# Effects of Structural Context Integration on Ambiguity Elimination for Students of Translation

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**Abstract**
Linguistic ambiguity causes translation students to be confronted with several problems in the translation process from Arabic into English. This causes their translation to be inconsistent with the professional standards of translation. Thus, this study is concerned with the effects of structural context integration on ambiguity elimination for the students of translation. It aims to identify the negative effect of the ambiguity aspects in Arabic by answering the questions of the study. These questions are: What is the effect of the modes of structural context integration on improving the translation of undergraduate Translation students? Does each way of structural context integration have the same effect on ambiguity aspects? The instrument used in this study to answer these questions was a diagnostic test. This test gauged the performance of two groups (15 each) of undergraduate Translation students at the German-Jordanian University. They were asked to translate (24) sentences that included an ambiguity at one of the four levels of the Arabic Language. The (t-test) was utilized to test the statistical significance of the differences between the two groups. Results showed statistically significant differences in mean scores between the experimental group and control group to the reference of the experimental group. It was found that the phenomenon of ambiguity in Arabic has negatively affected the performance of translation students, while the structural context integration has significantly contributed to the enhancement of students' performance, probably due to the study plans of Translation Department which do not include any study materials that contribute to increase the students' awareness of significant Arabic language details related to phonology, morphology, syntax and lexical items.
*Keywords:* Arabic language, linguistic ambiguity, translation, structural context integration, levels of language ambiguity

## 1. Introduction
The basic function of a language is communication which can be achieved when the native speakers of a language analyze the audible and readable events of utterance through the reliance on language. If they ignore the common systemized reference (the language), they would have insignificant communication opportunities.

This system is not limited to the knowledge of lexical meanings, since this would not create an absolute system leading to communication, but it is a group of overlapping structural levels that completely operate harmoniously, where the first leads to the second, and the second is based on the third and so on. Such levels can only be separated within a rough theoretical framework. However, a native speaker of a language would gather the language phonemes, convert such phonemes into words, and, then put them down in their positions depending on a third level which is syntax. According to Hassan (1986), the tool of communication about meaning would still be under the supervision of the linguistic system including its coherent levels (phonological, morphological, lexical and syntactic).

Although such an integrated linguistic system conduces to communication and explanation, it sometimes results in ambiguity, which is a linguistic phenomenon recognized by all languages including Arabic. Therefore, the benefits from the process of utterance are to achieve the linguistic communication based on the integration of the three utterance elements (addresser, utterance, and addressee).

Ambiguity usually takes place in the linguistic system at its four levels (Versteegh, 2006). The first level of ambiguity occurs in phonation through distinctive features (See Katamba, 2013; Kramsky, 1974; Lyons, 1981), intonation (Crystal, 2008;  Singh & Singh, 2006), stress (See Alkhuli, 1990; Katamba, 2013; Mukhtar, 1991; Robins, 1989) and juncture (Crystal, 2008; Robins, 1989). Its second level occurs in morphology through derivation, morphological molds, suffixes and affixes (See Crystal, 2008; Katamba, 1993; Robins, 1989), and mold shifting. The third level is the lexical one, ambiguity occurs through homophones and semantic domains (Jackson & Zé Amvela, 2007; Robins, 1989) .Finally, the syntactic level of ambiguity; it takes place through pronoun reference and the flexibility of sentences and syntactic meanings. Ambiguity is an incidental phenomenon in the linguistic system which causes translators to be confronted with several problems.

### 1.1. Statement of the Problem:
The researchers noticed during their careers that the undergraduate students of translation at the German-Jordanian University encounter some difficulties and problems in the translation process from Arabic into English, which caused their translation to be inconsistent with the professional standards of translation. Furthermore, such ambiguity might result in a linguistic overlap between the utterances of other languages' addressees, and when it comes to simultaneous interpretation, such difficulties and problems would be more complicated since that might create political or economic problems.

The researchers found that studying the solutions of such a problem has not obtained any sufficient interest by Arab and foreign researchers. Despite the attempts of modern and ancient Arab linguists represented by discussing the aspects of all different ambiguity types, they could not find any study that shows the effects of linguistic ambiguity on the translated texts of the students of translation.
The importance of the study lies in answering the following questions:

1.  What is the effect of the modes of structural context integration on improving the translation of undergraduate Translation students?
2.  Does each way of structural context integration have the same effect on ambiguity aspects?

### *1.2. Significance of the Study:*
The significance of this study comes from the followings:
1.  This study is concerned with the effects of structural context integration on ambiguity elimination for the students of translation.
2.  The current study allows researchers interested in such a field to conduct more studies concerning it.
3.  The study gives translation study planners the opportunity to modify their plans in congruence with the students' level.

### *1.3. Limitations of the Study:*
The study has three limitations:
1.  Limitation of place: The study was conducted in the Department of Languages at the German-Jordanian University in Madaba.
2.  Limitation of time: The study was carried out in the Second Term of the academic year 2013-2014.
3.  Subjects' limitation: The learner's gender was not taken into consideration when the study was applied. In addition, only third and fourth year undergraduate students participated in the study.

## 2. Theoretical Framework
### *2.1. Aspects of Ambiguity in Arabic Language:*
Ambiguity is a general linguistic feature which is not restricted to a particular language. As for the ambiguity of the Arabic language, this study explores the most obvious positions nominated to be ambiguous at Arabic language levels which might negatively affect the addressee, noting that it would not go beyond the linguistic system of the Arabic language represented by its various levels, and it would not turn to style or context.

### *2.1.1. Ambiguity due to phonation:*
Phonological syllables constitute a major factor which reveals the intended connotations, and their evocation in the process of utterance would prevent a translator from falling in ambiguity pitfalls arising from such a side. It is supposed that a translator could seek information about a set of speech that belongs to two or more words, but the absence of such a factor might allow unifying the two words into a single word. The following examples of such words their meaning is clear when resorting to the phonological syllable.

"إلى ⏶ هنا رجعنا"          "إلهنا رجعنا"
"ilā ⏶ hunā raja?nā"          "ilāhunā raja?nā"

"جال ⏶ سنا القمر"          "جالسنا القمر"
"jāla ⏶ sanā alqamaru"          "jālasanā  alqamaru"

"لو ▲ ▲ لام ▲راعي الخير"          "لولا    مراعي الخير"
"law ▲lāma▲ rā?iyu alḱairi"          "lawl▲ā  marā?iyu alḱairi"

The ambiguity in these utterances resulted from the utterance boundaries at the pronunciation level.

The syllabic role lies in the ability to set sentence boundaries and syntactic meanings, such as " قال الملك هو الصالح " "qāla almaliku hwa al sālehu", where it appears that such a sentence might hold two meanings: first, a man tells the king that he is a good person, and second, the king tells the man that he is a good person.

The absence of phonological syllables might synergize with intonation, which leads to ambiguity, such as a sentence like "قال الطالب إنا هنا ناجحون" "qāla alṭālibu innahu nājiħun" (lit. translation: The student said he passed). Certainly, the absence of phonological syllables accompanied with intonation leads to misunderstand the word "alṭālibu" as a subject, whereas the actual subject in such a context is a latent pronoun according to Ibn Hisham (1972).

Phonation has a key role in the definition of syntactic meanings such as question, exclamation and vocative (alnidā') (Ryding, 2014), as a student of translation might suffer from ambiguity when detaching the utterance from the context, such as "ما أجمل السماء" "mā ajmala alsamā'a" (Lit. Translation: What a beautiful sky!). It is controversial whether (mā) is a question, an exclamation or a negation word (Al-Rumani, 1986). However, all such meanings are possible due to the absence of intonation which defines the intention. Intonation can be utilized to eliminate ambiguity. For example, in a sentence like "mā ajmala alsamā'a" (lit. translation: What a beautiful sky!), the rising intonation certainly makes "mā" interrogative; the falling intonation makes it exclamatory; whereas the flat intonation makes it negative (Hassan, 2000).

At the contrastive level, non-speakers of Arabic might find it difficult to pronounce some phonemes like the Arabic phoneme (ħ) which is replaced by (h), and the phoneme (?) which is replaced by the glottal stop ('), so that a translator could find them ambiguous such as the two words ( ناعمة : نائمة ) (nā?ima: nā'ima; Translation: soft: asleep). Despite the ambiguity in the previous example, it is not categorized under the ambiguity phenomenon as such a phenomenon is centered on the pure linguistic study not what associated by non-speakers of Arabic or troubles (Khalil, 1988).

### 2.1.2. Ambiguity due to morphology:

There are several aspects of morphological ambiguity, which are the followings:

**Variation of Derivatives' Root Morphemes:** The variation of root morphemes for various Arabic vocabularies might result in ambiguity pitfalls. For example, "وقع السائل على الأرض" "waqa?a alsā'ilu ?lā al'rḍ", the word "alsā'ilu" has two meanings: the first one is (alfaqīr; Translation: the poor) from the root (sa'ala; Translation: asked), and the other is (almā'; Translation: water/ liquid) from the root (sāla; Translation: flow).

**Morphological Incidents:** The formation of Arabic words results in combining two homonyms in the same diction but vary in meaning. For instance, the word (fā?il) refers to the doer of the action, and it can also be an adjective which refers to a permanent unchangeable feature by which a person is characterized. Moreover, the passive participle (maf?ūl) and active participle

(fā?il) are derived from the multi-radical (more than three letters) verbs are similar. Hence, the structural context of "إن **المحتل** لا يهدأ له بال" "inna almuħtalla lā yahda'u lahu bāl" implies a likely thought that the intended meaning of the word (almuħtalla) might be the occupier of a territory or those whose territory was occupied.

**The suspicion that adjectives are proper nouns and the suspicion that infinitive nouns (*maṣdar*-type) abstractions are nouns:** A suspicion might occur due to an overlap between an adjective and a proper noun, or between an infinitive noun (*maṣdar*)-type abstraction and a noun. The main reason behind this is that derivations such as the active participle, passive participle and noun-like adjective (*sifa mushabbaha*) might exceed the descriptive range into the scientific one, such as the Arabic words "ħasan", "māhir", and "nāssir". For instance, the word "māhir" in: "كان السائق **ماهرا**" "kāna alsā'iqu māhiran" might indicate that the driver's name is "Mahir", or that the driver is professional and skillful in driving.

**Ambiguity in Some Syntactic Affixes:** Some syntactic affixes might contribute to the constitution of semantic variations, and their resemblance might cause ambiguity. The existence of a word which can be used for both second and third person or both feminine and masculine words would lead to ambiguity. As the expression "ta'kul" is feminine and masculine where second and third person as well as context is ruling in such a case, as "هي تحمل" "hiya taħmil" (lit. translation: she carries), the syntactic structure refers to a feminine third person, while "أنت تحمل" "anta taħmil", it refers to a masculine second person.

**Shifting and Polysemy of Paradigms:** Arabic paradigms are characterized by shifting each other, which might constitute a serious pitfall that leads to ambiguity. For example, the Arabic mold "maf?al" combines an adverb of time (*ism zamān*), an adverb of place (*ism makān*), and a mimivy infinitive noun (*masdar mīmī*)-type abstraction, while the Arabic mold "fā?il" includes an active participle and a noun-like adjective (*sifa mushabbaha*), and the Arabic mold "fa?ūl" refers to both an exaggeration (*mubālagha*) or a noun-like adjective (*sifa mushabbaha*). For example, the sentence "لا تصاحب من هو **فجوع**" "lā tusāħib man huwa fajū?" the word "fajū?" which corresponds to the Arabic mold "fa?ūl" might refer to both an active participle or a passive participle form, so that it can be ambiguous according to (Ibn Al-Anbari, 1987).

### 2.1.3. Ambiguity due to syntax:
Such a type of ambiguity does not mean the difficulty of lexical items or their vagueness within utterances, but it indicates providing a sentence that has a clear denotation but a difficult and ambiguous connotation due to its ambiguous syntactic structure (Searle, 1972). For example, a sentence like "مررت برفيق أخي محمد"          "marartu birafīqi aḱī muħammad" has an elusive underlying structure as it includes two deep structures: the brother (aḱ) is Mohammad, or the friend (rafīq) is Mohammad. Such a sentence is ambiguously represented at the transformational level as Chomsky (2002) suggested. Thus, Chomsky's revolution came against some structural claims as they stood helpless against some vague and ambiguous sentences (Chomsky, 2002). In order to understand such kind of sentences, it is necessary to the underlying sentences from which such a sentence was derived (Chomsky, 1975). Ambiguity due to syntax has the following aspects:

**Pronoun Reference:** An addresser might avoid noun repetition depending on an alternative which is a pronoun that replaces it. This avoidance according to Al-Zarkashi (1987) is used for the sake of abbreviation, contempt or magnification but such avoidance cannot be achieved unless there is a pronoun-antecedent agreement. For example, "مشيت إلى الجامعة لأنها قريبة" "mashaitu ilā aljāmi?ati li'annahā qarībah" (lit. translation: I walked to university because it is nearby), there is one antecedent which is (aljāmi?ati; "university") and one pronoun (hā in "li'annahā") where there is a singular masculine form agreement.

However, sometimes a pronoun can be preceded by two agreed antecedents, and the meaning cannot determine the reference like "طلب أخي إلى أبي أن **يتكلم**"  "ŧalaba aќi ilā abī 'an yatakallama" (lit. translation: my brother asked my father to talk). The implied pronoun in the verb "yatakallama" might refer to the father or brother. Thus, although contextual correlations and dependence on the facts of life direct our minds towards the antecedent (Schlesinger, 1977), this is useless in such sentences.

**Genitive Construction (iđāfah):** A *masdar*-type abstraction can be added to a noun in a particular structure, and such a surface structure shows that the genitive (*mudāf ilaīh*) carries two meanings: as a subject or as an object. A sentence as   "ياسين يرغب في **مساعدة الأصدقاء**"  "yāsīn yarghabu fī musā?adati al'asdiqā'" (lit. translation: Yaseen likes helping friends), this indicates that Yaseen likes helping his friends, or Yaseen likes the help of his friends since the word (al'asdiqā'; "friends") is an object in the former underlying structure, but a subject in the latter. Hence, due to the clarity of the surface structure after being based on two deep structures such ambiguity has been constructed (Kooij, 1971; Quirk et al., 1991).

**Absence of Declension Case Markers**: Declension case markers might disappear in some words, and this disappearance might cause ambiguity which might occur in cases like indeclinable nouns whose end is static (*mabniyyun*), abbreviated nouns ending with the long vowel (ى: "ā") and verbs ending with (ا) ('alf) (Abd Al-Latif, 1984). For example, رأيت حقيبة هند "**التي** فقدت البارحة" "ra'aitu ħaqībata hind allatī faqadat albāriħah" (lit. translation: I saw Hind's bag that she lost yesterday), the absence of the declension case marker in the Arabic relative pronoun (allatī) might lead the addresser to ambiguity as the word (allatī) can refer to either the bag (ħaqībata) or Hind.

**Relevance:** It might happen that an overlap between the contextual structural correlations which leads to an ambiguity in connecting some words to their referents, such as the ambiguity of relative pronoun reference. A sentence like  "مررت بأمهات الطالبات **اللواتي** تخرجن في الجامعة"  "marartu bi'ummahāti altālibāti allawātī taќarrajna fī aljāmi?ah" (lit. translation: I passed by the mothers of students who graduated at university), ambiguity occurs in defining the relative pronoun's referent, as the relative pronoun "allawātī" is preceded by two agreed referents ("'ummahāti" and "altālibāti"; mothers and students) which require a relative pronoun (Ibn Al Seraj, 1996).

**Flexibility of Arabic Sentences:** An Arabic sentence allows changing the original words' positions, which might result in ambiguity of contextual structural relations; as it is the case in the English language (Bucaria, 2004; Quirk et al. 1991). For example, the sentence " قررت أن أقدم الاختبار **يوم الأحد**" "qarrartu 'an 'uqaddima al'iќtibāra yauma al'aħad" (lit. translation: I decided to submit the test on Sunday), the position of the adverb of time (al'aħad; "Sunday") is preceded by

two attractive factors, so that the addresser might get two meanings: the time of the decision was on Sunday, or the time of submission was on Sunday.

**Deletion:** Linguists have set conditions of deletion in the process of utterance, mainly including the addressee's awareness of it as Ibn Hisham (1972) and Al-Mbrad (1968) mentioned, but native speakers of a language might be exposed to ambiguity due to deletion when a written utterance conceals some elements of explanation and situational evidence according to Ibn Qutaibah (1973). For example, a sentence as "هند تحبه أكثر **...** من ياسين"  " 'Hind tuħibbuhu 'akthar **….** (deletion) min yāsīn" (lit. translation: Hind likes him …. more than Yaseen) carries two implications: Hind likes him more than Yaseen does, or Hind likes him more than her love to Yaseen.

**Preposition Shifting:** Prepositions might shift each other, which might cause ambiguity. A preposition like "'ilā" (to) might mean "ma?" (with) or "fī" (in) might also mean "ma?" (with) as Ibn Jini (1990) suggested, which might confuse the addressee by having two or more implications according to Ibn Hisham (1996). For example, a phrase like  "صلبه **في** جذع النخلة "  "salbuhu fī jath?i alnaḱlah" (lit. translation: crucifying him in a palm trunk), the pronoun "fī" confuses the addressee by having two possible meanings: crucifying him inside a palm trunk, or crucifying him on a palm trunk.

**Syntactic Polysemy:** Syntactic meanings of words might overlap and have two or more varying implications according to Almousa (1990) although there is a context which leads to this, such as when a single word can carry the meaning of a *masdar*-type abstraction, a causative objective (*maf?ūl li'ajlih*), or a *ħāl* accusative of condition. For instances, a sentence like   "جاء ياسين **رغبة**" "jā'a muħammadun raghbatan" (lit. translation: Mohammad came desiring), the addressee has to choose one of these meanings: Mohammad came to the desire, Mohammad came with a desire, or Mohammad came and he is desiring.

### 2.1.4. Ambiguity due to lexicon:
The followings are the main aspects of ambiguity due to lexicon:
**Homonymy:** It refers to the single word that might include two or more meanings, and this might isolate the utterance from clarity and make it vague and ambiguous, such a phenomenon is one of ambiguity factors in all languages (See Fromkin *et al.*, 2014; Richards & Schmidt, 2002; Yule, 2014). For example, the Arabic word (hijā'; lit. translation: dispraise or spelling) in a sentence like  "ياسين رجل لا يحسن **الهجاء**"        "yāsīn rajulun lā yuħsinu al hijā'" (lit. translation: Yaseen is a man who is not good at dispraise (or spelling) might hold two varying meanings, so that the sentence could mean that: Yaseen is not good at dispraise which is the opposite of praise, or Yaseen is an illiterate person who is unable to read and write.

**Semantic Domains:** An addressee might be exposed to words which are likely to include several meanings since they belong to different semantic domains. The legal meaning of the Arabic word (*almuta?addī*) is the person who treat others unjustly and shall be punished for such an action, while the grammatical meaning of such a word is the verb which does not require an object (a transitive verb). Another example as the sentence   " استار **الفاعل** لا يعني أنه غير موجود" "istitāru alfā?ili lā ya?nī 'annahu ghairu maujūd" (lit. translation: The implied doer does not mean that it (or he) is not existed), the Arabic word "alfā?ili" can occur in different contexts as a

linguist explains to students that the implied subject is existed and not deleted even though it is not mentioned, or in a context where a judge looks for a fugitive.

**Variation of Dialects:** The Arabic language system as Almousa (1990) stated is a coalition system which includes various dialects  that share many  phonological, morphological, syntactic and semantic features, but they diverge in some linguistic aspects such as: adding a diacritical mark *kasrah* to the initial letter of simple present verbs, the variation of case markers in some words, the variation in the replacement of phonemes, the variation in omission and affirmation, the use of connotations, and the pronunciation way of some words (Akmajian *et al.*, 2010) . For instance the word (muhtamman) used in this context  "ترکت یاسین **مهتما**، عنده امتحان شامل"
 tarkatu yāsīn <u>muhtamman</u>, ?indahu 'imtiħānun shāmil",  this word is ambiguous: either it means worry (alhammu) or interest (al'ihtimamu).

**Semantic Progression:** Semantic progression refers to semantic shift and involves evolution in the usage of words to the point where its present-day meaning considerably differs from its original meaning. Such change may take place over a period of time (Lüdtke, 1999) ·Semantic progression applies to the Arabic language and causes ambiguity.
When a thorough comparison in semantics between two periods that are far apart in time is drawn, considerable  differences that constitute confusion and  ambiguity to the  hearer  will be shown (Ullmann, 1962). An example of such words is the word (shanaqa); nowadays, this word has a meaning that never existed before. In the past, it was said     "**شنق** الجمل إذا جذب وسحب"
"shuniqa aljamalu ithā juthiba wa suhiba"(Al-Jouhari, 1956), but at the present time this word means (to kill).

### 2.2. Effects of structural context integration on ambiguity elimination:
As it was  previously discussed  the  aspects of ambiguity  in Arabic, there  is an attempt  to eliminate such ambiguity as ancient linguists have tried to eliminate it before by examining the scopes of linguistic system closely and strictly (See Al-Seouti, 1998; Ibn Aqeel, 1990). The approach used in this section for such an attempt would be applied by retrieving some aspects of ambiguity then supervising the abilities to eliminate them.
Ambiguity due to phonation might be eliminated by some ways like the evocation of intonation, phonological syllables, and the separate pronouns. The absence of such elements causes ambiguity, overlapping of utterance and sentence boundaries, as well as problems of styles. For example, a sentence like  " ذهبت **نفسها**"  "thahabt nafsuha" has to meanings: she died, or she went herself. However, when the separate pronoun (hiya) is accompanied by intonation "ذهبت **هي نفسها**" "thahabat hiya nafsuha" the ambiguity would no longer exist, and the latter meaning would be implied.

 In addition, punctuation marks are used as another way of structural context integration. For example, "قال الملك هو الصالح " "qāl almaliku hwa al sālihu", it appears that it might hold two meanings: the subject is the king or someone else, but by using punctuation marks as the colon (:) the ambiguity will be eliminated. The sentence will be  " قال: الملك هو الصالح " "qāl almaliku: hwa al sālihu", so the subject is the king.
 The phonological syllables might synergize with intonation, which leads to ambiguity, such as this verse in the Holy Qur'an: "قوله تعالى: قال الله على ما نقول وكيل" "Allāhu ?alā mā naqūlu wakīl", (lit.translation: "Be Allah the witness and guardian"). Certainly, the phonological syllables as Al-

Zarkashi (1987) explained accompanied with intonation eliminate the ambiguity that the majesty word "Allah" is a subject, as the actual subject in such a context is the prophet Jacob.

Ambiguity due to morphology, as a result of origin of derivatives, is eliminated by structural context integration, including the external non-spoken dimensions, or by using parentheses. For example, the sentence "وقع **السائل** على الأرض"   "waqa?a alsā'ilu ?lā al'rd" (Lit. translation: The liquid (or the poor) fell on the floor), this is an ambiguous sentence. Ambiguity can be eliminated if the sentence is " وقع **السائل** على الأرض" "waqa?a alsā'ilu alfaqīru ?lā al'rd" (lit. translation: The poor fell on the floor) or "وقع **الحبر السائل** على الأرض"   "waqa?a alhbru ?aalsā'ilu ?lāal'rd" (Lit. translation: The liquid fell on the floor).

One of the ways to eliminate ambiguity due to the suspicion that an adjective might be a proper noun, is adding a separate pronoun to define the process, such as "هذا **حسنٌ** – هذا **هو حسنٌ**" "hāthā ḥasan - hāthā huwa ḥasan" (lit. translation: this is Hasan). Another way to avoid the ambiguity due to morphological incident is to add the Arabic gender-defining morpheme (tā') to the masculine lexical item as in a sentence like "رأيت صبورا (للمذكر) رأيت صبورة (للمؤنث)"   "ra'aitu sabūran" (lit. translation: I saw a patient person), so the feminine form will be "ra'aitu sabūratan".

Structural context integration is a way to eliminate ambiguity arising from the suspicion of syntactic affixes through disjunction and parenthesis. As the beloved person in a sentence like "laqītu man 'uḥibbuh" (lit. translation: I met the person who I love) might be masculine or feminine. Therefore, the meaning   will be considered ambiguous if the pronunciation is accompanied with ambiguity or distortion (Al-Astrabathi, 1998), so that in order to eliminate ambiguity included in the previous sentence, the gender should be defined as follows "لقيت من **أحبه**" "laqītu man 'uḥibbuh" for masculine form, and " لقيت من **أحبها**"   "laqītu man 'uḥibbuhā" for feminine form.

Ambiguity due to morphological pattern shifting can be achieved by structural context integration through parenthesis and substitution with the meaning intended from the pattern, such as replacing the sentence "لا تصاحب من هو **فجوع**"    "lā tusāḥib man huwa fajū?" (lit. translation: Don't be friend those who are distressing (or distressed) with "لا تصاحب من هو **فاجع**" "lā tusāḥib man huwa faji?" or "لا تصاحب من هو **مفجوع**" "lā tusāḥib man huwa mafjū?"

In regard to the syntactic ambiguity due to pronoun reference, it can be eliminated by restructuring sentences (Al-Zarkashi, 1987), such as restructuring the sentence "نصحت لأختي أن تبقى مع أمي **لأنها** مريضة" "nasaḥtu li'uќtī 'an tabqā ma?a 'ummī li'annahā marīḍah" (Lit. translation: I advised my sister to stay with my mother because she is sick) into either " نصحت لأختي أن تبقى مع أمي؛ لأن **أمي** مريضة " "nasaḥtu li'uќtī 'an tabqā ma?a 'ummī li'anna 'ummī marīḍah" (lit. translation: I advised my sister to stay with my mother because my mother is sick), or "نصحت لأختي أن تبقى مع أمي ؛ لأن **أختي** مريضة"    "nasaḥtu li'uќtī 'an tabqā ma?a 'ummī li'anna 'uќtī marīḍah" (Lit. translation: I advised my sister to stay with my mother because my sister is sick). If the syntactic ambiguity is due to a genitive construction, where the 1st particle of construction is a *masdar*-type abstraction, it can be eliminated by sentence reconstruction. For example, the sentence "ياسين يحب **زيارة الأصدقاء**" "yāsīn yuḥibbu ziyārata al'a'diqā'" (lit. translation: Yaseen likes visiting friends) can be reconstructed into either "yāsīn yuḥibbu 'an yazūra al'a'diqā'" (lit. translation: Yaseen likes to visit friends), or "yāsīn yuḥibbu 'an yazūrahu al'a'diqā'" (lit. translation: Yaseen wants his friends to visit him).

Ambiguity due to the disappearance of declension case markers is eliminated by parenthesis, such as the sentence: "كان ياسين **صديقي** له بيت كبير"     "kāna yāsīn sadīqī lahu baitun kabīr" (lit. translation: Yaseen, my friend, had a big house) which becomes "كان ياسين – **أعني**

"كَانَ yāsīn – <u>a?nī sadīqī</u> – lahu baitun kabīr" (lit. translation: Yaseen – I mean my friend – had a big house). The ambiguity arising from the flexibility of Arabic sentences can be eliminated by fronting and delaying such as the ambiguity in the sentence قررت "qarrartu 'an 'usāfira 'ilā?ammān <u>yauma alsabti</u>" "أن أسافر إلى عمان **يوم السبت**" (lit. translation: I decided to travel to Amman on Saturday) which might be eliminated by the sentence **يوم** قررت " "qarrartu <u>yauma alsabti</u> 'an 'usāfira 'ilā ?ammān" **السبت** أن أسافر إلى عمان" (lit. translation: I decided on Saturday to travel to Amman).

If deletion is the reason behind ambiguity, it can be eliminated by restoring what was deleted. For example, the ambiguity in the sentence  "دخلت البلد"      "daḱaltu albalada" (lit. translation: I entered the country) can be eliminated by restoring the deleted preposition ('ilā; "to") (Al- Seouti, 1998). If ambiguity is due to the diversity and shifting of prepositions, it can be eliminated by indicating the meaning of the preposition, so that the ambiguity in a sentence like "صلبه **في** جذع النخلة"   "salbuhu <u>fī</u> jath?i alnaḱlah" (lit. translation: crucifying him in (or on) a palm trunk) can be eliminated by mentioning the meaning of the preposition (fī) as follows: "صلبه **على** جذع النخلة"    "  "salbuhu <u>?alā</u> jath?i alnaḱlah" (lit. translation: crucifying him on a palm trunk).

The ambiguity arising from syntactic polysemy can be eliminated by detaching the ambiguous structure in order to determine the intended syntactic meaning, replacing it with another one that is consistent with the syntactic meaning, and adding some structural elements. Thus, the ambiguity in a sentence like "جاء ياسين **رغبة**"  "jā'a yāsīn raghbatan" (lit. translation: Yaseen came desiring) can be eliminated by replacing the word (r*aghbatan*) with (*lilraghbati*, lit. translation: for the desire), (*yarghabu raghbatan*, lit. translation: desiring something) or (*raghiban*, lit. translation: wanting to).

In regard to all diversities of the ambiguity arising from lexicon (dialects, homophones, semantic domains and implicature), they can be eliminated by several ways. For homophones, ambiguity can be eliminated by brackets or parenthesis, so a sentence like " **الهجاء** ياسين لا يجيد" "yāsīn lā yujīdu <u>alhijā'</u>" (lit. translation: Yaseen is not good at dispraise (or spelling) can be converted into  " **ضد المدح** ياسين لا يجيد الهجاء' – "yāsīn lā yujīdu alhijā'– diddu al madħ -." (lit. translation: Yaseen is not good at dispraise – opposite of praise). For semantic domains, ambiguity can be eliminated by the structural context integration. For example, a sentence like "استتار **الفاعل** لا يعني أن غير موجود"    "istitāru <u>alfā?ili</u> lā ya?nī 'annahu ghairu maujūd" (lit. translation: The implied doer does not mean that it (or he) is not existed),  ambiguity can be eliminated by changing the sentence into: استتار **فاعل الفعل الماضي والمضارع والأمر** لا يعني أنه غير " "istitāru <u>fā?ili alfi?li almādī wa almudāri?i wa al'amr</u> lā ya?nī 'annahu ghairu maujūd" موجود" (lit. translation: The implied subject of  past, present and imperative verbs does not mean that it is not existed).

However, elimination of the ambiguity arising from semantic extension is unavailable and difficult because it is difficult to explain the relationship between the old and the new meanings in an utterance, but it can be eliminated by establishing historical linguistic dictionaries which record the development of Arabic lexical items, so that the addressee could understand them.

## 3. Methodology
### 3.1. Participants:
This study involves (30) undergraduate BA Translation students in the German-Jordanian University selected randomly from third and fourth year students in the academic year 2013-

2014. Two groups of 15 students were formed as an experimental group and control group. The students aged between 20-24 years. They are male and female but factors such as age and sex were not considered in this study.

### 3.2. Instrument:

The instrument used in this study was a diagnostic test. It aims at measuring the performance of translation students in translating ambiguous sentences, and to reveal perplexity in the translation. The test was reviewed by a number of translation professors in a number of Jordanian universities in order to evaluate it. Their notes were taken into consideration and required modification was conducted.

The test consists of (24) sentences that included an ambiguity at one of the four levels of the Arabic language (phonological, morphological, syntactic and semantic), each with six sentences. Students were asked to translate all sentences and then points were distributed according to the number of responses required from the students. The test was developed to measure the extent to which the translation students achieved correct translation at all the levels of the Arabic language.

The reliability coefficient of the diagnostic test was measured by testing 10 BA Translation students who were not involved in the study after an interval of 10 days. The test was conducted once again; the correlation coefficient of the test is (0.845) and it has a statistical significance at the level of (0.01).

The total points of the test were (48) as the test was divided into (24) sentences; each sentence was scored out of two.

### 3.3. Procedures of the study:

In order to find answers to the research questions mentioned above, the results of the tests performed by the 30 students were analysed. The students were divided into two groups; each group consisted of 15 students, one as an as experimental group and the other 15 as the control group.

### 3.4. Statistical Analysis:

The statistical analysis used in this study was the (t-test), due to there being one independent variable consisting of the improvement of students' performance by using the modes of structural context integration in ambiguous sentences, and one dependent variable (The translation of ambiguous sentences).

This study is considered as a semi-empirical study of a pre-tested and post-tested group. The performance averages and standard deviations of the two groups' members in the achievement tests were calculated. To ascertain the statistical significance of differences, the (t-test) was used.

## 4. Results and Discussion

This study aims at investigating the effects of ambiguity elimination by means of structural context integration on the performance of translation students, and particularly, the study attempted to answer the following questions:

I: What is the effect of the modes of structural context integration on translation students' performance improvement?

II: Does each way of structural context integration have the same effect on ambiguity aspects?

### 4.1. The results of the first question:

To answer the first question, the averages and standard deviations obtained from the points of the students in both the control and experimental groups who submitted the pre-test and the post-test were calculated. A statistical analysis of (t- test) was applied. The results of the first question are presented below in Table (1) and Table (2). Table (1) presents the pre-test averages and standard deviations as well as the (t- test) results.

**Table 1.** *The pre-test averages and standard deviations for both groups, and the (t- test) results*

| Group | Sample Size | Average | Standard Deviation | (t) Value | Degree of freedom | The level of significance |
|---|---|---|---|---|---|---|
| Control | 15 | 13.07 | 4.59 | -0.877 | 14 | 0.395 |
| Experimental | 15 | 14.13 | 4.69 | | | |

It is notable from the (t- test) results in Table (1) that there is a lack of statistically significant differences at the level (α ≤ 0.05). The significance level is (0.395), and (t) value is (-0.877). This was also confirmed by the clear convergence between the averages of the students' performance in both experimental and control groups. The average of experimental group in the pre-test is (14.13), while the average of the control group in the pre-test is (13.07).

Table (2) represents the averages and standard deviations of the post-test for both groups and the result of (t- test).

**Table  2.** *The averages and standard deviations of the post-test for both groups and the (t- test) results*

| Group | Sample Size | Average | Standard Deviation | (t) Value | Degree of freedom | The level of significance |
|---|---|---|---|---|---|---|
| Control | 15 | 14.53 | 5.15 | 17.06 | 14 | 0.00 |
| Experimental | 15 | 38.13 | 4.30 | | | |

The analysis of the results of the (t-test) in Table (2) indicate that there are statistically significant differences at the level (α ≤ 0.05) due to the modes of context structural integration. The significance level is (0.00) and the (t) value is (17.06), which has a statistical significant at the level of (α ≤ 0.05). This indicates that the modes of context structural integration had a clear impact in eliminating ambiguity among the experimental group members. This was also confirmed by the clear differences between the averages of students' performance  in both the experimental and control groups, which were in the favor of  the experimental group, as the average of the experimental group in the pre-test is (14.13), then it increased in the post-test to

become (38.13). On the other hand, the average of the control group in the pre-test is (13.07), then it increased in the post-test to become (14.53), as shown in the averages of Table (2).

### 4.2. The results of the second question:
The second question of the study is whether each way of structural context integration has the same effect on ambiguity aspects or not. To answer this question, the sum of the correct answers in both the pre-test and the post-test of the experimental group was extracted, then the difference between them was calculated. This difference might reflect the impact of context structural integration modes on each aspect of linguistic ambiguity. The results of this question are presented in Table (3).

**Table 3.** *The impact of the means of context structural integration on the aspects of ambiguity*

| No. | Aspects of Ambiguity | Students' correct answers in the pre-test | Students' correct answers in the post-test | The difference |
|---|---|---|---|---|
| 1 | Ambiguity due to phonation | 29 | 78 | 49 |
| 2 | Ambiguity due to morphology | 21 | 67 | 46 |
| 3 | Ambiguity due to syntax | 12 | 86 | 74 |
| 4 | Ambiguity due to semantics | 28 | 55 | 27 |
| | Sum | 90 | 286 | 196 |

The following observations can now be made:

First, the ambiguity due to syntax is the most negatively influential aspect that affects students, since the number of the correct answers is (12) out of (90), followed by the ambiguity due to morphology with (21) correct answers. Then the ambiguity due to semantics as the correct answers are (28), and finally comes the ambiguity due to phonology, as the number of correct answers is (29).

Second, the modes of structural context integration have contributed remarkably to ambiguity elimination among translation students in regard to the ambiguity aspect which happens due to syntax. The difference between the pre-test and post-test is (74) in favor of the post-test, while secondly came the contribution of the modes of structural context integration in regard to the aspect of ambiguity due to phonology, as the difference between the pre-test and post-test is (49) in favor of the post-test, then thirdly came the contribution of the modes of structural context integration in regard to the aspect of ambiguity due to morphology, as the difference between the pre-test and post-test is (46) in favor of the post-test. Finally, fourthly came the contribution of the means of structural context integration in regard to the aspect of

ambiguity due to semantics, as the difference between the pre-test and post-test is (27) in favor of the post-test.

### 4.1.1. Discussion of the first question results:

It is apparent that the results of the (t-test) do not present any statistically significant differences at the level of the significance ($\alpha \leq 0.05$) in the averages of both the experimental and control groups in the pre-test. They also indicate that there are statistically significant differences at the level of the significance ($\alpha \leq 0.05$) in the averages of both the experimental and control groups in the post-test in favor of the experimental group members who translated the sentences after eliminating the ambiguity by using the modes of context structural integration, in comparison with the members of the control group who translated the sentences in a traditional way. These differences were reflected through the improvement of students' performance in the post-test. This indicates that the modes of structural context integration were effective in improving the performance of the experimental group students.

### 4.2.2. Discussion of the second question results:

It is evident from the results presented in Table (3), the number of correct answers in the pre-test of the experimental group showed the impact of the linguistic ambiguity phenomenon on the performance of students of translation. In addition, the number of correct answers, which increased in a remarkable way in the post-test of the experimental group, shows the positive impact of the modes of structural context integration. However, the impact of the means of structural context integration varies in accordance with ambiguity aspects.

## 5. Conclusion

In the course of this study, the questions of the study were answered. The first question, what is the effect of the modes of structural context integration on Translation students' performance improvement? It was found that modes of context structural integration had a clear impact in eliminating ambiguity among the experimental group members. This was reinforced by the clear differences between the averages of students' performance in both the experimental and control groups, which were in the favor of the experimental group. The improvement of students' performance in the post-test reflected these differences. This illustrates that the modes of structural context integration were effective in improving the performance of the experimental group students.

As for the second question, does each way of structural context integration have the same effect on ambiguity aspects? It was concluded that the ambiguity due to syntax is the most negatively influential aspect that affects students. This is followed by the ambiguity due to morphology, then the ambiguity due to semantics. Finally, the ambiguity due to phonology comes last. Moreover, the impact of the linguistic ambiguity phenomenon on the performance of students of Translation was reflected in the number of correct answers in the pre-test of the experimental group. Furthermore, the positive impact of the modes of structural context integration was obvious by the increased number of correct answers of the post-test of the experimental group. Nonetheless, the effect of the means of structural context integration diverges in consistent with ambiguity aspects.

The results of this study suggest that examining the effects of phonological, morphological, syntactical, and lexical ambiguity on the translation of undergraduate students might provide insights into the difficulties faced by them. It is indicated that the phenomenon of ambiguity in

Arabic has negatively affected the performance of the undergraduate Translation students at the German-Jordanian University. The following recommendations can contribute to increase the students' awareness of significant Arabic language details related to phonology, morphology, syntax and lexical items.

The study plan of the BA Translation at the German-Jordanian University has to be modified as it does not cover the language requirements of the Arabic language. It was found that the plan includes only two modules of the Arabic language, so it is necessary to add Arabic grammatical, morphological, rhetoric and lexical modules because of their significant impact on the students' translation. Additionally, a plan to review the curriculum constantly has to be developed with focus on the Arabic curriculum in order for the students to take advantage of this review. Furthermore, students have to be exposed to terminologies in both languages so they will be able to use them in the translation process.

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