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Argument Structure Alternations and Semantic Meaning

Can Norwegian L2 speakers of English differentiate between the subtle meaning behind the different alternations?

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Abstract

This thesis paper investigates whether Norwegian speakers of English can tell if there is a semantic difference in argument structure alternations in the English language. The data was collected from 83 respondents through an online questionnaire. The respondents answered three sets of questions about argument structure alternations and three sets of filler questions. The findings suggest that Norwegian speakers of English that were older performed worse than the younger ones (in terms of choosing the right alternation structure). The results also indicate that Norwegians do in fact have a good understanding of the implications the different alternation structures have regarding semantic meaning.

Keywords: argument structure, argument structure alternations, semantic analysis, linguistics, L1 transfer.

Acknowledgements

1. Introduction

Many Norwegians are good, if not fluent, at speaking English as it has become part of their daily life. Furthermore, children in Norway are taught English from an early age, so Norwegians are generally quite proficient at speaking the language compared to many other countries. In fact, Norway placed as high as the top 3 in Statista's statistic "English in non-native European countries as of March 2019" (Statista, 2023). English has become a global language, a *lingua franca*, that builds bridges through communication across the world. The population in Norway is also one that is exposed to English through social media, movies, education, and work every single day. I wanted to do a semantic analysis to see whether Norwegians can tell if there is a semantic difference in the English argument structure alternations. This is to test the linguistic competence of Norwegian L2 speakers of English.

Beth Levin (1993) beautifully enumerates the many different argument structure alternations and has a list of these which include the English verb classes, also called paradigms. Due to it being a bachelor's dissertation, only a few alternations were chosen to be in the questionnaire to put it to the test. The goal was to see to what extent it was possible for Norwegian L2 speakers of English to distinguish between the subtle meaning differences in argument structure alternations. Are there equivalent constructions in Norwegian where both alternations are grammatical, or are there cases where one alternation construction is ungrammatical, or maybe even where both constructions are in fact ungrammatical? If one or all the alternation constructions are ungrammatical in Norwegian, can that perhaps influence the results of the questionnaire? If there is in fact some influence from the respondents' L1 at play, how much of their L1 transfer interferes with the sensitivity to argument structure?

Before doing the testing and collection of the data, it is necessary to first get an understanding on what argument structure is and how semantics is related to it. Section 2 will elaborate on this to get enough background information before looking at the questionnaire and the results of this. It is also imperative to mention L1 transfer as it is very common to use one's knowledge of the L1 when going through the process of acquiring an L2.

I will be looking at three argument structure alternations, and these belong to the *spray/load alternations* and *benefactive alternations.* The three alternation constructions that I chose for this thesis are as follows:

(1)   a. Tom loaded the truck with potatoes.

                   b. Tom loaded potatoes onto the truck.

(2)   a. Mary baked her roommate a cake.

                   b. Mary baked a cake for her roommate.

(3)   a. Tom filled his glass with water.

                   b. *Tom filled water into his glass.

I call the first set of pairs for ASA 1, the second one for ASA 2, and the last one for ASA 3. Additionally, I made some predictions of what the outcome of the results would be. I first predicted that Norwegian L2 speakers of English are less likely to know the subtle difference due to low or middle proficiency, especially the elder participants. This prediction can be called Hypothesis 1. I also think most Norwegians will generally use both alternations synonymously, resulting in 'over-acceptance' of the structures even when the English structure may be ungrammatical. Norwegian L2 speakers of English that have a native-like or high proficiency will be able to tell the difference (at least to some extent), although they may not know how to put it into words as such knowledge lies in the brain subconsciously. In addition, I predict that some Norwegians may know one structure better than the other, that is, they will choose either the ASA 1 a) or b), and that goes for the other alternation structures as well. They may choose a specific one, independent of the question asked, due to familiarity; they are exposed to this type of structure alternation multiple times when they read or speak English. This prediction can be called Hypothesis 2. No matter the results, it will be quite interesting to see in which sets of questions the Norwegian speakers of English are able to distinguish one structure alternation to the other in terms of difference in semantic meaning in the concrete. Have they understood that there are semantic differences in the different structures, or do they choose both due to them not grasping the concept of this?

1.1 Motivation

The motivation for this specific task stems from my interest in the linguistic field, more specifically linguistics relating to semantics. Although a lot of L2 speakers of English can speak the language quite well, they do not always think about the semantics of an English structure, for instance. When learning a language, one learns the basic structures and the grammar of the language, therefore not getting a deeper understanding of the meaning in the different structures and how they alternate, carrying slightly different semantic meaning.

Additionally, this is quite relevant as argument structure is a field that has been studied a lot and is still being studied in terms of linguistic comparisons of different languages.

2. Theory

This section will introduce the concept of argument structure and present some alternations. It will also include the theta criterion and theta roles to understand how and why the alternation constructions are as they are. Subsequently, the last subsection will look at the influence of one's own native language (L1) when learning or speaking a second language (L2).

2.1 Sentence structures and arguments

A sentence or a clause consists of different components such as the *predicate word* (predicate in short) and *arguments*. The main components are the predicate, nouns, prepositions, and adjectives, but the focus will be on verbs as it is through the verb that a certain event is described. The event that takes place is denoted by the action of the verb, and the verb needs participants. These participants are called arguments of the predicate. Some predicates take one argument, such as the verb *sleep*, and verbs like that are called *intransitive* verbs. Intransitives consist of a subject (SU) and the verb (V) as seen in (1i). Other predicates have two or three arguments such as *bring* or *put*, and such verbs are called *transitive* and *ditransitive* verbs respectively. Transitive verbs consist of a subject, the verb, and a direct object (DO), while ditransitive verbs consist of a subject, the verb, an indirect object (IO), and a direct object. The arguments in these different types of verbs not only occur as subjects, direct objects, and indirect object, but also as prepositional phrases (PP). In addition to these arguments, one can add attributes or complements to a specific phrase. These additions can be modifiers in the form of an adjective, adverb, adverbial or complements constructed of a preposition or a predicative. The seven most common sentence patterns in English are listed in (3), with sentence constructions following these patterns in (4).

(3)   i. SU + V

      ii. SU + V + DO

      iii. SU + V + P Comp

      iv. SU_i + V + Predicative $Comp_i$

      v. SU + V + IO + DO

      vi. SU + V + DO + P Comp

vii. SU + V + DO$_i$ + Predicative Comp$_i$ [1]

(4)   a) Tom danced.

        b) Tom kicked the ball.

        c) Tom depends on me.

        d) Tom is exhausted.

        e) Tom gave Mary a blue rose.

        f) Tom put his socks in the drawer.

        g) Tom called his brother stupid.

From the examples in (4) it becomes easier to see what pattern ditransitive, transitive, and intransitive verbs have.

The semantic structure of sentences involves a predicate and a number of arguments where an argument is a "referring expression, i.e., an expression which serves to pick out an entity, a person, a thing, from those things we are talking about, the universe of discourse" (Haegeman, 1996, p. 43). Additionally, Tor Åfarli (2007) states that *argument structure* can be used in two ways: the first is that it "refer[s] to the syntactic structure surrounding the (main) verb", and the second is that it "refer[s] to an inherent lexical-semantic property that the verb has, typically understood as a capacity the verb has to assign certain semantic roles, or theta roles" (p. 1). In other words, arguments are the participants of an event "caused" by an activity, and these participants need a role. The semantic relationship between the arguments and its verb is called *thematic roles* or *theta roles*.

2.2 Thematic roles

If we consider the sentence in (4e) '*Tom gave Mary a rose',* the semantic role assigner is the verb *give* as the arguments are determined by this component. The semantic role that the noun phrase (NP) '*Tom'* gets must be different than the two other NPs, '*Mary'* and *'a rose'*. This is because the NPs are also in different positions syntactically and this is also demanded by the Theta-Criterion in GB (Government and Binding). The Theta-Criterion proposed by Noam Chomsky in 1981 states that "each NP argument of a predicate is assigned exactly one θ-role, and the same θ-role is not assigned to two NP arguments of the same predicate" (Dowty, 1991, p. 549). This means that for each θ-role there is only *one* corresponding argument, and for each argument there is only *one* θ-role.

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[1] The index refers to what the predicated predicative is predicated of. In the case of. In the case of (1iv), the predicative complement is predicated of the subject, whereas it is predicated of the object in (1vii). *SU* stands for subject, *V* for verb, *P* for preposition, and *Comp* for complement.

There is no consensus about what thematic roles are according to Dowty (1991), however, Saeed (2009) lists the most common θ-roles as in (5) below:

(5)   a. AGENT: initiator of some action

        b. PATIENT: entity undergoing an effect of some action

        c. THEME: entity which is moved by some action

        d. BENEFICIARY: entity that benefits from the action

        e. GOAL: entity which something moves towards

        f. LOCATION: place where something is situated in or takes place in

        g. SOURCE: entity from which something moves

        h. EXPERIENCER: entity which undergoes a state or action but has no control of it

        i. STIMULUS: entity causing an effect in the EXPERIENCER

        j. INSTRUMENT: means of which an action is performed

This showcases that arguments hold a semantic meaning at a lexical level. For instance, if we look at the passive of the sentence in (1e) '*Tom gave Mary a blue rose*', it becomes '*Mary was given a blue rose*'. There are only two NPs now in the passive sentence, but the NP '*Mary*' does not get the thematic role of AGENT, the role here remains the same as it is Mary who receives the rose.

2.3 Argument structure alternations

Verbs place restrictions on its arguments; this is called *selectional restrictions* (Rannem, 2021). In other terms, verbs have *argument structure* and Rannem (2021) formulates this as such:

> *"(…)* the lexical representation of a verb's arguments specified by information such as the number of arguments, their syntactic expression, and their semantic relation to the verb which ultimately determine the syntactic environment of arguments," (p. 5).

This is because verbs have specific semantic requirements. One cannot arbitrarily choose whatever NP to take the thematic role of AGENT, for instance. The arguments occur in specific syntactic environments. Consider (6).

(6)   a. #The bottle danced happily.

        b. The teacher danced happily.

Although sentence (6a) is grammatical in the sense of syntax, it does not make any sense semantically (thus the hashtag (#) symbol as this means 'syntactically well-formed, but semantically deviant'). This is because the verb *dance* requires an 'agentive' argument since dancing is an event that one does volitionally.

In addition, some verbs have different frames to them, i.e., they can allow one or two arguments, e.g., *eat*. The verb *eat* can subcategorize for one argument, taking an intransitive form, or it can subcategorize for two arguments, taking a transitive form (see (7) below). That means that the verb *eat* has two subcategorization frames. Tor Åfarli (2007) states that argument structure is "determined by *syntactico-semantic frames that are generated independently of verbs*" (p. 2). In other words, it is the *frame* that decides what structure the verb gets.

(7)   a. John ate.
         b. John ate a burger.

Furthermore, there are many different alternation constructions that are possible. Levin (1993) lists many different alternation classes in her book, but the ones that are of interest here are *benefactive alternations* and *locative alternations*. The argument structure alternations (ASA) I have chosen for the questionnaire belong to these two classes of alternations. There is one of spray/load alternation with the verb *load* and another one in this alternation, but with the verb *fill*. The interesting thing about this verb is the fact that this one only has one grammatical alternation while the other is ungrammatical (in English). The last one is in the benefactive alternation with the verb *bake* that belongs to the '*prepare verbs*' according to Levin's (1993) list.

2.4 L1 transfer

While L1 comes naturally as the acquisition of L1 (first/native language) happens in the early stages, L2 (second language) on the other hand is slightly more difficult to acquire. This is also the reason why many researchers are interested in the different acquisition processes in L1 and L2. The Critical Period Hypothesis (CPH) posited in language acquisition is concerned about the inability to acquire a language past a certain age (Van Patten & Benati, 2015). For the ultimate attainment, a child needs to receive sufficient linguistic input to be able to acquire an L1 as the mechanisms during the acquisition process cease when one gets older. This CPH was later extended to L2 acquisition (SLA), thus, as one gets older, it becomes more difficult to acquire or/and maintain an L2. When acquiring an L2, it is

inevitable that one draws knowledge of one's L1 to attempt to learn a new language (Van Patten & Benati, 2015). This is because one has the basic linguistic information down in their L1 and the brain tends to seek out these linguistic properties that is already learnt since it has created patterns or generalizations. However, because of this 'strategy', the outcome can negatively affect the SLA as languages differ in phonology and syntax, for instance. This leads to L1 *transfer*. Transfer of L1 can be both positive and negative. Positive transfer can be advantageous when two languages from the same language family tree tend to have similar words such as *father* (English)*, Vater* (German), and *far* (Norwegian) (Young, 2015). However, one needs to be careful when encountering words that are similar in other languages as this can lead to lexical choice errors, also known as *false friends* (among others).[2]

False friends are an example of negative transfer, other examples can be spelling mistakes such as when Norwegians write the English word 'centre' as 'senter' (Wilder, 2018). Bad habits of such examples can lead to *fossilisation* which can prevent an L2 speaker from acquiring a native-like competence (Van Patten & Benati, 2015). In addition, Van Patten & Benati (2015) also raise the topic of *partial transfer* and *full transfer*. The difference between these two are that partial transfer, as the term suggests, is the idea of when only limited linguistic information is transferred to an L2. Full transfer, on the other hand, suggests that all the properties of L1 are transferred into the L2; "the learner assumes (unconsciously) that the L2 is just like the L1" (p. 13). Further, Van Patten & Benati (2015) state that no L2 learners start an SLA with a "blank slate" (p. 13). Therefore, scholars and linguists are in consensus that L1 is the initial state for any L2 learners.

It is important to get sufficient linguistic input every day for many hours for the purpose of being exposed to the L2 enough so that you learn and memorise the linguistic codes for the L2. If a Norwegian native speaker learns English as their L2, then it is satisfactory to use some linguistic background from their L1 to acquire the L2. This is because Norwegian and English are from the same Germanic branch, that means they have many similarities in terms of syntactic structure (Young, 2015). However, if the L2 is from another language family tree branch, such as Chinese, for instance, it will be difficult to put the linguistic properties from Norwegian L1 to use for SLA as the two languages are too different to be able to apply the same mechanisms and properties to the process of the SLA.

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[2] 'False friends' is a term used when "words whose forms look the same or closely similar in two languages, but whose meanings are different in each language," (Wilder, 2018, p. 6).

To see if Norwegian speakers of English do in fact understand the subtle difference in the alternation structures, I will conduct a study through a questionnaire. The results will elaborate on whether Norwegians can distinguish the subtle semantic difference in argument structure alternations or if they use the alternations synonymously, that is, they believe that there is no semantic difference between the two alternation structures.

I made two predictions that were introduced in section 1 and called these Hypothesis 1 and Hypothesis 2, which I reformulate as the following:

(8) Hypothesis 1:   Norwegian L2 speakers of English are less likely to know the subtle difference due to low or middle proficiency, especially the elder participants.

(9) Hypothesis 2:   A number of Norwegian respondents will favour one specific structure in each argument structure alternation question due to familiarity.

3. Method

The type of research methodology that was used for the collection of data was a questionnaire. To take into consideration some factors that could influence the results, it was important to include some questions about the participants' background, both in terms of their native language and if they have had Academic English at any point in their life. This section will briefly look at what kind of questionnaire was designed and how it was designed. I will give the 'solutions' in subsection 3.3 in relation to the context that was given in each question of the questionnaire.

3.1 Truth-value judgement task

A questionnaire can look very different depending on the desired research method. The subject chosen for this paper can be approached with grammaticality or acceptability. In terms of the questionnaire used for this paper, I opted for an interpretation task and acceptability as the goal was how well Norwegian speakers of English target the semantic interpretation of each ASA. The category for this questionnaire is context based, thus the best option for the design was a truth-value judgement task (TVJT). The participants were presented with a short story to get some context where they had to make a judgment of the target sentence given the

context afterwards. The context was given to prompt the participants into choosing what they thought would be the most appropriate structure as the different structures carry different semantic meaning.

3.2 Methodology

The first step was to choose the argument structure alternations for the questionnaire (which I also refer to as target sentences). After that, the questionnaire had to be made. It was important to include some background information from the participants as this can influence the results, for instance, their level of proficiency in English. The background information may also tell us why they may have chosen one specific structure over the other, thus the questionnaire was divided into two parts: a background "check" and the official test of the argument structure alternations.

Part 1 encompasses the background information. Here the participants were asked whether they had Norwegian as their native language, if they were bilingual in English and Norwegian, or if they had another native language. If they had another language as their L1, then they were asked to specify this. In addition to this, it was asked which county they were from as there are big dialectal variations in Norway.[3] The participants were also asked to specify their age, choosing between alternatives that ranged from 'younger than 18' to 'older than 37' (see appendix 1). After this, the respondents were asked what their level of education was and what their proficiency was based on their own opinion.[4] In addition to this, they were also asked to specify how many hours they are exposed to English on a weekly basis (including all sources such as TV, music, films etc).

After the questions about their background in different areas were asked about, the argument structure alternations began in part 2 of the questionnaire. Part 2 included six questions with three of them being the target sentences (reintroduced from section 1 below) and three of them were filler questions. Each question had a short story to give the participants some context before they were asked to choose the most appropriate answer, giving them three alternative options; '1)', '2)', or 'Both can be used'. After each question, the participant was asked if they had additional comments. The comment section was not an obligatory section.

(1) Argument structure alternation (ASA 1):

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[3] The syntactic structure of certain dialectal variations can be similar to the English syntactical structures, thus including this factor in the questionnaire.
[4] When asked to judge one's own competence in something, whether it be a language or something else, it is easy to overestimate or underestimate one's actual skills. This, however, is not taken into consideration as it is inconsequential in terms of this paper's subject.

a. Tom loaded the truck with potatoes.

b. Tom loaded potatoes onto the truck.

(2) Argument structure alternation (ASA 2):

a. Mary baked her roommate a cake.

b. Mary baked a cake for her roommate.

(3) Argument structure alternation (ASA 3):

a. Tom filled his glass with water.

b.   *Tom filled water into his glass.

ASA 1 comes as question 1 in the questionnaire, ASA 2 as question 3, and ASA 3 as question 5. The questions in between these are filler questions as listed below:

(10) Filler alternative 1 (F1):

a. John ate the lasagne.

b. John devoured the lasagne.

(11) Filler alternative 2 (F2):

a. There work many Italians in Lew's shop.

b. There are many Italians working in Lew's shop.

(12) Filler alternative 3 (F3):

a. Mice cats chase like cheese.

b. Mice that cats chase like cheese.

In the questionnaire itself, a context was given to be able to prompt the respondents into choosing the correct construction based on the semantic meaning of the different structures. Before looking at the results from the questionnaire, I will list the six questions and their possible alternatives below to give the reader(s) a better idea on what the respondents could choose as their answer.

Question 1 which incorporates ASA 1 goes as follows:

"A man has some crates of potatoes, some crates of tomatoes, and some crates of apples. He loads the crates onto his truck.

Which sentence most appropriately describes the situation?

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Alternative 1:   1) Tom loaded potatoes onto the truck.

Alternative 2:   2) Tom loaded the truck with potatoes.

Alternative 3:   Both 1) and 2) can be used."

Question 2 with the F1 goes as follows:

"John had only eaten yoghurt for breakfast. He has gone more than 8 hours without any food so he is really looking forward to dinner. His girlfriend is making his favourite dish—lasagne.

Which sentence most appropriately describes the situation?

Alternative 1:   1) John ate the lasagne.

Alternative 2:   2) John devoured the lasagne.

Alternative 3:   Both 1) and 2) can be used."

Question 3 with ASA 2 goes as follows:

"Mary is a baker with exceptional talent. She and her roommate John are going to a party where everyone is expected to bring a dessert. John can't bake at all. He asks if Mary can bake a cake which they can take to the party together. Mary happily agrees to do so.

Which sentence most appropriately describes the situation?

Alternative 1:   1) Mary baked her roommate a cake.

Alternative 2:   2) Mary baked a cake for her roommate.

Alternative 3:   Both 1) and 2) can be used."

Question 4 with the F2 goes as follows:

"A lot of people from around the world work in Lew's shop. 20% are African, 60% are Italian, 10% are Scandinavian, and 10% are Asian. Most of them are Italians.

Which sentence most appropriately describes the situation?

Alternative 1:   1) There work many Italians in Lew's shop.

Alternative 2:   2) There are many Italians working in Lew's shop.

Alternative 3:   Both 1) and 2) can be used."

Question 5 with ASA 3 goes as follows:

"One day when the sun was shining brightly, Tom went to the garden and started mowing the lawn. After going about it for 10 minutes, he became quite thirsty due to the hot weather. He went to the kitchen and grabbed a glass from his cabinet to drink some water.

Which sentence most appropriately describes the situation?

Alternative 1:   1) Tom filled water into his glass.

Alternative 2:   2) Tom filled his glass with water.

Alternative 3:   Both 1) and 2) can be used."

Question 6 with the F3 goes as follows:

"We all know that dogs chase cats, and cats chase mice, but what or who do mice chase? Some argue that mice chase humans, although they don't like them. They like cheese more.

Which sentence most appropriately describes the situation?

Alternative 1:   1) Mice cats chase like cheese.

Alternative 2:   2) Mice that cats chase like cheese.

Alternative 3:   Both 1) and 2) can be used."

3.3 The solution

Although all the structure alternations are grammatical, except for (3b) '*Tom filled water into his glass'*, one alternation fits better in the specified context due to the semantic meaning entailed in the syntactic construction. Based on the context given in each question (see section 3.2 or appendix 1), there is a specific structure that fits better than the alternative one. I will list the correct structures for the different argument structure alternations (taking the given context into account) below:

For ASA 1, the correct construction is alternative 1), (1b):

(1)   b. Tom loaded potatoes onto the truck.

For ASA 2, the correct construction is alternative 2), (2b):

(2)   b. Mary baked a cake for her roommate.

For ASA 3, the correct construction is alternative 2), (3a):

(3)   a. Tom filled his glass with water.

The reason why (1b) is the most appropriate answer for question 1 in the questionnaire is because (1b) implies that the truck was loaded with potatoes *only*. However, the truck is not only loaded with potatoes; there are other crates with other types of vegetables. This is the common semantic meaning in the spray/load alternations. If we look at the benefactive alternation chosen for this paper, (2a) implies that 'her roommate' is the end-recipient of the

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cake; it is the roommate who gets and eats the cake. In (2b), on the other hand, it can either mean that the roommate is the end-recipient of the cake, but it can also mean that the roommate is the one who *gets* the cake to then give it to someone else. Based on the context given in question 3, 2b) is the most appropriate. For the last ASA in question 5 only (3a) is grammatical and therefore the correct option, thus, no further comments are needed.

4. Results

In this section I will provide the collected data of the questionnaire through tables. Some tables will show the number of respondents that participated in the questionnaire, and others will show which alternative the respondents chose corresponding to each target sentence. The result diagrams of the full responses can be found in appendix 2.

4.1 Participants

The targeted audience for this study is Norwegian L2 speakers of English as native speakers already have the right intuition to distinguish the subtle semantic differences in argument structures depending on the context (although they may not know the exact terms and definitions of the phenomenon). The total number of participants that responded to the questionnaire was 83, however, since not all of them were native speakers of Norwegian, there are some responses that unfortunately are illegible for the data collection to answer the thesis question. The number of respondents that must be left out is 18 and these participants must be excluded to be able to get the best results as the goal is to look at Norwegian speakers who have English as their L2 and analyse the results based on this. Furthermore, 11 of the 18 are non-speakers of Norwegian and they also do not have English as their native language. Four of the 18 respondents are native speakers of English and three are bilingual speakers with English and Norwegian as their L1, but I have decided to exclude these from the group of Norwegian as their L1. This is because they also have English as their L1. This leaves 65 eligible respondents with Norwegian as their L1 (with another language if they are bilingual). I will look at the native English speakers' results in subsection 4.3.

As we can see from table 1, 11 of the people that responded are between the ages of 18-22, 39 people between the ages of 23-27, eight people between the ages of 28-32, only one person between the ages of 33-37, and six people are over the age of 37.

Table 1: Total number of participants

Age	NOR as L1*	ENG as L1	Bilinguals of ENG & NOR	Other
18-22	11	1	1	0
23-27	39	2	1	7
28-32	8	1	1	2
33-37	1	0	0	0
37+	6	0	0	2
Total number:	65	4	3	11
Absolute total:	83	-	-	-

*Some of these participants have another language as their L1 including Norwegian because they are bilinguals.

As seen in table 1, only one person between the ages of 33-37 answered the questionnaire, thus, it was not possible to draw a generalization from this specific age group. Therefore, this age group is not considered when investigating the results of each age group. Furthermore, the participants listed under '*Other*' are people who entered only one language as the other language, thus, I concluded that these people are not speakers of Norwegian.[5]

4.2 Presentation of the results

Table 2: Number of participants who chose the different alternatives

Answers	ASA 1 – Spray/load	ASA 2 - Benefactive	ASA 3 – Fill with/into
Alt 1)	20	3	2
Alt 2)	19	41	48
Alt 3: Both	26	21	15
N = total number of participants	65	65	65

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[5] As one can see from Appendix 2, three people entered Kurdish as the '*other*' language. I am a Kurd myself, therefore I know who the participants who responded with that specific language to this questionnaire are and decided to include two of them, as they have Kurdish and Norwegian as their L1 (but they did not correctly fill in this information in the questionnaire). I did not reveal anything about this dissertation to them, thus making those responses eligible for data collection.

Table 2 shows which alternative the total number of participants chose (including the single participant between age 33-37). The correct alternative for ASA 1 is 1) *'Tom loads potatoes onto the truck'*, for ASA 2 it is alternative 2) *'Mary baked a cake for her roommate'*, and for ASA 3 it is alternative 2) *'Tom filled his glass with water'*.[6] To see whether the results varied depending on age, the results of each age group was investigated as well (with the exception of age group 33-37).

Table 3: Answers of participants aged 18-22, N = 11

Answers	ASA 1 – Spray/load	ASA 2 - Benefactive	ASA 3 – Fill with/into
Alt 1)	45.5%	9.1%	0.0%
Alt 2)	27.3%	72.7%	72.7%
Alt 3: Both	27.3%	18.2%	27.3%

Table 3 shows the acceptability of the respondents aged between 18-22 with the three alternatives they were given in the questionnaire. The majority chose alternative 1) as the most appropriate one for ASA 1, alternative 2) as the most appropriate for ASA 2, and alternative 2) for ASA 3 as well. These alternatives are the correct ones given the context of each question (as formulated in subsection 3.2).

Table 4: Answers of participants aged 23-27, N = 39

Answers	ASA 1 – Spray/load	ASA 2 - Benefactive	ASA 3 – Fill with/into
Alt 1)	28.2%	2.6%	2.6%
Alt 2)	25.6%	61.5%	74.4%
Alt 3: Both	46.2%	35.9%	23.1%

Table 4 shows that many of the respondents aged between 23-27 chose alternative 3 for ASA 1 as the most appropriate one. Most of the participants believed that both structures could be used for the first question. They chose alternative 2) for ASA 2, and alternative 2) for ASA 3. This is where the results start to change depending on each age group.

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[6] Note that I have not included what the alternatives are for each ASA to keep the tables as simple as possible. To see what the different alternatives are, go back to section 3.2.

Table 5: Answers of participants aged 28-32, N = 8

Answers	ASA 1 – Spray/load	ASA 2 - Benefactive	ASA 3 – Fill with/into
Alt 1)	25.0%	12.5%	0.0%
Alt 2)	50.0%	75.0%	87.5%
Alt 3: Both	25.0%	12.5%	12.5%

Despite the low number of respondents aged between 28-32, most respondents chose alternative 2) as the most appropriate for ASA 1, ASA 2, and ASA 3. Again, the only difference here is what the majority chose for ASA 1.

Table 6: Answers of participants aged 37+, N = 6

Answers	ASA 1 – Spray/load	ASA 2 - Benefactive	ASA 3 – Fill with/into
Alt 1)	16.7%	0.0%	16.7%
Alt 2)	33.3%	50.0%	50.0%
Alt 3: Both	50.0%	50.0%	33.3%

From table 6 (with even fewer respondents to this age group), half of the respondents chose alternative 3 as the best fit for ASA 1. According to them, both alternative 1) and alternative 2) are appropriate given the context in the first target sentence.

Most of the respondents chose the correct alternation structure for ASA 2 (benefactive alternation) and ASA 3 (fill with/into locative alternation), but the chosen structure for ASA 1 (spray/load alternation) was highly inconsistent with each age group. As seen from the tables 2-6, as the age group went up, there were more 'incorrect' answers, that is, the wrong alternation structure was chosen given the context in each question. I will discuss some of the factors that may have played a role in this in section 5.

4.3 Results of the native speakers

Table 7: Answers of native speakers of English, N = 4

Answers	ASA 1 – Spray/load	ASA 2 - Benefactive	ASA 3 – Fill with/into
Alt 1)	25.0%	0.0%	0.0%
Alt 2)	0.0%	50.0%	100.0%
Alt 3: Both	75.0%	50.0%	0.0%

Table 8: Answers of bilingual speakers of English and Norwegian, N = 3

Answers	ASA 1 – Spray/load	ASA 2 - Benefactive	ASA 3 – Fill with/into
Alt 1)	0.0%	0.0%	0.0%
Alt 2)	0.0%	66.7%	100.0%
Alt 3: Both	100.0%	33.3%	0.0%

There were four respondents that had English as their native language and three respondents who had English and Norwegian as their L1. Table 7 and 8 indicate that even within native speakers there seems to be different opinions on which structure is the most appropriate for ASA 1 and ASA 2, however, all native speakers agree that the correct structure for ASA 3 is as in alternative 2). Additionally, there was a comment from a native speaker about ASA 3: "1) is semantically incorrect because you can't 'fill water'". This shows that the native speakers are aware of the ungrammaticality of the second structure of ASA 3. A comparison between the native speakers of English and Norwegian speakers of English will be given in 5.2 in the next section.

5. Discussion

In this section, the results from the previous section will be discussed further. Here I will look at some of the reasons as to why the results came out the way they did, but also whether the responses answer the thesis question(s) or prove my hypotheses. A brief comparison between the chosen ASA for this thesis will be given (for English and Norwegian) in subsection 5.1. In subsection 5.2 I will look at the things that could have been done differently to strengthen this thesis. Weaknesses of this study will also be given together with further research methods for better results.

5.1 Interpretation of the results

From the results in 4.2, the tables indicate that the wrong alternation structure was chosen more frequently as the participants were older. A reason for this can be that these participants were born in the 1980s and 90s. English as a subject (in official schools) in Norway was not made mandatory until 1997 ("20 år med engelskundervisning", 2018). At the time, English

lectures constituted of 271 hours for a whole school year.[7] When LK06 (Kunnskapsløftet) was introduced in 2006, the number of hours was increased to 366. This is a possible factor that may have influenced the results, as the older participants did not get as much input of English as the younger participants.

In addition, there are big dialectal variations in Norway, especially between the north of Norway and south of Norway. Some of the regional dialects may use argument structure alternations that resemble the English structures and therefore L1 transfer could influence the results, leading the respondents in getting to the correct answer this way. To be certain about whether there are argument structure alternations that are like English depending on the regional dialects, more research and data is needed to see whether the semantic entailments hold for both languages. Despite the lack of such data, I will give the equivalent sentence constructions of the three target sentences in Norwegian below for a syntactic and grammatical comparison.

Equivalent sentences in Norwegian of ASA 1:

      a) Tom lastet lastebilen med poteter.

      b) Tom lastet poteter i lastebilen.

Equivalent sentences in Norwegian of ASA 2:

      a) Mary lagde læreren en kake.

      b) Mary lagde en kake for/til læreren.[8]

Equivalent sentences in Norwegian of ASA 3:

      a) Tom fylte glasset med vann.

      b) Tom fylte vann i glasset.

According to Lundquist's (2014) study, the benefactive alternation with two object constructions are more accepted in the northern parts of Norway than in the southern parts. In fact, 33% of the respondents that chose alternative 3 '*both*' for ASA 2 were from Trøndelag or Troms and Finnmark (see appendix 3). This indicates that the answers that were given also

---

[7] A Norwegian school year consists of 190 days (Baklien, 2011).
[8] It depends on what the intention behind the cake-making is in the English sentence before translating. Is the cake *for* the mom so the mom can eat it? If so, then the Norwegian equivalent would be "til" in this case. However, if Mary made it for her mom as in the mom will give the cake to somebody else, then the equivalent in this case would be "for".

have a regional influence.[9] As one can see, both the *fill with/into* alternation structures are grammatical in Norwegian, but that is not the case for English (as seen in (3) ASA 3). ASA 1 (the spray/load, locative alternation*)* has the same semantic meaning as in Norwegian, however, the respondents in the different age groups still had varied responses regarding this specific alternation structure. ASA 2 (benefactive alternation) is a bit different in Norwegian, as the Norwegian construction can either take the preposition *til 'to'* or *for* 'for' depending on the intention behind who the end-recipient is. ASA 3 (fill with/into alternation) is very different from the English constructions, as both structures are grammatical in Norwegian, but in English, one of the structures is ungrammatical.

Although most of the Norwegian native speakers chose the correct structure for ASA 3, there were still 26% who believed that the correct structure was alternative 1), or that both structures could be used with the assumption that these respondents use the two alternation structures in ASA 3 synonymously (see Table 9 below).

Table 9:
Accumulated answers

Answers	ASA 1 – Spray/load	ASA 2 - Benefactive	ASA 3 – Fill with/into
Alt 1)	30.8%	4.6%	3.1%
Alt 2)	29.2%	63.1%	73.8%
Alt 3: Both	40.0%	32.3%	23.1%

The results in 4.2 additionally tell us that the elder participants had more difficulty in choosing the right structure based on the context that was given in the questionnaire. This proves that my first prediction, Hypothesis 1, was indeed correct. Although most of the Norwegian speakers of English seem to grasp that there are semantic differences in the different structures, the older respondents have not completely understood this concept, especially for ASA 1. The hypotheses given in section 1 are reintroduced below:

(8) Hypothesis 1:   Norwegian L2 speakers of English are less likely to know the subtle difference due to low or middle proficiency, especially the elder participants.

(9) Hypothesis 2:   A number of Norwegian respondents will favour one specific structure in each argument structure alternation question due to familiarity.

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[9] This was one of the reasons why I included the section of county in part 1 of the questionnaire to see whether this was indeed a true factor or not (see appendix 1).

Regarding Hypothesis 2, there is not enough data to prove this point. More research regarding Norwegian argument structure alternations and their semantic meaning must be collected and then compared with before coming up with a definitive conclusion.

5.2 Limitations and strengths

Like in any research study, there tend to be strengths and weaknesses of the method used in the study. I will first list some weaknesses of my chosen method. First, the testing method is through an online questionnaire where this was open for all. Since it was open for all people to participate, it was accounted for that not all the collected answers from specific participants could be used as this study focuses on Norwegian native speakers that have English as their L2. Second, the collected data are standardized responses to uniform questions. Although I tried to switch between the ASA questions and the filler questions, there still may have been a possible 'order effect' as some participants could have created patterns from the target sentences. This is a possible drawback of this designed questionnaire; however, since the questionnaire is so short and the items so distinct from each other, this kind of drawback seems unlikely.

What could further improve this study would be to get more data and do more research on whether the Norwegian argument structure alternations have the same subtle difference in semantic meaning based on the different structures to draw a reliable conclusion. This is important to see whether the semantic entailments hold for both English and Norwegian. Although ASA 1 (spray/load alternations) do have the same structure and semantic meaning in Norwegian, it is clear (from the results) that the acceptability of these alternate structures in Norwegian needs to be investigated more as the results varied greatly in ASA 1 in each age group. Second, uneven numbers of participants in the different age groups make it difficult to draw adequate conclusions based off on their answers. For instance, only one participant responded who was between age 33-37. This provides no basis for a generalization with Norwegian speakers of English in this specific age group. It would have been better for this research study if each age group had the same number of participants (for instance 15 or higher). Third, the chosen ASA could not have been complex enough that may have resulted in an easy test. Thus, for future experiments, it would be interesting to investigate more complex alternations and see the acceptability rates of these complex alternation structures.

Some of the strengths that the questionnaire design has, is that it is quantitatively good as an online questionnaire since it is easily accessible which makes it possible to get a high number

of participants which again leads to more data collection. A qualitative measure that was invented was the addition of the section where participants could comment on the target sentence after each question to see whether participants had something to add as the reason for their choice. In addition, the TVJT made it a 'forced choice' type of task which helped in narrowing down the options and really see whether the Norwegian speakers of English could tell if there indeed was a semantic difference based on the given context.

5.3 Other findings

An interesting finding was the results of the filler question 6. As seen in the questionnaire of F3 from (12) (listed again below for convenience). Very few chose the construction of (b) as it may seem like a tongue-twister. There were also comments about this being ungrammatical or that there may have been a punctuation error (missing a comma). The comma is used in Norwegian relative clauses but do not appear in relative clauses in English. It would be interesting to conduct study in terms of the acceptability of zero-relative constructions as Norwegian relative clauses are always constructed with '*som'* including a comma after the relative clause (see (13)).

(12) F3:

    a. Mice cats chase like cheese.

    b. Mice that cats chase like cheese.

(13) Muser som katter jager, liker ost.

Some of the comments are listed in (14).

(14)   Comment 1: "Non[e] of the options make sense."

          Comment 2: "Is there a spelling mistake in that first alternative?"

          Comment 3: "The first one is super confusing without commas."

          Comment 4: "There should be a comma, as the 'that cats chase' is redundant to the sentence as a whole and only supplies information without context."

          Comment 5: "First follows Norwegian syntax."

These comments show whether the respondents understand zero-relatives and its construction in English, and if the Norwegian speakers accept both structures. The most interesting comments are comment 4 and 5 as both show L1 transfer from Norwegian, but the respondents seem very confident that the first structure is incorrect.

6. Conclusion

To sum up this paper, a study was conducted through a questionnaire to see whether Norwegian speakers of English would be able to tell the subtle difference between argument structure alternations. Before the testing, two predictions were made. The first one was that Norwegian speakers of English that were older were going to perform worse than the younger ones (Hypothesis 1), and the second was that some of the Norwegian speakers of English would favour choosing one specific structure due to familiarity. Hypothesis 1 is proven right as the older the respondents' age group was, the worse they did in the selection of the right alternation structure based on the given context. This can be argued to be because of the reform in 1997 where English became a mandatory subject. Additionally, the English lectures given in school for a year were increased from 271 hours to 366 hours.

Hypothesis 2, on the other hand, cannot be proven as there is insufficient data to either prove it right, or wrong. Despite this, the results show that Norwegians in fact have a good grasp of the indications of the semantic differences regarding argument structure alternations. The only difference was the inconsistent answers regarding ASA 1 with the spray/load alternation, as it varied depending on each age group. To strengthen this study, more tests and experiments need to be conducted with locative alternations to see if the conclusion of the results in this study will be consistent with future studies incorporating the same class of alternations.

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Appendices

Appendix 1: The questionnaire

Ν Nettskjema

BENG2023 ASASM

This questionnaire is anonymous and is made up of two parts. The first part will mostly consist of questions about your proficiency in English. The second part will consist of 6 short stories with alternatives which will require you to choose the most approriate description according to your own judgment. It will take approximately **5-10 minutes** to finish the questionnaire.
Please contact Sara Saleh or Andrew Weir if you have any questions.

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Phone: 94972294

E-mail: andrew.weir@ntnu.no
Phone: 73596482

Part 1.

My first (native) language is...

English
Norwegian
I am bilingual in English and Norwegian
Other

If you chose "other", please state your native language/blingual languages:
This element is only shown when the option 'Other' is selected in the question 'My first (native) language is...'

If you were born in Norway, which county were you born in?

Agder
Innlandet
Møre og Romsdal
Nordland
Oslo
Rogaland
Vestfold og Telemark
Troms og Finnmark
Trøndelag
Vestland
Viken

How old are you?
I am between...
Younger than 18
18-22
23-27
28-32
33-37

Older than 37

What is your level of education?

If you currently are a master's student, for instance, tick the box that says "Bachelor's degree".
I have a...

PhD or higher

Master's degree

Bachelor's degree

Norwegian VGS

Lower than Norwegian VGS

How many years of formal education do you have in English?

Some English education through elementary school

Chosen/specialised English in Norwegian VGS

Academic English at university level

Bachelor's or higher degree in academic English

I am a native speaker of English

How do you judge your own proficiency in English?

0 – No Proficiency. I have no knowledge of the language.
1 – Elementary Proficiency. I can form basic sentences, including asking and answering simple questions.
2 – Limited Working Proficiency. I can carry on limited casual conversations and discuss my personal life.
3 – Professional Working Proficiency. I can speak at a normal speed in the language and have a fairly extensive vocabulary.
4 – Full Professional Proficiency. I can have advanced discussions on a wide range of topics about personal life, current events, and technical topics such as business and finance.
5 – Native/Bilingual Proficiency. I can speak the language fluently.

Reading

0

1

2

3

4

5

Writing

0

1

2

3

4

5

Speaking

0

1

2

3

4

5

Listening

0

1

2

3

4

5

In your estimation, how many hours a week are you exposed to English?

Include all sources of English: English media (TV, film, reading, music...), conversations in English, working in an English-language environment, etc.

0-5 hours

5-10 hours

10-15 hours

15-20 hours

20+ hours

Part 2.

You will be given 6 short stories with multiple choice. You have to select the most approriate option taking the context of the story into consideration.

1.

A man has some crates of potatoes, some crates of tomatoes, and some crates of apples. He loads the crates onto his truck.

Which sentence most appropriately describes the situation?

1) Tom loaded potatoes onto the truck.

2) Tom loaded the truck with potatoes.

Both 1) and 2) can be used.

If you have any additional comments, you can add them here:

This element is only shown when the option '1) Tom loaded potatoes onto the truck. or 2) Tom loaded the truck with potatoes.' is selected in the question '1.'

2.

John had only eaten yoghurt for breakfast. He has gone more than 8 hours without any food so he is really looking forward to dinner. His girlfriend is making his favourite dish—lasagne.

Which sentence most appropriately describes the situation?

1) John ate the lasagne.

2) John devoured the lasagne.

Both 1) and 2) can be used.

If you have any additional comments, you can add them here:
This element is only shown when the option '1) John ate the lasagne. or 2) John devoured the lasagne. or Both 1) and 2) can be used. ' is selected in the question '2.'

3.

Mary is a baker with exceptional talent. She and her roommate John are going to a party where everyone is expected to bring a dessert. John can't bake at all. He asks if Mary can bake a cake which they can take to the party together. Mary happily agrees to do so.
Which sentence most appropriately describes the situation?

1) Mary baked her roommate a cake.

2) Mary baked a cake for her roommate.

Both 1) and 2) can be used.

If you have any additional comments, you can add them here:
This element is only shown when the option '1) Mary baked her roommate a cake. or 2) Mary baked a cake for her roommate. or Both 1) and 2) can be used.' is selected in the question '3.'

4.

A lot of people from around the world work in Lew's shop. 20% are African, 60% are Italian, 10% are Scandinavian, and 10% are Asian. Most of them are Italians.
Which sentence most appropriately describes the situation?

1) There work many Italians in Lew's shop.

2) There are many Italians working in Lew's shop.

Both 1) and 2) can be used.

If you have any additional comments, you can add them here:
This element is only shown when the option '1) There work many Italians in Lew's shop. or 2) There are many Italians working in Lew's shop. or Both 1) and 2) can be used.' is selected in the question '4.'

5.

One day when the sun was shining brightly, Tom went to the garden and started mowing the lawn. After going about it for 10 minutes, he became quite thirsty due to the hot weather. He went to the kitchen and grabbed a glass from his cabinet to drink some water.
Which sentence most appropriately describes the situation?

1) Tom filled water into his glass.

2) Tom filled his glass with water.

Both 1) and 2) can be used.

If you have any additional comments, you can add them here:
This element is only shown when the option '1) Tom filled water into his glass. or 2) Tom filled his glass with water. or Both 1) and 2) can be used.' is selected in the question '5.'

6.

We all know that dogs chase cats, and cats chase mice, but what or who do mice chase? Some argue that mice chase humans, although they don't like them. They like cheese more.
Which sentence most appropriately describes the situation?

1) Mice cats chase like cheese.

2) Mice that cats chase are fond of cheese.

Both 1) and 2) can be used.

If you have any additional comments, you can add them here:
This element is only shown when the option '1) Mice cats chase like cheese. or 2) Mice that cats chase are fond of cheese. or Both 1) and 2) can be used.' is selected in the question '6.'

Appendix 2: The results

BENG2023 ASASM

Updated: 13 May 2023 at 19:20

Part 1.

Number of submissions: **0**

Submissions	Count	% of submissions	
None			

My first (native) language is...

Number of submissions: **83**

Submissions	Count	% of submissions	
Other	16	19.3%	19.3%
I am bilingual in English and Norwegian	3	3.6%	3.6%
Norwegian	60	72.3%	72.3%
English	4	4.8%	4.8%

If you chose "other", please state your native language/blingual languages:

- Chinese and Norwegian

- Finnish

- Urdu

- Kurdish

- Spanish

- Dutch

- Kurdish

- Karen language

- korean

- Dutch

- Kurdish

- Frisian, Dutch, English, Norwegian, German

- Dutch

- Dutch

- Swedish

- Icelandic

If you were born in Norway, which county were you born in?

Number of submissions: **61**

Submissions	Count	% of submissions	
Viken	7	11.5%	11.5%
Vestland	5	8.2%	8.2%
Trøndelag	16	26.2%	26.2%
Troms og Finnmark	5	8.2%	8.2%
Vestfold og Telemark	3	4.9%	4.9%
Rogaland	0	0%	0%
Oslo	3	4.9%	4.9%
Nordland	0	0%	0%
Møre og Romsdal	5	8.2%	8.2%
Innlandet	7	11.5%	11.5%
Agder	10	16.4%	16.4%

How old are you?

Number of submissions: **83**

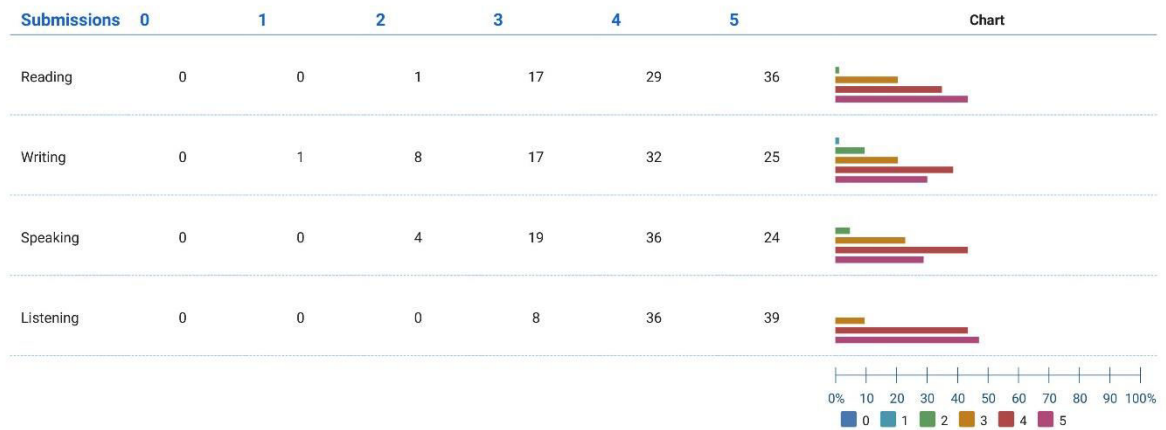| Submissions	Count	% of submissions	
Older than 37	8	9.6%	9.6%
33-37	1	1.2%	1.2%
28-32	12	14.5%	14.5%
23-27	49	59%	59%
18-22	13	15.7%	15.7%
Younger than 18	0	0%	0%

What is your level of education?

Number of submissions: **83**

Submissions	Count	% of submissions	
Lower than Norwegian VGS	0	0%	0%
Norwegian VGS	26	31.3%	31.3%
Bachelor's degree	30	36.1%	36.1%
Master's degree	27	32.5%	32.5%
PhD or higher	0	0%	0%

How many years of formal education do you have in English?

Number of submissions: **83**

Submissions	Count	% of submissions	
I am a native speaker of English	4	4.8%	4.8%
Bachelor's or higher degree in academic English	7	8.4%	8.4%
Academic English at university level	16	19.3%	19.3%
Chosen/specialised English in Norwegian VGS	26	31.3%	31.3%
Some English education through elementary school	30	36.1%	36.1%

How do you judge your own proficiency in English?

Submissions	0	1	2	3	4	5	Chart
Reading	0	0	1	17	29	36	
Writing	0	1	8	17	32	25	
Speaking	0	0	4	19	36	24	
Listening	0	0	0	8	36	39	

0% 10 20 30 40 50 60 70 80 90 100%

■ 0 ■ 1 ■ 2 ■ 3 ■ 4 ■ 5

In your estimation, how many hours a week are you exposed to English?

Number of submissions: **83**

Submissions	Count	% of submissions	
20+ hours	38	45.8%	45.8%
15-20 hours	16	19.3%	19.3%
10-15 hours	15	18.1%	18.1%
5-10 hours	11	13.3%	13.3%
0-5 hours	3	3.6%	3.6%

Part 2.

Number of submissions: **0**

Submissions	Count	% of submissions
None		

1.

Number of submissions: **83**

Submissions	Count	% of submissions	
Both 1) and 2) can be used.	39	47%	47%
2) Tom loaded the truck with potatoes.	19	22.9%	22.9%
1) Tom loaded potatoes onto the truck.	25	30.1%	30.1%

If you have any additional comments, you can add them here:

- No.1 is the proper way of correctly describing the situation. However, No.2 would most definitely be used in most situations. Especially in the southern states. This is where sociolect might come into play. That being said, none of the above fully captures the whole situation though. They left out the part about the tomatoes and the apples..

- Second sentence implies he only loaded the truck with potatoes, and nothing else, while the first one is a bit more ambiguous, as it does not seem as final

2.

Number of submissions: **83**

Submissions	Count	% of submissions	
Both 1) and 2) can be used.	35	42.2%	42.2%
2) John devoured the lasagne.	31	37.3%	37.3%
1) John ate the lasagne.	17	20.5%	20.5%

If you have any additional comments, you can add them here:

- This answer depends on cultural context. Would be very common to say devoured in australian, while british would have a slightly awkward feel to it. I opted for australian :)

- Devoured is a very aggressive word, so i would say ate.

- Han har vel egentlig ikke spist den, så ingen passer?

- Both sentences could be used, but considering that John is likely to be starving, he probably devoured it, rather than just calmly eating it.

- Both can be used, but by adding additional context one can claim that option b) is more appropriate given the circumstances.

- Lasagna*

- Both are correct, but 2 implies more intensity.

- There isn't enough information to assess how he will eat the lasagna in the future, so it feels more appropriate to use the more gentle sentence of the two.

- They're both appropriate for the situation, although the second one is more 'in line' with the above story.

- If John is educated in terms of etiquette, he may choose to eat the lasagna in a civil manner

- Neither of them describes the situation, since he did not eat the lasagne?

- None of the sentences are technically correct. Because the sentences describe that John has already eaten the lasagna. But, the situation is described as if John has not yet eaten the lasagna.

- I would devoure

- Devoured is really specific in my opinion

- You could also say ate, but I assume he is really hungry, so I'd use devoured in this context

- Both can be used, but second one more vividly describes the feeling of eating after going hungry for many hours.

- If I was that hungry for my favorite dish I'd devour the lasagne, but it's possible John merely ate it. (I think it's spelled lasagna in English and lasagne in norwegian btw)

3.

Number of submissions: **83**

Submissions	Count	% of submissions	
Both 1) and 2) can be used.	26	31.3%	31.3%
2) Mary baked a cake for her roommate.	50	60.2%	60.2%
1) Mary baked her roommate a cake.	7	8.4%	8.4%

If you have any additional comments, you can add them here:

- Both sentences are equally fine here, but she baked the cake for both of them, no?

- 1. is more appropriate, however neither is wrong.

- I would argue the first one is more correct since the second one implies it is for her roommate. While the first one has less implication of what it will be used for.

- I interpret 1) as if she baked the cake to give it to her roommate and 2) as if she baked it instead of him (but 2 could also mean the same as 1 depending on context).

- First one implies that her roommate is the recipient of the cake, while the second is a bit more ambiguous.

4.

Number of submissions: **83**

Submissions	Count	% of submissions	
Both 1) and 2) can be used.	6	7.2%	7.2%
2) There are many Italians working in Lew's shop.	77	92.8%	92.8%
1) There work many Italians in Lew's shop.	0	0%	0%

If you have any additional comments, you can add them here:

- No.1 here is just plain wrong, so No.2 is the best option. However, I would probably say: "There's a lot of Italians working at Lew's shop."

- 1) feels wonky, but certainly something you would hear people say.

- I wouldn't use the first one even if it can be used   haha

- 1) Doesn't sound natural, and comes off as very odd

- first one is not grammatically correct but does describe the situation as well as the second one.

- First sentence has many grammatical errors (which is likely because it follows Norwegian syntax)

- 1 has to be "There works many Italians in Lew's shop" I think, work as non plural just sounds really weird

5.

Number of submissions: **83**

Submissions	Count	% of submissions	
Both 1) and 2) can be used.	18	21.7%	21.7%
2) Tom filled his glass with water.	62	74.7%	74.7%
1) Tom filled water into his glass.	3	3.6%	3.6%

If you have any additional comments, you can add them here:

- Both sentences do correctly describe the situation, but the second one would be the more natural way for me personally to go about describing it.

- 1) feels more descriptive than necessary, while 2) is more colloquial

- I like the first one better

- 1) is semantically incorrect because you can't "fill water"

- I think both can be used, but 2 is more appropriate

6.

Number of submissions: **83**

Submissions	Count	% of submissions	
Both 1) and 2) can be used.	9	10.8%	10.8%
2) Mice that cats chase are fond of cheese.	66	79.5%	79.5%
1) Mice cats chase like cheese.	8	9.6%	9.6%

If you have any additional comments, you can add them here:

- Yeah… Say what now!?

- Both are correct, but it's more difficult to understand the 1st Sentence, and the 2nd you understand right away.

- There should be a comma, as the "that cats chase" is redundant to the sentence as a whole and only supplies information without context.

- First one is a tongue twister

- I felt like I was having a stroke reading both of these, but the lack of a "that" makes it much harder to initially understand. It would be clearer with a explicit "that" instead of implied.

- The first one is super confusing without commas

- Is there a spelling mistake in that first alternative?

- 1) is really odd

- one would be more understandable if it said: Mice that cats chase like cheese

- Non of the options make sense

- Should there not be a comma? "Chase, are"

- First follows Norwegian syntax

Appendix 3: Respondents that chose alternative 3 for ASA 2

27077524	Viken	2) Tom loaded the truck w	Both 1) and 2) can be use	2) Tom filled his glass with water.						
27077925	Trøndelag	1) Tom loaded potatoes o	Both 1) and 2) can be use	2) Tom filled his glass with water.						
27077975	Trøndelag	2) Tom loaded the truck w	Both 1) and 2) can be use	2) Tom filled his glass with water.						
27079604	Agder	2) Tom loaded the truck w	Both 1) and 2) can be use	Both 1) and 2) can be used.						
27080475	Agder	2) Tom loaded the truck w	Both 1) and 2) can be use	2) Tom filled his glass with water.						
27080677	Trøndelag	2) Tom loaded the truck w	Both 1) and 2) can be use	2) Tom filled his glass with water.						
27080823	Innlandet	2) Tom loaded the truck w	Both 1) and 2) can be use	2) Tom filled his glass with water.						
27081198	Agder	Both 1) and 2) can be use	Both 1) and 2) can be use	2) Tom filled his glass with water.						
27082344	Trøndelag	2) Tom loaded the truck w	Both 1) and 2) can be use	2) Tom filled his glass with water.						
27086880	Trøndelag	Both 1) and 2) can be use	Both 1) and 2) can be use	Both 1) and 2) can be used.						
27086897	Vestland	Both 1) and 2) can be use	Both 1) and 2) can be use	Both 1) and 2) can be used.						
27088185	Vestland	Both 1) and 2) can be use	Both 1) and 2) can be use	Both 1) and 1) feels more descriptive than necessary, while 2) is more colloquial					
27089860	Vestfold og Telemark	Both 1) and 2) can be use	Both 1) and 2) can be use	2) Tom filled his glass with water.						
27099283	Agder	1) Tom loaded potatoes o	Both 1) and 2) can be use	Both 1) and 2) can be used.						
27108304	Agder	2) Tom loaded the truck w	Both 1) and 2) can be use	2) Tom filled his glass with water.						
27123628	Møre og Romsdal	1) Tom loade	No.1 is the p	Both 1) and 2	Both senten	2) Tom filled	Both sentences do correctly describe the situation, but the second one would be the more natu
27135317	Viken	Both 1) and 2) can be use	Both 1) and 2) can be use	2) Tom filled his glass with water.						
27135355	Vestfold og Telemark	Both 1) and 2) can be use	Both 1) and 2) can be use	Both 1) and 2) can be used.						
27167270	Viken	Both 1) and 2) can be use	Both 1) and 2) can be use	2) Tom filled his glass with water.						
27194785	Trøndelag	2) Tom loaded the truck w	Both 1) and 2) can be use	Both 1) and 2) can be used.						
27196213	Troms og Finnmark	Both 1) and 2) can be use	Both 1) and 2) can be use	2) Tom filled his glass with water.						