Differences in Disambiguation for Dutch Learners of English

Emma van Anraad

3962830

Bachelor thesis

Berkendaal 25 3075XA

British English

Supervisor: Nynke de Haas

Second reader: Aoju Chen

July 2016

Table of contents

Differences in Disambiguation for Dutch Learners of English

1. Abstract

This paper will investigate whether Dutch learners of English make different choices in interpreting syntactically ambiguous sentences based on their level of proficiency in English. The ambiguous sentences used in the experiments all contain words that belong to two grammatical classes such as in “Research fans hope for spinal injuries” (Bucaria, 2004, p. 285). Studies on the subject of processing of syntactically ambiguous sentences by native speakers of English and on the differences in methods of disambiguation between L2 learners and native speakers have been conducted by various researchers. However, not much is known about differences in disambiguating syntactically ambiguous sentences between different levels of L2 learners of English. Three groups of Dutch learners of English with varying levels of English (beginner, intermediate, and advanced) took part in a translation task. The results suggest a relation between level of English and choices made in translating syntactically ambiguous sentences but no conclusive evidence has been found.

2. Introduction

Ambiguous sentences are sentences that have two or more interpretations. In structurally ambiguous sentences this is not only due to the different meanings of a single word but to the sentence structure. Structural ambiguity can be caused by words that belong to more than one grammatical class. In English, this is a common phenomenon (Bucaria, 2004). This could present difficulties in interpreting such sentences. This paper will study the choices Dutch L2 learners of English make in interpreting structurally ambiguous sentences that are based on class differences.

This paper is organised as follows. Section 3 will provide a review of relevant studies on this subject. The next section (section 4) will present the research question and hypotheses for

the current study. Section 5 will specify the subjects, materials, and the procedure used in the experiments. In section 6.1 the results from experiment A are shown. The same is done for experiment B in section 6.2. The implications and conclusions drawn from experiment A and B are discussed in subsections 7.1 and 7.2 respectively. Recommendations for further research are discussed in section 8.

3. Literature review

Studies have been conducted on the subject of processing of syntactically ambiguous sentences by native speakers of English. Price, Ostendorf, Shattuck-Hufnagel, and Fong (1991) conclude, after an experiment with spoken structurally ambiguous sentences, that native speakers of English are able to disambiguate these sentences based on prosodic information (p. 2965-2966). However, an experiment conducted by Lehiste, Olive, and Streeter (1976) shows that native speakers of English can disambiguate spoken structurally ambiguous sentences even if these lack prosodic cues such as fundamental frequency and pauses (p. 1201). The sentences in the current experiment will lack such cues as it concerns written input. Foss and Jenkins (1973) hypothesise that relevant information regarding a word is transferred to the working memory of readers in a certain canonical order. They suggest that, while interpreting words in ambiguous sentences, a more frequent interpretation will be reflected on first (p. 585). In addition, Trueswell, Tanenhaus, and Kello (1993) and Garnsey, Pearlmutter, Myers, and Lotocky (1997) propose that frequency-based verb-biases strongly contribute to disambiguation. The latter conclude that the experience readers have with possible meanings of certain verbs influences their interpretations (p. 83). This suggests that, for the sentences in the current experiment, a more apparent meaning will be a meaning based on the frequency in which these words are used in a certain grammatical class. However, contrary to the native speakers who will reflect on the most apparent translation but continue

to a less apparent one if this is not a logical option, less advanced L2 learners of English will probably only notice the most apparent option.

The findings mentioned above are all based on results from experiments in which the subjects were native speakers of English. Other studies look at the possible differences in processing of ambiguous sentences between L1 and L2 speakers. The results from these studies are somewhat conflicting. Frenck-Mestre and Pynte (1997) observe in a study concerning bilingual speakers that the subjects have slightly more difficulty with high attachment of prepositional phrases in ambiguous sentences in their second language than they do in their first. However, they do not use different methods of disambiguation while reading in their second language than they use while reading in their first. This could indicate that advanced L2 learners also will not use different methods than native speakers. Dussias (2003), on the other hand, states that she cannot support the claim that L2 speakers resolve syntactic ambiguity in the same way as L1 speakers, as she did not find enough supporting evidence due to lack of statistically significant results (p. 552).

Evidence from other studies concerning L2 learners do suggest that these learners use different strategies to process ambiguous sentences. Felser, Roberts, Marinis, and Gross (2003) find, in a study with Greek and German L2 learners of English, that these L2 learners process ambiguous sentences differently than native speakers of English. L2 learners tend to depend on the predicate proximity strategy rather than recency preference (p. 478). VanPatten (2004) provides a possible explanation for differences in disambiguating sentences between L2 learners of English, Spanish, French, and Italian among others, and native speakers. He states that L2 learners mainly use lexical items to determine meaning, rather than using grammatical markers (p. 22). In contradiction to the conclusions drawn by Price et al. (1991) for native speakers, Ying (1996) states that prosodic cues are not always sufficient for L2 learners of English to determine the meaning of ambiguous sentences (p. 698). Ying (1996)

also contradicts VanPatten (2004) in stating that L2 learners of English use pragmatic information as well as syntactic information in processing ambiguous sentences rather than rely on lexical items (p. 700-701). It is also possible that some ambiguities will go undetected by L2 learners, as Frazier and Rayner (1982) conclude that, even for native speakers, ambiguity might go unnoticed. It can be assumed that L2 learners of English will fail to notice ambiguity more often than native speakers, as they have less experience with the multiple meanings of ambiguous words.

The conflicting answers to the question whether L2 learners of English use different methods than native speakers while processing ambiguous sentences suggest a continuum. For such a continuum, the more advanced learners would be more native-like in determining the meaning of ambiguous sentences. It is the goal of the advanced learners examined in this experiment to be native-like, as they are bachelor students of English at a university. If such a continuum is accurate, it is improbable that the findings by Foss and Jenkins (1973), Trueswell, Tanenhaus, and Kello (1993), and Garnsey et al. (1997) on frequency do not apply to all levels of learners as well as they do to native speakers, as a more frequent interpretation of a word will most likely be reflected on first by both groups.

Many of the studies mentioned above did not focus on ambiguity caused by words that belong to more than one grammatical class. This, however, is a useful opportunity to determine whether experience with word meanings and proficiency are important variables for the differences in disambiguating syntactically ambiguous sentences between L2 learners.

4. Research question and hypotheses

Ying (1996), Frenck-Mestre and Pynte (1997), Felser et al. (2003), Dussias (2003), and VanPatten (2004) note the differences between native speakers and L2 learners in disambiguating sentences, even though they disagree on the extent of these differences. This leads to the assumption that more advanced L2 learners of English will be more native-like in

disambiguating sentences. This study will try to investigate to what extent Dutch learners of English make different choices in interpreting syntactically ambiguous sentences based on their level of proficiency in English. Based on Garnsey et al. (1997) and Frazier and Rayner (1982), it is hypothesised that L2 learners with a lower proficiency, and thus less experience with certain words, will fail to recognize that these words can belong to different grammatical classes and thus will not notice the ambiguity of the sentences. Based on Foss and Jenkins (1973), Trueswell, Tanenhaus, and Kello (1993), and Garnsey et al. (1997), it is furthermore hypothesised that less advanced L2 learners of English will choose the most apparent interpretation of the presented ambiguous sentences without regard for the logic of these translations. These are the interpretations that derive from the frequency in which the words that are causing the ambiguity are used in a certain grammatical class. The proposed continuum would mean that more advanced learners will be better able to reflect on less apparent translations of the experimental sentences when the most apparent translation is not logical and will thus be more native-like.

5. Method

5.1. Subjects

Three groups of participants were used in each of the two experiments. The first group consisted of secondary school students from a 3VWO class (pre-university education) who represented beginning learners. This group consisted of seven participants in experiment A and of eight participants in experiment B. The second group consisted of university bachelor students of a major other than English Language and Culture who represented intermediate learners. This group consisted of nine participants in both experiments. The third group consisted of university bachelor students of English Language and Culture who represented advanced learners. This group consisted of five participants in experiment A and of ten participants in experiment B. The participants who took part in experiment A had a slightly

more explicit instruction than the participants who took part in experiment B and were also allowed to use a dictionary. Each group was given a code (see Table 1). All participants were native speakers of Dutch.

Table 1: group codes and specification

code	Group specification	Number of participants
1A	3VWO, more explicit instruction, with dictionary	7
2A	Students Other, more explicit instruction, with dictionary	9
3A	Students English, more explicit instruction, with dictionary	5
1B	3VWO, less explicit instruction, no dictionary	8
2B	Students Other, less explicit instruction, no dictionary	9
3B	Students English, less explicit instruction, no dictionary	10

5.2. Materials

An online translation task was developed for this experiment to investigate to what extent a correlation exists between the level of English and the way in which ambiguous sentences are translated by Dutch learners of English. The choice for a translation task rather than a rephrasing task was made considering the 3VWO students. These students are used to translating sentences. Rephrasing sentences in English, however, might have confused them and could have produced unclear data. All sentences forced participants to make a choice between the two possible translations, which might not have been the case in a rephrasing task.

This task consisted of 10 structurally ambiguous sentences and 15 filler sentences (Appendix A & B). These sentences were randomised in the task. All ambiguous sentences were based on differences in grammatical class; each sentence contained a word that could either be interpreted as a verb or as a noun. Two sentences also contained a word that could either be a verb or an adjective and a noun or an adjective. An extra difficulty that some of these sentences presented for Dutch learners of English was the fact that the combination of a noun and an adjective such as *car talk* would not have an interspace between them in Dutch.

This concerns the combinations *eye drops, dog bite, car talk,* and *church plans.* The experimental sentences were adapted from King, Dipper, Frank, Kuhn, and Maxwell (2000), Bucaria (2004), Solska (2008), and Elmawati (2013). The experimental sentences were split into three separate categories. These categories are the following: sentences for which the most apparent translation could not be sufficiently determined (category 1), sentences for which the most apparent translation was not the most logical one (category 2), and sentences for which the most apparent translation was the same as the meaning the native speakers determined (category 3). All but one of the filler sentences were developed especially for this experiment, one sentence was taken from an exercise on relative pronouns. Most were made to look like newspaper headings as this was also the case for most experimental sentences.

The most apparent meaning for the learners of English for each experimental sentence was determined based on the frequency of use in a particular grammatical class. The translation that derived from the most frequent use was judged to be the most apparent translation. This was determined by using the *online Oxford English Dictionary* (2016). The native speaker's response was determined by presenting the sentences to two native speakers of English who have a comparable education level to the participants. Both went to a university in Australia. The native speakers were instructed to state which meaning they saw first. The ambiguity of the experimental sentence, the decision for most apparent meaning, and the native speakers' response will be discussed for each sentence in the following paragraphs.

5.2.1 Category 1

1) *I saw her duck under the table* (King et al., 2000, p. 6)

The ambiguity of *duck* causes the two meanings 'she ducked under the table and I saw it' and 'her pet, a duck, was under the table and I saw it'. The first meaning was chosen by the native speakers. According to the *Oxford English dictionary* (2016) *duck* is more frequently used as

a noun than as a verb. However, it could be argued that *duck* might be a verb in this context more frequently than a noun.

5.2.2 Category 2

2) *Eye drops off shelf.* (Bucaria, 2004, p. 292)

The ambiguity of *drops* causes the two meanings ‘eye drops are no longer being sold’ and ‘an eye dropped off a shelf’. The more frequent use of *drop* as a verb than as a noun will probably lead an L2 learner to the second meaning, even though the native speakers immediately determined it to have the first meaning.

3) *Research fans hope for spinal injuries* (Bucaria, 2004, p. 292)

The ambiguity of *fans* and *hope* causes the two meanings ‘fans of research hope for spinal injuries’ and ‘research stirs up hope for (people with) spinal injuries’. The second meaning was immediately favoured by the native speakers. Even though the *Oxford English Dictionary* (2016) indicates that *fans* is more frequently used as a verb than as a noun, it is probable that the frequent use of *fans* as a noun by these age groups will lead the L2 learners to the first meaning.

4) *Squad helps dog bite victims* (Bucaria, 2004, p. 292)

The ambiguity of *bite* causes the two meanings ‘a dog is assisted in biting victims by a squad’ and ‘victims of dog bites are helped by a squad’. The native speakers found the second meaning most apparent. However, the more frequent use of *bite* as a verb rather than as a noun might cause L2 learners to choose the first meaning.

5) *Dealers will hear car talk at noon* (Bucaria, 2004, p. 292)

The ambiguity of *talk* causes the two meanings ‘dealers will hear a talking car at noon’ and ‘dealers will hear a conversation about cars at noon’. Even though the native speakers indicated the second meaning as most apparent, it is likely that the L2 learners will choose the first meaning due to the frequent use of *talk* as a verb.

6) *Chou remains cremated* (Bucaria, 2004, p. 304)

The ambiguity of *remains* causes the two meanings 'Chou's corpse was cremated' and 'Chou will stay cremated'. The native speakers stated that the first meaning was most apparent to them. However, the more frequent use of *remains* as a verb rather than as a noun could cause L2 learners to choose the first meaning.

7) *Large church plans collapse* (Bucaria, 2004, p. 304)

The ambiguity of *plans* and *collapse* causes the two meanings 'a large church is planning to collapse' and 'the plans to build a large church were cancelled'. The second meaning was most apparent to the native speakers. The first meaning is probably most apparent to L2 learners, as *collapse* is more frequently used as a noun than as a verb.

5.2.3 Category 3

8) *Judge acts to reopen theater* (Bucaria, 2004, p. 304)

The ambiguity of *acts* causes the two meanings 'a judge does something to reopen a theatre' and 'the first play after reopening a theatre is called "judge acts"'. The first meaning was most apparent to the native speakers. Due to the more frequent use of *acts* as a verb than as a noun in this context, this will probably also be the case for the L2 learners.

9) *Teacher strikes idle kids* (Elmawati, 2013, p. 114)

The ambiguity of *strikes* and *idle* causes the two meanings 'a teacher hits lazy children' and 'teachers' refusal to work causes them to stop providing work for children'. The first meaning was most apparent to the native speakers. This will probably also be the case for the L2 learners as *strikes* is more frequently used as a verb than as a noun. *Idle* is more frequently used as an adjective than as a verb but will also automatically become an adjective when *strikes* is judged as a verb.

10) Fat people eat mushrooms (adapted from Solska, 2008 & Elmawati, 2013)

The ambiguity of *mushrooms* and *fat* causes the two meanings 'people who are fat are eating mushrooms' and 'the (amount of) fat that is eaten by people increases rapidly'. The first meaning was most apparent to the native speakers. This will most likely also be the case for the L2 learners as the use of *mushrooms* as a verb is uncommon. The use of *fat* as an adjective is much more frequent than as a noun in such a structure. Furthermore, when a participant judges *mushrooms* as a verb, *fat* will automatically be an adjective.

5.3. Procedure

Two versions of the same translation task were used; experiment A and experiment B. The participants were asked to translate all 25 sentences in both experiments. All sentences were presented individually and in a randomised order. The instructions for both experiments were in Dutch to minimise the chance of incomprehension.

The participants who took part in experiment A were given slightly more explicit instruction (Appendix C). Their instruction included the request to include a second translation when they were hesitating between two different translations. It would therefore be apparent whether a participant had noticed the ambiguous meaning of a sentence. They were also allowed to use a dictionary. All types of dictionaries were allowed apart from Google Translate, as this dictionary is insufficient and will often not provide correct translations. Furthermore, Google Translate allows users to translate entire sentences whereas other (online) dictionaries require them to search for individual words. It was considered that the use of a dictionary would most likely not influence the results too much as a participant who viewed a certain word as either a verb or a noun would probably only search for a translation from the same grammatical class. It would, on the other hand, allow participants, especially the 3VWO students, to translate sentences even if they were unfamiliar with a word. This was

thought to lead to fewer sentences that were not translated, without hindering the goal of the experiment.

However, as it was later considered that the more explicit instructions and the presence of a second answer box increased the chance of participants noticing the purpose of the experiment and that the use of a dictionary would diminish the effects of the level of English of the participants too greatly, it was decided to develop a revised version of the experiment; experiment B.

The participants who took part in experiment B were given minimal instructions (Appendix D). They were not asked to provide a second translation if they were hesitating and were not allowed to use a dictionary. These participants were only provided with a single answer box to mask the possibility of two different translation. They were still asked to provide a reason if they were not able to translate a sentence. The decision to not permit the use of a dictionary was made to ensure that these participants had no way of knowing a word to be ambiguous other than their own knowledge even if this led to a lack of translation. This was done to ensure that the effects of proficiency were not diminished.

The instructions were such as to ensure that participants would not be actively looking for ambiguous sentences in the questionnaire in both subgroups. To reduce the chance that a later realisation of the presence of ambiguous sentences would affect the answers given in previous questions, it was not permitted to go back to these previous questions once an answer was given. The 3VWO students filled in the questionnaire during their independent study time at school. The university students filled in the questionnaire in their free time. There were no time constraints other than those imposed by the forty-minute timeframe that the secondary school established as independent study time for the 3VWO students.

The given translations were divided into 5 types (Table 2). For correct translations there were three options; most apparent translation, less apparent translation, and both

translations. Incorrect translations were divided into incorrect and incomplete. The percentage per type was calculated per experimental sentence for each group and subgroup.

Table 2: translation types and their specification

Translation type	**Specification**
Type 1	Most apparent translation
Type 2	Less apparent translation
Type 3	Participant commented on ambiguity or provided both interpretations
Type 4	Incorrect translation
Type 5	Incomplete translation

6. Results

6.1. Experiment A

The total number of times that each answer type was given and the corresponding percentages are shown in Table 3. The results for the individual sentences can be found in Appendix E.

Table 3: Total number of times and percentages for each answer type in Experiment A

Group	***Most apparent translation***	***Less apparent translation***	***Both translations***	***Incorrect translation***	***Incomplete translation***	***Total***
beginner (1A)	40 times (57.1%)	12 times (17.1%)	1 time (1.4%)	15 times (21.4%)	2 times (2.9%)	**70 (100%)**
intermediate (2A)	69 times (76.7%)	8 times (8.9%)	9 times (10%)	4 times (4.4%)	-	**90 (100%)**
advanced (3A)	30 times (60%)	3 times (6 %)	14 times (28%)	2 times (4%)	1 time (2%)	**50 (100%)**

It is clear from the percentages in Table 3 that for each group the majority only noticed the most apparent translation. The beginner group failed to notice ambiguity almost altogether, even though they provided the less apparent translation more often than the intermediate and advanced group. The advanced group virtually never provided the less apparent translation. The advanced group noticed ambiguity most often, followed by the intermediate group. The participants who provided answers that belonged to this answer type (type 3) generally commented on the ambiguity of a word and consequently wrote down both possible

translations. The beginner group produced the most incorrect translations. However, it was clear from most of these answers that the participant regarded the ambiguous word to belong to the most frequent grammatical class, for example the answer "*Rechter besluit dat het theater open mag blijven"* ("Judge decides that the theatre can stay open"). This is an incorrect answer but does show that *acts* was regarded as a verb rather than a noun. One participant from the beginner group who was unable to translate a sentence ("Research fans hope for spinal injuries" (Bucaria, 2004, p. 292)) explained that he/she could not translate *spinal injuries.* Both the other participant from the beginner group and the one participant from the advanced group who provided an incomplete answer did not give any explanation for this.

The results for each of the three categories, sentences for which the most apparent translation could not be determined (category 1), sentences for which the most apparent translation is not the most logical one (category 2), and sentences for which the most frequent translation is the same as the meaning the native speakers determined (category 3), will be shown separately in Table 4, 5, and 6 respectively.

The total number of times that each answer type was given and the corresponding percentages for the sentence in category 1 are shown in Table 4.

Table 4: Number of times and percentages for each answer type for category 1 in Exp. A

Group	***Most apparent Translation***	***Less apparent translation***	***Both Translations***	***Incorrect Translation***	***Incomplete Translation***	***Total***
Beginner (1A)	-	5 times (71.4%)	1 time (14.3%)	1 time (14.3%)	-	**7 (100%)**
Intermediate (2A)	6 times (66.7%)	2 times (22.2%)	1 time (11.1%)	-	-	**9 (100%)**
Advanced (3A)	3 times (60%)	-	2 times (40%)	-	-	**5 (100%)**

Table 4 shows that the majority of the beginner group provided the less apparent translation. the incorrect answer also made clear that the participant regarded *duck* as a noun rather than a

verb. One participant noticed the ambiguity. The majority of the intermediate and the advanced group provided the most apparent translation. One participant from the intermediate and two participants from the advanced group commented on the ambiguity.

The total number of times that each answer type was given and the corresponding percentages for the sentences in category 2 are shown in Table 5.

Table 5: Number of times and percentages for each answer type for category 2 in Exp. A

Group	***Most apparent Translation***	***Less apparent translation***	***Both Translations***	***Incorrect Translation***	***Incomplete Translation***	***Total***
Beginner (1A)	24 times (57.1%)	7 times (16.7%)	-	9 times (21.4%)	2 times (4.8%)	**42 (100%)**
Intermediate (2A)	39 times (72.2%)	6 times (11.1%)	7 times (13%)	2 times (3.7%)	-	**54 (100%)**
Advanced (3A)	14 times (46.7%)	3 times (10%)	10 times (33.3%)	2 times (6.7%)	1 time (3.3%)	**30 (100%)**

The percentages in Table 5 make clear that a clear majority of the beginner and intermediate groups and a large part of the advanced group provided the most apparent translation, even though this translation was not the logical option. This was the category in which ambiguity was noticed most often. The ambiguity was noticed most often by the advanced group. One participant from the advanced group provided the most apparent translation but also commented that he/she was sure that "eye drops off shelf" (Bucaria, 2004, p. 292) was a proverb but had forgotten the meaning. This answer was judged as type 1 (most apparent) rather than type 4 (incorrect). Category 2 was also the category in which all the incomplete answers from this experiment were given.

The total number of times that each answer type was given and the corresponding percentages for the sentences in category 3 are shown in Table 6.

Table 6: Number of times and percentages for each answer type for category 3 in Exp. A

Group	*Most apparent Translation*	*Less apparent translation*	*Both Translations*	*Incorrect translation*	*Incomplete Translation*	*Total*
Beginner (1A)	16 times (76.2%)	-	-	5 times (23.8%)	-	**21 (100%)**
Intermediate (2A)	24 times (88.9%)	-	1 time (3.7%)	2 times (7.4%)	-	**27 (100%)**
Advanced (3A)	13 times (86.7%)	-	2 times (13.3%)	-	-	**15 (100%)**

Table 6 shows that the vast majority of all groups provided the most apparent translation for sentences in category 3. All incorrect answers made clear that the participants regarded the ambiguous words to belong to the most frequent grammatical class. One participant from the intermediate group translated "fat people eat mushrooms" (adapted from Solska, 2008 & Elmawati, 2013) in a way which was not anticipated but not strictly wrong. The participant thought that there should be a colon between people and fat. This led to the translation "*Dikke mensen: eet champignons!"* ("fat people: you should eat mushrooms"). As this answer did not fit into answer type 1, 2, or 3, it has been categorised as type 4. However, it was clear that this participant regarded "mushrooms" as a noun rather than a verb.

6.2 Experiment B

The total number of times that each answer type was given and the corresponding percentages are shown in Table 7. The results for the individual sentences can be found in Appendix F.

Table 7: Total number of times and percentages for each answer type in Experiment B

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete Translation*	*Total*
Beginner (1B)	29 times (36.3%)	15 times (18.8%)	-	29 times (36.3%)	7 times (8.8%)	**80 (100%)**
Intermediate (2B)	54 times (60%)	16 times (17.8%)	2 times (2.2%)	7 times (7.8%)	11 times (12.2%)	**90 (100%)**
Advanced (3B)	69 times (69%)	26 times (26%)	2 times (2%)	2 times (2%)	1 time (1%)	**100 (100%)**

The percentages in Table 7 show that the majority of the beginner group either provided the most apparent translation or an incorrect translation. The majority of the intermediate and advanced groups provided the most apparent translation. Both these groups noticed ambiguity only twice. The beginner group did not notice ambiguity in any of the experimental sentences. The participants who provided answers that belonged to this answer type (type 3) generally commented that the sentence could not be translated in one correct way because a certain word had different possible meanings. The less apparent translation was provided most often by the advanced group, followed by the beginner group and then the intermediate group. Most of the incorrect answers did make clear that the participants regarded the ambiguous words as belonging to the most frequent grammatical class. The participants who provided incomplete answers either commented that they did not know the meaning of a certain word or did not provide an explanation.

The results for each of the three categories are shown separately in Table 8, 9, and 10 respectively. The total number of times that each answer type was given and the corresponding percentages for the sentence in category 1 are shown in Table 8.

Table 8: Number of times and percentages for each answer type for category 1 in Exp. B

Group	***Most apparent Translation***	***Less apparent translation***	***Both translations***	***Incorrect translation***	***Incomplete Translation***	***Total***
Beginner (1B)	2 times (25%)	6 times (75%)	-	-	-	**8 (100%)**
Intermediate (2B)	5 times (55.6%)	3 times (33.3%)	1 time (11.1%)	-	-	**9 (100%)**
Advanced (3B)	8 times (80%)	2 times (20%)	-	-	-	**10 (100%)**

Table 8 makes clear that the majority of the beginner group provided the less apparent translation. However, the majority of the intermediate and the advanced group provided the most apparent translation. One participant from the intermediate group commented on the

ambiguity. None of the participants provided an incorrect or incomplete translation in this category.

The total number of times that each answer type was given and the corresponding percentages for the sentences in category 2 are shown in Table 9.

Table 9: Number of times and percentages for each answer type for category 2 in Exp. B

Group	***Most apparent Translation***	***Less apparent translation***	***Both translations***	***Incorrect translation***	***Incomplete Translation***	***Total***
Beginner (1B)	12 times (25%)	9 times (18.8%)	-	21 times (43.8%)	6 times (12.5%)	**48 (100%)**
Intermediate (2B)	28 times (51.9%)	13 times (24.1%)	1 time (1.9%)	4 times (7.4%)	8 times (14.8%)	**54 (100%)**
Advanced (3B)	34 times (56.7%)	23 times (38.3%)	2 times (3.3%)	1 time (1.7%)	-	**60 (100%)**

The percentages in Table 9 show that many participants from the beginner group provided an incorrect answer. The sentence “Dealers will hear car talk at noon” (Bucaria, 2004, p. 292) proved to be especially difficult for these participants. The majority of the intermediate and advanced group provided the most apparent translation. The less apparent translation was provided most often by the advanced group, followed by the intermediate and then the beginner group. This is the category in which ambiguity was noticed most often. One participant regarded “eye drops off shelf” (Bucaria, 2004, p. 292) as a proverb but did not also provide the literal meaning. This answer was, contrary to the comparable answer in Experiment A, thus judged to be a type 4 (incorrect) answer.

The total number of times that each answer type was given and the corresponding percentages for the sentences in category 3 are shown in Table 10.

Table 10: Number of times and percentages for each answer type for category 3 in Exp. B

Group	*Most apparent Translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete Translation*	*Total*
Beginner (1B)	15 times (62.5%)	-	-	8 times (33.3%)	1 time (4.2%)	**24 (100%)**
Intermediate (2B)	21 times (77.8%)	-	-	3 times (11.1%)	3 times (11.1%)	**27 (100%)**
Advanced (3B)	27 times (90%)	1 time (3.3%)	-	1 time (3.3%)	1 time (3.3%)	**30 (100%)**

It is clear from the results in Table 10 that the vast majority of all groups provided the most apparent translation. One participant from the advanced group noticed the less apparent meaning in "Teacher strikes idle kids" (Elmawati, 2013, p. 114) but did not comment on ambiguity. All incomplete answers were either caused by a lack of vocabulary knowledge or by an unknown reason.

7. Discussion

These experiments confirm the findings in Foss and Jenkins (1973), Trueswell, Tanenhaus, and Kello (1993), and Garnsey et al. (1997) and show that learners of English indeed tend to choose the most apparent translation when presented with ambiguous sentences. However, this was true for learners of English of all levels that took part in these experiments rather than only for the beginner learners.

The results from Experiment A suggest that the higher their level of English, the more often participants notice ambiguity, which is in line with the hypothesis and the findings in Garnsey et al. (1997), but the results from Experiment B do not support this claim. Contrary to the hypothesis, there was no considerable difference in noticing the ambiguity between the three groups in this experiment.

Even the advanced learner group from Experiment A failed to notice ambiguity more than half of the time, even though these groups were permitted the use of a dictionary. This

implies that when their experience tells the participants that a words belongs to a certain grammatical class, they will persevere in this conviction.

The beginner group provided many more incorrect answers than the other groups in both experiments. Furthermore, both the beginner and intermediate group were unable to translate a sentence altogether considerably more often than the advanced group. This does indicate that the advanced learners of English have less trouble dealing with the ambiguous sentences than beginning or intermediate learners.

The results from category 1 in both experiments indicate that the participants from the beginner group have more experience with *duck* as a noun while the intermediate and the advanced group seem to be more experienced with the use of *duck* as a verb.

The results from category 2 in both experiments show that participants notice ambiguity more often when the most apparent translation is not the most logical one, for example in "dealers hear car talk at noon" (Bucaria, 2004, p. 292) in which an actual talking car is unlikely. The results from Experiment B also suggest more advanced learners tend to choose the less apparent translation when this translation is more logical than the most apparent one. This implies that a more advanced learner is better able to look past their experience with a more frequent interpretation of a word. However, this relation is not present in Experiment A.

The results from category 3 help support the claim that learners of English tend to choose the translation that derives from the frequency in which the ambiguous words are used in a certain grammatical class but no further conclusions can be drawn from these sentences.

8. Conclusion and further research

Both Experiment A and Experiment B seem to suggest that a correlation between the level of English and the way in which ambiguous sentences are translated by Dutch learners of English does exist. There are noticeable differences between the results of the groups,

although all groups choose the most apparent translation most often. The beginner group showed the most incorrect or incomplete answer, which is to be expected. The intermediate group generally showed results that were more native like than the beginner group but not as much as the advanced group. The advanced group tended to choose the less apparent translation most often when this was more logical and was thus most native like. However, the data does not provide conclusive evidence to support this claim as the number of participants was not large enough to show significant differences between groups. The hypothesis that more advanced Dutch learners of English would more often notice ambiguity also cannot be confirmed by the data provided by these experiments. These experiments should be considered as a pilot study and further research is necessary to provide conclusive data.

A step that could be taken to ensure more accurate data is to determine the time spent translating each individual sentence, as a longer processing time will imply a greater difficulty for that particular sentence. This was not possible for the present experiments due to time constraints.

The native speakers' response was the same as the most apparent translation for the sentences in category 3. These were "Judge acts to reopen theater" (Bucaria, 2004, p. 304), "Teacher strikes idle kids" (Elmawati, 2013, p. 114), and "Fat people eat mushrooms" (adapted from Solska, 2008 & Elmawati, 2013). Although these sentences did contribute to confirming that even advanced learners often do not notice ambiguity, it would be better to replace these by sentences for which the native speakers' response is contrary to the most apparent translation, like the sentences in category 2. The existence of a continuum could, as such, be better supported.

In any following studies it would be wise to increase the number of participants per group to be able to collect more significant data. The number of participants per group should, furthermore, be equally distributed across groups to be better able to make comparisons.

9. References

Bucaria, C. (2004). Lexical and syntactic ambiguity as a source of humor: The case of newspaper headlines. *Humor: International Journal of Humor Research, 17*(3), 279-310. Retrieved from http://uxxi.yolasite.com/resources/Bucaria%20Lex%20and%20synt%20amb%20as%20a%20source%20of%20humor.pdf

Dussias, P. E. (2003). Syntactic ambiguity resolution in L2 learners. *Studies in Second Language Acquisition*, *25*(04), 529-557. doi:10.1017/S0272263103000238

Elmawati, D. (2013). Structural Ambiguity in the Headlines Compiled by Department of Languages, Cultures and Linguistics Bucknell University: A Study on the X-bar Theory. *LANTERN (Journal on English Language, Culture and Literature), 2*(3), 111-118. Retrieved from: http://www.ejournal-s1.undip.ac.id/index.php/engliterature/article/view/3257/0

Felser, C., Roberts, L., Marinis, T., & Gross, R. (2003). The processing of ambiguous sentences by first and second language learners of English. *Applied Psycholinguistics*, *24*(3), 453-489. doi:10.1017.S0142716403000237

Foss, D. J., & Jenkins, C. M. (1973). Some effects of context on the comprehension of ambiguous sentences. *Journal of Verbal Learning and Verbal Behavior*, *12*(5), 577-589. doi:10.1016/S0022-5371(73)80037-4

Frazier, L., & Rayner, K. (1982). Making and correcting errors during sentence comprehension: Eye movements in the analysis of structurally ambiguous sentences. *Cognitive Psychology, 14*(2), 178-210. doi:10.1016/0010-0285(82)90008-1

Frenck–Mestre, C., & Pynte, J. (1997). Syntactic ambiguity resolution while reading in second and native languages. *Quarterly Journal of Experimental Psychology,* 50A, 119–148. doi:10.1080/027249897392251

Garnsey, S. M., Pearlmutter, N. J., Myers, E., & Lotocky, M. A. (1997). The contributions of verb bias and plausibility to the comprehension of temporarily ambiguous sentences. *Journal of Memory and Language, 37*(1), 58-93. doi: 10.1006/jmla.1997.2512

King, T. H., Dipper, S., Frank, A., Kuhn, J., & Maxwell, J. (2000). Ambiguity management in grammar writing. *Language and Computation*, 1-23. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.62.3869&rep=rep1&type=pdf

Lehiste, I., Olive, J. P., & Streeter, L. A. (1976). Role of duration in disambiguating syntactically ambiguous sentences. *The Journal of the Acoustical Society of America*, *60*(5), 1199-1202. doi:10.1121/1.381180

Oxford English Dictionary Online. (2016) Oxford University Press. Retrieved from http://www.oed.com/

Price, P. J., Ostendorf, M., Shattuck-Hufnagel, S., & Fong, C. (1991). The use of prosody in syntactic disambiguation. *the Journal of the Acoustical Society of America*, *90*(6), 2956-2970. doi:10.1121/1.401770

Solska, A. (2008). The online processing of garden path utterances: accessibility-driven or relevance-driven?. *Relevant Worlds: Current Perspectives on Language, Translation and Relevance Theory,* 22-36. Retrieved from

http://uxxi.yolasite.com/resources/Online%20processing%20of%20garden%20path%20utterances%20accessibilty%20or%20relevance%20driven.pdf

Trueswell, J. C., Tanenhaus, M. K., & Kello, C. (1993). Verb-specific constraints in sentence processing: separating effects of lexical preference from garden-paths. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *19*(3), 528. doi:10.1037/0278-7393.19.3.528

VanPatten, B. (2004). *Processing Instruction: Theory, Research, and Commentary*. London: Lawrence Erlbaum.

Ying, H. G. (1996). Multiple constraints on processing ambiguous sentences: Evidence from adult L2 learners. *Language Learning*, *46*(4), 681-711. doi:10.1111/j.1467-1770.1996.tb01356.x

10. Appendices

A. Experimental sentences

1. I saw her duck under the table	(King et al., 2000, p. 6)
2. Eye drops off shelf	(Bucaria, 2004, p. 292)
3. Research fans hope for spinal injuries	(Bucaria, 2004, p. 292)
4. Squad helps dog bite victims	(Bucaria, 2004, p. 292)
5. Dealers will hear car talk at noon	(Bucaria, 2004, p. 292)
6. Chou remains cremated	(Bucaria, 2004, p. 304)
7. Large church plans collapse	(Bucaria, 2004, p. 304)
8. Judge acts to reopen theater	(Bucaria, 2004, p. 304)
9. Teacher strikes idle kids	(Elmawati, 2013, p. 114)
10. Fat people eat mushrooms	(adapted from Solska, 2008 & Elmawati, 2013)

B. Filler sentences

1. I dreamed about you last night
2. The most delicious chocolate cake ever
3. Teacher punishes entire class
4. Harry Potter books were written by J. K. Rowling
5. Susan to go to cinema tomorrow
6. Daniel was watching TV when his mother called
7. The man whom we met on the street is my uncle
   (retrieved from http://www.learnenglishfeelgood.com/english-relative-pronouns2.html)
8. Umbrella accidentally left at home
9. Jones brings Smith great news
10. Rediscovered painting was painted by Van Gogh
11. He wasn't allowed to use parents' car ever again
12. She was talking to a friend of hers
13. Teens want to spend their summer backpacking through Australia
14. These new red skirts look very stylish
15. Breakfast most important meal of the day

C. Instructions experiment A with English translation

Beste Deelnemer,
(*Dear Participant,)*

(graag deze vragenlijst alleen invullen als je moedertaal Nederlands is)
(Please only fill in this questionnaire if Dutch is you first language)

De volgende vragenlijst bestaat uit 25 Engelse zinnen, die naar het Nederlands vertaald moeten worden. Wanneer je een zin niet goed kan vertalen dit graag aangeven met de reden waarom dit zo is. Bij elke zin zijn 2 antwoordvlakken beschikbaar, bij twijfel tussen vertaalwijze graag beide vertalingen opschrijven. Als je een zin niet goed kan vertalen dit ook graag aangeven in plaats van het antwoord leeg laten. Eventuele opmerkingen mogen in het tweede antwoordvlak worden geplaatst.. Het gebruik van een woordenboek is toegestaan, zolang dit niet Google Translate is. Teruggaan naar een vorige vraag is niet mogelijk. Aan het einde van de vragenlijst wordt nog gevraagd aan welke opleiding je bezig bent.
(The following questionnaire consists of 25 English sentences which must be translated to Dutch. Please state the reason if you are unable to translate a sentence correctly. Two answer boxes are available for each sentence. When in doubt, please write down both translations. The second answer box can also be used to add any remarks you might have. The use of a dictionary is permitted, as long as you don't use Google Translate. Returning to an earlier sentence is not possible. You will be asked about your education at the end.)

Alvast erg bedankt voor je deelname.
(*Thanks in advance for your participation)*

D. Instructions experiment B with English translation

Beste Deelnemer,
(Dear participant,)

(Graag alleen invullen als Nederlands je moedertaal is)
(Please only fill in this questionnaire if Dutch is you first language)

De volgende vragenlijst bestaat uit 25 Engelse zinnen, die naar het Nederlands vertaald moeten worden. Als je een zin niet goed kunt vertalen dit graag aangeven met de reden waarom dit zo is, in plaats van het antwoord leeg laten. Teruggaan naar een vorige vraag is niet mogelijk. Het gebruik van een woordenboek is niet toegestaan. Aan het einde van de vragenlijst wordt nog gevraagd met welke opleiding je bezig bent.
(The following questionnaire consists of 25 English sentences which must be translated to Dutch. Please state the reason if you are unable to translate a sentence correctly instead of leaving the answer box empty. Returning to an earlier sentence is not possible. The use of a dictionary is not permitted. You will be asked about your education at the end)

Alvast erg bedankt voor je deelname.
(*Thanks in advance for your participation)*

E. Results per sentence for Experiment A

Table 11: Number of participants and percentage per answer type for "I saw her duck under the table"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete Translation*	*Total*
Beginner (1A)	-	5 participants (71.4%)	1 participant (14.3%)	1 participant (14.3%)	-	**7 (100%)**
Intermediate (2A)	6 participants (66.7%)	2 participants (22.2%)	1 participant (11.1%)	-	-	**9 (100%)**
Advanced (3A)	3 participants (60%)	-	2 participants (40%)	-	-	**5 (100%)**

Table 12: Number of participants and percentage per answer types for "Eye drops off shelf"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete Translation*	*Total*
Beginner (1A)	5 participants (71.4%)	-	-	2 participants (28.6%)	-	**7 (100%)**
Intermediate (2A)	7 participants (77.8)	-	1 participant (11.1%)	1 participant (11.1%)	-	**9 (100%)**
Advanced (3A)	3 participants (60%)	-	2 participants (40%)	-	-	**5 (100%)**

Table 13: Number of participants and percentage per answer types for "Research fans hope for spinal injuries"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete Translation*	*Total*
Beginner (1A)	5 participants (71.4%)	-	-	1 participant (14.3%)	1 participant (14.3%)	**7 (100%)**
Intermediate (2A)	7 participants (77.8%)	1 participant (11.1%)	1 participant (11.1%)	-	-	**9 (100%)**
Advanced (3A)	4 participants (80%)	-	1 participant (20%)	-	-	**5 (100%)**

Table 14: Number of participants and percentage per answer types for "Squad helps dog bite victims"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete Translation*	*Total*
Beginner (1A)	2 participants (28.6%)	2 participants (28.6%)	-	3 participants (42.9%)	-	**7 (100%)**
Intermediate (2A)	8 participants (88.9%)	1 participant (11.1%)	-	-	-	**9 (100%)**
Advanced (3A)	4 participants (80%)	-	1 participant (20%)	-	-	**5 (100%)**

Table 15: Number of participants and percentage per answer types for "Dealers will hear car talk at noon"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete Translation*	*Total*
Beginner (1A)	2 participants (28.6%)	2 participants (28.6%)	-	3 participants (42.9%)	-	**7 (100%)**
Intermediate (2A)	3 participants (33.3%)	3 participants (33.3%)	2 participants (22.2%)	1 participant (11.1%)	-	**9 (100%)**
Advanced (3A)	-	1 participant (20%)	2 participants (40%)	1 participant (20%)	1 participant (20%)	**5 (100%)**

Table 16: Number of participants and percentage per answer types for "Chou remains cremated"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete Translation*	*Total*
Beginner (1A)	7 participants (100%)	-	-	-	-	**7 (100%)**
Intermediate (2A)	7 participants (77.8%)	-	2 participants (22.2%)	-	-	**9 (100%)**
Advanced (3A)	1 participant (20%)	1 participant (20%)	2 participants (40%)	1 participant (20%)	-	**5 (100%)**

Table 17: Number of participants and percentage per answer types for "Church plans collapse"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete translation*	*Total*
Beginner (1A)	3 participants (42.9%)	3 participants (42.9%)	-	-	1 participant (14.3%)	**7 (100%)**
Intermediate (2A)	7 participants (77.8%)	1 participant (11.1%)	1 participant (11.1%)	-	-	**9 (100%)**
Advanced (3A)	2 participants (40%)	1 participant (20%)	2 participants (40%)	-	-	**5 (100%)**

Table 18: Number of participants and percentage per answer type for "Judge acts to reopen theater"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete translation*	*Total*
Beginner (1A)	4 participants (57.1%)	-	-	3 participants (42.9%)	-	**7 (100%)**
Intermediate (2A)	8 participants (88.9%)	-	-	1 participant (11.1%)	-	**9 (100%)**
Advanced (3A)	5 participants (100%)	-	-	-	-	**5 (100%)**

Table 19: Number of participants and percentage per answer type for "Teacher strikes idle kids"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete translation*	*Total*
Beginner (1A)	5 participants (71.4%)	-	-	2 participants (28.6%)	-	**7 (100%)**
Intermediate (2A)	8 participants (88.9%)	-	1 participant (11.1%)	-	-	**9 (100%)**
Advanced (3A)	3 participants (60%)	-	2 participants (40%)	-	-	**5 (100%)**

Table 20: Number of participants and percentage per answer type for "Fat people eat mushrooms"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete translation*	*Total*
Beginner (1A)	7 participants (100%)	-	-	-	-	**7 (100%)**
Intermediate (2A)	8 participants (88.9%)	-	-	1 participant (11.1%)	-	**9 (100%)**
Advanced (3A)	5 participants (100%)	-	-	-	-	**5 (100%)**

F. Results per sentence for Experiment B

Table 21: Number of participants and percentage per answer type for "I saw her duck under the table"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete Translation*	*Total*
Beginner (1B)	2 participants (25%)	6 participants (75%)	-	-	-	**8 (100%)**
Intermediate (2B)	5 participants (55.6%)	3 participants (33.3%)	1 participant (11.1%)	-	-	**9 (100%)**
Advanced (3B)	8 participants (80%)	2 participants (20%)	-	-	-	**10 (100%)**

Table 22: Number of participants and percentage per answer type for "Eye drops off shelf"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete Translation*	*Total*
Beginner (1B)	3 participants (37.5%)	1 participant (12.5%)	-	2 participants (25%)	2 participants (25%)	**8 (100%)**
Intermediate (2B)	5 participants (55.6%)	1 participant (11.1%)	-	1 participant (11.1%)	2 participants (22.2%)	**9 (100%)**
Advanced (3B)	9 participants (90%)	-	-	1 participant (10%)	-	**10 (100%)**

Table 23: Number of participants and percentage per answer type for "Research fans hope for spinal injuries"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete translation*	*Total*
Beginner (1B)	3 participants (37.5%)	-	-	4 participants (50%)	1 participant (12.5%)	**8 (100%)**
Intermediate (2B)	7 participants (77.8%)	1 participant (11.1%)	-	1 participant (11.1%)	-	**9 (100%)**
Advanced (3B)	8 participants (80%)	2 participants (20%)	-	-	-	**10 (100%)**

Table 24: Number of participants and percentage per answer type for "Squad helps dog bite victims"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete translation*	*Total*
Beginner (1B)	2 participants (25%)	3 participants (37.5%)	-	3 participants (37.5%)	-	**8 (100%)**
Intermediate (2B)	4 participants (44.4%)	2 participants (22.2%)	-	1 participant (11.1%)	2 participants (22.2%)	**9 (100%)**
Advanced (3B)	5 participants (50%)	5 participants (50%)	-	-	-	**10 (100%)**

Table 25: Number of participants and percentage per answer type for "Dealers will hear car talk at noon"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete translation*	*Total*
Beginner (1B)	-	2 participants (25%)	-	6 participants (75%)	-	**8 (100%)**
Intermediate (2B)	1 participant (11.1%)	5 participants (55.6%)	-	1 participant (11.1%)	2 participants (22.2%)	**9 (100%)**
Advanced (3B)	1 participant (10%)	8 participants (80%)	1 participant (10%)	-	-	**10 (100%)**

Table 26: Number of participants and percentage per answer type for "Chou remains cremated"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete translation*	*Total*
Beginner (1B)	2 participants (25%)	1 participant (12.5%)	-	2 participants (25%)	3 participants (37.5)	**8 (100%)**
Intermediate (2B)	5 participants (55.6%)	1 participant (11.1%)	1 participant (11.1%)	-	2 participants (22.2%)	**9 (100%)**
Advanced (3B)	8 participants (80%)	2 participants (20%)	-	-	-	**10 (100%)**

Table 27: Number of participants and percentage per answer type for "Church plans collapse"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete translation*	*Total*
Beginner (1B)	2 participants (25%)	2 participants (25%)	-	4 participants (50%)	-	**8 (100%)**
Intermediate (2B)	6 participants (66.7%)	3 participants (33.3%)	-	-	-	**9 (100%)**
Advanced (3B)	3 participants (30%)	6 participants (60%)	1 participant (10%)	-	-	**10 (100%)**

Table 28: Number of participants and percentage per answer type for "Judge acts to reopen theater"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete translation*	*Total*
Beginner (1B)	5 participants (62.5%)	-	-	3 participants (37.5%)	-	**8 (100%)**
Intermediate (2B)	8 participants (88.9%)	-	-	1 participant (11.1%)	-	**9 (100%)**
Advanced (3B)	9 participants (90%)	-	-	-	1 participant (10%)	**10 (100%)**

Table 29: Number of participants and percentage per answer type for "Teacher strikes idle kids"

Group	*Most apparent translation*	*Less apparent translation*	*Both translations*	*Incorrect translation*	*Incomplete translation*	*Total*
Beginner (1B)	3 participants (37.5%)	-	-	5 participants (62.5%)	-	**8 (100%)**
Intermediate (2B)	4 participants (44.4%)	-	-	2 participants (22.2%)	3 participants (33.3%)	**9 (100%)**
Advanced (3B)	8 participants (80%)	1 participant (10%)	-	1 participant (10%)	-	**10 (100%)**

Table 30: Number of participants and percentage per answer type for "Fat people eat mushrooms"

group	***Most apparent translation***	***Less apparent translation***	***Both translations***	***Incorrect translation***	***Incomplete translation***	***Total***
Beginner (1B)	7 participants (87.5%)	-	-	-	1 participant (12.5%)	**8 (100%)**
Intermediate (2B)	9 participants (100%)	-	-	-	-	**9 (100%)**
Advanced (3B)	10 participants (100%)	-	-	-	-	**10 (100%)**