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SOURCES OF AMBIGUITY IN LANGUAGE

Abstract: The English language can lead to many ambiguous utterances. A mere word or a phrase may, in its relationship to other words or phrases, force a reader or listener to attempt to construe its meaning in more than one way. It is frequent that a sentence on its own can be vague, but it can become disambiguated within a certain frame of reference. The focus of this paper are sentences or phrases which are difficult to understand because of incorrect or imprecise possessive determiners. Such sentences are often the source of voluntary or involuntary humour. As long as the humour is intended, the ambiguity is acceptable and even encouraged. On the other hand, when the main purpose is to convey information the point of the sentence should be as straightforward as possible. Bearing this in mind, I will attempt to resolve the problem by finding as many interpretations as possible and correcting the sentences, so that it leaves the reader with only one clear meaning.

Key words: syntax, syntactic ambiguity, possessive determiner ambiguity, disambiguation, humour

Introduction

Both native speakers of English and learners of English cherish the somewhat false belief that anything is possible and that there is an infinite number of structures and possibilities when creating an utterance. This is, of course, not true as there always exist certain patterns that need to be followed and rules that need to be obeyed. As Stageberg (1958:479) points out, *we are pattern-bound in language just as we are culture-bound in mores*. In order to grasp the linguistic thinking, we should consider an example: the noun phrase *Our first large authorized classparty* is ordered in this specific way not without a reason. If we were to alter the order of any of the constituents, a non-English sequence would be created. In order to speak and write using proper English we should bear in

mind that there are several syntactic patterns. Depending on what the speaker/writer wants to convey, and more importantly how they wish to convey it, those patterns are open to ambiguity. Unfortunately, ambiguity arises more frequently than one would expect. The aim of this paper is to scrutinize a variety of sentences whose meanings are ambiguous, and where the source of the ambiguity is the improper selection of the possessive determiner. Finally, an attempt at disambiguating the sentences will be made with the use of syntactic tree diagrams.

Defining ambiguity

The simplest definition of ambiguity reads that *an expression is ambiguous if the expression has more than one meaning* (Gillion 1990:394). Ambiguity does not only concern meaning but rather the interpretations that can be made by the reader/listener. We distinguish certain types of ambiguity, so in order to understand the concept better, it is advisable to point them out. Considering the written language, which this paper focuses upon, we differentiate two main types of ambiguity: **the lexical** and **the structural**. *In lexical ambiguity the double meaning derives from the meanings of the words themselves* (Stageberg 1958:479). This means that the numerous meanings of a certain word can lead to ambiguity. In the case of the lexical ambiguity we can further distinguish two types: **homonymy** and **polysemy** (Durda, *et al.* 2010:1). If we take homonymous words into account we have multiple unrelated meanings, for instance take the word *bank*, which mayt refer either to a financial institution or to the edge of a river. Encountering such a word in a sentence with an unknown context we experience a sensation of doubt as we might be unable to interpret the sentence correctly. On the other hand, polysemous words have different related meanings, called senses. A good example is the word *foot,* as in the foot of a person or the foot of a bed or form of measurement. An analysis of nearly 5000 English words revealed that *7.4% correspond to more than one entry in the dictionary, and are therefore classified as homonyms. However, 84% of the dictionary entries have multiple senses* (Rodd, Gaskell, & Marslen-Wilson 2004:90). Finally, it is also worth noting that *lexical ambiguity, then, derives from the meaning of words not their structures* (Stageberg 1978:40).

Structural ambiguity is the result of the particular arrangement of words in a sentence. In Stageberg's (1978) subdivision, there are at least three types of structural ambiguity. The first is called **syntactic ambiguity,** which occurs when the grammatical order permits two or more meanings to emerge. For instance, *A fat ladies' man* allows two rather different interpretations. One interpretation of this sentence is that a fat man likes women and is liked by them, whereas another one can refer to a man that likes fat ladies (and is liked by such ladies, too).

Without the supplied context all of these meanings are possible with such a structure. Secondly, we encounter **class ambiguity**, which deals with the fact that certain words may be classified as more than one part of speech, for instance the word *empty* can be either a verb (to empty a box), an adjective (an empty box) or a noun (empties, meaning empty bottles). The sentence sequence and the knowledge of its constituents is crucial in understanding the meaning of the sentence. Let us consider the example *They are encouraging reports*, in which the word *encouraging* may be either a verb, as in *someone is encouraging reports*, or an adjective, as in *the reports are encouraging* (Hamidi 2009:7). As we can see, it is all a matter of perspective and familiarity with parts of speech.

Lastly, Stageberg (1978:44) distinguishes **vocal ambiguity**, which is closely related to stress, pitch or pausing. Written language does not indicate (there are no markings) stress or pitch, so it is the reader's decision what meaning is intended. Let us consider another example: *Girl watcher*. One more time the meaning is not instantly obvious as it depends on the stress which way this sentence is going to head. It is highly possible to get confused as there is no indication and we can only assume what the writer had in mind. So, the girl herself may be a watcher (for example in a department store watching for shoplifters) or it refers to someone who watches girls. Indeed, there is even the possibility that a sentence be composed in such a manner that a single element that can be both a noun or a verb, depending on the stress, leads to ambiguity, for instance using the words *produce* or *address*. However, as we are dealing with written language here rather than spoken language there is perhaps little point dwelling on this matter any further.

A rather different division of ambiguity is proposed by the *Ambiguity Handbook* (2003) where we can encounter other types of ambiguity and a distinct terminology. This text also includes lexical and structural ambiguity. In addition, it discusses a final type of ambiguity which is called **pragmatic ambiguity**. This occurs when *a sentence has several meanings depending on the context in which it is uttered* (Berry, *et al.* 2003:12). For instance: *John wants to marry a girl with green eyes* (Lyons 1977:190) may have two different meanings depending on the context. One of them would be that he wants to marry a particular girl with green eyes, another that he wants to marry a random girl as long as she has got green eyes. As we intend to deal with certain types of pragmatic ambiguity this definition is of value to us.

Ambiguity vs. vagueness

In order to understand the notion better we need to distinguish ambiguity from another similar phenomenon called *vagueness*. An expression is vague if its meaning is not precise. There are certain elements of the language that are prone

to being vague, such as adjectives (*fast*), adverbs (*well*) or quantifiers (*a lot of*). Sometimes a non-vague expression becomes vague by the use of only one vague word. For instance, *5 o'clock* is a clear concept, but when we add *approximately* to it, it is instantly perceived as vague. In order to decide whether a sentence is vague or ambiguous it is worth mentioning *Frege's principle of compositionality*. The principle of compositionality states that *the meaning of a (syntactically complex) whole is a function only of the meanings of its (syntactic) parts together with the manner in which these parts were combined* (Pelletier 1994:11).

In order to determine whether a sentence is vague or ambiguous there is a simple test. Lakoff (1970:357-59) suggested that a sentence is ambiguous if it stays ambiguous when a certain ending is added to the sentence, such as *and Mary did too* or *and Mary isn't either*. So, when the sentence *John went to the bank* is ambiguous then *John went to the bank and Mary did too* is also ambiguous. What if the sentence were to read: *John is not a priest*? To be a priest one must be human, male, adult and unmarried. Thus, there are four different reasons for this sentence to be true. Now let us add *and Mary isn't either*. In such a case Lakoff (1970) predicts that this sentence in not ambiguous if John is not a priest because he is not an adult, while Mary is not a priest because she is not male. This sentence fails to meet truth conditions for four different reasons, because the fact of not being a priest in both cases concerns two different things (van Rooij 2009:126-27). What if we tried to alter the sentence slightly to: *John wants to be a little boy* to make the concept clearer. Having no knowledge of John's age and his situation as such, this sentence leaves us slightly confused. But adding to it the ending and *Mary does too* does not make this sentence any less vague or puzzling. Having all that in mind we are able to know how vagueness differs from ambiguity and that Lakoff's (1970) test helps us to grasp that. To clarify it one must add a number of follow-up questions. Then, the aspect of vagueness could disappear. All these examples will help us understand the concept of ambiguity better.

Ambiguity and humour

Humour is often present in our daily existence, and much humour is situational. It may occur both in everyday communication as well as in literature. Language is an inexhaustible source of humour in its many aspects. As Oaks remarks, *structural ambiguities are an important source for many of the most memorable jingles, slogans, and punchlines* (2010:4). Naturally, ambiguity and humour are very frequently used in advertisements such as *Don't get mad, get GLAD* (ad for garbage bags). Stageberg (1978:39) once found another comedic example of ambiguity in a newspaper *When she washes*

the dishes, he should wash the dishes with her. When she mops up the floor, he should mop up the floor with her. This sentence advises newlyweds to spend as much time together as it is possible, to do things together even if they are chores. Obviously, we know exactly what the meaning of this sentence is, but the structure implies that a man should *use* his wife for cleaning. The mere idea of using one's wife to clean instantly might bring a smile to the reader's face (though it may also make them cringe a little). Another humorous use of ambiguity was once to be spotted in a Kodak advertisement which suggested: *Take your mother-in-law out back and shoot her.*[1] While the advertisement is certainly about taking a photo of the mother-in-law, the structure of this advertisement also suggests *killing* her.

However, it may happen that an advertisement or (even more frequently) a joke of such a sort may be taken one step too far. A good example would be an advertisement found in a framing business somewhere in Australia, which said: *We can shoot your wife and frame your mother-in-law. If you want we can hang them too!*[2] While constructing such a slogan one must take into account that not everyone has a sense of humour and for those people it may come across as offensive or even insulting. This ad at the beginning was dubbed smart and funny, but later on people found it sexist and even violent, and eventually it was taken down.

Newspaper headlines, advertisements, as well as comedy are rich in examples of structural ambiguity. It is a false belief though that the context always helps disambiguate the utterances. As Raskin points out *humour is based on the possible interpretation of more than one semantic script in a given situation* (Raskin 1985:99). The context can only limit the number of interpretations, but it often cannot help us with disambiguation.[3]

When humour is intended, we accept ambiguity, as this is what frequently makes us laugh. In such situations ambiguity is a tool and source of laughter. But what if a sentence is created and ambiguity occurs unintentionally? As Oaks and Lewis claim, *ambiguity doesn't just happen but often results from the careless use of identifiable structures or particular words* (Oaks & Lewis 1998:277). Carelessness, inaccuracy and even poor knowledge of the English language and English structures may lead to errors that can produce miscommunication and humour. Indeed, such was the initial inspiration for writing this paper.

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[1] http://www.ambiguityexamples.com/for/kodak-ambiguity/

[2] Accessed on 27th of April at: http://www.dailymail.co.uk/news/article-3504544/Joke-slogan-shooting-wife-banned.html

[3] There are other ways of disambiguation. In his paper *Avoiding Ambiguity,* Stageberg proposed eight different ways of how to avoid ambiguity. Some of them apply to lexical ambiguity and some to structural ambiguity, but none of them can rectify a situation in which an entirely wrong word has been used. Accessed on 27th of April at: https://www.gvsu.edu/cms4/asset/ CC3BFEEB-C364-E1A1-A5390F221AC0FD2D/ambiguity.pdf

Sources of ambiguity

There are two sources of ambiguity according to Gause and Weinberg (1989:5): **missing information** and **communication errors**. There may be many reasons for missing information: poor observation skills, generalization or excluding essential information. Another source is the failure of communication that take place between the writer and the reader due to mistakes in the writing.

We can also look at the sources of ambiguity from a different angle: what parts of speech are the most prone to being ambiguous. In order to name the elements of the sentence correctly there is a very useful approach called *syntactic parsing*, which is *the process of finding the immediate constituents of a sentence that is a sequence of words* (Hocza 2006:647). There exist regular expressions that describe various phrase types depending on the constituents that can be found in a particular sentence. Therefore, nouns introduce and create noun phrases (NP), verbs introduce verb phrases (VP), prepositions introduce prepositional phrases (PP) and so on. In order to find them we need to notice units that can appear in different places in the sentence. This allows us to trace and deal with ambiguity properly. Usually, the relationship with the surrounding elements creates it, for instance the situation in which there are two nouns and only one adjective and we are unable to grasp which of the nouns is modified by the adjective: the first one, the second one or both. A good example of such a case is the NP *the old men and women*. Ambiguity occurs here for the reason that we do not know whether only men are old or both men and women. Another example involves a determiner in a sequence proposed by Stageberg (1981:252) *a decent college graduate*. One more time we encounter a dual meaning of *graduate of a decent college* or *a decent graduate of college*. Without clarification we are incapable of deciding with certainty which noun is modified by the adjective.

Another huge source of ambiguity arises from the use of prepositions. There are particular sentences that by means of the prepositional phrase (PP) become ambiguous. It is very common for ambiguity to occur when a sentence has the VP NP PP sequence. The most frequently cited example is a sentence of the type: *I saw the man with a telescope*. Due to the specific sequencing, such a sentence causes ambiguity in the sense that we are confused about the ownership of the telescope. In order to grasp the meaning we can use a tool often used for disambiguation, a syntactic tree diagram. These are widely used in linguistics as *they provide quick and efficient representations of some important organizational properties of individual sentences* (Baker 1998:92). Let us have a look at the tree representations of both meanings of the sentence in question.[4] As we can see there is a possibility of adding an indirect object to the argument

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[4] All diagrams have been created by the author.

structure. They are called **applied arguments** and the resulting constructions applicative constructions. Ergo, in the English language a double object construction with an applied, benefactive argument is possible (Liina 2008:11). Let us have a look at the following tree diagram:

1)
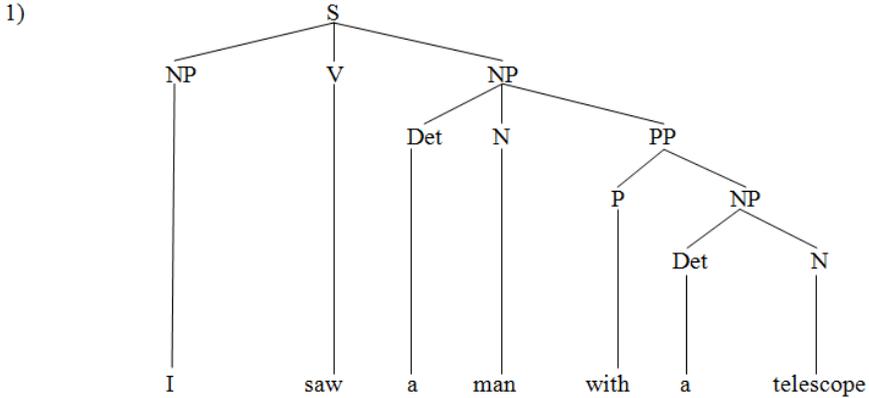
Explanation 1): *The man had a telescope and I simply saw him.*

2)
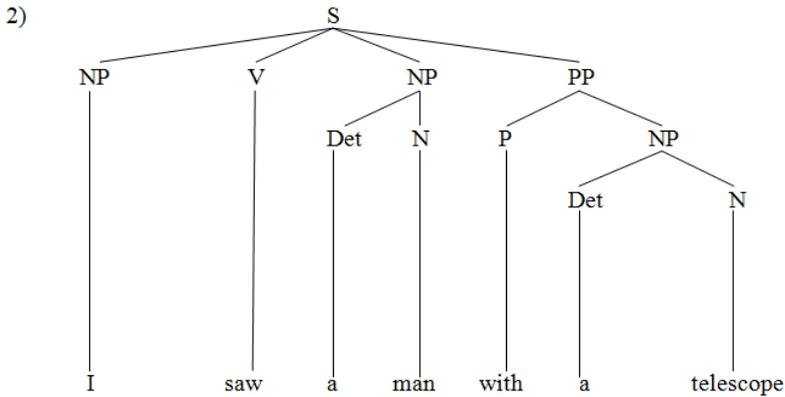
Explanation 2): *I used a telescope to see a man.*

Another grammatical category that causes ambiguity are **pronouns**. As we know pronouns are generic words that have little or no meaning on their own. There are various complications concerning pronouns, particularly concerning the referent. As Oaks (2010:280) points out *these complications illustrate the challenges surrounding pronoun reference and why this feature of the language is such a rich source of ambiguity*. In order to avoid ambiguity one must grasp what the referent, or antecedent is. The *Merriam-Webster Dictionary* defines antecedent as 'a substantive word, phrase, or clause whose denotation is referred

to by a pronoun'.[5] It is usually the word that the pronoun refers to or replaces, and it may be either a word, a phrase or even a clause. For example, in the statement *Monica bit her lip*, *her* is the pronoun, while *Monica* is the antecedent. Certainly, in a perfect world the pronoun will have only one possible antecedent, but in the world we live in, this is not always the case. Frequently, it is an **ambiguous reference** that occurs. This concerns a situation in which a pronoun refers to two possible antecedents, so that the reader does not know at once which antecedent is meant. The problem with an ambiguous referent is also described by Oaks (2010:271): *recorded language, whether written or spoken, can sometimes pose a problem in determining the referents for [given] pronouns.* For example, *He called **him** a police-man* (Francis 1956:105). This sentence is ambiguous because the possessive determiner can either be a direct object or an indirect one. A double-object construction, so-called **small clause** occurs here. This is a case of the causative where the predicate cause takes as its complement the predicate "goal has theme" (Liina 2008:15). Let us consider the following example:
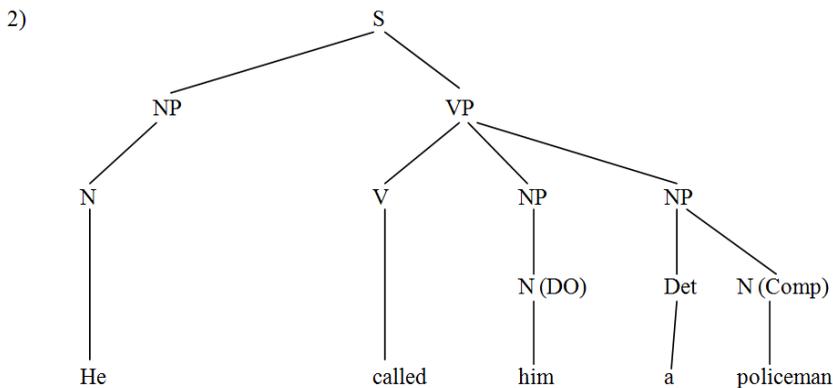
a. He called him a police-man.
b. He CAUSES [he has a police-man] (the police-man came to/for him)

Now, let us look at the following sentence trees:

1)
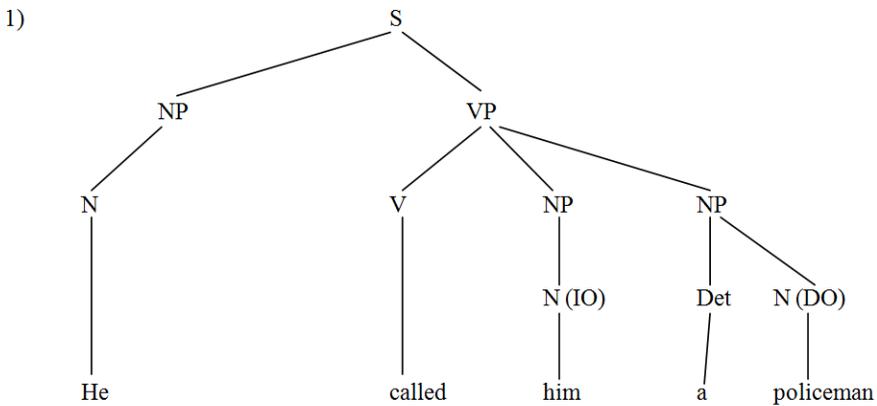
Explanation 1): He called a policeman *for him*.

2)

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                              S
                    ┌─────────┴─────────┐
                   NP                   VP
                    │          ┌────────┼────────┐
                    N          V       NP        NP
                    │          │        │       ┌─┴──┐
                    │          │      N (DO)   Det  N (Comp)
                    │          │        │        │     │
                    He       called    him       a  policeman
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Explanation 2): He *named/labelled* him a policeman.

As we can see both of these trees are nearly the same depending on the structure, either SVOO or SVOC, meaning the first structure has two objects (an indirect and a direct object) and the second has a direct object and a subject complement. Calling them pronouns is certainly too broad, so we should clarify what we are dealing with. The "post-Bloomfieldian era" distinguishes two classes of personal possessives: (weak or conjoint) **possessive determiners** and (strong or absolute) **possessive pronouns** (Puckica 2013:70). The weak possessives are *my, his, their* and such like, while the strong possessives are *mine, his, theirs*, and such. The latter are more readily noticed as they are often in final position in phrases, sentences, and can stand on their own.

Much more ambiguity occurs when the possessive determiner *her* is present. This invites confusion because of the fact that *her* acts either as the object or as the possessive determiner, for example *I was not feeding **her** dog biscuits* (Mistler-Lachman 1972:616-17). If we could substitute *her* with a masculine pronoun paradigm, the ambiguity would be resolved because there are two separate words to describe these two meanings: *him* and *his*. Coming back to the sentence in question, *her* can be either an object or the possessive determiner making it both ambiguous and perhaps amusing. In order to understand the concept better it is applicable to raise the subject of the small clause. First proposed by Stowell (1981), the notion of *small clause* postulates a syntactic counterpart to this semantic subject-predicate relation. What is apparent about SC is the absence of a verb. Sentences such as *Jim called me a liar*, or the above example, *He called **him** a police-man*, subcategorize an object NP and a predicative expression (Hoekstra 1988:108).

1)
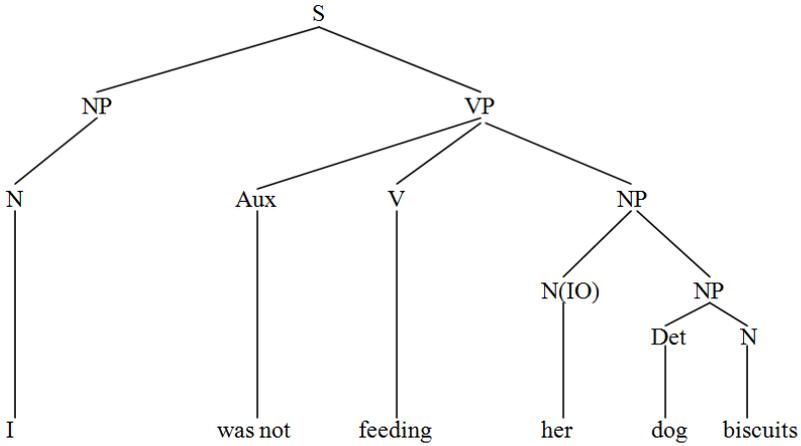
Explanation 1): I was not feeding the dog biscuits *to her*.

2)
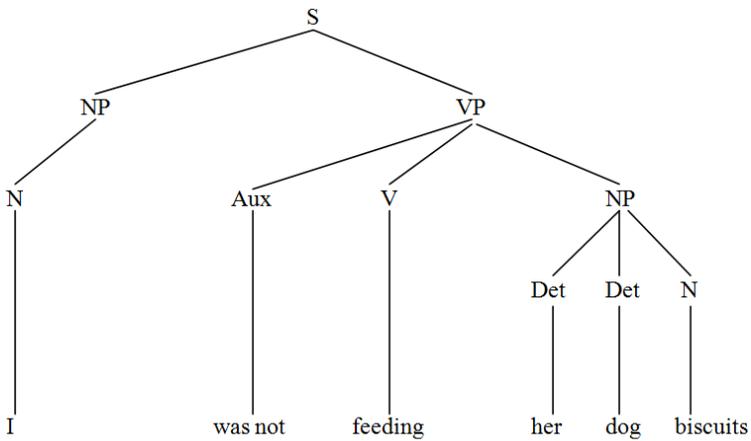
Explanation 2): She had a dog. I was not feeding biscuits to *this dog*.

We need to point out that the possessive determiners *her* and *his* differ greatly. This is because the determiner *her* may easily be confused with the object *her*. No such case applies to the masculine determiner because two different elements exist to describe each of these: *his* and *him*. Let us now consider an example illustrating this: *A security camera had to watch **her** shop* (Oaks 2010:364).

1)

```
                            S
           ┌────────────────┴──────────────┐
          NP                               VP
     ┌─────┼─────┐              ┌───────┬───┴─────┐
   Det   Det    N            Aux      V          NP
                                              ┌───┴───┐
                                            N(DO)     V

    A    security camera     had   to watch   her     shop
```
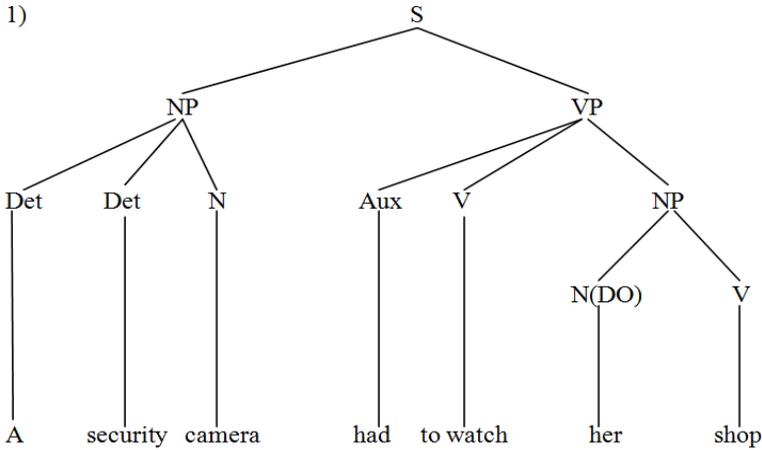
Explanation 1): A security camera had to watch her while *she was shopping*.

2)

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                            S
           ┌────────────────┴──────────────┐
          NP                               VP
     ┌─────┼─────┐              ┌───────┬───┴─────┐
   Det   Det    N            Aux      V          NP
                                              ┌───┴───┐
                                            Det       N

    A    security camera     had   to watch   her     shop
```
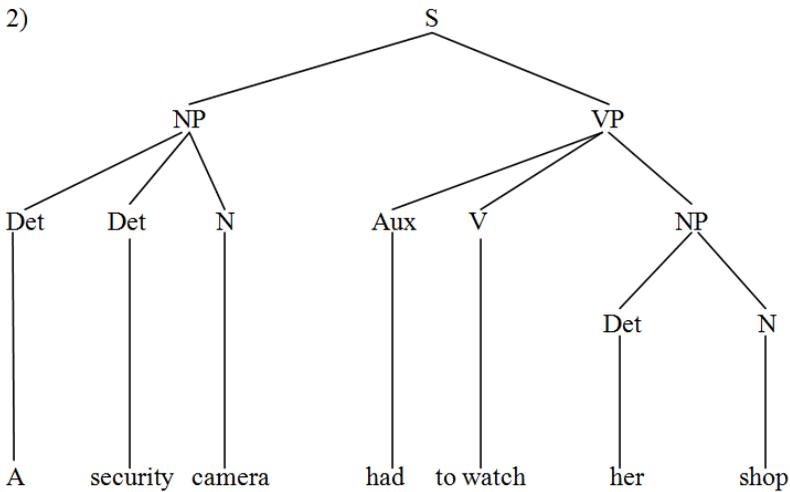
Explanation 2): The camera was set *to watch over her shop*.

This sentence would never be ambiguous if it described a male. Note that the biggest difficulty concerns the second person pronoun, *you* and the possessive determiner *your*. This is because *you and your can have specific but ambiguous referents* (Oaks 2010:273). *You* may either be a subject or an object pronoun and may also concern a singular or plural referent. The person that wrote the following sentence used the possessive determiner *your* incorrectly which leads to ambiguity and misunderstanding, in this instance: *All employees must wash **your** hands before exiting the bathroom.*

Analysis

In the vast recesses of the Internet, one finds examples of ambiguity that will induce much head-scratching among readers. We must also remember that ambiguity is not always expected or even wanted but that it often occurs. Truly, the English language is often confusing, so various errors can happen. Let us again have a look at the sentence in question:

*All employees must wash **your** hands before exiting the bathroom.*[6]

As we can see, this sentence invites all sorts of ambiguities because of the possessive determiner *your* being used when a different one – such as *their* – is desired. Naturally, we are unable to know with certainty what *your* here refers to. Whose hands must be washed before leaving the restroom? The employees'? Or maybe the hands of the people/person reading the sign? And what is even more important, who gets to leave the bathroom when? This sentence poses a number of questions, which is why it is so interesting to linguists. Let us have a look at the tree diagram:
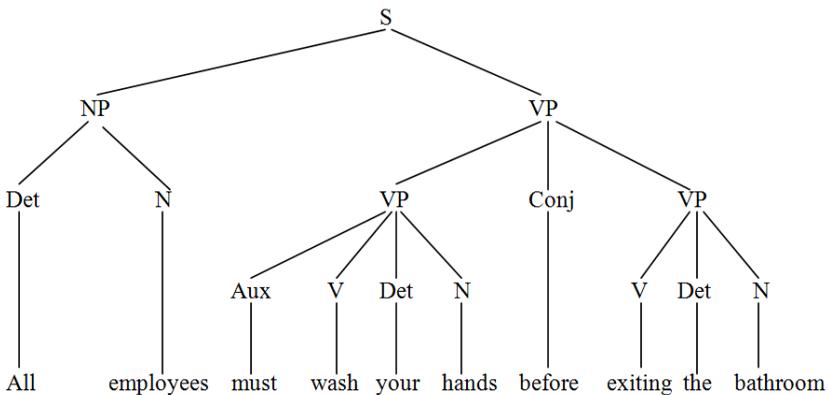
As we have previously noticed the possessive determiner *your* does not correspond with the antecedent, the grammatical subject of the sentence. Thus, we do not really know what it refers to.

How could this sentence occur, we wonder, deciding that it is probably an error made by a non-native speaker of English who learnt the sentence *You must wash your hands*, and so has applied a similar understanding by creating the sign, forgetting that the subject and the possessive determiner must correspond.

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[6] Accessed at Language Log Blog on 5th of March 2017 - sign source: http://languagelog.ldc. upenn.edu/myl/HeckmansDeli1.png (restroom sign in the USA)

In order to disambiguate this sentence it is essential to transform it somehow. For example:

*Before exiting the bathroom all employees must wash **their** hands*

In this case the sign would be understood instantly and without any difficulty. Here, the appropriate possessive determiner *their* would do the job.

Conclusion

A possessive determiner is a generic word which may carry no meaning on its own. This paper shows that the use of possessive determiners may sometimes lead either to confusion or amusement. Careless use of these elements may result in ambiguity that may lead to a degree of puzzlement. That is why they are frequently used in creating advertisements or jokes. A humorous aspect may also be the unintentional result of the ambiguity found in the language used in everyday situations. Sometimes there is no need to disambiguate because the reader or listener instantly assumes what the author or speaker had in mind. In other situations disambiguation is the only way to understand the sentence. As Kamsties (2001:125) says, *ambiguities, if noticed, require immediate clarification*. This is true, but if we do not do it, or know not how to do it, we can at least be amused. Sometimes, a simple rephrasing or a wrong word substitution will do wonders, and the meaning of the sentence becomes clear and apparent, as it should have been from the beginning.

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