

Syntactic Ambiguity Resolution among Moroccan Learners of English as a Foreign Language

Jamal Labradhi¹,

¹*Higher Institute of Management, Administration, and Computer Engineering, Rabat,, Morocco*

ABSTRACT : The paper in hands examines syntactic ambiguity resolution among Moroccan EFL learners. It focuses mainly on prepositional phrase (PP) attachment preferences in syntactically ambiguous English sentences. It tries to explore whether Moroccan EFL learners prefer noun phrase (NP) or verb phrase (VP) attachment when they interpret syntactically ambiguous sentences. A quantitative design was employed with 72 Moroccan university students who completed a Google Forms questionnaire consisting of 10 ambiguous sentences. The results show a clear dominance of VP attachment in the vast majority of the ten items. These findings suggest that learners rely mainly on semantic plausibility and real-world knowledge rather than syntactic structure in the process of parsing ambiguity.

KEYWORDS : *syntactic ambiguity, PP attachment, sentence processing, VP/NP attachment*

I. INTRODUCTION

Today's developed life of human beings would be impossible without communication. This latter refers to the method through which humans convey messages, feelings, thoughts, and the list goes on. According to David Crystal (2008), communication can be defined as the act of sending and receiving information among humans (p.89). Basically, there are two main types of communication, namely verbal and non-verbal communication. However, natural language (verbal language) is the most widely used and sophisticated means of communication (Ennaji & Sadiqi, 1992, P.28). Natural language, by definition, is a system of human communication, which consists of the systematic arrangement of sounds into words, and words into phrases and sentences.

Based on the aforementioned definitions and claims, we can agree upon the fact that natural language is the most efficient means of communication. However, it can be also claimed that the properties of language can hinder effective communication, in many cases. One significant barrier occurs when receivers find difficulties decoding messages encoded through vague or uncertain linguistic structures or lexical choices. This phenomenon, which is known as ambiguity, occurs when "a single orthographic or phonological string" carries more than one meaning (Kennedy, 2011, p. 510). In simpler terms, ambiguous words or phrases permit several competing interpretations, creating potential confusion for listeners or readers.

At the beginning, scholars (Crystal, 1980; Richards et al, 1981) classify ambiguity into two main categories, lexical and structural. On the one hand, at the lexical level, there are words which have more than one meaning. The word bank, for example, can be defined as the institution where people save money or the side of the river. On the other hand, the phrase "I saw the man with the telescope" shows an example of structural ambiguity, as it can be parsed in two ways: (1) I used a telescope to see the man, or (2) I saw a man who possessed a telescope. Later on, Abraham (1981) included the phonological ambiguity, which refers more specifically to homophones. For instance, the sequence of sounds [rait] can be interpreted as right or write. The above-mentioned classification represents the three levels at which ambiguity occurs. However, one should not confuse the notion of ambiguity and vagueness. Crystal (1980) distinguishes the two terms and states that "an ambiguous sentence is formulated as having more than one distinct structure; a vague sentence, on the other hand, permits an unspecified range of possible interpretations" (1980, p. 24).

The context plays a crucial role in interpreting the intended meaning in the phonological and lexical ambiguity. However, the resolution of syntactically ambiguous phrases and sentences is very demanding. It requires the knowledge of the grammatical structure of the used language in order to parse the syntactic ambiguity (Richards & Schmidt, 2010, p.315). For its complicated resolution process, syntactic ambiguity has been approached from different fields and disciplines from psycholinguistics, applied linguistics, cognitive sciences, neuro-linguistics, to computational linguistics. As a result, many models of natural language processing have been generated: sentence-completion task (Garcia, 1976; Kess & Hoppe, 1981), sentence-

picture task (Foss, Bever, & Silver, 1968); target-phoneme tasks (Swinney and Makes, 1976); color-naming tasks (Conrad, 1974); dichotic-listening task (Lackner & Garrett, 1972); eye gaze (Rayner & Sereno, 1994); garden path (Frazier & Rayner, 1982); and constraint-based (MacDonald et al., 1994).

The main purpose of this paper is to fill in the gap in the Moroccan literature concerning the study of ambiguity. This latter should be a subject to comprehensive studies as it gives deep insights into understanding some properties of mind, language, and communication. Such a paper will contribute to the realm of applied linguistics and language teaching in Morocco by providing an literature review related to one of the most problematic linguistic phenomena. Enriching the Moroccan academia by an unprecedented study in the Moroccan context, that will open room for new discussions and studies to take place, is another objective of this paper.

Many researchers (Donlevy, 2005; Marefat & Meraji, 2005; Khawalda & Al-Saidat, 2012; Yang, 2014; Ackerman, 2015; Tahri, Davodi & Nasri, 2015; Marefat & Nushi, 2016; Alamoudi, 2017; Adlawi, 2018) have tackled the issue of ambiguity in their contexts. The Moroccan academia, to our knowledge, lacks a published survey that approaches this phenomenon. Providing a methodological answer to the questions below aims at founding a ground on which future studies might be conducted to formulate, in an ultimate purpose, a model of ambiguity parsing that goes in alignment with the Moroccan context.

I.1. Objectives:

There is only one main objective of this paper:

To identify the prepositional phrase attachment preference in English sentences.

I.2. Research Questions:

According to the above-mentioned objectives, there only one question to answer in this paper:

Do Moroccan university learners of EFL opt for VP attachment over NP attachment of the PP?

I.3. Hypotheses:

Moroccan university learners of EFL prefer attaching the PP to the VP over the NP.

II. METHODOLOGY

Convenience sampling was employed to select 72 Moroccan EFL learners (both male and female) whose ages range between 17 and 25 years. They were asked to complete a PP attachment interpretation task administered through a Google Forms questionnaire. This latter consisted of 10 structurally ambiguous English sentences. In each of these sentences, the PP can be attached to either the NP or the VP. The informants were asked to select the interpretation they considered most natural for each sentence in order to identify their PP attachment preferences in English and examine how they resolve syntactic ambiguity. The data were collected online without time constraints and were analyzed quantitatively, using SPSS 26, by calculating the frequency and percentage of VP and NP attachment choices for each item.

III. RESULTS AND DISCUSSION

The table and figure below display the distribution of responses of 72 Moroccan EFL learners on a PP attachment interpretation task. The informants were asked to choose between verb phrase (VP) attachment and noun phrase (NP) attachment for each ambiguous sentence. The results show the frequency and percentage of each interpretation

Table 1:

Distribution of VP and NP Attachment Preferences among Moroccan EFL Learners

	Item	VP Attachment	PP Attachment to NP
1	<i>The teacher observed the student with the glasses.</i>	62 (86.1%)	10 (13.9%)
2	<i>The police arrested the thief with the gun.</i>	64 (88.9%)	8 (11.1%)
3	<i>Sara photographed the child with the camera.</i>	70 (97.2%)	2 (2.8%)
4	<i>The journalist interviewed the actress with the microphone.</i>	61 (84.7%)	11 (15.3%)
5	<i>The man hit the boy with the umbrella.</i>	59 (81.9%)	13 (18.1%)
6	<i>The doctor examined the patient with the flashlight.</i>	54 (75.0%)	18 (25.0%)
7	<i>The woman saw the man with binoculars.</i>	69 (95.8%)	3 (4.2%)
8	<i>The student visited the professor with the books.</i>	70 (97.2%)	2 (2.8%)
9	<i>The father watched the child with the toy.</i>	13 (18.1%)	59 (81.9%)
10	<i>The tourist followed the guide with the map.</i>	66 (91.7%)	6 (8.3%)

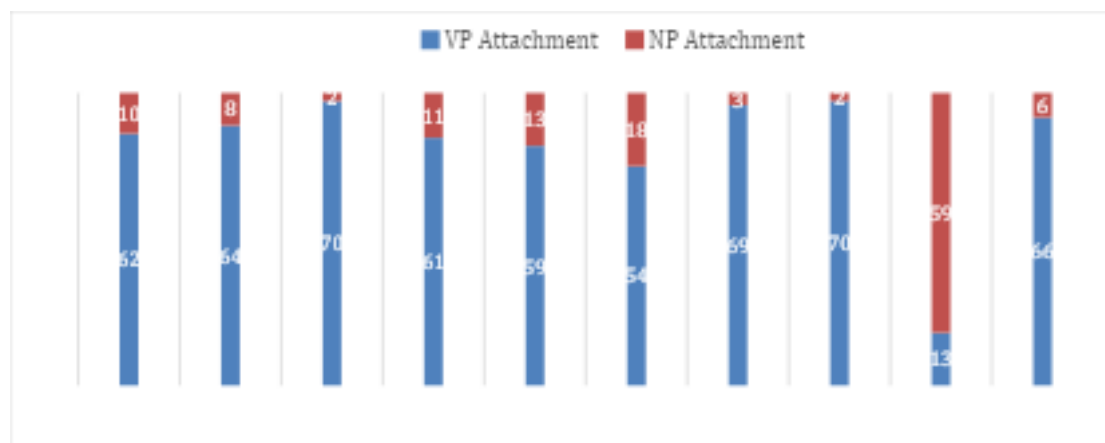


Figure 1: VP and NP Attachment Preferences in PP Ambiguity among Moroccan EFL Learners.

Table 1 shows that the findings of the paper in hands indicate a clear and consistent preference for verb phrase (VP) attachment among Moroccan EFL learners in the vast majority of the tested sentences. On the one hand, as clearly shown, VP attachment rates are particularly significantly high in items where the PP can be interpreted as a tool, such as “Sara photographed the child with the camera” (97.2%), “The student visited the professor with the books” (97.2%), and “The woman saw the man with binoculars” (95.8%). On the other hand, NP attachment dominates only in a single case, namely “The father watched the child with the toy” (81.9%). The observed dominance of VP attachment can be explained by the interaction of semantic plausibility. Indeed, learners strongly depend on semantic cues and real-world knowledge to parse ambiguous structures. Thus, when the PP refers to an instrument or a tool, they naturally attach it to the verb because it modifies the verb or action. As a matter of fact, the limited exposure to English input containing syntactic ambiguity reduces learners’ development of parsing strategies. As a result, learners rely on semantic plausibility and contextual reasoning rather than purely syntactic structure.

These findings are consistent with previous research in second language sentence processing, which shows that L2 learners often rely more on semantic interpretation than syntactic structure when resolving PP attachment ambiguity. The strong preference for VP attachment observed among Moroccan EFL learners is consistent with Dussias (2003), who found that L2 learners often employ different parsing strategies compared to native speakers when resolving syntactic ambiguity. In the same vein, Nushi and Marefat (2016) reported that L2 learners rely heavily on semantic plausibility rather than purely syntactic structure when interpreting ambiguous sentences. Generally speaking, similar to most of EFL learner samples studied by Taheri, Davodi, and Nasiri (2015) and Yang (2014), Moroccan learners demonstrate a semantic-first approach to ambiguity resolution. That is, they prioritize meaningful interpretation over structural parsing strategies.

IV. CONCLUSION

The present study is of huge importance for its contribution to the Moroccan academia and the realm of teaching English as a foreign language. Worth mentioning that the findings of this study will present to EFL instructors an explanation of the way in which EFL learners interpret ambiguity. This knowledge is of huge importance while teaching the four skills, especially listening and reading comprehension. In addition, the findings of this paper will make Moroccan university EFL learners aware of this phenomenon. It will help them avoid ambiguity and enhance their communication skills effectiveness in their future production of English language utterances, be it written or spoken. Worth-mentioning that we should take into consideration that the sample of this study is, to some extent, small and belongs to one small geographical region. Therefore, we cannot overgeneralize the findings of this paper. Rather, we should invite research to approach this issue from different angle in order to have a comprehensive understanding of the phenomenon we are addressing in this paper.

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