in structural ambiguity, the lexical item does not change part of speech.
Lexical ambiguity so far, represents a choice between a finite number of known and meaningful context-dependent interpretations. It is a specific, finite number of alternative meanings. Furthermore it is based strictly on multiple dictionary definitions of a word, or in other words, given words being exact homophones; "board" meaning a wooden flat object for different purposes, and "board" as a group of people or team, generally chosen to serve as a think tank to make an account over something.

In written texts, lexical ambiguity, results from multiple meanings of a word, and in spoken language, results from different word forms of the same sounds. The word chief , for example, has one meaning and that is 'the person in command of a ship, aircraft, or spacecraft' or another meaning, for instance, that of 'a leader of a team or group', so this sentence may be also ambiguous without context. For further explanation, there are two reasons for multiple meanings of a word. One is owing to homonyms which have entirely different meanings but share the identical word form, like in the word 'bill', where the two meanings of bill are irrelative; these two bill are two lexemes in a linguistic view. The other one is due to polysemy (Cann 1993) which means the meanings of the same word are relevant but still different to certain extent, for example, in (5) chief includes different interpretations which all refer to a role of a leader.

Lexical ambiguity is concerned with multiple interpretations of lexemes. A sentence can be interpreted in different ways and it may be caused by multiple meanings of one word – that is lexical ambiguity.

To emphasize, lexical ambiguity is a pervasive phenomenon in language. It is thus, not surprising that a great deal of current research in psycholinguistics is devoted to the study of how people understand ambiguous words, in particular to the study of when context becomes effective in determining their contextually appropriate interpretation.

Lexical access processes that allow access to one meaning at a time in a predefined order would be most consistent with a ranked or marked search model of lexical disambiguation and least consistent with an exhaustive computation model. An exhaustive computation model would be most consistent with lexical access processes that provide access to all meanings of an ambiguous word at the same time. Yet, it should be emphasized that it is possible to propose several different mixed models which incorporate the characteristics of both the exhaustive computation and marked search models. It is possible, for example, that lexical access processes are exhaustive (and this could happen either sequentially or in parallel and, at the same time, working memory could be characterized by a marking process. Discerning these models empirically requires suppositions about the processes being measured by a certain task. The phoneme monitoring this task presumably taps working memory (Foss, 1970), while Conrad's task is assumed to be affected by previous lexical activation.

Lexical ambiguity by far, is not simply an issue of semantic analysis, as far as this is concerned. It is one of the chief causes of structural ambiguity as well, and it is, therefore, an issue with which syntactic analyzers must contend as well. This aspect of this issue has also long been taken for granted. In the well-known example "Time flies like an arrow," (Kuno, 1965), much of the structural ambiguity of the sentence derives from the part-of-speech ambiguity of the words "time," "flies," and "like," which in turn reflects their semantic ambiguity. The problem of lexical ambiguity can really serve as a basis by which theories of language analysis can be accounted. Of course, lexical ambiguity is not just a problem for semantic analysis.

SYNTACTIC/OR STRUCTURAL AMBIGUITY

Syntactic ambiguity, that we very frequently hear it called amphiboly or amphibology, is a situation where a sentence might be interpreted in more than one way due to ambiguous sentence structure. It arises not from the range of meanings of single words, but from the relationship between the words and clauses of a sentence, and the sentence structure underlying the word order therein. That is to say, a sentence is syntactically ambiguous when a reader or listener can reasonably interpret one sentence as having more than one possible structure.

Structural ambiguity or syntactic ambiguity is created by confusion between different classes of parts of speech, so that the two interpretations require a restructuring of the sentence. This kind of ambiguity, analyzed by Oaks (1994: 378), is well represented by the example he gives:

Man in Restaurant: I'll have two lamb chops, and make them lean,
please.
Waiter: To which side, sir?

where ''the change in meaning of lean (. . .) actually comes out by a differentiation of our perception regarding the structure of the sentence, creating a structural ambiguity''

Structuralists attribute *syntactic ambiguity* either to the lack of certain grammatical indications such as deictic words, word order or inflection, which are responsible for word class ambiguity or to the grammatical relations between the immediate constituents of a construction. As for "class ambiguity" which is frequently observed in telegrams and newspaper headlines, structuralists say that for the sake of economy and exactness, certain grammatical indications such as function words can be left out from a sentence.

Syntactic ambiguity often stems from the different grammatical relations among the phrase or clause constituents. Linguistic investigation has so far revealed that structuralists identified ambiguity as one of the English linguistic phenomena. However, transformationalists were the first to introduce syntactic structures (Chomsky,

1957). This version contains phrase structure rules written in symbols and used for generating sentences and then led to the invention of tree-diagram, which is used to solve some cases of ambiguity.

Structuralists attribute "syntactic ambiguity" to the absence of certain grammatical signals such as deictic words, word order or inflection, which are responsible for word class ambiguity or to the grammatical relations between the immediate constituents of a construction. e.g;

- He looked at the man with one eye

The phrase with one eye could either be attached to the man or else directly to the verb phrase

It is not always clear when we have a case of structural ambiguity. Consider, for example, the elliptical sentence, ' Oliver knows a smarter man than Harry'. It has two meanings, that Oliver knows a man who is smarter than Harry and that Oliver knows man who is smarter than any man Harry knows, and is therefore ambiguous. But what about the sentence 'Charlie loves his father and so does Oscar '?

It can be used to say either that Charlie loves Charlie's father and Oscar loves Oscar's father or that Charlie loves Charlie's mother and Oscar loves Charlie's mother.

But is it really ambiguous? One might argue that the clause 'so does Oscar' is unambiguous and may be read unequivocally as saying in the context that Oscar does the same thing that Charlie does, and although there are two different possibilities for what counts as doing the same thing, these alternatives are not fixed semantically. Hence the ambiguity is merely apparent and better described as semantic underdetermination.

Structural or syntactic ambiguity refers to the situation in which 'a sentence may have different meanings because the words of a sentence are related to each other in various ways, even though each word is clear' (Hurford and Heasley 1983: 128).

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a) William saw a woman with his glasses
b) William saw a woman with her glasses

A sentence like (b) illustrates two different possibilities - one is that William saw a woman with his glasses; the other one is that William saw a woman with her glasses. Distinguishing from lexical ambiguity, all the words in this sentence are clear on their individual meanings. Thus, a simple test for differentiating these two types is that the sentence which includes more than one structure trees without individually ambiguous words is a structurally ambiguous sentence.

However, such ambiguity does not always cause a problem in comprehension. Receivers sometimes could use background knowledge to interpret some ambiguous sentences as some examples from *Semantics* (Saeed 2003:193).

Structural ambiguity, as mentioned, occurs when a phrase or sentence has more than one underlying structure, such as the phrases ‘American history teacher’, ‘a man of low immoral principles’ and ‘tall boys and girls’, and the sentences ‘The owner hit the employee with a hammer’ and ‘This morning I shot an elephant in my pajamas. How he got in my pajamas I don't know.’ These ambiguities are said to be structural because each such phrase can be represented in two structurally different ways, e.g., ‘[American history] teacher' and ‘American [history teacher]’. Indeed, the existence of such ambiguities provides strong evidence for a level of underlying syntactic structure. Consider the structurally ambiguous sentence, 'The chicken is ready to eat', which could be used to describe either a hungry chicken or a broiled chicken. It is arguable that the operative reading depends on whether or not the implicit subject of the infinitive clause ‘to eat’ is tied anaphorically to the subject ('the chicken') of the main clause.

HOW CAN WE DETERMINE IF AN AMBIGUOUS SENTENCE OR PHRASE IS SYNTACTICALLY AMBIGUOUS;

In the majority of cases, we can identify sentences which are syntactically ambiguous by considering the following tips.

1. Determine which readings the sentence or phrase has (paraphrasing helps).
2. Check the syntactic category of each word in each of the readings. If one or more words has a different syntactic category in different readings, the sentence or phrase exhibits *lexical* syntactic ambiguity.
3. Else, check the syntactic structure of the sentence or phrase in each of the readings (that is, draw tree diagrams; you may draw a partial tree involving only the ambiguous parts, if you feel confident enough). If the diagrams are different, the sentence or phrase exhibits *structural* syntactic ambiguity.

4. Else, the sentence is *not* syntactically ambiguous (it may still be semantically, pragmatically, or otherwise ambiguous).

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