

Investigating the Scopal Connection of Quantifiers and Negation in the Translation from Jizani Dialect to English

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Abstract

In order to translate Jizani Arabic into English, this paper attempts to investigate the scope interpretation of quantified DPs, particularly when they interact with negation. The primary goal of the paper is to investigate how the Logical Form rules treat the unclear link between negation and quantifiers. Different semantic readings of a sentence lead to ambiguity in that sentence. Utilizing the Negation Placement Strategy, I examine scope relations in this paper. De Haan (1997 & 2006) established the Negation Placement Strategy to look at the interpretation of the broad and specific scope of negation in a sentence. I use an analysis of multiple Jizani Arabic sentences to demonstrate how distinct interpretations can be distinguished. When there are two quantifier operators or when the surface syntactic location of the negation in a quantifier phrase is changed, ambiguity can be detected (QP). Based on the interplay between the quantifier operator and other types of operators, such negation, this operation is supported by many types of evidence. According to the study's findings, there is no ambiguity in Jizani Arabic when the quantifier *kull*, meaning "all," is used in conjunction with the negations *ma* or *mu*. However, a statement exhibits scope ambiguity in its interpretation when the quantifier *kull* "every" interacts with negative particles. To avoid this ambiguity, a solution has been put forth. Allowing the QP to adopt a broad scope over the negation despite the quantifier's location is the best way to resolve scope ambiguity in JA.

Keywords: Scopal Connection, Quantifiers and Negation, Jizani Dialect to English, Translation

Introduction

This paper is significant for understanding how syntax and semantics interact. This paper aims to understand how the translation of quantifiers and negation can change the meaning of sentences when translating Jizani Arabic into English.

Jizani Arabic is a dialect of Arabic that is spoken natively by around 15 million people and belongs to the Yemeni branch of Arabic. It is closely linked to Standard Arabic and is used as the language of communication in the southern region of Saudi Arabia. Jizani Arabic, on the other hand, has a number of syntactical characteristics that are distinct from Standard Arabic. For example, the grammatical distinction between sentential negation in the contexts of the past and the present is not the same in Jizani Arabic and Standard Arabic (SA) (JA). For example, in Jizani Arabic, the present and past tense verb forms are commonly negated using *ma* as the pattern for verbal negation and *mu* as the pattern for nominal negation. While in Standard Arabic, present tense expressions can be negated either through the use of *lan* as the verbal negation pattern or through the use of the independent negation marker *laysa* in the nominal negation pattern.

The primary objective of this paper is to demonstrate the scopal connection of negation and quantifiers in JA that makes both ambiguous and unambiguous interpretations possible. This connection is studied in this paper utilising De Haan's (1997 & 2006) Negation Placement Strategy, which illustrates how the position of a negation influences the logical shape of a sentence. De Haan developed this strategy. There is no room for misunderstanding in a sentence where the negation and the quantifier *kull* (which can mean "all") interact with one another. Whereas in JA, when there is an interaction between the negation operator and the quantifier *kull*, which means "every," there is ambiguity, and there would be two distinct interpretations of the meaning of the sentence. This interaction contributes to the ambiguity over the scope of the sentence. In order to avoid any uncertainty regarding the scope of this problem, I show that it may be described by applying the Structural Preference Principle (Kurtzman & MacDonald, 1993).

I will talk about two fundamental problems that have been considered in the past in the literature connected to the relation of scope ambiguity. The first problem is the scope ambiguity of sentential negation in SA and JA when used with the quantifier *kull*, which means "every." In this paper, I demonstrate why the same kinds of statements in JA can be ambiguous while the same sentences in SA do not include ambiguity. In section 6, I talk about this issue in JA and present an analysis that describes how this ambiguity in interpretation can arise. The structural position of the negative *ma* is the second difficulty, and it occurs in both South African and Saudi dialects, most notably in JA. I will defend that contention with two separate arguments. First, as a result of the fact that these debates are associated with the word order, I present in section 6 a concise explanation of the scope relation in the VSO and VOS word orders.

The following outline describes the structure of this paper. In Section 2, the historical context is laid up, and some details regarding Arabic quantifiers and negation are presented. In section 3, I include a discussion of the variations in scope ambiguity between SA and JA about the different interpretations caused by the quantifier *kull*, which means "every," and the negative particles *ma* and *mu*. This is done in relation to the possible readings of the sentence caused by these elements. In Section 4, Benmamoun's (2000) and Al-(2001) Tamari's arguments on the position of *ma* within the syntactic framework of SA and other Saudi Dialects are dissected and discussed. The scope of quantifiers in JA and their implications on the reading of a phrase are topics that I cover in section 5 as a transition into the discussion of section 7. In addition, I illustrate the range of negation in JA in section 6. The content of Section 7 is broken up into three distinct parts. In the first section, I examine how the scope of negation and the scope of quantifiers interact in a sentence and how different interpretations are introduced following De Haan's (1997, 2006) strategy. I do this by looking at how the scopes of negation and quantifiers interact with each other in a sentence (NPS). After that, I look into how VSO and VOS sentences each their unique way of have interpreting the scope of quantifiers. In the second section, I investigate the scope ambiguity issues that can arise in JA when negation and quantifiers are used together. Finally, in the third part of this article, I will present a solution to the issues brought up by the ambiguity of scope in JA. In section 8, I provide a quick conclusion by summarising the scopal connections between negation and quantifiers in JA and discussing the result of the scope ambiguity resolution. I also include a reference to the next chapter.

Historical Background

Quantifiers

According to Hallman (2009, p. 1), "Quantifiers are terms that explain quantificational connections between sets, where sets are uttered as predicates." He adds that quantifiers in Arabic often agree with the nouns they are connected to. This is meant to be conveyed by the fact that quantifiers often appear as the first term of a construct condition and are subject to morphological case marking in addition to being marked as nouns. In addition, Arabic quantifiers can accommodate clitic pronouns and definite articles, as demonstrated by the following instances (Alghamdi, 2012, p. 6).

1) *Kulla-hum* zamilat

All- them beautiful-FEM

'All of them are beautiful'

2) *Al-kull* namu:

The-all sleep-PAST-PL

'Everyone slept'

(Shamakhi, 2016)

Hallman (2009) identified three categories of quantifiers based on syntactic and morphological criteria. These categories include nominal, numerical, and phrasal quantifiers. However, I addressed a few of the nominal quantifiers in this paper.

3) *All Muslims love Makkah.*

(Shamakhi, 2016)

Example 3 illustrates a connection between Muslims (a noun phrase or DP expressing the set of Muslims) and love for Makkah through the use of the quantifier *kull*, which means "all". The sign for universal quantifiers, which include every and all, is \forall . Universal quantifiers include words such as every and all. Universal quantifiers are logical symbols that enable us to represent statements that fall under the purview of quantifiers and are appropriate for all circumstances. This is made possible by the fact that universal quantifiers are valid for everything. Existential quantifiers, like some, are denoted by the symbol \exists in the dictionary. These are words like some. Existential quantifiers are logical symbols that enable us to represent sentences that fall within the purview of quantifiers and are appropriate for at least one instance of something. This is possible because existential quantifiers allow us to represent sentences that are valid for quantifiers.

Negation

Aljumaily (n.d.) states that "Negation is a universal phenomenon that is common to all languages of the world". Furthermore, negation is an essential syntactic element that is present in everyday speech in all different languages. For example, Arabic has a special collection of negating constructions that can be used to give declarative utterances a negative interpretation.

In Arabic, the primary method for producing negation is to position particular particles before the component that is to be rejected. These particles need to agree with the verb tense, whether past, present, or future, as demonstrated in (4). In order to construct a negative statement, one can use a variety of variable negative markers; each of these markers has a particular application and set of requirements. For instance, *lam*, *lan*, *ma*, and *laa* can negate verbs when used in a

sentence that begins with a verb; this applies to predicates formed with verbs. When used in the future tense, the invariant particles *ma* and *laa* appear before perfective and imperfective verbs and nouns. Only in the past tense does the preposition *lam* come before the imperfective. Only in the future tense and before the imperfective form does *lan* appear. In addition, *laysa* is a negative verb used with the present tense and is marked only for subject agreement when it does occur.

4)

/lan/ - It is used with subjunctive imperfect to indicate negation in the future.

a) ex: *lanjaktoba l-aʔavlado l-gasʕidah*

not write the boys the poem

"The boys will not write the poem."

/laa/ - It is used with the indicative imperfect to express negation in the present or future.

b) ex: *laaʔrifʔaim l-makan*

not know where the place

"I don't know where is the place."

/maa/-It is used with the imperfect to negate the present.

c) ex: *maa ʔriffem l-makan*

not know where the place

"I don't know where is the place."

(Shamakhi, 2016)

According to Alsharif (2014), one of the primary distinctions between *laysa*, *lam*, *laa*, and *lan* is that the former three possess the same qualities and characteristics as the latter two. When the verbal component of *laa*, *lam*, or *lan* is the primary predicate, the negatives *laa*, *lam*, and *lan* are required to be contiguous to the verb. *laysa*, which is sensitive to the subject agreement and does not need to be next to the verb, can be used to juxtaposition this. It is not required to be adjacent to the verb. In addition, *laysa* is different from other verbal negations in that the subject can intervene between *laysa* and the next verb, whereas other verbal negations cannot.

Previous Studies

Several authors, including Kurtzman and MacDonald (1993), have suggested that the English syntactic structure favours scope ordering when used in quantified phrases (QDPs). When the position of the quantifier in the sentence is changed, the result is an ambiguity that can be read in a number of various ways semantically and can be represented using a variety of alternative logical forms. The position of the quantifier and the categories of elements that it can cover are at the heart of this misunderstanding. An instance of ambiguity can arise in a sentence if it contains more than one QDP and the quantifier is in the [SPEC, DP] position. For instance, the significance of the statement presented in (5) could be analogous to either of the logical structures presented in (6) and (7):

5) Every child painted a tree.

6) $(\forall x)(\exists y) (x \text{ is a child } \& y \text{ is a tree } \& x \text{ painted } y)$

[read as: "For every child x , there is a tree y , such that x painted y "]

7) $(\exists y) \forall x (x \text{ is a child} \ \& \ y \text{ is a tree} \ \& \ x \text{ painted } y)$

[read as: "There is a tree y , such that for every child x , x painted y "]

Previous studies have demonstrated that existential quantifiers can affect the semantic scope in terms of ambiguity. This is due to the fact that the semantic scope is more inclusive than the syntactic scope (see Cresti, 1995; Fodor & Sag, 1982; Kratzer, 1995; Reinhart, 1995; Winter, 1995, among many others). Researchers have put out the idea that semantics can play a role in assigning the syntactic scope of universal quantifiers in the aforementioned body of study. This demonstrates that quantifiers are a component of semantics, even though they influence syntax. It was proposed by Partee, Borschev, Paducheva, Testelets, and Yanovich (2011) that semantics may be responsible for assigning the syntactic scope of quantifiers.

Within the context of a Generative approach, SA negation has received significant attention. Ouhalla (1993) assumed a certain view linked with the hierarchical structure of the functional projections in Arabic. This view is referred to as the functional projections view. His structure stands out among other structures presented by Belletti in (1990) for English and Romance languages since it is distinct from those other structures. As a consequence of this, the position of TP and AGRSP in terms of the language's overall hierarchy may vary (Alsharif, 2014, p. 71). In light of this, while Belletti proposed that AGRSP in English and Romance languages is higher than TP, Ouhalla offers the contrary in Arabic, namely that AgrSP is lower than TP. The following Arabic hierarchy demonstrates that NEGP is situated between TP and AGRSP. Because of this, we may deduce that NEG has been promoted to T and is now adjacent to it.

8) $(TP (NEGP (AGRSP)))$ (Ouhalla, 1993)

Scope Ambiguity

When a statement contains two quantifiers or operators, scope ambiguity is possible (Horn, 1989; Jackendoff, 1972; May, 1977, among others). To demonstrate this, examine the effect on a universal quantifier in sentential negation when it shifts to the subject position ([SPEC, TP]) in JA, as illustrated in (9) and Figure 1.

9) *Kull dʒahel maʔakalbitza*

every child not eat pizza

a) $\forall x [dʒahel (x) \rightarrow \neg \text{ʔakalbitza} (x)]$ (= none of the child ate)

b) $\neg \forall x [dʒahel (x) \rightarrow \text{ʔakalbitza} (x)]$ (- not every child ate)

'Every child did not eat pizza'

(Shamakhi, 2016)

When the quantifier phrase (QP) is understood beyond the scope of negation (every > not), according to the interpretation in (9 a), the sentence is read as follows: every child is such that s/he did not eat pizza. Figure 1 depicts the second reading, in which the quantifier phrase (QP) is construed within the scope of negation (not > every), and the sentence is interpreted as not every child ate pizza.

According to Lee (2009), the interpretation of (9 a) is referred to as a "surface scope" or an "isomorphic" understanding of (9) as "the scope interpretation of every and not agrees with their surface syntactic position." In other words, the interpretation of (9 a) is an "isomorphic"

interpretation of (9). On the other hand, the sentence in (9 b) might be read in the opposite direction to provide what is known as an "inverse scope" or "a non-isomorphic" reading of (9) (Lee 2009, p. 6).

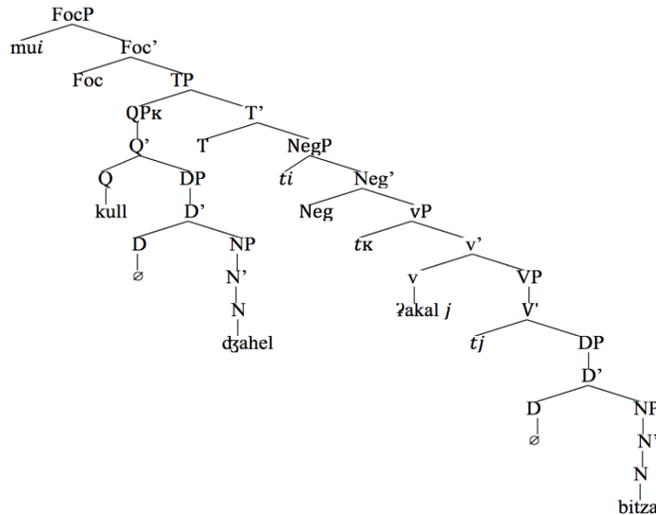


Figure 1. An ambiguity in JA

(Shamakhi, 2016)

I discovered there is no possibility for ambiguity in the same sentence when we look at SA, and that the sentence can only be interpreted in one way (see Figure 2).

10) *Kull tʰɛfəl lamjaʔkulbitza*

Every child not eat pizza

a) $\forall x [tʰɛfəl(x) \rightarrow \neg jaʔkulpitza(x)]$ (= none of the child ate)

‘Every child did not eat pizza’

(Shamakhi, 2016)

When the quantifier phrase (QP) is interpreted outside the scope of negation (every > not), the interpretation in (10), which is shown in Figure 2, is that the sentence should be read as every child is such that he or she did not eat pizza. This interpretation is based on the fact that the QP is interpreted as "every > not."

Each of these interpretations corresponds to a different phrase structure, as depicted in Figures 1 and 2. When the structure of a sentence is unclear, there may be ambiguity in its interpretation. This holds true for JA, but not for SA, which has just one potential reading.

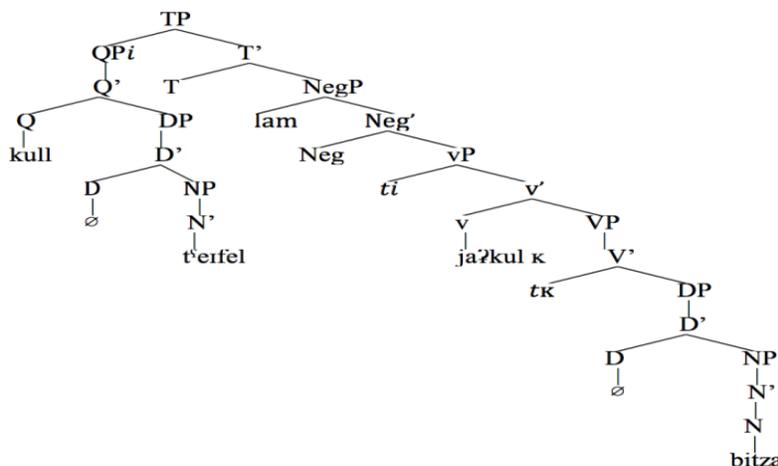


Figure 2. Unambiguity in SA

(Shamakhi, 2016)

Issues with ‘MA’ in SA and JA

Several studies have demonstrated the existence of negation in non-Saudi Arabian dialects. These academics have put forth the hypothesis that the negative *ma* is the only negative particle that is utilised in Saudi languages (Al-Tamari, 2001; Al-Zahrani, 2015; Alsharif, 2014; Benmamoun, 2000). This negative particle is usually placed before the verb, and can be found in both verb-subject initial sentences (VSO) and subject-verb beginning sentences (SVO). According to Al-Tamari, the *ma* particle is the only one that may be used to express a negative connotation, and it is present in all Saudi dialects.

Contrary to what Al-Tamari (2001) asserts, there are two different types of negation in JA. The first is *ma*, which always comes before verbs, and the second is *mu*, which is only connected with nouns. In other words, it is an example of a nominal negation. In Jizani Arabic (JA), the use of negative *ma* is restricted before verbs (11), however in (SA), it can be used in both verbal and verb-less sentences (12), and it can even be employed in the context of questions (13).

11) *Ahmad makatab l-wazeb*

Ahmad not write the homework

‘Ahmad did not write the homework’

(Shamakhi, 2016)

12) *Ma l-bent-u fi l-madrasat-i*

Not the girl-NOM in the school-GEN

‘The girl is not in the school’

(Shamakhi, 2016)

13) *L-bent-u ma fi l-madrasat-i*

The girl-NOM not in the school-GEN

‘The girl is not in the school’

(Shamakhi, 2016)

According to the statistics reported above (11), the negative *ma* in JA is only close to the verb in verb-first phrases (VSO). Benmamoun (2000) asserted that the negative particle *ma* in the NEGP of SA and other Saudi dialects is always positioned within the tense phrase. The negation is defined for a [+D] feature, which is validated by the subject and the verb carrying agreement features. He argues further that the negative *ma* is produced by [SPEC, NEGP]. Therefore, the verb is shifted to the NEG head to solely test its [+D] feature in the past tense. To verify the [+V] in T, the verb is combined with [SPEC, VP] en route to T. The subject must relocate to [SPEC, TP] to check the tense of the [+D] feature in subject-initial SA phrases. Therefore, the subject first proceeds to [SPEC, NEGP] to examine the [+D] feature and then integrates with the negative *ma*, which is also found in [SPEC, NEGP]. This intricate sentence is then moved to [SPEC, TP]. Benmamoun asserted that the negative *ma* negates verb-first sentences with an altered word order when used with JA quantifiers. This is discussed in Section 6.

Al-Tamari (2001) presented arguments against the assumption made by Benmamoun (2000). Al-Tamari suggested that all of SA's negative particles should project a NEGP. Instead of being

generated in [SPEC, NEGP], as Benmamoun recommended, he indicated that *ma* is the head of NEGP. This was in contrast to Benmamoun's suggestion. Second, al-Tamari argued that movement is not a result of checking [+V] and [+D] features, as Benmamoun proposed; instead, movement is triggered by strong nominal and verbal elements. Benmamoun suggested movement results from checking [+V] and [+D] features. Additionally, the word order in Arabic is also determined by these characteristics.

Within the scope of this paper, I will adopt and adhere to the claims made by Benmamoun (2000). This is because the negative particle that comes before the verb in all Saudi dialects is the same, and it's called the negative *ma*. It is bad grammar to put the disclaimer *ma* at the beginning of a sentence that contains a noun. One is called *mu*, and the other is called *ma*, and both are used as negative particles in Saudi dialects. *Mu* is used before subjects, whereas *ma* is used before verbs. If you flip these components around, you will end up with a statement that does not follow proper grammar. In this thesis, I argue that the negative *ma* is situated within the NEGP and produced in [SPEC, NEGP], which is headed by TP. This is a claim that I make in this thesis.

Scope of Quantifiers

First things first: before we can explain the scopal link between quantifiers and negation in JA, we need to grasp the scope of quantifiers and the scope of negation. In this chapter, I investigate the application of quantifiers and how the placement of a QP in a sentence can lead to various conceivable interpretations depending on the context of the statement. The topic of the following chapter's discussion is the application of negation to different levels of logical form.

It is essential to better understand the linguistic vocabulary used in connection with quantification. The words or phrases combined with nouns to state the number or quantity of their referents are referred to as quantifiers. Words like "every," "each," "all," and so on can be used to indicate these things. The quantifier that serves as the head of the scope of the quantifiers in an utterance is what makes up the quantifier phrase QP. (Hallman 2009, p. 14-20).

"The scope of a quantifier is the domain which the quantifier c-commands on semantic structure" (Pafel, 2006, p. 122), for instance, "*kulltʃalibah* takes scope over *baʔdʃ l-kutubas* in." This shows that "*kulltʃalibah*" has priority over "*baʔdʃ l-kutub*" (14).

14) $[_{CP}[_{QDP}kulltʃalibah]][[_{VP}tagraʃ] [_{QDP}baʔdʃ l-kutub]]$

‘All the students read some books’

$\forall x(T(x) \rightarrow \exists xP(x))$

(Shamakhi, 2016)

The preceding illustration demonstrates that if a sentence has two quantifier particles, one of the quantifiers will have greater scope than the other. That is to say, in JA, the scope is considered to be rigid whenever a statement contains not one but two quantifiers. “Here, *kull* ‘all’ has scope over *baʔdʃ* ‘some’. The internal quantifier $\exists x$ acts on $P(x)$ only, while the external quantifier $\forall x$ acts on only one variable $x(T(x))$ ” (Shamakhi, 2016).

15)

a) *Kull l-banatrekbu l-sajaraat*

All the girls ride the cars

‘All the girls ride the cars’

(Shamakhi, 2016)

According to the Verb Internal Subject Hypothesis, the subject is created in [SPEC, vP] and then travels to [SPEC, TP] (Koopman & Sportiche, 1991, pp. 211-258). The quantifier *kull* "all" has scope over the DP "the girls," but not over the other DP in the sentence, "the automobiles," as shown in Figure 3. As demonstrated in the example below, the DP "the automobiles" can be qualified by adding the quantifier "all" before it (15 b).

b) *kull l-banatrekbukull l-sajarat*

All the girls ride all the cars

‘All the girls ride all the cars’

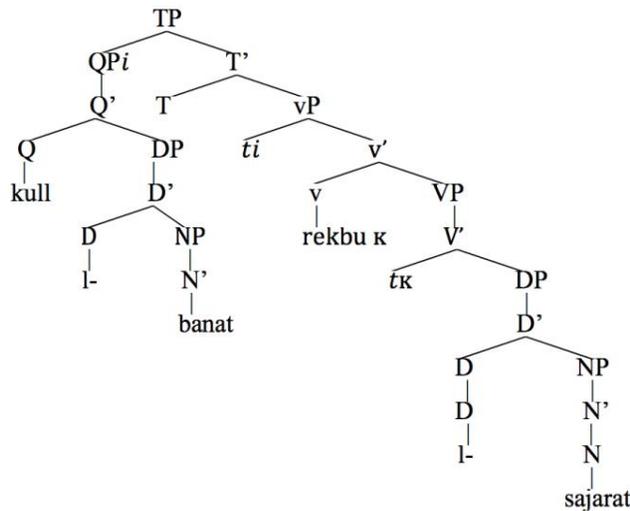


Figure 3. Scope of *kull*

(Shamakhi, 2016)

The first quantifier *kull* "all" has scope over *l-banat*, as demonstrated by Example (15 b), which is depicted in Figure 4. In contrast, the second quantifier *kull* "all" has scope over *l-sajarat*. As a result, the extent of the investigation is dependent on the locations of the quantifiers on the surface structure.

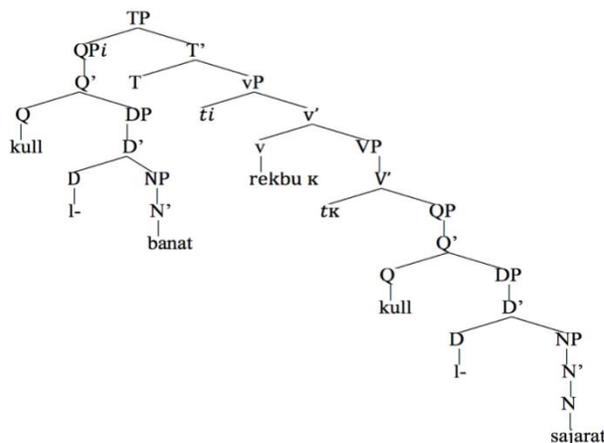


Figure 4. Scope of *kull*

(Shamakhi, 2016)

Scope of Negation

All negation operators in Jizani Arabic reveal the scope of negation at the level of logical form. Negation, according to Carston (1996, 2002), has a broad scope in logical form and is applicable to its specialised area.

In the semantic literature, it is common to find propositional operators, such as negation, as including the whole proposition in Logical Form (Laka, 1994, pp. 53-55). Thus, any negative sentence such as (16) has the same structure in Logical Form as the sample phrase (17). This is seen in Diagram 5.

16) Maha MARaḥat

Maha DID NOT go

(Shamakhi, 2016)

17) MA [Maha raḥat]

NOT [Maha went]

(Shamakhi, 2016)

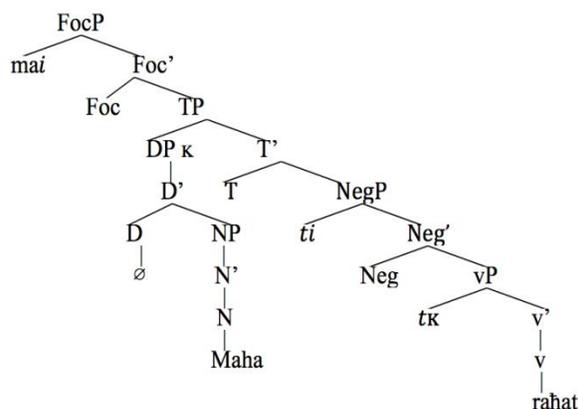


Figure 5. Negation logical form

(Shamakhi, 2016)

When the negative particle has scope across the entirety of the clause, as it does in (17), the presence of the Tense C-command Condition is a syntactic condition that must be met. The Tense c-command condition mandates that Negation must c-command the Present Tense and not the other way around (Laka, 1994, pp. 53-55). There is no reading possible in which the emphasis is placed on the tense when the sentence is negative and superficial like (16). Consequently, we get a reading with a contrastive focus, such as in (17). The interpretation at that point would be that Maha's trip did not occur in the past.

When used before verbs in Jizani Arabic, only the verbal negative particle *ma* is ever employed. As a result, the particle *mu*, which translates to "is not," is placed before NPs to express nominal negation. Altering the placement of the negative particle in the phrase will invariably result in the scope of negation becoming more apparent. This tactic is called "Negative Placement Strategy," or NPS (De Haan, 2006, p. 27). According to the second postulate of the Negativity Placement Strategy, the place in the sentence where the negation occurs is what makes the difference between a limited and extensive range of negation (Taleghani, 2008, p. 138). This is demonstrated in (18).

18) *L-banat ma ʔakalu*

The girls not eat

‘The girls did not eat’

- a) *Ma [ʔakalu [l-banat]]* ⇒ narrow scope

Not [eat [the girls]]

- b) *[L-banat [ma ʔakalu]]* ⇒ wide scope

[The girls [not eat]]

(Shamakhi, 2016)

Scopal Relationship of Negation and Quantifiers in Jizani Arabic

In this chapter, I suggest there is a scopal relationship between the use of the negation operator and the Jizani quantifier *kull*, which can mean either "all" or "every", depending on the context of the phrase. In the following, I explore how the logical forms present in these different types of sentences may provide a possible rationale for why these variances occur.

There is a direct connection between quantifiers and negation, which means that various readings depend on the negation scope. This refers to whether the negation is contained within the quantifier's scope or whether it applies to the entire sentence if the quantifier is included in the sentence. In Arabic, the meaning of this relation can be altered simply by moving the negative to a different spot in the sentence construction. According to De Haan (1997, 2006), shifting the position of the negative inside the structure might result in a number of various interpretations of the scope. The Negation Placement Strategy, which was introduced by De Haan (1997, 2006), is what decides whether the negation has a wide or narrow scope in relation to the quantifier. This was covered in the previous section. According to Alsharif (2014, page 209), the negative particle *ma* changes into the negative particle *mu* when it goes from its preverbal position to a place where it precedes a subject. This is the case when it moves from the preverbal position. Table 1 outlines this tactic for you to consider.

Table 1. Scope Interpretation Strategy

Strategy type	Negation position	Scope domain
NPS	(Neg-S)-V	(Neg(S(V)))
	S(Neg-V)	(S(Neg(V)))

There is no documentation in JA about the interaction between negation and quantifiers in terms of scope. In the following paragraphs, I will present the facts regarding this interaction using NPS. Example (19) in JA can be interpreted in precisely one way from a semantic standpoint. Example (19) cannot be an ambiguous sentence. The only interpretation that makes sense is that none of the players played football (narrow scope negation, broad scope universal quantifier, narrow scope universal quantifier) (see Figure 6). This sentence can only be expressed as a logical construct in JA by using the form $\forall x (T(x) \rightarrow \sim P(x))$. There is no room for interpretation about the scope of the case at hand.

- 19) *kull l-farig ma leʃbukorah*(S(NEG(V))) $\rightarrow \forall x (T(x) \rightarrow \sim P(x))$.

All the team not play football

‘All the team did not play football’

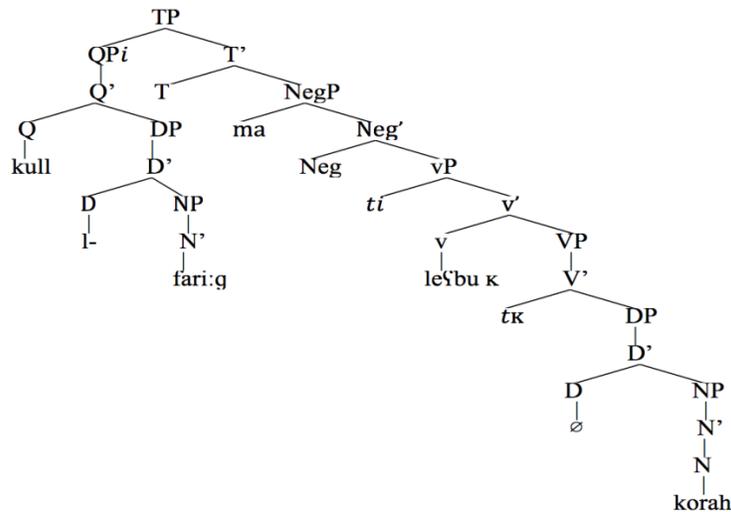


Figure 6. Narrow scope negation, wide scope universal quantifier (Shamakhi, 2016)

To begin, by shifting the location of the negation, the verbal negation *ma* becomes the nominal negation *mu*. This occurs when the position of the negation is changed. It is not correct grammar to place the verbal negative *ma* in front of a noun, as this topic was covered in section 4.

The language in example (19) can't suggest that *some of the players played and some did not play*. Therefore, it can't have the Logical Form $\sim \forall x (T(x) \rightarrow P(x))$. The only method to obtain this LF interpretation is to move the NEG position in the other direction, as demonstrated in (20) and Figure 7.

20) *mu kulll.farigle'bukurah*(NEG(S(V))) $\rightarrow \sim \forall x (T(x) \rightarrow P(x))$.

not all the team play football

'Not all the team play football'

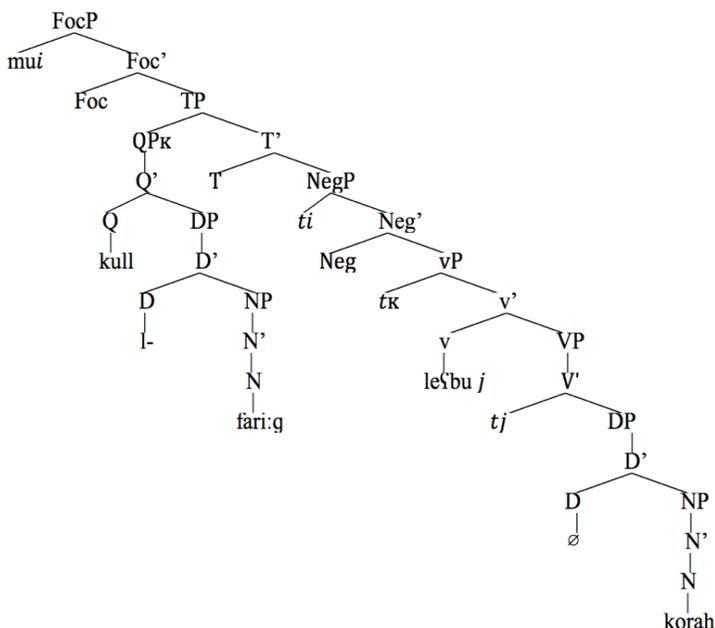


Figure 7. Wide scope negation, narrow scope universal quantifier (Shamakhi, 2016)

There is only one possible interpretation and meaning of the line "none of the players played football" in JA. The sentence is written as "*kull l-farig ma leabukorah*" (see figure 7). We are unable to derive the third assertion, "some of the players played, and some of them did not," from it. "some of the players played and some of them did not." The negative particle is referred to as *mu* rather than *ma* since the place of negation was changed. As a direct consequence of this, we might draw two different conclusions. We are able to make a distinct contrast between the narrow-scope and wide-scope semantic interpretations by shifting the position of the negation.

Suppose the sentence begins with the universal quantifier *kull*, and the negation has scope over the verb. In that case, the only viable logical form is $\forall x (T(x) \rightarrow \sim P(x))$, according to Yaacob and Yaacob (2014, p. 6). The only viable logical form is $\sim \forall x (T(x) \rightarrow P(x))$ if the position of negation is adjusted to precede the *kull* quantifier.

To obtain these two logical forms ($\forall x (T(x) \rightarrow \sim P(x))$, $\sim \forall x (T(x) \rightarrow P(x))$), it is necessary to produce two independent phrases. Therefore, the meaning of the sentence is altered depending on which negative comes first. A single sentence cannot possibly give rise to two distinct logical forms simultaneously. We are required to make use of two distinct structures, each of which can be interpreted uniquely. That is to say; it is not feasible for the statement "some of the player played and some of them did not" to signify that "none of the player played" or that "all of the team did not play football." This is because the statement "some of the player played and some of them did not."

These two logical forms ($\forall x (T(x) \rightarrow \sim P(x))$, $\sim \forall x (T(x) \rightarrow P(x))$) require the generation of two different sentences. Thus, the position of each negative in a sentence imparts a distinct meaning. Two logical forms cannot be derived from the same statement. There must be two distinct structures, each with a unique interpretation. Thus, it is impossible for the sentence *mu kull l-farig leabukorah* 'some of the players played, and others did not' to indicate 'none of the players played'.

The main distinction between the effects of quantifiers in Jizani Arabic is the ambiguity in scope. In example (25), there is no ambiguity since SA has no ambiguity when the quantifier is paired with negation (NEG + QUANT). I propose that the absence of ambiguity in Arabic when the quantifier *kull* is formed in a sentence with the negative *ma* or *mu* is due to the position of the negation within the phrase. Thus, placing negative before the quantificational noun phrase yields a different meaning (nominal negation) than placing negation after the quantificational noun phrase or before the verb (verbal negation). Numerous particles can be employed to negate verbs in Jizani Arabic, and these particles are distinct from those used to negate nouns. Therefore, whenever the quantifier *kull* appears with negation in Jizani Arabic, the statement has only one semantic interpretation.

When it comes to the scope of sentential negation, there is no possibility for ambiguity regardless of the order in which the negative particle *ma* and the verb appear in the sentence in relation to the subject. Therefore, it is not feasible for statements such as (21) and (22) to have more than one meaning. Figures 8 and 9 provide additional insight into their respective structures.

21) *ma garukull l-t^ullab l-kitab*
 not read all the students the book
 ‘Not all of the students read the book’

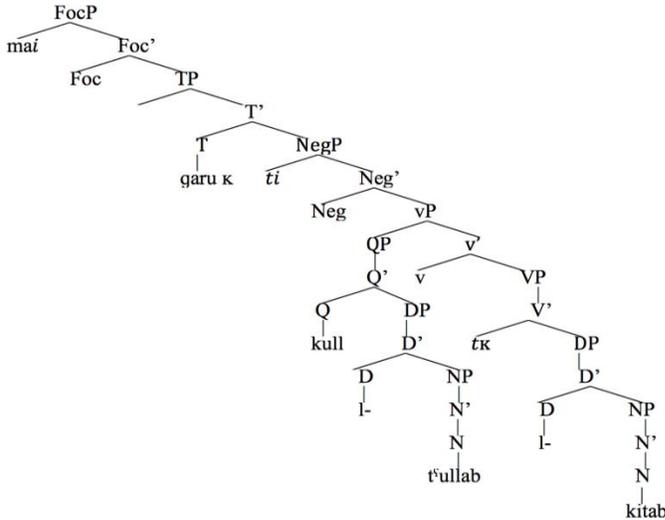


Figure 8. $NEGP + QDP = \neg > \forall, * \forall > \neg$

(Shamakhi, 2016)

22) *Kull l-t^ullab ma garu l-kitab*
 all the student not read the book
 ‘All the student did not read the book’

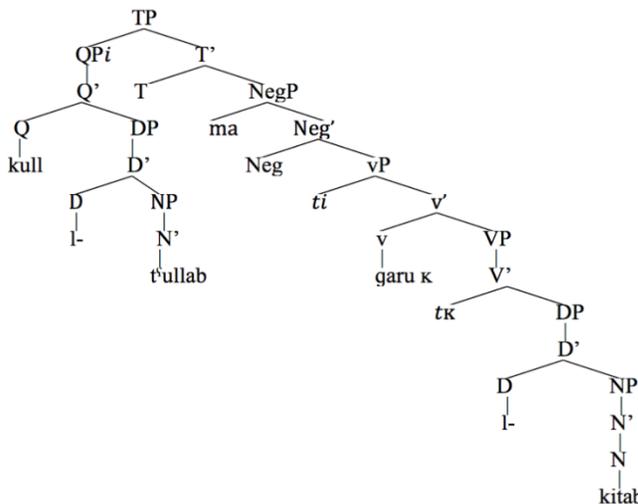


Figure 9. $QDP + NEGP = \forall > \neg, * \neg > \forall$

(Shamakhi, 2016)

In example (21), where the NEGP comes after the QP, the meaning of the phrase "some of the pupils read, and some of them did not" changes. For instance, *ma garukull l-tullab l-kitab*

demonstrates how the verbal negation controls the quantifier, causing it to move from the universal quantifier to the existential quantifier in some cases. Since the quantifier has more flexibility than the verbal negative, it has its meaning in *Kull l-tullab ma garu l-kitab*, which means "none of the students read." This means that when the quantifier has scope over the negation or vice versa, JA sentences are clear-cut and devoid of potential ambiguity. I contend that by shifting the NEGP's position so that it comes before the QP, we can derive a different meaning than if it came after the QP. When this happens, the negation will have less weight than the quantifier *kull* "all." However, if the negation comes before the QP, it will have precedence over the QP. The quantifier *kull*, which means "all," has various semantic meanings depending on where it appears in the sentence.

VSO and VOS Investigation

In this section, I examined how quantifiers interact with one another in relation to the scope of the *ma* and *mu* particles, which are negative particles. In phrases that use the VSO word order, I propose that the subject continue to be placed where it is now located, but the negation is moved to the [SPEC, FOC] position. Figure 10 illustrates this point further.

23) *ma halukull l-tullab l-wazeb*
 not do all the students the homework

‘Not all the students did the homework’

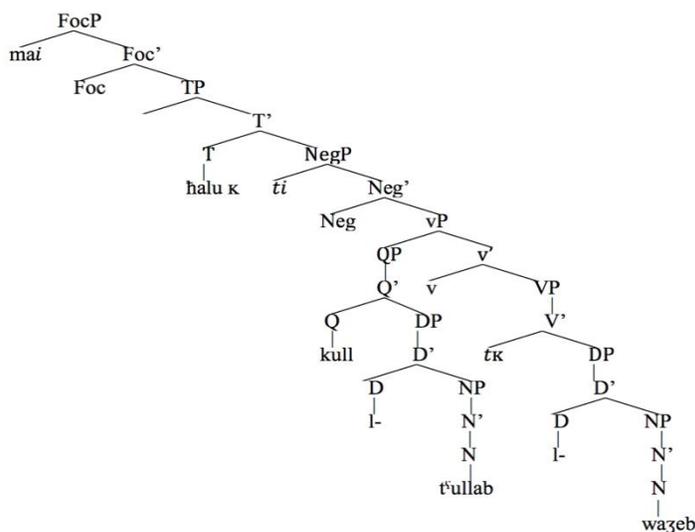


Figure 10. VSO word order

(Shamakhi, 2016)

Figure 10's tree demonstrates that the subject QP *kull l- tullab* occupies a place below that of the verbal negation *ma* in the phrase hierarchy. Therefore, the only possible meaning that can be derived from this line is that some of the pupils completed their assignments while others did not. Thus, the scopal link between the negative and the quantifier can be identified by switching the location of the negation from [SPEC, NEGP] to [SPEC, FOC] in the original sentence. In this particular instance, the subject *kull l- tullab* continues to be located in [SPEC, vP]. Still, it is now positioned as an intervener between the verb *halu* and the complement *l-wazeb*.

When sentences are constructed with VOS word order, an interesting interaction occurs between the quantifier and the negation. It is possible to build VOS word order from SVO clauses by moving the *ma* or *mu* found in the [SPEC, NEG_P] position to the [SPEC, FOC_P] position. NEG_P, which is at a position that is lower than [SPEC, TP] (the position that represents the derived subject), rises to [SPEC, FOC_P], and as a result, comes before the subject in the sentence. At the S-Structure, the quantifier is in a higher position than the negation; nonetheless, Figure 10 enables us to observe this structure and how the quantifiers interact with negation regardless of the subject's derived position. Figure 10 illustrates this point further. Chomsky (2003) provided the impetus for this kind of movement by utilising the concept of Feature-Attraction.

Figure 11 and the example (24) both illustrate the VOS word order that is used in JA. The interaction that takes place between the QDP and the negation particle *ma* is seen in Figure 11. This interaction takes place when the QDP is in a position that is inferior to that of the negative *ma*.

- 24) *ma halu l-wa3ebkull l-tʿullab* > ¬ / * ¬ > >
- not do the homework all the students
- ‘All the students did not do the homework’

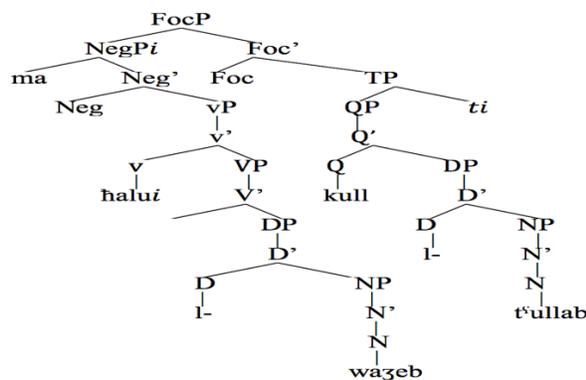


Figure 11. VOS word order

(Shamakhi, 2016)

Figure 11 demonstrates that the QDP *kull l-tʿullab* occupies a position subordinate to the negation particle *ma*. While the negation particle *ma* comes before the verb in the phrase, the subject *kull l-tʿullab* is brought in at the very end of the sentence in a postverbal position. This line might be interpreted as meaning that there are a number of pupils, but none of them completed the homework assignment. The interpretation that claims that some of the pupils completed their assignment while others did not is not only inaccurate but also grammatically incorrect. The only conclusion that can be drawn from this is that none of the pupils completed their assigned assignments. This sentence adheres to all of the rules of proper grammar.

The NEG_P is relocated to the FOC_P, which occupies a position superior to that of the TP. The negation and the quantifier do not c-command one another, as we can see from how the words are ordered above. Nevertheless, the quantifier was only gaining scope over the negation at one point of the derivation before the NEG_P was moved to the FOC_P. This was before the migration of the NEG_P.

Further Issue with Scope Ambiguity

According to what Aoun and Li (1989, 1993) have indicated, in the case when there are two quantified expressions, an x quantifier has scope over a y quantifier if and only if x c-commands y in the QP. This rule applies only if there are two quantified expressions. On the other hand, scope ambiguity frequently occurs in sentences containing two or one quantifiers followed by negation. The following examples are given by Kurtzman and MacDonald (1993) (25) and Tunstall (1998) (26), indicating that having two quantified DPs is necessary to get two possible readings out of a given set of data. These examples are shown in (Shamakhi, 2016).

25) Every kid climbed a tree.

a) $(\forall x)(\exists y)(x \text{ is a kid} \ \& \ y \text{ is a tree} \ \& \ x \text{ climbed } y)$

[read as: “For every kid x, there is a tree y, such that x climbed y”]

b) $(\exists y)(\forall x)(x \text{ is a kid} \ \& \ y \text{ is a tree} \ \& \ x \text{ climbed } y)$

[read as: “There is a tree y, such that for every kid x, x climbed y”]

26) Mary showed a book to every child.

a) $(\exists x)(\forall y)(x \text{ is a book} \ \& \ y \text{ is a child} \ \& \ \text{Mary showed } x \text{ to } y)$

[read as: “There is a book x, such that for every child y, Mary showed x to y”]

b) $(\forall y)(\exists x)(x \text{ is a book} \ \& \ y \text{ is a child} \ \& \ \text{Mary showed } x \text{ to } y)$

[read as: “For every child y, there is a book x, such that Mary x to y”]

When the order of the existential quantifier is changed from sentence to sentence, there is ambiguity in the extent of the meaning, which can lead to a variety of distinct semantic interpretations. Figure 12 shows this is also possible in the Jizani dialect of Arabic.

27) *Kull dʒaheiltisalagʃadʒarah.*

every kid climb tree

‘Every kid climbed a tree.’

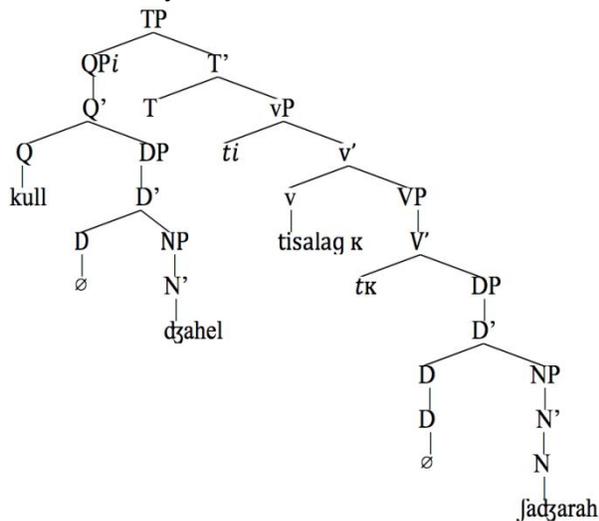


Figure 12. $\forall > \exists$, * $\exists > \forall$

(Shamakhi, 2016)

Because the universal quantifier has a broader range of applications (wide scope) than the existential quantifier, the statement can also be interpreted as 'There is some tree for every kid to climb.' Therefore, this statement can also be interpreted as 'Every youngster climbed the same tree,' which is grammatically correct and believed to be the correct interpretation in JA; but, according to section 3, this interpretation is not grammatical in SA.

As can be seen, the indefinite marker needs to be changed to the definite marker in order to reach the interpretation that says each child climbed just a single tree (28). Due to the presence of the definite marker 'a,' as shown in Figure 13, the reading will be changed from one using the wide scope to one using the narrow scope in this instance.

28) *Kull dʒaheiltisalaq ʔaf- ʔadʒarah.*
 every kid climb the tree
 'Every kid climbed the tree.'

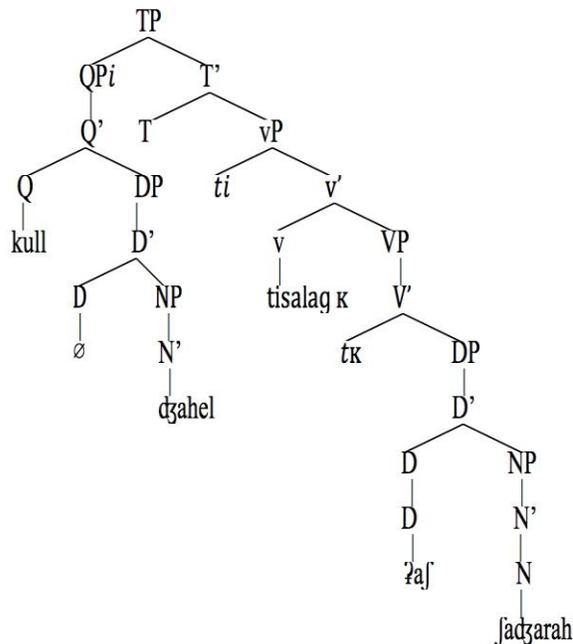


Figure 13. $\exists > \forall$, * $\forall > \exists$

(Shamakhi, 2016)

Now I will discuss the scope link that exists between negation and the universal quantifier *kull*, which translates to every in Jizani Arabic. I shall argue that scope ambiguity is possible when the universal quantifier *kull* 'every' and negative are used together in a phrase. This indicates that there will be two different interpretations on the broad and specific scopes of application.

Even while the phrase structure is clear on the "surface," the semantics of JA are ambiguous, as demonstrated by Example (29), even though the syntax of the phrase appears to be clear. Take note that in Japanese, the same sentence might have two different meanings depending on whether or not it combines the negation function with the universal quantifier *kull*, which means "every."

29) *Kull tʔaleb ma gara kitab l-bareh*
 every student not read book yesterday
 'Every student did not read a book yesterday'

Reading A: none of the students read.

Reading B: some of the students read and some of them did not. (Shamakhi, 2016)

Any sentential negation in SA paired with the universal quantifier *kull* 'every,' as was done in the example sentence above, appears to be straightforward to comprehend. However, this line can only be interpreted in one way in SA, and that interpretation is that none of the pupils read it with regard to the surface scope. While in JA, the sentence is subject to reading A and reading B (from 29), which are determined by the surface and inverse scopes, respectively.

Changing the position of negation in JA can significantly impact scope relations, as I demonstrate in the following example (30). Two distinct meanings can be derived from the situation in which the negation occupies a position higher than the QP. Readings A and B in the example illustrate this point (30). Reading A is the only one that none of the students had read if we examine only the surface scope. When we consider the scope in the other direction, we get at the answer reading B; however, not all of the pupils got it right.

- 30) *mu kullt'alebgara kitab l-bareh*
 not every student read book yesterday
 'Not every student read a book yesterday'

Reading A: none of the students read.

Reading B: some of the students did and some of them did not. (Shamakhi, 2016)

Due to the fact that the negative *mu* has scope over the quantifier *kull*, which means "every," the meaning of the statement in example (30) is altered. The negation has a confined scope with the quantifier in example (29) *Kull t'aleb ma gara kitab l-bareh*. This action produces a different interpretation than *mu kullt'alebgara kitab l-bareh*, which can be found in the previous example (30).

Scope Ambiguity Resolution in JA

There is no documentation in JA about scope ambiguity. I contend that a rule can be implemented to clear up the confusion of this nature, and an illustration of this rule can be found in the preceding case (30). The term "Structural Preference Idea" refers to this guiding principle. This concept emphasizes the ambiguity of scope in relation to the interactions between quantifiers and negators. According to Kurtzman and MacDonald (1993), QPs, when placed in a certain position, have a greater likelihood of having wide scope compared to other operators such as negation. The technique for resolving ambiguity that is a part of the Structural Preference Principle provides a broad scope reading to a variety of quantified NPs, including quantified subjects, topics, initial QPs, c-commanding NPs, agents, and external arguments. If we assume that the QP has a broad influence over the negation, we might only get one interpretation out of it.

- 31) *Kull t'aleb ma gara kitab l-bareh*
 every student not read book yesterday
 'Every student did not read a book yesterday' (Shamakhi, 2016)

- 32) *Ma garakullt'aleb kitab l-bareh*
 not read every student book yesterday

‘Every student did not read a book yesterday’

(Shamakhi, 2016)

If we apply the Structural Preference Principle to (31) and (32), we can see that the QPs have a wide scope over the negation, and despite the position of the QPs, we only get one interpretation. This is because the Structural Preference Principle favours the structure of a sentence over its interpretation. Therefore, these statements can only be interpreted in one way, suggesting that none of the students read a book. In this reading, in accordance with the Structural Preference Principle, only the surface scope of *Kull t'aleb ma gara kitab l-bareh* can be considered acceptable (initial QP). On the other hand, the use of inverse scope is permitted *ma garakull t'aleb kitab l-bareh* (initial negation).

Conclusion

In this thesis, I have examined the relationship between quantifiers and negation in terms of how the scope of each element is read. Specifically, I have focused on how this interaction affects how one can quantify anything. I have demonstrated that, in phrases containing ambiguity in JA between the sentential negation *kull* and the quantifier every, there is no such ambiguity in sentences including *kull* and every in SA. In line with Benmamoun's (2000) research, I contend that the correct syntactic position for the negative particle *ma* is in [SPEC, NEGP]. I demonstrate that the resolution of the scopal ambiguity in the JA sentences can be achieved by employing the Structure Preference Principle developed by Kurtzman and MacDonald (1993). In accordance with the findings of this body of research, I have proposed the hypothesis that QPs in a specific location are more likely to have wide reach than other operators, such as negation. Finally, I have demonstrated that one method in JA for the resolution of ambiguity is the interpretation of LF for the quantifier to take wide scope over negation despite the surface structure location of the quantifier in the sentence. When this occurs, ambiguity regarding the scope of the problem is resolved.

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