# The Perception of Ambiguous Sentences by English L2 Speakers

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## Abstract

This paper explores and compares the perception of lexical and structural ambiguity by English L2 speakers. The study on which it is based used data collected from the National University of Lesotho students in the second, third and fourth years of study. The students were selected from the departments of Law, Nursing, Pastoral Care and Counselling, English and Political Science. A structure is considered perceived if it occurs accurately 90 percent of the time. The study finds that students fail to perceive ambiguous sentences and that their perception of structural ambiguity is better perceived than that of lexical ambiguity.

## **Introduction and Background**

Lesotho is a country in which English is used as an official language, along with Sesotho. English has gained prestige and is therefore taught as a subject in the classroom from the first day of school. However, it is used as a medium of instruction from standard four onwards. Children get exposure to English only at school. At home and at play with friends outside school compounds, communication is in Sesotho. This limited exposure to English causes a delay in students' linguistic competence (Moloi, 1998:117). They tend to transfer Sesotho L1 syntactic structure to English L2 syntactic structure. This transfer results in expressions which are grammatically incorrect or, possibly, ambiguous. The research study addressed the question: when, on the educational ladder do students eventually become aware of ambiguity. It was expected that the students' performance would improve as they progress in their years of study.

## The Concept of Ambiguity

Cann (1993:8) defines syntactical ambiguity as the presence of two or more distinct meanings in a sentence. He further explains that:

we call a sentence ambiguous when a sequence of words can be structured in alternative ways that are consistent with the syntax of the language or when a given lexical item has more than one semantic interpretation.

Cann further differentiates ambiguity from vagueness. He says a word or phrase is said to be ambiguous if it has at least two specific meanings that make sense in context. However, a word or phrase is said to be vague if its meaning is not clear in context. Examples (1) and (2) show a distinction between ambiguity and vagueness. In example (1) the sentence is ambiguous because the advertisement, on one hand, seems to be seeking a teacher that is three years old. On the other hand, it seems to be looking for someone to teach three-year old pre-school children. Example (2) is said to be vague because there are many kinds of nurses, and the same job is certainly not open to all of them. There are registered nurses, practical nurses, wet nurses, nannies to mention but a few. The more the details that are supplied, the less vague a phrase will be.

(1) Three-year-old teacher needed for pre-school.

(2) Nurse needed for pre-school (Cann, 1993:9).

Cushing (1994:104) says that ambiguity in language is an extremely interesting phenomenon and one that applies to several fields of linguistics. He says that there is ambiguity in the way words are pronounced, in their meaning, in the tonal qualities and in the way they are structured to make a sentence. This makes the concept of ambiguity to be found in phonetics, semantics and syntax. He goes on to say that the most astonishing quality about ambiguity is its ability to make itself go unnoticed.

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According to Hurford and Heasley (1983:69), there are factors that contribute to syntactical ambiguity. One of them is lack of situational context. Hurford and Heasley argue that the ability of a sentence to be interpreted in various ways is dependent on the context of the sentence in question. Context, according to them, can be described as a small sub part of the universe of the discourse shared by the speaker and the hearer, and includes facts about the topic of conversation and about the situation in which the context itself takes place". Asher and Simpson (1994:69) further suggest that the absence of the situational context surrounding speech, probably explains why ambiguity is commoner in writing, especially in registers where the context itself is unelaborated. They further point out that the absence of the situational context is usually found in news headlines as illustrated in (3)

(3) Two Soviet ships collide, one dies (Donlevy, 2005).

It is not clear in this example who actually dies. The article may be reporting the death of a ship because there are no people mentioned. However, the impossibility of an inanimate object dying allows the reporter to assume that the reader can make a link between the verb "dying" and the crew member who is not mentioned.

Another factor that contributes to syntactical ambiguity, as discussed by Hurford and Heasley (1983:70), is lack of close reference. They define reference as the mentioning of something or somebody to whom the statement refers, as illustrated in example (4)

(4) We showed every woman a newspaper article with a picture of her.

The sentence could either mean every woman saw her own picture in the newspaper or every woman was shown a picture of a certain woman.

According to Heim and Kratzer (1998:194), syntactical ambiguity can be divided into two main types, lexical and structural ambiguity. Lexical ambiguity (the most common in English) occurs when a word has more than one meaning and can thus be used in various circumstances. Klepousniotou (2001:205) says that an utterance may lead to more than one interpretation because one of the words has more than one meaning. Empson (1994:134) observes that the lexicon of English is particularly rich in multiple meaning because of its varied history. That is, in one culture a word may be given an interpretation which is different from the interpretation of the same word in another culture. The following is a list of some nouns, verbs and adjectives which, according to Ferreira (2000:109), have been found to have multiple meanings. Some of them can be used in the grammatical category besides the one they are listed in. Each part of speech (word) is given a maximum of five meanings.

## 1. **Paper ( noun)**

- a) Material in the form of thin sheets that is used for writing on.
- b) Pieces of paper with writing on them that one uses in one's work or at meetings.
- c) A set of printed questions used as an examination in a particular subject.
- d) A piece of writing or a talk by someone who has made a study on a particular subject.
- e) A paper for covering and decorating the walls of a room.

### 2. Follow (verb)

- a) To walk, run or drive behind someone else, going in the same direction as them.
- b) To happen directly after an event or period
- c) To obey rules, to do something in the way someone has directed.
- d) To be interested in a particular sport, and be concerned about its performance and results.
- e) To understand something such as an explanation or story.

### 3. **Free (adjective)**

- a) Something that does not cost any money.
- b) Not held, tied up or kept somewhere as a prisoner.
- c) Allowed to happen without being restricted.
- d) Available to be used because it is not already being used.
- e) To have no work and nothing else that one must do.

Structural ambiguity occurs through the assignment of syntactic structures to a sentence (Cruse, 1986:233). A sentence is said to be structurally ambiguous because words relate to each other in different ways, even though none of the individual words are ambiguous. Structural ambiguity is also subdivided into two types.

The first type is called surface structure ambiguity. This type is reliant on the grammatical role of a word and its relationship to other words within a sentence. Surface structure ambiguity occurs as a result of the way a sentence can be broken down. For instance, Shultz and Pilon (1973:273) explain that surface structure ambiguity results when the words in a sentence can be grouped in two different ways, with each grouping expressing a different semantic interpretation, as shown in example (9)

(9) Put the box on the table by the window in the kitchen.

Example (9) can be interpreted in three different ways. It can be understood as "put the box onto the table that is near the window in the kitchen" or as "Take the box that is on the table and put it near the window in the kitchen" or it could also mean "Take the box off the table that is near the window and put it in the kitchen".

The second type of structural ambiguity is called deep structure. According to Karpf (1986), deep structure ambiguity is reflected when a word can have more than one grammatical function in a sentence. It may have a noun that serves as an agent in one interpretation but as an object in another interpretation. For instance, in example (10), the word "visiting" can take two different grammatical roles, the first denoting the verb "to go and visit" and the second used as an adjective modifying the noun "relatives."

(10) visiting relatives can be a nuisance

The versatility found in this sentence structure gives two completely different interpretations. It can be interpreted as "to go and visit relatives can be a nuisance" and as "relatives who come to visit can be a nuisance".

According to Donlevy (2005:7), ambiguity serves three main different purposes and although it seems more of a hindrance than an advantage to language users, it is common in most spoken languages. Donlevy says that there are instances where ambiguity is used intentionally to add emphasis in a humorous way. She asserts that it is common in humour and relies heavily on one's general knowledge of the world. It often leaves some people with mouths agape muttering: "I don't get it..." What is interesting about ambiguity in humour is that it often loses the appeal when it is explained. One realizes that half of the delight experienced when listening to a good joke could be the same kind of pleasure gained when completing a riddle or a puzzle. The examples in (12) a and b taken from Donlevy (2005:8) illustrate a joke that is based on surface structure ambiguity

(12) a. Peter: Hey Tom, I just saw a man eating shark at the aquarium

(12) b. Tom: That's nothing, I just saw a man eating tuna fish in the restaurant

The words included in the phrase "man eating shark" can be grouped in more than one way, thus leading to different interpretations. That is, in one case a picture of a ferocious fish is portrayed. In the other case, a picture of a man enjoying a shark dinner is reflected.

Another use of ambiguity, according to Ferreira (2000:110), is found all over the daily newspapers. Ferreira argues that the competition among newspapers and magazines is high. They want to come up with the most "daring pun" or the most shocking slogan, to catch the readers' attention. Newspapers use ambiguous headlines which are cleverly manipulated in order to suggest something that the readers might find interesting. They, however, do not take the responsibility for the assumptions that the readers make. Ferreira says that instances of ambiguity are found in tabloids and respected newspapers because they need to compete in their corner of the market. The newspaper headline in (13) is said to be ambiguous

(13) Iraqi head seeks arms (Ferreira, 2000:110).

The word "head" in (13) can be interpreted as a noun which means either chief or head of a body. Likewise, the word "arms" can be interpreted as a plural noun meaning either weapons or body parts. What makes the headline humorous is that it can easily be read as a disembodied head searching for arms (body parts) or wanting to have them attached instead of being interpreted as the head of a state looking for weapons (Ferreira, 2000:110).

Ambiguity is a good method of saying something without actually having to say it. Miller (1956:97) argues that the masters of the purposive use of ambiguity are politicians in their public utterances, particularly those utterances which are spoken during election campaigns. He says they are famous for their "verbal contortions" in order to avoid taking a clear stand in the run up to the election. Hurford and Heasley (1983:555) gave this advice to politicians:

Through the use of ambiguity and question dodging, let a politician say not one single word about his principles or his creed, let him say nothing, promise nothing. Let nobody ever extract from him a single word, about what he thinks now, or what he will do hereafter.

A politician may utter a sentence such as the one in (14) in order to conceal his bad arguments.

(14) I hate tax that hinders development (Hurford and Heasley, 1983:556).

Some hearers may think that the speaker hates taxes in general because they all hinder the development of the economy, while some will think that the speaker hates only some types of tax that prevent the development of the economy.

In Klepousniotou's (2001:205) opinion, one of the effects of structural ambiguity in English is a confusion of ideas in the readers' mind. In this case, the hearer finds it difficult to decide on the exact meaning of the utterance in question. In example (15), the sentence is confusing because it could either mean the boy was given a hat or that the boy who was helped was wearing a hat.

(15) The man helped the boy with a hat (Klepousniotou, 2001:205).

Another effect of ambiguity, as shown by Cushing (1994), is incorrect conclusions which are usually drawn by the hearer in the speaker-hearer communicative situation. A practical example is the standard use of the expression in (16)

### (16) Lifetime guarantee (Cushing, 1994).

Most consumers probably assume that this expression means that the product is guaranteed for their lifetimes, but most products carrying such a guarantee are covered only for the lifetime of the product. The term "lifetime" is ambiguous as to which lifetime is denoted, that of the consumer or that of the product.

Communication breakdown is another effect of syntactical ambiguity. This is a failure for the hearer to exactly grasp the real intended meaning of an utterance. Consequently the hearer tends to give an unexpected and negative response, while s/he considers herself/himself correct on the basis of the image that comes into her/his mind. Cushing (1994) describes numerous incidents of ambiguity, some ending in tragic accidents. He reports the most horrifying incident which resulted in the death of 583 passengers. In this particular incident, the ambiguity lay within the communication breakdown caused by giving a trajectory plan that seemed like a command to take off, but which was intended as preparation given while

the pilot awaited take off orders. He says even though the presence of ambiguity can lead to fatal accidents, there still have been no changes in the systems used by pilots and air traffic controllers.

Similar studies have been done to address this topic elsewhere. For example, Groebel (1985:115) carried out a study with 100 English L2 speaking research subjects in Israel. The purpose of the study was to identify the relationship between students' ability to perceive ambiguity and their ability to read proficiently in English. Significant correlations were identified between reading proficiency and ambiguity. The ability to detect ambiguity was related to reading proficiency in a second language and to general English L2 proficiency.

Karpf (1986) also studied the ability of English L2 speakers to perceive linguistic ambiguity. The purpose of the study was to identify the problems which learners have to face when confronted with ambiguity. He wanted to find out whether interpretive errors, response latencies and zero reactions, depend on linguistic or metalinguistic parameters or not. The study found that, English second language learners found lexical ambiguity more difficult than structural ambiguity.

#### Methodology

### **Type of Study**

The study followed a quantitative approach with a large population and a large sample. It used numerical data and statistical procedures to analyse data and draw conclusions. The overall frequency of students' ability to identify or not identify ambiguity in provided sentences was counted. The population for the present study consisted of 871 National University of Lesotho (NUL) students who study Political Science, General Nursing, Pastoral Care and Counselling, English Language and Linguistics as well as students in the Faculty of Law. These were students in second, third and fourth years of study. The groups were chosen because the kind of programmes they study require them to communicate with people either verbally or non-verbally and this is where ambiguous expressions may manifest themselves.

#### Sampling

The study used purposive sampling to select programmes from which the sample groups of students would be selected. The first group consisted of students in the Faculty of Law. Although ambiguity is not taught as a course there, it may, however, be used as a technique for a lawyer to win a case. Moreover, Ferreira (2000) argues that ambiguity can be a problem in law because the interpretation of written documents and oral agreements is of "paramount importance". He says ambiguous documents may have a negative impact on people.

The second group comprised students who study Political Science. This programme is offered in the Faculty of Social Sciences where there are other programmes such as Sociology, Economics, Accounting, Social Work, Anthropology, Marketing, Urban and Regional Planning, Statistics and Demography. One of the courses that Political Science students read is Politics. This implies that those who (after the completion of their studies) intend to become politicians ought to be familiar with deliberately ambiguous expressions used by professional politicians in political gatherings. Donlevy (2005:9) points out that ambiguity and question dodging as strategies, have been used by politicians and people in power throughout history. He says politicians take lessons to deal with unwanted questions asked at public press conferences. Ambiguity helps them to avoid accusations of lying and misinforming the public as it is hard to prove their intentions.

The third group constituted students who read General Nursing, a programme which is offered in the Faculty of Health Sciences. The ability of a nurse to perceive ambiguity is crucial in saving lives. For instance, failure for a nurse (in a case where interpretation has to be administered) to clearly communicate to the Doctor what the patient is suffering from or failure to give clear instructions on how a particular prescribed medication should be taken, may result in more complications for a patient. The fourth group consisted of Pastoral Care and Counselling students in the Faculty of Humanities. Clarity is important for a counsellor and a client so that there is no occurrence of misunderstanding or misinterpretation which may consequently lead to inappropriate decision making.

The final group was made up of students who major in English Language and Linguistics. This group was also in the faculty of Humanities. In the language and linguistics programme, students read Semantics which is one of the courses that are offered at second year level of study and ambiguity is taught as one of the topics in that course. The study, therefore, sought to observe the students' application of what they have been taught. In that way, it would be reflected whether the students have grasped the concept of ambiguity or not.

Altogether the research subjects were 535. Random sampling was only administered where the number of students was 100 and above. That is, 20 percent of the total population was drawn from third year Political Science students and Pastoral Care and Counselling students in the three years of study. For other programmes, all the received data were studied. Leedy and Ormrod (2005:207) argue that "the larger the sample the better". He says for small populations (with fewer than 100 people), there is no point in sampling, the entire population should be surveyed.

### **Data collection**

Data were collected through a 30 minutes test. It consisted of 13 sentences altogether. Students were given a mixture of 10 ambiguous and three unambiguous sentences and asked to say whether each sentence was ambiguous or not by writing **"Yes"** next to the sentence that was ambiguous and **"No"** next to the one that had one clear meaning. The purpose of the unambiguous sentences was to distract the subject's attention. These unambiguous sentences were put in random order throughout the test. The 10 remaining sentences constituted five lexically ambiguous sentences and five structurally ambiguous ones. The purpose of the 10 sentences was to find out whether students could perceive ambiguity and to find out which of the two types of ambiguity was easier to detect.

### **The Findings**

The findings reflect similar patterns in all the programmes. The students' performance on the perception of ambiguous sentences and on the way they understand lexical and structural ambiguity is similar. The findings are therefore collectively put together to come up with the general overview of the students' performance.

The findings show that students are unable to perceive ambiguous sentences. They fail to reach the 90 percent accuracy level in their performance. They reached an "average" score of 70 percent. Many students missed the recognition of ambiguous sentences such as "Iraqi head seeks arms" and "Lecturing professors can be very amusing." They claimed that such sentences had one clear meaning. It was expected that they would at least reach the 90 percent accuracy level by the fourth year of study but this was not the case. This expectation was based on Shultz and Pilon's (1973) observation that as children's linguistic development advances, their perception of ambiguity also improves. It is also observed that the second year students' overall performance on the perception of ambiguity is slightly better than the performance for the third and fourth year students.

Table 1 shows the overall performance of students in all programmes in the perception of ambiguous sentences by level of study.

Table 1: Overall Perception of Ambiguous Sentences by Level of Study

Task	Second Year	Third Year	Fourth Year	Total Grand
Perception	1387(72%)	1156(67%)	1120(70%)	3663(70%)

Another observation is that the performance of students in all the three levels of study is similar. According to Groebel (1985:120), Shultz (1973:223), Wiig (1984:7) and Nippold (1988), the concept of ambiguity is related to age, general language proficiency and many years of exposure. This observation suggests that the students' communicative competence in English is unsatisfactory and not improving. The advanced level of study does not make it any better. Hymes (1971:294) defines communicative competence as a concept that consists of both knowledge of linguistic rules and knowledge of how these rules are used to communicate meaning. The incompetence that these students portray may be due to limited exposure to English. Students get English exposure only in the classroom. At home or in any social setting, communication is in Sesotho. Moloi (1998:117) asserts that the ideal situation in the learning of English is exposure to the natural use of English through interaction with English speaking people where learners are obliged to use English with non-Sesotho-speaking members of the community for communication. Newcombe (2007:345) uses the expression "use it or lose it". This suggests that language learners should constantly use the target language to increase competence.

The lack of improvement could also be attributed to the fact that not all L2 learners reach an advanced communicative competence in the second language. Selinker (1978:297) points out that most L2 learners fail to reach target language competence. That is, they stop learning when their internalized rule system contains rules which are different from those of the target language. Archibald (1998:398) adds to this view when he says that it is common in second language acquisition for learners to reach a "plateau" in their development. This means that, despite the corrections and many years of exposure, the learner would still produce incorrect sentences such as, "I don't know what I should do".

## Perception Lexical and Structural Ambiguity

Another observation is that students perceive structural ambiguity better than lexical ambiguity. As Table 2 shows that their highest score is 45 percent in the perception of lexical ambiguity while the best mark in the perception of structural ambiguity is 57 percent. For instance, students could detect the ambiguity in sentences such as "He is a criminal lawyer" and "visiting relatives can be a nuisance" which are structurally ambiguous. However, they struggled with sentences such as "the restaurant even serves crabs".

Level of Study	Second Year	Third Year	Fourth Year
Lexical Ambiguity	871(45%)	742(43%)	693(43%)
Structural Ambiguity	1057(55%)	972(57%)	911(57%)
Total	1928(100%)	1714(100%)	1604(100%)

**Table 2: Perception of Lexical and Structural Ambiguity** 

The perception of lexical ambiguity is dependent on the rich knowledge of vocabulary in the target language. Karpf (1986) observes that, unlike English L1 speakers who tackle lexical ambiguity without much difficulty because of their adequate vocabulary, English L2 learners perceive structural ambiguity better than lexical ambiguity. The students' poor performance in perceiving and disambiguating lexical ambiguity may be attributed to their inadequate linguistic competence.

## Discussion

The discussion that follows is a summary of the findings of this study. The possible reasons that may have led to such findings are discussed.

The study shows that students fail to reach the expected 90 percent accuracy level. They do not perceive ambiguity.

In their study, Brause (1977:331) and Groebel (1985:115) find that linguistic competence correlates with the development of the ability to perceive ambiguous statements. They say that individuals at the earliest stages of linguistic development interpret the sentences literally. However, those with advanced linguistic competence offer appropriate interpretations. Brause' and Groebel's findings give an implication that the students in the current study may not have reached the necessary linguistic development to deal with linguistic ambiguity. Another possible reason may be attributed to the type of students from whom data were collected. From the researcher's experience as a student in the same university, many of the students at NUL give less priority to their studies. They easily give in to peer pressure. They miss lessons and only show up when a test is to be written. When they cannot stand the pressure of the exams, they resort to copying. This consequently leads to their discontinuity from the University. The lack of interest and commitment in their academic work may have contributed to poor performance in the current study.

Although the students' performance is generally poor, the Pastoral Care and Counselling students performed relatively better than the students in other programmes on the perception of ambiguity. This observation suggests that such students can tell when a sentence is ambiguous.

The study further finds that the students' performance in the various programmes in the three levels of study is similar. Nippold's (1988:93) study shows that cognitive development, exposure to the target language and the general intelligence of a child contribute to the understanding of ambiguous statements.

It was expected in the present study that senior students would take a lead because their exposure and linguistic development would be advanced, but this is not the case. In a situation where the distinction in performance is observed, the second year students outperform the senior students. For instance, the second year students who read English Language and Linguistics, Pastoral Care and Counselling and those who study Law have performed better than their counterparts in third and fourth years of study. The courses that make them sensitive to the concept of ambiguity are taught at second year level. For instance, the second year Pastoral Care and Counselling students study "Narrative Therapy", Law students read "Interpretation of Statues" while the second year English Language and Linguistics students study "Ambiguity" They may have written ambiguity test in the current study while their memory is still good. However, as they advance to third and fourth year, they seem to forget what they were taught at second year and their performance consequently deteriorates. Finally the study has found that the two types of ambiguity (lexical and structural) are perceived differently. Students seem to perform better in sentences which are structurally ambiguous than those which are lexically ambiguous. They give incorrect answers when they are supposed to recognize a sentence whose ambiguity lies on one word. Conversely, they recognize a sentence whose ambiguity results when the words in a sentence can be grouped in different ways, with each grouping expressing a different meaning. This finding shows how English L1 and L2 speakers differ. According to Shultz (1973), Brodzinsky (1977) and Brause (1977), English L1 speakers move from the ability to understand lexical ambiguity to the ability to comprehend deep structure ambiguity. On the contrary, Karpf (1986) and the findings of this study show that English L2 speakers move from the ability to perceive structural ambiguity to the ability to perceive lexical ambiguity. Moreover, English L2 speakers may be challenged by the lexical ambiguity because it requires a wide vocabulary which the English L2 speakers may not have acquired. On the contrary, English L1 speakers have sufficient exposure to English as it is their home language. It is therefore not a hassle for them to have broader meanings of words.

#### References

- Archibald, J. 1998. "Second Language Acquisition". In O'Grady, W., M. Dobrovolsky & F. K Katamba (eds). Introduction: Contemporary Linguistics. London: Longman.
- Asher, R. E. & J. M. Y. Simpson. 1994. *The Encyclopedia of Language and Linguistics and Communication*. Vol.1. Oxford: Pergamum Press.
- Brause, R. S. 1977. "Developmental Aspects of the Ability to Understand Semantic Ambiguity With Implications for Teachers". *Research in the Teaching of English*. Vol.11:234-246.
- Brodzinsky, D. M., V. Feuer & J. Owens. 1977. "Detection of Linguistic Ambiguity by Reflective, Impulsive, Fast/Accurate, and Slow/ Inaccurate Children". *Journal of Educational Psychology*. Vol.69. No. 3:237-243.
- Cann, R. 1993. Formal Semantics: An Introduction. New York: Cambridge University Press.
- Cruse, D. A. 1986. Lexical Semantics. Cambridge: Cambridge University Press.
- Cushing, S. 1994. Fatal Words: Communication Clashes and Aircraft Crashes. London: Lawrence Erlbaum.
- Donlevy, C. 2005. "A Human Response to Ambiguity: A Psycholinguistics Analysis" B. A. (Mod) Final Year Project. University of Chicago.
- Empson, W. 1994. (2<sup>nd</sup> ed.) Seven Types of Ambiguity. London: Chatto and Windus.
- Ferreira, V. S. 2000. "Effects of Ambiguity and Lexical Availability on Syntactic and Lexical Production". *Cognitive Psychology*. Vol. 40:296-340.
- Groebel, L. 1985. "Ambiguity and the Second Language". IRAL. Vol. 23. No. 1-4:40-52.
- Heim, I. & A. Kratzer. 1998. Semantics in Generative Grammar. Oxford: Blackwell Publishers.
- Hurford, J. R. & B. Heasley. 1983. Semantics: A Course Book: London: Cambridge University Press.
- Hymes, D. 1971. On Communicative Competence. Philadelphia: University of Pennsylvania Press.
- Karpf, A. 1986. "The Perception of Ambiguity in a Second Language". IRAL. Vol. 24. No. 2:157-169.
- Klepousniotou, E. 2001. "The Processing of Lexical Ambiguity: Homonymy and Polysemy in the Mental Lexicon". Brain and Language. Vol.81:205-223.
- Leedy, P. D. & J. E. Ormrod. 2005. Practical Research Planning and Design. New Jersey: Pearson Education.
- Miller, G. 1956. "Some Limits on our Capacity for Processing Information". Psychological Review. Vol. 63:81-96.
- Moloi, F. 1998. "The Acquisition of English Morphosyntactic Structures by Sesotho Speaking Children in English Medium Pre- Schools". PhD Thesis. Johannesburg: University of the Witwatersrand.

- Newcombe, L. P. 2007. "Social Context and Fluency in L2 Learners; The Case of Wales" *The Electronic Journal for English as a second Language*. Vol. 12. No. 3:125-139.
- Nippold, M. A., J. S. Cuyler. & R. Braunbeck-Price. 1988. "Explanation of Ambiguous Advertisements: A Developmental Study with Children and Adolescents". *Journal of Speech and Hearing Research*. Vol.31:466-474.
- Selinker, L. 1978. "Fossilization in Interlanguage". IRAL. Vol.X:209-230.
- Shultz, T. R. & R. Pilon. 1973. "Development of the Ability to Detect Linguistic Ambiguity". *Child Development*. Vol. 44. No. 4:728-733.
- Wiig, E. H., E. M. Semel & E. Abele. 1981. "Perception and Interpretation of Ambiguous Sentences by Learning Disabled Twelve Year Olds". *Learning Disability Quarterly*. Vol.4. No.1:3-12.