INTONATION AND AMBIGUITY

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ABSTRACT

The conditions for an expression to be ambiguous are the result of a rule violation. There is no violation of the nuclear stress rule (NSR) but its substitution for the compound stress (CSR), as a result of transformations that affect the semantic representation of a sentence. The ways of cancelling ambiguity can be regarded as having a semantic status, when there is a connection with the alteration of a context, or a change in the semantic representation.

1. INTRODUCTION

1.1. The nature of ambiguity

The twofold aspects of ambiguity, consisting of the diversity of semantic description and singularity of formal expression, is the starting point in the understanding of this semantic device. Form and meaning are to be considered in an analysis of ambiguity, as well as a disassociation of the space relation, of what goes with what, that affects word order and agreement.

1.2. Types of ambiguity

The conditions for an expression to be ambiguous are the result of the violation of a syntactic or semantic rule, and such conditions establish the kind of ambiguity.

1.2.1. Syntactic type

The violation of a syntactic rule gives rise to a syntactic type of ambiguity, and it could affect different syntactic aspects.
A. The space definition of a word concerns its grammatical category, because of its capacity to be ascribed to more than one category, when the adequate lexical meaning is provided: (1) **They are visiting friends** has two different readings, according to the double syntactic function of **visiting** as a present participle or an adjective: (a) **they are people who are visiting their friends** and (b) **they are people who visit their friends.**
B. The delimitation of a word space is related to a conflict of agreement, due to the lack of inflections: (2) **Old men and women should be out of danger.** Interpretation (a) is based on the restrictive agreement of an adjective with the nearest noun, when there are two joined in coordination: **Old men as well as women should be out of danger,** and interpretation (b) concerns the agreement of an adjective with the two nouns: **Old men and old women should be out of danger.**
C. The space assignment to a word can affect the modal aspect, that is restricted to modal operators like quantifiers, with a modality **de dicto** or **de re**, regarding the scope of influence: (3) **Ruth wants a woman to stay.** The two readings are the result of the application of a modality **de dicto: (a) Ruth wants any woman to stay,** or a modality **de re: (b) Ruth wants a particular woman to stay.** In (a) a **woman** is in the scope of **want**, and in (b) **wants** is in the scope of **a woman.**

1.2.2. Lexical type

The violation of a semantic rule brings about a lexical type of ambiguity.
The cause of ambiguity is the coocurrence in a syntactic context of two types of meanings that refer to the same lexeme: (4) **Mary is going to have a baby.** The dual interpretation of the sentence is due to the substitution of a conceptual meaning for an associative one: (a) **Mary expects a baby,** and (b) **Mary intends to have a baby.**

1.2.3. Lexico-syntactic type

The border line between syntactic and lexical ambiguity is not clearly delimited, and a violation of a syntactic rule merges with the violation of a semantic one. In this type of ambiguity a double grammatical category, and a double meaning, is attached to the same lexical item: (5) **We saw her duck.**
As a general rule syntactic and semantic ambiguity are based on space arrangement, consisting of the different scope of influence of a word, or of two words sharing the same space.

1.2.4. Lexico-phonetic type

It's a variety of the lexical type of ambiguity, and it's perceived only acoustically. A semantic and phonetic aspect merge in the violation of the rule, in the sense that a one to one correspondence between sound and meaning should be kept: (6) **That kind of piece over there seems to be adequate.**

2. PROCEDURE

2.1. Causes of ambiguity and their occurrence.

There is an interdependence among the causes of ambiguity, because syntactic ambiguity relies on lexical meaning, and lexical ambiguity needs the help of a specific syntactic arrangement (it is only in surface structure that ambiguity takes place).
The lexico-phonetic variety is also dependent on lexical meaning and on a syntactic pattern. As a result of these interconnections, it is inferred that ambiguity is a syntactically dependent phenomenon..
The adjustment of two senses in a syntactic structure creates, basically, a problem of word order, not being able to reflect the dual space arrangement that takes place in a semantic representation. The other source of ambiguity concerns the selection restrictions that apply to the components of a lexeme.
The word order cause of ambiguity is manifested through lexical words as in (1), (2) and (5), or with the help of grammatical words as in (3). This cause of ambiguity implies a major occurrence. Pure lexical ambiguity caused by means of a selection restriction of components is second in importance, with the predicate being the main cause of ambiguity. The occurrence of the lexico-phonetic type of ambiguity is reduced when it doesn't concern a purely lexical aspect. If we consider ambiguity on the double aspect of syntactic and semantic concern, syntactic ambiguity is more current than semantic, when the source is not purely lexical.

2.2. The nuclear stress rule

The violation of the nuclear stress rule (NSR) that takes place in some syntactic types of ambiguity, and in lexical ones, cannot be considered as a condition for a prosodic type of ambiguity, and it is not the only sign that distinguishes an ambiguous expression from its invalidation.
On the other hand, the violation of the NSR is only apparent, because if we take embedding, in the form of a relative clause, as a transformation of the surface

structure, the violation of the NSR does not occur, and it can be considered the consequence of the application of the compound stress rule (CSR). The transformations on the different ambiguous sentences, taken as examples, are: (1) **They that are visiting friends.** There is no transformation in (2), (5) and (6), because there is no violation of the NSR. (3) **Mary that to have a baby is going;** (4) **Ruth that to stay wants a woman.**

The superficial violation of the NSR is the result of a rewriting of the aplication of the compound rule to the embedded transformation: (1) **They (that are) visiting friends;** (3) **A going to have a baby woman * ;** (4) **A woman to stay wanted ***. The violation of the NSR is explained through the application of the compound rule, that is lexically based, once the embedding transformation, which is syntactically rooted, takes place; we have two main resorts on which the semantic phenomenon relies: semantics and syntax.

An alternative in the application of the CSR and the NSR, in the form of a compound word or a phrase ('bluebell and blue bell), is a way to invalidate ambiguity, so that we can either confer the ability to invalidate ambiguity to the CSR or to the NSR, and the phrase can also be interpreted as a relative clause: **the bell that is blue.**

2.3. Other means to invalidate ambiguity

Although the apparent violation of the nuclear stress rule occurs in (1), (3) and (4), it doesn't take place in (2), (5) and (6). If the external stress placement is taken as a sign of the invalidation of ambiguity, another means of acquiring it has to be indicated. The specific way to cancel ambiguity in (2) is using a pause: **Old men I and women should be out of danger,** and the same applies to (5): **We saw her I duck.** The acoustic confusion

originated in (6) is solved by making use of the context.
A pause seems to be a generalized way to make clear which sense is meant, because even in (1), (3) and (4) it helps to invalidate ambiguity: (1) **They are I visiting friends;** (3) **Ruth wants I a woman to stay;** (4) **Mary is going I to have a baby.**
Apart from the paralinguistic devices, there are non-prosodic ways to cancel ambiguity, and they can be classified into syntactic and semantic means.
The syntactic means are expressed in the form of embedding and downgrading predication, as it can be the function of the ambiguous expression like a noun clause, or the introduction of a relative clause that determines the subject or object of the ambiguous sentence. Another syntactic device is the addition of a prepositional phrase, which completes the meaning of the predicate. Lexically, the substitution of one grammatical word for another (articles) can also cancel ambiguity.
The most common semantic way to invalidate ambiguity is context. The substitution of the content words, when the new ones don't constitute part of their selection restrictions, or the ones of the predicate, can be added as a semantic device.
The distinction between a syntactic type of invalidation and a semantic one is relative, because the selection restrictions of the lexemes determine the success or failure of a syntactic type of invalidation.
If we consider the two senses of an ambiguous expression as marked and unmarked members, the invalidation is more frequent on the marked member.

2.4. Further classification

The application of the different syntactic and lexical resorts for the cancelation of ambiguity is the reason for a subsidiary classification, according to the capacity of an ambiguous expres-

sion to take the different tests. An open ambiguous expression is easily invalidated, and a **close** one takes more effort. The words **open** and **close** have to be consider in relative terms. The degree of invalidation of ambiguity has no correspondence with the general classification of syntactic and lexical types of ambiguity, so (1) is a close syntactic ambiguous sentence, and (4) a close lexical one. When ambiguity is based on sound perception, it is considered as open.

2.5. Semantic status

The non-prosodic means to invalidate ambiguity, consist mainly in the addition of information that concerns word meaning; the procedures are lexical, , adapted to certain types of syntactic structures. They are assigned a semantic status, because there is context variation, bringing about a change in meaning.

2.5.1. Semantic status of intonation

Intonation and pause are prosodic ways to dispel ambiguity, and the question is whether they have a semantic status, or whether they are rhetorical procedures that have a rhetorical interpretation. Assuming the fact that the existence of ambiguity requires the violation of a rule that gives rise to a type of ambiguity, and that there isn't a real violation of the nuclear stress rule, there is no reason to make it responsible for the distinction between the two senses of an ambiguous expression. The surface distinction is due to an application of the compound rule after an embedded transformation. Intonation has a semantic status if we consider that there is a transformative process that applies to deep structure, having a semantic representation, but not if we make it responsible for a change in meaning, concerning the unmarked member of the ambiguous expression, because the external differences between

the two senses are the result of the application of the compound and the nuclear stress rules. On the other hand the acoustic perception of intonation doesn't seem to be clearly distinctive to the listener, and he has to have other means to distinguish one sense from the other. These means are the intuitive knowledge that the listener has of the violation of a syntactic or semantic rule, apart from the fact that sentences are inserted in a context, and don't occur in isolation. If we approach intonation as a means of focussing new information, it's dubious that, in the same context, visiting is old information in (1) (a), and new in (1) (b). It's more likely to be thought of as in contrast to something that has already been said. We can take the lack of distinction between new and old information as a proof of the non-violation of the nuclear stress rule.
A pause is a prosodic device that can be used to determine the sense of an ambiguous expression, on the form of a space mark, used as a rhetorical device that invalidate ambiguity, mainly in cases of conflicts of arrangements, but it cannot give rise to a change of meaning

2.6. Connections between conditions and cancelations of ambiguity.

There is no strict connetion between the conditions that make an expression ambiguous and the means to cancel ambiguity; among these are included non-lexical semantic means, the context, and prosodic devices as stress and pausing. Lexico-phonetic means are excluded, though there is a fundamental correspondence between the syntactic and lexical aspects.