Unagi-sentences in Japanese and Korean

A comparative study based on acceptability judgments

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Abstract

Unagi-sentences are, as defined in this thesis, sentences where there is a mismatch between the literal interpretation of the sentence and its meaning in context, often accompanying an apparent violation of selection restrictions of the predicate. This thesis argues that the phenomenon of *unagi*-sentences shows more variation than previously thought, as well as provides a much needed comparison of the use and underlying structures of *unagi*-sentences in Japanese and Korean. It also provides new insights into the understudied concept of frame setters. While *unagi*-sentences are traditionally interpreted as a copula construction, they are shown to be possible with verbal predicates as well. The comparison of *unagi*-sentences in Japanese and Korean is based on empirical data gathered from experimental acceptability judgment questionnaires targeted at a total of 100 native Japanese and Korean speakers. Interpreting the results, it is claimed that two types of unagi-sentences exist: topic-comment *unagi*-sentences and frame-setting *unagi*-sentences. Both copular and verbal predicates of topic-comment *unagi*-sentences have the property of being time-stable, which is hypothesized to be a result of their forming process. The predicate in a topic-comment *unagi*-sentence is formed through a process similar to the sentential predicate in multiple nominative constructions, existing in a separate nested IP. As for frame-setting *unagi*-sentences, their predicates are not restricted in terms of time-stability, and they do not exist in a separate IP. In Japanese, only temporal and locative frame setters can be marked using the topic marker alone, while experiencer frame setters can additionally be marked by the topic marker in Korean. Experiencer frame setters delimit the proposition to the frame which is experienced by its referent, i.e., its vicinity, opinion, etc. Furthermore, it is shown that *unagi*-sentences in Japanese and Korean can undergo right dislocation, as well as relativization.

Keywords: *unagi*-sentence, Japanese, Korean, topic-comment, frame setter

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Abbreviations

ABL	ablative	NEG	negative
ACC	accusative	NML	nominalizer
ALL	allative	NOM	nominative
ASP	aspect	NP	noun phrase
ATT	attributive	POL	polite suffix
CAU	causative	POT	potential
CLS	classifier	PRED	predicate
COND	conditional	PSS	passive
COP	copula	PST	past
DAT	dative	Q	question
FrP	frame-setter phrase	QT	quotative
GEN	genitive	SH	subject honorific
IMP	imperative	TERM	terminal
INS	instrumental	TMP	temporal
IP	inflectional phrase	TOP	topic
LOC	locative	VOL	volitional
MOD	modal/pragmatic marker	VP	verb phrase

Romanization

This thesis employs the Hepburn romanization system for romanizing Japanese, and the Yale romanization system for romanizing Korean.

1 Introduction

1.1 Problem formulation

An *unagi*-sentence in Japanese, in the traditional sense, according to Obana (2001, p. 726), has the same structure as a typical copular sentence, namely [NP_1 *wa* NP_2 *da*], where *wa* is the so-called topic particle, and *da* is a copula. In an *unagi*-sentence, however, NP_2 cannot directly be explained as being descriptive or identifying of NP_1. Instead, the relation between NP_1 and NP_2 is context dependent, and as a consequence, *unagi*-sentences mean different things depending on the context they are used in. (1) is the eponymous example in Japanese.

(1) Japanese: *boku* *wa* *unagi* *da*[1]
I TOP eel COP
'As for me, eel.' (lit. 'I am an eel.')

Without context, (1) is strange, since it has to be interpreted as a typical copula construction, which would imply that the speaker identifies as an eel. Only when uttered in context, does the utterance in (1) make sense. Then, it can be used to convey different meanings depending on the context in which it is uttered. If uttered among friends at a restaurant when discussing what to order, it means 'I will order the eel.' If uttered when discussing what foods one dislikes, it means 'I dislike eel.' Again, if uttered among fellow fishing enthusiasts when discussing what one plans to catch on the next fishing trip, it means 'I will catch eel.' The number of possible interpretations an *unagi*-sentence can have is therefore equal to the number of possible contexts it can be used in, i.e., virtually unlimited.

The problem of explaining how a sentence construction that looks like a typical copula construction, but cannot be explained as such, can have a virtually unlimited number of possible interpretations has engaged Japanese syntacticians for over half a century, without completely satisfactory results. According to Obana (2001, p. 726), the term *unagi-bun* (eel-sentence[2]) was coined by Okutsu (1978), but Takamoto (1995, pp. 125f.) shows that the

1 All example sentences used in this thesis else have been checked by native informants, save for those taken from previous research.

2 The term 'eel-sentence' is used in some literature written in English, e.g., Tokizaki (2003), Iwasaki (2013, p. 141). However, this term is no more transparent than '*unagi*-sentence,' which is used in this study, following Obana (2001) and Yagihashi (2009).

example sentence in (1) was used by Haruhiko Kindaichi and Akira Mikami to tackle the subject as early as in 1955. Since then, the phenomenon of *unagi*-sentences in Japanese has enjoyed a large amount of research, both in Japan and abroad. This shows how deep and complicated the phenomenon is, as well as that many different approaches are possible. However, while anything from transformational approaches, using some kind of ellipsis, to pragmatic explanations, using common ground and shared knowledge, has been attempted, neither of them, as we shall see in section 2.1, have captured the phenomenon correctly or completely.

To be able to explain the phenomenon satisfactorily, as many aspects of the problem as possible should be scrutinized. Without doing so, explanations that only apply to a part of the problem are bound to be made. In general, two viewpoints are missing from all previous studies: (i) the fact that *unagi*-sentences are a cross-linguistic phenomenon, and (ii) the fact that seemingly illogical, context-dependent sentences are not limited to copular constructions.

Regarding the first point, while similar constructions can be found in Mandarin Chinese (Li & Thompson 1981, p. 150), an almost identical counterpart can be found in Korean, whose syntax greatly overlaps with that of Japanese. (2) is the Korean version of (1), which is just as natural as its Japanese counterpart, with the same unlimited number of possible context-dependent interpretations.

(2) Korean: *na nun cange ta*
I TOP eel COP
'As for me, eel.'

Expanding the examination of *unagi*-sentences to similar constructions in other languages can only give more insight into the phenomenon, since any differences between languages give important hints towards the underlying mechanisms of the phenomenon.

As for the second point, utterances with verbal predicates such as (3), can be found in both Japanese and Korean. Even though (3) has a verbal predicate instead of a copula, its construction is still not easily interpretable in terms of subject and predicate, since a literal interpretation in terms of subject and predicate would imply that a dish ('konjac') has the ability of getting fat.

(3) Japanese: *konnyaku wa futora-nai*
konjac[3] TOP get.fat-NEG

Korean: *kon.yak un an ccinta*
konjac TOP NEG get.fat

'Konjac doesn't make you fat.'[4] (lit. 'Konjac doesn't get fat.')

This implies that 'illogical' sentences with verbal predicates, such as (3), and 'illogical' copular constructions, such as (1) and (2), are just different manifestations of the same phenomenon. Treating them as such can provide further insight into the problem at hand. A unifying explanation of both verbal and copular constructions has the benefit of having more predictive power since it can be applied to a larger variation of expressions.

Furthermore, all previous studies have a tendency to only base their arguments on introspectively created data. A study that is instead based on empirical data has the potential of uncovering aspects that would go missed if the problem is only examined introspectively.

1.2 Research aims

This study aims at correcting the shortcomings of previous research by conducting a crosslinguistic experimental survey of different variations of *unagi*-sentences in Japanese and Korean. The empirical data gathered in the survey will be used inductively to gather hypotheses regarding the structure and formation of *unagi*-sentences as a general and crosslinguistic phenomenon. More specifically, this study aims at answering the questions presented in (4).

(4) a. In what way, if any, do *unagi*-sentences differ in Japanese and Korean?

b. Are there any unifying traits for both verbal and copular *unagi*-sentences, other than non-literal meaning?

c. Can both verbal and copular *unagi*-sentences be explained in the same way, in both Japanese and Korean?

3 A jelly-like dish made from the starchy corm of the plant with the same name.

4 One difference from the verbal *unagi*-sentences in (3) and the copular *unagi*-sentences in (1) and (2) is that the copular *unagi*-sentences have a wide variety of possible meanings depending on context, while the verbal *unagi*-sentences only have one causative-like meaning available, apart from the literal one. See section 5.3.2 for further discussion.

d. What processes are involved in the forming of *unagi*-sentences in Japanese and Korean?

Ultimately, this study aims at finding a unifying way of explaining various types of *unagi*-sentences in both Japanese and Korean. For the inductive part of the study, concepts from the framework of information structure, such as ‘common ground,’ ‘topic,’ and ‘frame setter,’ will be employed. This study will not be concerned specifically with the special pragmatic conditions for *unagi*-sentences to form, since they are thoroughly outlined in Obana (2001).

1.3 Relevance

The study of *unagi*-sentences is not only worthwhile solely to be able to understand how and why they are possible. It also proves useful for understanding the copula in Japanese and Korean. Much of the previous research on *unagi*-sentences has taken for granted that the copula plays a necessary role in the forming of *unagi*-sentences, meaning that predicating *unagi*-sentences is seen as a function of the copula alone. This is especially the case in Korean, as we shall see in section 2.2. However, if an explanation of *unagi*-sentences with both copular and verbal predicates is possible, the burden of making *unagi*-sentences possible is taken off of the copula. Research on the Japanese and Korean copula can then focus on other aspects, instead of having to explain why only the copula can predicate *unagi*-sentences.

Furthermore, *unagi*-sentences could also be used as a basis for typological categorization. Since *unagi*-sentences also rely on pragmatics and context instead of just syntax and semantics for their meaning, languages where they are possible could be classified as heavily context-dependent, topic-prominent languages.

1.4 Definitions and terminology

1.4.1 Unagi-sentence

To be able to define unagi-sentences, let us first look at some examples of *unagi*-sentences, and why they are classified as such. The classic eponymous example in (1) is an *unagi*-sentence because there is a mismatch between the literal meaning of the sentence (‘I am an

eel') and the meaning of the sentence when used in context (e.g., 'I will order eel'). In (1), the topic marked entity, *boku* ('I'), appears to violate the selectional restrictions of the copula predicate, *unagi da* ('eel' COP); people are not eels[5]. Unagi-sentences often involve apparent violations of the selectional restrictions of the predicate. However, there does not have to be an apparent violation of selectional restrictions for a sentence to be classified as an *unagi*-sentence, as long as there is a mismatch between the literal interpretation of a sentence and its use in context[6]. As Okutsu (1987, pp. 63f.) points out, (5) can be an unagi-sentence, since it can be used to mean, for example, 'I will vote for Okutsu,' in the correct context, which is different from its literal meaning, 'I am Okutsu.'

(5) Japanese: *boku wa okutsu da*
I TOP Okutsu COP
'I am for Okutsu.' (lit. 'I am Okutsu.')

Furthermore, in this study, *unagi*-sentences are not limited to only having copular predicates. (3) is also an *unagi*-sentence, since there is a mismatch between its literal interpretation, 'konjac doesn't get fat,' and its use in context, 'konjac doesn't make you fat.' There is also an apparent violation of the selectional restrictions of the predicate, since its apparent subject 'konjac,' a dish, does not denote something that can get fat.

The term 'apparent subject' is of importance here. Only entities that are marked with a nominative case particle, a lone topic particle (i.e., one not appearing together with another particle[7]), or a zero marker can be 'apparent subjects' in *unagi*-sentences, since this 'apparent subject' becomes the true subject of the predicate in a literal interpretation of an *unagi*-sentence. Subjects can either be marked with a nominative case particle, with a lone topic marker, or with a zero marker. Any other case particle or postpositional particle cannot mark a subject, i.e., they are non-nominative.

5 There would, of course, be no apparent violation of selectional restrictions if (1) was uttered by a talking eel as a self-presentation in a fable, for example. In this case, (1) would not be an *unagi*-sentence.

6 Naturally, pure pragmatic implicature, such as using 'the door is open' to mean 'close the door,' is not considered an *unagi*-sentence.

7 Japanese and Korean topic particles can appear together with other particles in topicalized phrases, e.g., temporal and locative postpositional particles (*ni wa*, *de wa* in Japanese; *ey nun*, *eyse nun* in Korean). However, the topic particles replace the nominative and accusative case particles in topicalized nominative and accusative phrases (Iwasaki 2013, p. 238; Sohn 1999, pp. 326ff.).

However, non-nominatively marked objects are not interpreted as ‘apparent subjects,’ since their occurrence is so common that too many utterances would be considered an *unagi*-sentence. While there are specific accusative case particles (*o* in Japanese, *lul/ul* in Korean), they, too, are replaced by the topic particle when topicalized, and are often dropped in spoken language. If object phrases were allowed to constitute ‘apparent subjects’ in *unagi*-sentences, common utterances such as (6) would also qualify as *unagi*-sentences. However, as these utterances pose no problem for grammarians, they are excluded from the definition of *unagi*-sentences.

(6) Japanese: *ringo wa tabe-ta*
apple TOP eat-PST

Korean: *sakwa nun mek.-essta*
apple TOP eat-PST

‘As for the apple, I ate it.’

From the examples above, we can define *unagi*-sentences as a surface phenomenon with the characteristics outlined in (7).

(7) An *unagi*-sentence U is any utterance involving a predicate P and at least one other constituent C that appears to be the subject of P (i.e., C is not non-nominatively marked, and is not the object of P), but cannot be interpreted as such, often due to C violating the selection restrictions of P. The literal interpretation of U is always different from the meaning of U when used in context.

1.4.2 Topic

The concept of topic is not a single functional feature (Jacobs 2001). Jacobs (ibid.) divides prototypical topic-comment structure into the four salient semantic attributes of ‘information separation,’ predication,’ ‘addressation,’ and ‘frame setting.’ However, we will mostly be concerned with what is called ‘aboutness topic’ in this study. Aboutness topic denotes what a sentence is about. When X is the aboutness topic of a sentence S, S can be used as a reply to the question ‘What about X?’ The entity expressed as an aboutness topic can be seen as functioning as a reference point to which all other information in a sentence is linked when it is stored in the mind, as described by Chafe (1976, pp. 43f.) and Krifka & Musan (2012, pp.

27f.). While there are other types of topics, entities marked with the topic particles will simply be referred to as ‘topic marked’ in this study.

1.4.3 Common ground

Common ground, as it is used as a concept in information structure, is the information that is mutually known to be shared in a conversation[8] (Krifka & Musan 2012, p. 1). *Unagi*-sentences can be seen as a way of conveying a small amount of vital information, the interpretation of which is dependent on shared information already present in the common ground. We will be dealing with two types of common ground: common ground which has a linguistic antecedent, i.e., is based on an explicit utterance, and common ground which has an extralinguistic antecedent, i.e., is not based on an explicit utterance, but rather expectations deriving from a certain situation, or from common knowledge about the world. The former will henceforth be referred to as ‘linguistic common ground,’ and the latter as ‘extralinguistic common ground.’ When *unagi*-sentences rely on linguistic common ground, they are usually posited as replies to a *wh*-question, or as comments relative to a discourse topic previously established. The linguistic information in these previous utterances is enough for the *unagi*-sentence to be interpreted correctly. When *unagi*-sentences rely on extralinguistic common ground, their interpretation will be one that best fits the situation they are uttered in, while also taking the semantic content of the utterance into consideration.

1.4.4 Copula and particles

Pustet (2003, p. 4) defines a copula as a semantically empty linguistic element which co-occurs with certain lexemes when they function as predicate nucleus. In this study, the Japanese copula is defined as *da* and its polite and formal variants (*desu*, *dearu*, etc.), together with their conjugations. The Korean copula is defined as *ita*[9] and its informal variant *iya*, along with their conjugations. For the purpose of this study, no difference is made between the different variations of the copulas and their conjugated forms (including past tense and negative forms) in terms of being able to be used as a predicate in an *unagi*-sentence.

8 Obana (20001, pp. 736ff.) uses the term ‘presupposition’ to refer to the same concept. ‘Common ground’ is used here instead to avoid confusion with the semantic concept of presupposition as that which can be implicitly assumed from an utterance (Horn 1996, pp. 299ff.).

9 The *i* is often dropped after words ending with a vowel.

The topic markers *wa* and *nun/un* are referred to as ‘topic particles.’ The nominative and accusative markers *ga* and *o* in Japanese, and their counterparts *ka/i* and *lul/ul*[10] in Korean, are referred to as ‘nominative case particles’ and ‘accusative case particles,’ respectively. Other case marking particles, such as *ni* and *de* in Japanese, and *ey* and *eyse* in Korean, are referred to as ‘postpositional particles.’

1.5 Outline

In chapter 2, previous research on *unagi*-sentences in Japanese and Korean, as well as the shortcomings of previous research are covered. Chapter 3 deals with the experimental part of the study. First, the survey itself is described together with an explanation of each variation of *unagi*-sentences that was tested for differences between Japanese and Korean. After that follows a discussion on alternative methods. The results of the survey are outlined in chapter 4. In chapter 5, the differences between the two languages with regard to *unagi*-sentences, as suggested by the data collected, are first discussed. Then, an explanation of *unagi*-sentences from a general and crosslinguistic perspective is attempted. The thesis is concluded in chapter 6, which includes a summary, as well as a discussion on shortcomings and potential improvements of the study.

10 The variants *nun* and *un*, *ka* and *i*, *lul* and *ul* alternate depending on the phonological environment they are used in. The former forms are used after words ending in a vowel, and the latter after words ending in consonants.

2 Previous research

2.1 *Unagi*-sentences in Japanese

Previous research on *unagi*-sentences in Japanese can loosely be divided into three groups: (i) approaches that interpret the copula as some kind of a pro-form of a full predicate, (ii) approaches that interpret *unagi*-sentences as being elliptical surface forms, usually of some kind of cleft or multiple nominative construction, and (iii) approaches that do not interpret *unagi*-sentences as being derived from other constructions. Subsections 2.1.1, 2.1.2, and 2.1.3 deal with each type of approach, respectively.

2.1.1 Pro-form approaches

In Inoue (1969, pp. 97f.), a purely transformational approach to *unagi*-sentences can be seen. In this approach, which is dubbed ‘reduction,’ primary particles (*wa*, *ga*, *o*, locative *ni*) and verbs are deleted, to be replaced by the copula. Secondary particles (other postpositional particles) can optionally remain. (8), adapted from Inoue (ibid.), is an example of this transformation.

(8) Japanese: *boku wa unagi o tabe-yō* → (Inoue ibid., p. 97)
I TOP eel ACC eat-VOL

boku wa unagi da
I TOP eel COP

‘I will eat eel.’ → ‘As for me, eel.’

Martin (1975, p. 239) separates uses of the copula into ‘identification’ and ‘propredication.’ In its propredicational usage, the copula marks an ellipsis of a predicate. The predicate can either be elided alone or together with any of its adjuncts (or arguments), as long as at least one nominal element is left, which binds to the copula.

Kuno (1978, pp. 80–92) interprets *unagi*-sentences as being able to be formed when the predicate of an utterance is old information, since old information can be left out from the surface form of a sentence. The copula appears in its stead in order to make the utterance a complete sentence.

Okutsu (1978) analyses *unagi*-sentences as being formed by substituting the copula, which functions much like a pro-verb, for a full predicate. For example, in (9a), the copula is first substituted for the verb *taberu* ‘eat,’ creating the intermediate form in (9b). The accusative case particle is then dropped, which results in the finished *unagi*-sentence in (9c). A similar approach can be seen in Numada (1987).

(9) a. Japanese: *boku* *wa* *unagi* *o* *taberu* →
I TOP eel ACC eat

‘I will eat eel.’

b. Japanese: *boku* *wa* *unagi* *o* *da* →
I TOP eel ACC COP

‘As for me, eel (ACC).

c. Japanese: *boku* *wa* *unagi* *da*
I TOP eel COP

‘As for me, eel.’

While there are many shortcomings of the pro-form approach, such as the status of the pro-form copula vs. the regular copula (see Obana [2001] for a more complete discussion), its main problem is that it cannot easily explain *unagi*-sentences that appear without linguistic common ground. While *unagi*-sentences are said to form through substituting the copula for a specific predicate, this explanation fails when a specific predicate does not appear with a linguistic common ground. In the case of ordering eel at a restaurant, many different predicates, such as ‘eat,’ ‘order,’ ‘want,’ etc., can be used to express more or less the same meaning. When none of them occurs in a linguistic common ground, which of these the copula is a substitute for can never be resolved. Furthermore, one can imagine situations where *unagi*-sentences are used where there does not exist any simple equivalent predicate. (10) can be uttered after looking at a time table for trains, and concluding that the train that is written in the column for 10 o’clock departs at 20 minutes past. To be able to express the same thing using a verbal predicate, a lot more has to be added to the sentence than just a predicate ‘depart.’ In any case, no matter how complicated one takes the derivational process of sentences such as (10) to be, such a complicated process can hardly be assumed to take place in the mind of the speaker.

(10) Japanese: *10 ji wa 20 ppun da*
10 o'clock TOP 20 minutes COP

'The 10 o'clock column train departs at 20 minutes past.' (lit. '10 o'clock is 20 minutes.')

2.1.2 Elliptical approaches

Kawamoto (1976) proposes a transformational approach along the lines of (11), adapted from Kawamoto (ibid.), where the common ground that contributes to the interpretation of *unagi*-sentences, be it linguistic or extralinguistic, is expressed by the demonstrative pronoun *are* 'that.' This demonstrative pronoun is only a place holder for the common ground of the sentence and does not necessarily appear on the surface. It is therefore put in brackets. First, the genitive particle *no* is changed into the topic particle *wa*, similar to how the multiple nominative expression in (12) can be interpreted to be formed from *zō no hana ga nagai* (elephant GEN trunk NOM long). The complete *unagi*-sentence is formed when the nominative phrase *are ga* is dropped.

(11) Japanese: *boku no (are ga) unagi da →* (Kawamoto ibid., p. 72)
I GEN that NOM eel COP

boku wa (are ga) unagi da →
I TOP that NOM eel COP

boku wa unagi da
I TOP eel COP

'My that is an eel.' → 'As for me, that is an eel.' → 'As for me, eel.'

Kawamoto's reasoning of referring to (extra)linguistic common ground as *are* originates from interpreting NP *da* expressions which are uttered while pointing at something, as having an underlying form of (*are wa*) NP *da*, where *are* 'that' is that which is pointed to and whose referent exists in the common ground. The same reasoning is used to assign the context dependency of an *unagi*-sentence to *are ga*, which is seen as an argument for the copula predicate. To form an *unagi*-sentence, Kawamoto delimits the context-dependent *are ga* with a genitive expression, i.e., b*oku no are ga unagi da* (I GEN that NOM eel COP), to then derive the overlying topic in an *unagi*-sentence and receive *boku wa are ga unagi da* (I TOP that NOM COP). Since *are ga* can be retrieved from the common ground, it can be dropped, yielding the finished *unagi*-sentence *boku wa unagi da* (I TOP eel COP). An *unagi*-sentence is therefore interpreted as a double nominative sentence, e.g., (12).

(12) Japanese: *zō* *wa* *hana* *ga* *nagai*
elephant TOP trunk NOM long

‘Elephants have long trunks.’

Kitahara (1984, pp. 144–159) implements a ‘partial’ cleft sentence approach along the lines of (13a), adapted from Kitahara (ibid, p. 159), where the topicalized entity is scrambled to the beginning of the sentence, while a cleft sentence is made of the rest so that the important entity, i.e., the focus, gets isolated with a copula predicate at the end. In the last step, the unimportant part, i.e., that which is given, is deleted, rendering a complete *unagi*-sentence. Using this reasoning, entities other than the subject becoming the topicalized first NP of an *unagi*-sentence is also easily explained, as in (13b).

(13) a. Japanese: *boku* *ga* *ohiru* *ni* *unagi* *o* *tabe-ta* → (Kitahara ibid., p. 159)
I NOM lunch DAT eel ACC eat-PST

boku *wa* *ohiru* *ni* *tabe-ta* *no* *wa* *unagi* *da* →
I TOP lunch DAT eat-PST NML TOP eel COP

boku *wa* *unagi* *da*
I TOP eel COP

‘I ate eel for lunch.’ → ‘As for me, eel is what I ate for lunch.’ → ‘As for me, eel.’

b. Japanese: *boku* *ga* *ohiru* *ni* *unagi* *o* *tabe-ta* →
I NOM lunch DAT eel ACC eat-PST

ohiru *wa* *boku* *ga* *tabe-ta* *no* *wa* *unagi* *da* →
lunch TOP I NOM eat-PST NML TOP eel COP

ohiru *wa* *unagi* *da*
lunch TOP eel COP

‘I ate eel for lunch.’ → ‘For lunch, eel is what I ate.’ → ‘For lunch, eel.’

An elliptic cleft interpretation can be seen in Maruya (2002) as well. Maruya interprets *unagi*-sentences as having an understood meaning of a pseudo cleft-like construction such as (14), under the right circumstances.

(14) Japanese: *boku* *wa* *nani* *o* *taberu* *ka* *to* *iu* *to* *unagi* *da* →
I TOP what ACC eat Q QT say COND eel COP

boku *wa* *unagi* *da*
I TOP eel COP

‘As for me, if one is to say what I will eat, it’s eel.’ → ‘As for me, eel.’

Deriving *unagi*-sentences from cleft and multiple nominative constructions has the benefit that there is no doubt regarding the status of the copula, unlike in the case of pro-form approaches. However, these approaches have the same problem of not always being able to reconstruct the base sentence due to lack of linguistic common ground. Interpreting *unagi*-sentences as being derived from cleft sentences also poses a problem due to the fact that not all *unagi*-sentences can be derived from cleft sentences, due to syntactic limits of the language. In Japanese, cleft sentences are formed by having a nominalizer *no* function as a head noun in a relative clause construction. The limits of cleft sentences are therefore the same as those in relative clauses. As Iwasaki (2013, pp. 203–208) points out, the possible cases a head noun can take in a relative clause follows the Noun Phrase Accessibility Hierarchy of Keenan & Comrie (1977)[11]. The two cases which are at the end of the hierarchy, namely genitive and object of comparison, are either impossible or only possible under certain circumstances as the case of a head noun in a relative clause. This means that some *unagi*-sentences, such those in (15a) and (15b), cannot be interpreted to have formed from a cleft sentence, since the nominalizer cannot be interpreted as having the genitive and object of comparison cases in the relative clause. The first and last sentences in (15a) and (15b) can be used as replies to the questions ‘Whose dog did Taro see?’ and ‘What does Taro run faster than?’ respectively. The intermediate cleft sentences are, however, unacceptable due to reasons stated above.

(15) a. Japanese: *tarō wa jirō no inu o mi-ta* →
Taro TOP Jiro GEN dog ACC see-PST

* *tarō ga inu o mi-ta no wa jirō da* →
Taro NOM dog ACC see-PST NML TOP Jiro COP

tarō wa jirō da
Taro TOP Jiro COP

‘Taro saw Jiro’s dog.’ → ‘It’s Jiro whose dog Taro saw.’ → ‘As for Taro, Jiro.’

11 Subject > Direct Object > Indirect Object > Oblique Case > Genitive > Object of Comparison (Keenan & Comrie 1977, p. 66)

b. Japanese: *tarō wa inu yori hayaku hashiru* →
Taro TOP dog than fast run

* *tarō ga hayaku hashiru no wa inu da* →
Taro NOM fast run NML TOP dog COP

t*arō wa inu da*
Taro TOP dog COP

'Taro runs faster than the dog.' → 'It's the dog that Taro runs faster than.' → 'As for Taro, the dog.'

Similarly, interpreting *unagi*-sentences as being derived from multiple nominative constructions is problematic due to the fact that not all *unagi*-sentences can be paraphrased as multiple nominative constructions. The *unagi*-sentence in (16) can be uttered as a reply to a question like 'Where did you live in Japan?' This *unagi*-sentence cannot be interpreted to have derived from a multiple nominative construction, since the first constituent is best interpreted as having a locative meaning (the locative particle *de* is dropped), meaning it does not qualify as a multiple nominative construction. If the first constituent is forcedly interpreted nominatively, the multiple nominative construction would violate the characteristic property constraint, set forth by Yoon (2009). The characteristic property constraint implies that, in a multiple nominative construction, the sentential predicate (the rest of the sentence) must be a characteristic property of the major subject (the first constituent) to be felicitous. In a nominative reading of (16), *boku ga sunda no ga kyōto da* 'where I lived was Kyoto' is not a characteristic property of Japan.

(16) Japanese: (*) *nihon (de) wa boku ga sun-da no ga kyōto da* →
Japan LOC TOP I NOM live-PST NML NOM Kyoto COP

nihon wa kyōto da
Japan TOP Kyoto COP

'In Japan, where I lived was in Kyoto.' → 'As for Japan, Kyoto.'

2.1.3 Non-transformational approaches

Not all previous research has explained *unagi*-sentences as being derived from more 'complete' base sentences. What follows is an overview of some approaches that do not rely on derivation to explain *unagi*-sentences.

Shimada (1980) interprets *unagi*-sentences as response utterances, stressing that *unagi*-sentences have common ground as a prerequisite, always answering a question present in the

common ground. Since they are response utterances, their meanings are implied from the question in the common ground. Instead of interpreting copula-less *unagi*-sentences as instances of ellipsis of the copula, Shimada takes the view that the copula is an emphasis marker, unrelated to the forming of *unagi*-sentences.

Ikegami (1981, pp. 35–45) analyses *unagi*-sentences as fundamentally expressing a state of abstract 'closeness,' i.e., a close relation, between the two constituents, symbolizing *boku wa uangi da* as 'I am WITH eel.' Ikegami interprets *de* in the uncontracted formal copula form *dearu* to express 'abstract existence,' i.e., a state, comparing it to the locative particle *de*, which has historical connections with the copula. The character of the relation between the constituents in an *unagi*-sentence, i.e., locative, temporal, or causal etc., is decided by context.

Kiyose (1989, pp. 115–120) concludes that the topic constituent in an *unagi*-sentence is an adverbial phrase, since there is no obvious case relation between the topic and predicate. Koizumi (1990, pp. 170–171), on the other hand, uses a pragmatic approach and concludes that the predicates that can be associated with an *unagi*-sentence, i.e., 'eat' or 'order,' can be retrieved from the implied meaning when the uttered *unagi*-sentence follows the cooperative principle, put forth by Grice (1975).

Sato (1992) interprets *unagi*-sentences as being context-dependent utterances with a topic-comment structure. *Unagi*-sentences are interpreted correctly and function as a part of communication due to their dependence on the common ground. *Unagi*-sentences are used when everything, including a verbal predicate, apart from the focused element, already exists in the common ground. The topic constituent is picked out from all the possible syntactic constituents in the common ground, while the comment part is used to answer a *wh*-question that is present in the common ground. The topic therefore functions as old information and the comment as new. Sato also explains *unagi*-sentences with the structure NP_1 *ga* NP_2 *da* as two constituents being picked out from the common ground, but with the order of the constituents expressing new and old information reversed. Sato even concludes that any NP_1 *wa* NP_2 *da* construction, even prototypical copula constructions, can be interpreted in the same way, only with varying degrees of dependency on the common ground. When the dependency on common ground is low, the prototypical copula interpretation of NP_1 equals

NP_2, or NP_1 is a member of NP_2 becomes the default interpretation. In this case, since the dependence on common ground is low, only a limited number of relations between the constituents in the common ground become available.

Takamoto (1995, 1996) concludes that, since there is no information regarding the semantic-syntactic relation between the NPs in an *unagi*-sentence, only inference based on contextual information can fill in these information gaps to make an *unagi*-sentence a meaningful utterance, just like only inference from context can be used to determine whether 'eel' refers to a type of fish or dish. Takamoto states that the default interpretation of the relation between the NPs of a simple NP_1 *wa* NP_2 *da* copula construction is that NP_1 equals NP_2, or that NP_1 is a member of NP_2. This default interpretation is canceled out by context, yielding a new inferred relation between the NPs as two arguments of a transitive predicate, e.g., 'eat' or 'order.'

Obana (2001) claims that *unagi*-sentences are full utterances on their own, with the basic form of just an NP utterance. The base NP is a focus element that fills a gap created by a given context. NP *wa*, which is interpreted as an adverbial, is added when a contrasting element is needed, and *da* is just an auxiliary, which can be replaced by other auxiliaries (e.g., r*ashii* 'seem like'), or some sentence final particles.

Tokizaki (2003) compares *unagi*-sentences in Japanese with English equivalents and concludes that they are used when the speaker reads off a row of items from a table in the mind, which is created when there is a contrastive topic present. Tokizaki also claims that the same process is involved in gapping expressions.

Yagihashi (2009) tackles the problem of *unagi*-sentences from the perspective of cognitive linguistics and cognitive semantics. He explains that *unagi*-sentences are possible in Japanese due to 'high context culture' and 'hearer responsibility,' which enables hearers to infer meanings of vague utterances from the context they are uttered in, to a high degree. English, on the other hand has 'low context culture' and 'speaker responsibility,' which means that *unagi*-sentence-like expressions cannot be used in the same way. Yagihashi sees *unagi*-sentences as constructional metonymy, where the correct meaning of making a request

can be inferred from context, as allowed by the high context culture and hearer responsibility in Japanese.

Non-transformational approaches have the benefit of not having to rely on a base sentence being reconstructible. However, many of these studies are too brief, or only focus on a specific type or usage of *unagi*-sentences, failing to catch every characteristic of them, and often ending up with the wrong interpretation. For example, *unagi*-sentences are not always used as replies, as Shimada (1980) and Sato (1992) assume. Yagihashi (2009) assumes they are always used to make requests, which not the case, either. Furthermore, the topic marked entity in an *unagi*-sentence does not always mark a contrastive element, as Obana (2001) and Tokizaki (2003) claim. 'Famous for/best for' readings, such as that in (17), do not have any contrastive implications, i.e., no other contrastive entity is inferred by the topic marked constituent. Additionally, in (17), *mikan wa* cannot be interpreted as an adverbial, since without it, the same type of reading does not exist.

(17) Japanese: *mikan* *wa* *ehime* *da*
satsuma.mandarin TOP Ehime COP
'Satsuma mandarins are best from Ehime.'

In any case, no previous research has looked at *unagi*-sentences with both copular and verbal predicates, just as no comparison with Korean has been made.

2.2 *Unagi*-sentences in Korean

Previous research on *unagi*-sentences in Korean are not as numerous as they are in Japanese. What follows is an overview of some of the previous research done on *unagi*-sentences in Korean.

Yang (1996) interprets *unagi*-sentences as being interpreted using the extra-grammatical principle of 'construal rule', according to which semantic values are allowed to be altered or added to, to be able to fit in context. In (18), which cannot be interpreted literally as a copular construction, the rule of construal applies, and 'pleurisy' is first interpreted as 'something related to pleurisy', and then as 'a person who has pleurisy'. The rule of construal can apply to both the first and second NP of an *unagi*-sentence. This allows interpreting *unagi*-sentences as having the same structure as prototypical copular constructions.

(18) Korean: *yengho ka nukmak.yem ita*
Yengho NOM pleurisy COP

'Yengho has pleurisy.'

Nam (2004) classifies *unagi*-sentences (calling them 'situation dependent *ita* constructions' [*sanghwang uyconcek ita kwumun*]) as 'other *ita* constructions,' together with idiomatic uses of *ita* and one word copular sentences. This classification is opposed to 'propositional constructions' (*myengceycek kwumun*) and 'modal aspectual constructions' (*yangsangcek kwumun*) of *ita*. While admitting that the copula does not 'designate' in *unagi*-sentences in the same way it does in prototypic copula constructions, Nam explains that the copula *ita*, as used in *unagi*-sentences, picks out one entity among several and designates it to the subject constituent in relation to contextual information shared by the speaker and listener. She also claims that *unagi*-sentence utterances usually are used to make illocutionary acts such as assertions, requests, promises, warnings, give consent, etc. As support for her claims, Nam mentions examples such as (19), where, she claims, the loss of a repetitional reading in (19b) makes it unnatural compared to (19a), where the illocutionary force of complaining is present.

(19) a. Korean: *yeki to kongsa ya?* (Nam ibid., p. 198)
Here also construction COP

'Is there a construction going on here as well?'

b. Korean: * y*eki nun kongsa ya?* (Nam ibid., p. 198)
Here TOP construction COP

'Is there a construction going on here?'

However, it is safe to say that the unnaturalness of (19b) is merely a contextual one. (19b) is only perceived to be unnatural if a reading of making a complaint is assumed. It is fully acceptable if uttered in a situation where the speaker suddenly realizes that the place he or she is in is actually a construction site. *Unagi*-sentences can therefore hardly be said to contain more illocutionary force than any other type of sentence.

While comparing the syntactic distribution and function of copular constructions in Korean and Chinese, Tan (2014) and Tan & Nam (2013) classify copular constructions with *unagi*-sentence-like properties differently depending on their meaning. Tan and Tan & Nam classify existential and locative constructions, such as (20), differently from 'relational'

constructions, such as (21), whose meaning is dependent on context and where *ita* merely marks a relation between the two constituents.

(20) Korean: *na nun sewul ita* (Tan & Nam ibid., p. 270)
I TOP Seoul COP

'I am in Seoul.'

(21) Korean: *na n khephi ta* (Tan & Nam ibid., p. 271)
I TOP coffee COP

'As for me, coffee.'

However, it is clear that the meaning of (20) is just as dependent on context as (21) is. (20) can be used as a reply to a question regarding where one is from, or where one is going, etc., resulting in the interpretations 'I am from Seoul' and 'I am going to Seoul,' respectively. The Korean copula *ita* can therefore hardly be said to have an existential/locative meaning.

Kim (2015) provides a purely pragmatic view on *unagi*-sentences in Korean. He utilizes the notion of deferred reference of Nunberg (1995) to explain why *unagi*-sentences can be interpreted correctly in context. Kim explains that the sense of the copular predicate in an *unagi*-sentence shifts according to the domain of the subject, so that any violation of selection restrictions is resolved. For example, in the Korean version of the prototypical *unagi*-sentence *na nun cange ta,* the sense of the copular predicate c*ange ta* shifts from 'is eel' to 'is a person who has ordered eel'.

Purely pragmatic approaches, such as the one in Kim (2015) cannot easily explain why the phenomenon of *unagi*-sentences is not equally widespread in all languages. In the case of Kim (ibid.), deferred reference can easily be imagined to be a panlinguistic phenomenon, while *unagi*-sentences clearly are not equally prominent in all languages.

As can be seen from the summary above, previous research on Korean *unagi*-sentences has often been handled as a side product when classifying the functions of the copula. Not much has been said about the form and function of *unagi*-sentences. Furthermore, since they have rarely been the specific focus of research, the versatility of their usage has been overlooked. Classifying copular and verbal *unagi*-sentences as basically the same phenomenon would be especially useful for research on the Korean copula, since if such a

classification is successful, the Korean copula no longer has to be analyzed as having the specific function of making *unagi*-sentences possible.

3 Method

In this chapter, the *what*, *how*, and *why* of the empirical part of the the thesis is covered. First, in section 3.1, the general information about the survey is provided. Then, in section 3.2, each individual sentence type tested in the survey is examined. The chapter is concluded with a discussion on alternative methods in section 3.3.

3.1 The survey

In order to investigate and test various concepts regarding *unagi*-sentences in Japanese and Korean, a quantitative experimental approach using questionnaires consisting of acceptability judgments of various *unagi*-sentences was chosen. This approach was chosen since questionnaires are a relatively cheap and easy way to get a relatively large amount of data that can be analyzed quantitatively (Rasinger 2010, p. 60), and since acceptability judgments can reliably reveal acceptability of syntactic patterns by a population in general, regardless of whether there is high variance between individuals (Cowart 1997, pp. 31–37). Furthermore, research using acceptability judgments sometimes reveals details of patterns that can go unnoticed or underestimated using conventional syntactic research (Cowart ibid., p. 27). The whole experiment consisted of two questionnaire surveys, one in Japanese and one in Korean, targeted at native speakers of Japanese and Korean, and were conducted in Japan and South Korea respectively. The questionnaires tested the acceptability of constructed *unagi*-sentences of various sentence types which were chosen to represent key concepts central to *unagi*-sentence structure and catch potential differences in acceptability between the same *unagi*-sentence constructions in Japanese and Korean.

As Cowart (1997, pp. 46f.) points out, a participant's rating of an individual sentence can vary immensely due to various linguistic and extralinguistic factors that can be very difficult to control for. Instead of trying to suppress the various individual factors, the solution suggested by Cowart was employed here, namely to distribute these factors as evenly as possible between target groups. The Japanese and Korean *unagi*-sentences used in the questionnaires were, therefore, as far as possible, more or less direct translations of each other, while still accounting for various cultural differences such as proper names and food

items. Seven different sentence types were selected. Four items of each type were, for the most part (see 3.2.7 below), introspectively created, totaling 28 targeted items. 28 filler items were also constructed. Filler items function to avoid participants figuring out what the syntactic patterns under investigation are and developing answering strategies that are unrepresentative of their general behavior, while also being able to function as a benchmark to which the acceptability of targeted items can be compared (Cowart ibid., pp. 51f.). Cowart recommends at least twice as many fillers as target items (Cowart ibid., p. 92). However, having as many as 56 fillers would have resulted in unreasonably large questionnaires in the case of this study. Thus, only just as many fillers as targeted items were created, 14 grammatical ones and 14 ungrammatical ones, bringing the total number of items that were tested for acceptability in each questionnaire up to 56. Acceptability of the items was rated using a five-point Likert scale ranging from 'completely unnatural' to 'completely natural.' The internal order of the items was randomized for each individual Japanese-Korean questionnaire pair, save for five 'practice' filler items in the beginning. This was done to ensure that variance in judgment affected by items previously judged, as well as participant fatigue towards the end of the survey were evenly distributed across all items. The random order of the items in each individual questionnaire is thought to make up for the fact that only four token items of each type was created (Schütze & Sprouse [2013, p. 39] recommend eight or more), as well as the fact that every participant was presented with the same token items.

Since a large number of participants is needed to reveal small differences between groups (Cowart 1997, p. 84), as well as between syntactic patterns (Schütze & Sprouse 2013, pp. 39–41), as many as a total of 100 presumably naive participants participated in the survey, 50 from each language group. The only requirements for the participants were that they were native speakers of the targeted language, and that they did not have near-native level proficiency in the other target language. The second requirement was to ensure that the participants' judgment in one language was not influenced by their knowledge of the other. Any proficiency below near-native level in the other language was assumed to not influence the judgment of *unagi*-sentences. Purely monolingual speakers were not targeted due to an assumed difficulty in finding willing monolingual participants, mainly since a large part of the Japanese and Korean populations are assumed to have had some sort of foreign language education. No other information regarding sex, age, profession, or dialect was collected from

the participants, and no effort was made to make a homogeneous participant base regarding these variables. This was in part due to the fact that these variables were assumed to not be relevant to the current study, and also to avoid any ethical concerns regarding collecting and storing sensitive personal data. Furthermore, to ensure that the participants did not feel forced to participate, a clear statement about the complete non-coerciveness of participation and fulfillment of the questionnaire was included in the written instructions. It was also made clear in writing that the purpose of the survey was linguistic research and that the data gathered would not be used for anything else. Since Cowart (ibid., pp. 55–59) shows that there does not seem to be any relation between the criteria that participants are asked to apply when judging sentences and the actual acceptability judgment score, participants where merely asked to intuitively rate the naturalness of the presented items. Two sample items, one grammatical and one ungrammatical, were also presented in the beginning together with sample ratings of 5 and 1 respectively, to set the outmost anchor points of the scale and make sure that every participant uses the scale in the same way.

After the data was gathered, inferential statistical analysis was applied to ensure that any difference in acceptability between the two languages was significant. First, potential scale bias, such as participants not using the whole scale in their judgments, was eliminated by performing a z-score transformation[12] on all participants' judgment scores, as recommended by Schütze & Sprouse (2013, p. 43). Whether a parametric statistical tests, e.g., a *t*-test, could be applied, or a non-parametric test had to be used, depended on whether the data gathered followed a normal distribution. To test whether a normal distribution of the data could be assumed, a Sharpio-Wilk normality test was applied. All statistical calculations were carried out using R (www.r-project.org).

While the main purpose of this study is to compare *unagi*-sentences in Japanese and Korean, it is still important to note that since a factorial method which facilitates isolation of the effect of every variable was not applied, not much could reliably be said about the difference in acceptability between sentence types within one language. The different types of *unagi*-sentences are believed to have various contextual and pragmatic conditions that are not

12 A z-score transformation is done by dividing the difference of each of a participant's judgment scores and the participant's mean score by the standard deviation of all of the participant's judgments, resulting in a standardized measurement of a participant's scores in standard deviation units from the participant's mean (Schütz & Sprouse 2013, p. 43).

isolated and accounted for in the methodology. Items belonging to one sentence type receiving a lower score compared to those of another does not necessarily imply that the first sentence type is less grammatical than the other, since the various contextual and pragmatic conditions might not have been sufficiently met to make the items of the first sentence type fully acceptable and natural.

3.2 Sentence types

The different sentence types were chosen to test as many different permutations of *unagi*-sentences as possible, even some that are already well-established as grammatical, to maximize the chance of finding a difference between Japanese and Korean. Only those variables that were thought to be relevant to the forming of *unagi*-sentences were chosen[13]. Furthermore, only constructions that were conceivably at least somewhat grammatical in at least one of the target languages were chosen, since completely ungrammatical sentences can hardly be said to be *unagi*-sentences.

A factorial approach was deemed infeasible for the current study since a large number of variables was tested. Each targeted variable was instead only tested using one sentence type. The targeted variables for matrix constructions are:

- type of common ground (type 1 and 2 below)
- order of constituents (type 3)
- type of particle (type 4)
- type of predicate (type 5)

13 Differences between Japanese and Korean *unagi*-sentences might have been found, for example, if the usage of subject honorific morphemes in *unagi*-sentences was compared. But this difference could much more easily be explained as a difference in the function of subject honorific morphemes between Japanese and Korean, instead of as a difference in the ability to form *unagi*-sentences. For instance, the Korean subject honorific morpheme *-si-* allows a non-subject topic referent as in (i) (here realized as *-sey-*) (Lee 2004), something not permitted by Japanese subject honorific constructions, e.g., the imperative construction *o- -kudasai* in (i).

(i) Korean: (*senseyngnim un*) *coh.un yeheyng i* *toy-sey-yo*
teacher TOP good trip NOM become-SH-POL

Japanese: * *(sensei wa) ii tabi ni o-nari-kudasai*
teacher TOP good trip DAT SH-become-IMP:SH

'Have a nice trip.'

The targeted variable for relative clause constructions is:

- type of attributive form in the relative clause (type 6 and 7)

Optimally, as is suggested by Cowart (1997, pp. 46–49) and Schütze & Sprouse (2013, p. 38), a factorial design is to be employed, where each targeted grammatical variable (factor) is iterated over, resulting in total number of sentence types equal to the number of variables squared (provided that each variable has two possible values). Factorial designs have the benefit of facilitating isolating targeted grammatical variables from other linguistic and extralinguistic variables. However, as Cowart admits, this approach can only feasibly be employed when the number of targeted variables is small. A factorial design for the current study, where a larger number of variables were tested, would have yielded an unreasonably large amount of sentence types, which would have made the questionnaires unreasonably long and had an immense impact on participant work load. The assumption is that any difference in acceptability that was found between Japanese and Korean with regards to one of the targeted variables would have been the same even if they were tested together with the other variables in a factorial approach. Difference, or lack thereof, between Japanese and Korean regarding the variable of type of common ground, for example, as tested in sentence type 1 and 2 (see below), was assumed to have been the same if tested together with, for example, the variable of constituent permutation, as tested in sentence type 3.

Most of the items in the questionnaires consisted of a targeted sentence with a pre-utterance before it that set the context in which the targeted sentence is uttered and should be interpreted. The pre-utterance consisted of either a question or statement uttered by another speaker to which the targeted sentence was a reply, or a sentence uttered by the same speaker leading up to the targeted sentence. Items without a context setting pre-utterance either had clear contexts from semantic content alone, or had leading clauses that set the context in a similar fashion to a pre-utterance. None of the pre-utterances belonged to the targeted part and were therefore presented in parenthesis. Spoken dialogue was presented in quotation marks. The pre-utterances of the examples presented here are likewise presented in parenthesis and spoken dialogue written within quotation marks.

What follows is a breakdown of the different sentence constructions that were tested together with an example of an item of each sentence type used in the questionnaires. The reason why each sentence type was included and what properties it was aimed at testing are also touched upon. The sentence types tested were:

- Type 1: copula predicates with linguistic common ground
- Type 2: copula predicates with extralinguistic common ground
- Type 3: inversed topics
- Type 4: nominative particles
- Type 5: verbal predicates
- Type 6: genitive attributive relative clauses
- Type 7: copula attributive relative clauses

3.2.1 Type 1: copula predicates with linguistic common ground

This sentence construction is the prototypical *unagi*-sentence structure, and has the base structure [NP_1 TOP NP_2 COP]. All four items of this construction in the questionnaires were presented as a reply to a pre-utterance which provides linguistic common ground that clarifies the relation between NP_1 and NP_2 in the targeted *unagi*-sentence. Such linguistic common ground is required for any pro-form or transformational explanation of *unagi*-sentences that rely on the base sentence being reconstructible (e.g., Okutsu 1978; Kitahara 1984).

This sentence type was chosen as a well-known fully acceptable construction in both languages. While it mainly represents one permutation of the variable of linguistic common ground, it also serves as a default, unmarked permutation for the matrix variables of permutation (sentence type 3), type of particle (sentence type 4), and type of predicate (sentence type 5). One of the items of this type used in the questionnaires is presented in (22).

(22) Japanese: (“*watashi wa tonkatsu ni suru.*”) “*ja, boku wa* (1.1)
I TOP pork.cutlet DAT do then I TOP

soba da.”
buckwheat.noodles COP

Korean: (“*na nun tonkkasu lul mek.-ulkey.*”) “kurem, na nun meymil
I TOP pork.cutlet ACC eat-MOD then I TOP buckwheat

kwukswu ya”
noodles COP

‘(I will have the pork cutlet.) Then I will have the buckwheat noodles.’

3.2.2 Type 2: copula predicates with extralinguistic common ground

This sentence construction has the same base structure as sentence type 1 ([NP_1 TOP NP_2 COP]), but there is no linguistic common ground in a pre-utterance that clarifies the relation between NP_1 and NP_2. Instead, these *unagi*-sentences have to be interpreted based on extralinguistic common ground alone. Pro-form and transformational approaches therefore cannot easily explain sentences with this construction, since the ‘original’ predicate cannot be reconstructed from the common ground. Therefore, the prediction that *unagi*-sentences which rely on extralinguistic common ground are unacceptable should follow from pro-form and transformational approaches.

This sentence construction was chosen to test whether this prediction which follows from pro-form and transformational approaches is borne out differently between Japanese and Korean. The expected outcome is that *unagi*-sentences which rely on extralinguistic common ground are equally acceptable in both Japanese and Korean, contradictory to what pro-form and transformational approaches should predict. (23) is one of the items of this sentence type that was used in the questionnaires.

(23) Japanese: (“*otōsan wa?*”) “*otōsan wa mada kaisha da yo.*” (2.2)
dad TOP dad TOP still company COP MOD

Korean: (“*appa nun?*”) “*appa nun acik hoysa i-ntey.*”
dad TOP dad TOP still company COP-MOD
‘(Where is dad?) Dad is still at work.’

3.2.3 Type 3: inversed topics

This sentence type is similar to the prototypical *unagi*-sentence construction, i.e., type 1, but the order of the constituents is inversed, yielding the base structure [NP_2 COP, NP_1 TOP]. The

process of a topic constituent appearing after the predicate is known as right dislocation. Abe (1999) and Tanaka (2001) argue that right dislocation in Japanese is in fact clause-repetition involving leftward scrambling and deletion in the second clause. Chung (2009) takes a similar approach to right dislocation constructions in Korean.

Unagi-sentences with inversed topics were included in the questionnaire to test whether there is any difference in acceptability of *unagi*-sentences with right dislocation in Japanese and Korean, i.e., whether order of constituents is one aspect in which *unagi*-sentences differ between the two languages. (24) is one of the items of this type.

(24) Japanese: (“*kimi wa tanaka san o shijisuru darō?*”) (3.1)
you TOP Tanaka Mr. ACC support MOD

“*chigau yo. yamada san da yo, boku wa.*”
no MOD Yamada Mr. COP MOD I TOP

Korean: (“*ne nun pak ssi lul ciciha-ci?*”)
you TOP Park Mr. ACC support-MOD

“*ani-ntey. i ssi i-ntey, na nun.*”
no-MOD Lee Mr. COP-MOD I TOP”

‘(You support Mr. Tanaka/Park, don’t you?) No, I support Mr. Yamada/Lee.’

3.2.4 Type 4: nominative particles

In sentence type 4, the topic particle of the prototypic *unagi*-sentence is replaced with a nominative case particle, creating the base structure [NP_1 NOM NP_2 COP]. Replacing the topic particle with a nominative case particle creates an exhaustive listing reading that potentially answers a *wh*-question where the nominatively marked constituent fills the hole of the interrogative word.

This construction was included to test whether the influence of the topic particle in *unagi*-sentences is different in Japanese and Korean. If a topic marked constituent is assumed to be required in an *unagi*-sentence, in any one language, the items with this construction can be expected to be marked as completely unacceptable by the questionnaire participants. (25) is one of the items of this type.

(25) Japanese: (“*dare ga pafe o tanon-da kke? tarō?*”) (4.1)
who NOM parfait ACC order-PST MOD Taro

“*un, tarō ga pafe dat-ta.*”
yes Taro NOM parfait COP-PST

Korean: (“*nwu ka phaluphey lul cwumunhay-ss-ci? chelswu?*”)
who NOM parfait ACC order-PST-MOD Chelswu

“*ung, chelswu ka phaluphey y-esse.*”
yes Chelswu NOM parfait COP-PST

‘(Who ordered the parfait? Taro/Chelswu?) Yes, Taro/Chelswu ordered the parfait.’

3.2.5 Type 5: verbal predicates

In sentence type 5, the copula predicate of prototypical *unagi*-sentences is replaced with a verbal predicate to create the base structure [NP TOP VP]. The term ‘verbal’ is used here to refer to both verbs and inflectional adjectives. Sentences with verbal, i.e., verb and adjective predicates, were gathered in the same type and tested together for two reasons. First, adjectives behave very similarly to verbs in Japanese and Korean. Adjectives make up a predicate by themselves without the help of a copula and inflect for tense and polarity, just like verbs[14]. An adjective predicate was therefore assumed not to behave differently to a verb predicate in comparison to a copula predicate when it comes to the forming of *unagi*-sentences. To keep the number of sentence types small and to reduce the workload for the participants, verb and adjective predicates were gathered under the same sentence type. Second, some things are expressed using an adjective in one language and a verb in the other. For example, the most basic term for ‘like’ is expressed with and adjective (*suki da)* in Japanese but with a verb (*coh.ahata*) in Korean. To facilitate translating sentences to be used in the questionnaire from one language to the other, verbs and adjectives were gathered under the same base construction.

Verbal predicates were included to test the difference of the role of the copula in the forming of *unagi*-sentences in Japanese and Korean. If a copula is assumed to be absolutely required in order to make an acceptable *unagi*-sentence, in any one language, items of type 5

14 The so called ‘nominal adjective,’ or ‘*na*-adjective’ in Japanese does appear together with a copula to form a predicate (e.g., *kirei da* ‘it is beautiful’). However, when the copula attaches to *na*-adjectives, the attributive form of the copula is *na* (cf. *no* for nouns), and there is also an adverbial *ni* form.

are expected to receive a very low score in the questionnaire survey. One of the items of type 5 is presented in (26).

(26) Japanese: (“*ano hito tte kakkoyoku nai ne.*”) (5.3)
that person QT handsome NEG MOD

“*watashi wa kakkoii yo.*”
I TOP handsome MOD

Korean: (“*ku salam, mos sayngkyess-ney.*”)
that person NEG handsome-MOD

“*na nun cal sayngkyess-nuntey.*”
I TOP well handsome-MOD

‘(That person isn’t very handsome, is he?) I think he is handsome.’

3.2.6 Type 6: genitive attributive relative clauses

This sentence construction, as well as the next, contains a relative clause where the relation between the relative clause and the head is context dependent, just like the relation between the two constituents of a prototypical *unagi*-sentence. In type 6, the relative clause is attached to its head using a genitive particle. Since Japanese and Korean are both head final languages, the head and the relative clause modifying it has the shape [NP_2 GEN NP_1] in this case. Okutsu (1978) argues that the Japanese genitive particle *no* is best seen as an attributive form of the copula in many cases, and mentions relativization examples such as (27), and vague examples such as (28), whose meaning depends on context just like prototypical *unagi*-sentences do.

(27) Japanese: *sensei wa kyō oyasumi da* → (Okutsu ibid., p. 131)
teacher TOP today have.off COP

kyō oyasumi no sensei
today have.off GEN teacker

‘The teacher has today off.’ → ‘the teacher who has today off’

(28) Japanese: *torusutoi no hon* (Okutsu ibid., p. 150)
Tolstoy GEN book

‘Tolstoy’s book (the book that Tolstoy wrote / the book that Tolstoy owns / the book about Tolstoy etc.)’

Regarding the genitive particle as an attributive form of the copula in constructions where the relation between the two constituents involved are context dependent avoids having to

assign a wide array of functions to the genitive particle alone. If all of the different possible relations between modifier and head that a genitive phrase can have are said to be described by the function of the genitive particle itself, an infinite amount of functions must be assigned to the genitive particle, since there are infinitely many possible contexts, and, by extension, just as many possible relations between the modifier and head in a genitive phrase. If, in these cases, the genitive particle is instead seen as an attributive form of the copula, the same explanation used to explain the construction of regular *unagi*-sentences can be used to explain the relation between the modifier and head in a relative clause. The burden of expressing this relation is therefore taken off of the genitive particle. Even though the genitive particle is seen as an attributive form of the copula in these cases, it is glossed as GEN in this study, to keep it separate from the other attributive form of the copula (type 7).

This type of relative clauses was included to test whether the hypothesis regarding the genitive particle functioning as an attributive form of the copula is viable for *unagi*-sentence type relations between the relative clause and its head in both Japanese and Korean. This sentence type should in turn yield similar acceptability scores as other *unagi*-sentences if the hypothesis holds. (29) is an example item of this sentence type.

(29) Japanese: (“*foagura o chūmons-are-ta okyakusama wa dare?*”) (6.1)
foie.gras ACC order-SH-PST customer TOP who

“*foagura no okyakusama wa asoko ni irassharu.*”
foie.gras GEN customer TOP there LOC be:SH

Korean: (“*phuakula lul cumunha-si-n kokayknim un nwukwu ya?*”)
foie.gras ACC order-SH-ATT customer TOP who COP

“*phuakula uy kokayknim un ceki ey kyeysye.*”
foie.gras GEN customer TOP there LOC be:SH

‘(Who is the customer who ordered foie gras?) The customer who ordered foie gras is over there.’

3.2.7 Type 7: copula attributive relative clauses

This sentence type is the similar to type 6, but with the genitive particle exchanged for another form of the copula which can be used attributively. The base construction present in these sentences is therefore [NP_2 COP NP_1]. In Korean there are special attributive forms for verbs, adjectives, and the copula, while in Japanese, only the so-called ‘nominal adjectives,’

or ‘*na*-adjectives,’ have a special attributive form (save for *no* for the copula, as discussed above); verbs and all other adjectives have the same form in final predicative as in attributive usage. Furthermore, the present plain form of the Japanese copula, *da,* cannot be used attributively but the present formal form *dearu* can, as illustrated by (30). In Korean, on the other hand, the copula *ita* can bind with the attributive morpheme *-n* to form a relative clause, also illustrated in (30).

(30) Japanese: *tarō wa gakusei da/dearu → gakusei *da/dearu tarō*
Taro TOP student COP student COP Taro

Korean: *chelswu nun haksayng ita → haksayng i-n chelswu*
Chelswu TOP student COP student COP-ATT Chelswu

‘Taro/Chelswu is a student.’ → ‘Taro/Chelswu who is a student’

Since the formal copula in Japanese is used in a more formal style, written sentences with a more formal tone were chosen over spoken dialogue. To ensure that the sentences contained a natural written formal language, written Japanese was taken from the Internet and modified to fit the sentence structure to be tested, and then also translated into Korean.

This sentence type was included as a complement to test the same hypothesis that context-dependent relations between modifier and head can be explained in the same way as regular *unagi*-sentences in both languages. It was also included because context-dependent genitive particle relative clauses do not appear to be as felicitous in Korean as they are in Japanese. One of the items with of this type is presented in (31).

(31) Japanese: *nihon kokuseki dearu hito wa nyūkoku no sai,* (7.2)
Japan citizenship COP person TOP immigration GEN time

jidōka gēto o riyōshite kudasai
automated gate ACC use give:IMP:SH

Korean: *hankwuk kwukcek i-n salam un ipkwuk si,*
Korea citizenship COP-ATT person TOP immigration time

catonghwa keyitu lul sayongha-sipsio
automated gate ACC use-IMP:SH

‘Persons with Japanese/Korean citizenship, please use the automated gate upon immigration.’

3.2.8 Summary

The tested sentence types are summarized in table 1.

Table 1: Summary of tested sentence types

#	Clause type	Targeted variable	Variable value	Basic structure
1	Matrix	Type of common ground	Linguistic	NP_1 TOP NP_2 COP
2	”	”	Extralinguistic	”
3	”	Permutation of constituents	Right dislocated	NP_2 COP, NP_1 TOP
4	”	Type of particle	Nominal	NP_1 NOM NP_2 COP
5	”	Type of predicate	Verbal	NP TOP VP
6	Relative	Type of relative construction	Genitive	NP_2 GEN NP_1
7	”	”	Copular	NP_2 COP NP_1

3.3 Discussion of alternative methods

What follows is a discussion on different methods that might also have been employed to achieve the aims of this thesis, and why they were not. The methods discussed are: corpus studies, interviews, and other qualitative research methods, such as questionnaires with open-ended questions. The choice of type of judgment scale is also discussed and motivated.

First of all, an acceptability judgment questionnaire is not a flawless method. The ecological validity of the data is relatively low since the task of rating sentences according to acceptability is unnatural (Schilling 2013, p. 102). Participants may also have a different acceptance of written sentences compared to spoken sentences (Cowart 1997, p. 64). Since *unagi*-sentences are thought to predominantly be used in spoken discourse (Nam 2004, p. 18), judgment surveys based on spoken material might have yielded different results compared to the written questionnaires used in the current study. However, for the purpose and scope of this thesis, and compared to the shortcomings of alternative methods, an experimental quantitative approach using acceptability judgments of written sentences was deemed most suitable, as stated above.

Corpus studies are an alternative method that yields data with more ecological validity than acceptability judgment questionnaires. However, a corpus-based study would not be suitable for achieving the aims of the current study. Since *unagi*-sentences are thought to be

mostly found in the spoken variants of the languages, corpora of written Japanese and Korean would not show much of interest with regard to the current research aims (save for, for example, passages of dialog in novels, or otherwise informal writing which is close to spoken language). Even if corpora over spoken Japanese and Korean were to be employed, they would have to be very large to be able to contain uses of *unagi*-sentences of various sentence types in a large enough number to make quantitative comparison possible. Such corpora, if they existed, would also need to be comparable in size, recorded language variant, and annotation, etc. to allow for a comparative study between the two languages. Furthermore, even if a large enough number of different *unagi*-sentence constructions were recorded in the corpora, they would have to be annotated as such in the corpora to allow easy extraction of them. If there were no such annotation, differentiating *unagi*-sentences from regular copula predicated sentences, for example, would be too time-consuming for the scope of the current thesis. Therefore, a corpus-based study is not suitable to for the research aims of the current study.

Qualitative research methods, such as questionnaires with open-ended questions and interviews, could also be used to investigate *unagi*-sentences. In open-ended questions and interviews, participants could be allowed to speak freely about why they think *unagi*-sentences are acceptable or not. This could potentially give some insight into the underlying structure of *unagi*-sentences. However, the same problem as with questionnaires with low ecological validity is also present with interviews (Edley & Litosseliti 2010, p. 172), and it is assumed that in open-ended questions, participants would be more influenced by prescriptive grammar, originating in school grammar, which is influenced by European grammars, where *unagi*-sentences are not as a prominent feature[15]. Furthermore, data obtained through qualitative research methods take more time to compile and make it much harder to compare between languages, compared to that of quantitative methods. Qualitative research methods, such as open-ended questionnaires and interviews, were therefore not deemed suitable for the current study.

15 There are reports on *unagi*-sentence-like constructions being possible in European languages as well, such as English (Tokizaki 2003), and French and German (Ikegami 1981, p. 38), although it does not seem to be such a versatile phenomenon as it is in Japanese and Korean.

Even though it is clear that written questionnaires comprising of acceptability judgment tasks are the best approach for the current study, a few words are in order regarding the type of judgment scale employed, as well as alternatives. A Likert scale (called category scale by Cowart [1997]) was employed due to its intuitiveness and ease of data compilation, but other powerful tasks, such as forced-choice and magnitude estimation, could have been employed. In a forced-choice task, the participants are asked to judge which of two items is more acceptable, making it capable of catching subtle differences between sentence types, even with few participants (Schütz & Sprouse 2013, pp. 39–41). However, the size of the difference can only be obtained indirectly by comparing proportions of responses, and there is no way of knowing how acceptable the sentences are in an absolute sense (Schütz & Sprouse ibid., pp. 31f.). This makes forced-choice tasks unsuitable for quantitative comparison between sentence types and participant groups, as was done in the current study. In a magnitude estimation task, on the other hand, the participant is asked to rate the acceptability of an item by freely assigning any positive numerical value to it, either in relation to a sample sentence or to other targeted items. This eliminates the problem of the Likert scale, namely that the interval between the point values might not be perceived as being equally large by all participants (Schütz & Sprouse ibid., p. 34; Cowart 1997, pp. 73f.). However, a magnitude estimation task might in reality be treated just like a Likert scale task by participants, making it no more powerful (Schütz & Sprouse ibid., p. 35). Furthermore, data obtained from magnitude estimation, as well as other ratio scales, such as line drawing (mentioned by Cowart [ibid., pp. 74f.]), are comparatively more cumbersome to compile, making them unsuitable for the current study, where data from a large number of participants was obtained.

3.4 Summary

In order to investigate *unagi*-sentences in Japanese and Korean, and to uncover any potential differences in usage of *unagi*-sentences between the two languages, two acceptability judgment questionnaires were constructed, one in Japanese and one in Korean, consisting of seven targeted sentence types with four items each, as well as an equal number of filler items. The sentence types were constructed to test the difference of the influence of various variables on the acceptability of *unagi*-sentences in the two languages. The targeted variables

were: type of common ground, permutation of constituents, type of particle, type of predicate, and type of relative construction, yielding the seven sentence types: 1. copula predicates with linguistic common ground, 2. copula predicates with extralinguistic common ground, 3. inversed topics, 4. nominative particles, 5. verbal predicates, 6. genitive attributive relative clauses, and 7. copula attributive relative clauses. The method of acceptability judgment questionnaires was chosen due to its ease of data collection and analysis. Inferential statistical analysis was employed on the gathered data to make sure that any differences between acceptability between Japanese and Korean were significant. The data gathered from the questionnaires is presented in the next chapter.

4 Results

In this chapter, the results of the questionnaire studies are presented in two ways, as recommended by Cowart (1997, pp. 111ff.). The first way is by-participant (called by-informant by Cowart), where each participant's judgment scores are averaged over for each sentence type. The means and standard deviations of all the participants' mean scores per sentence type is then calculated. These indicate the overall acceptability of each sentence type in each language, as well as variance in judgment scores between participants, respectively. Although not mentioned by Cowart, basing the means and standard deviations across all participants on each participant's mean judgment score of each sentence type, instead of on each individual judgment, in the by-participant method, is believed to eliminate the illusion of a very high variance of judgment scores, since each participant's judgment can vary even between items of the same sentence type. In the second way, which is referred to as by-item here (it is called by-material by Cowart), the means and standard deviations of all judgments of each item is calculated, allowing a comparison between items belonging to the same sentence type. Sections 4.1 and 4.2 deal with the by-participant and by-item presentations of the data respectively. While the data presented in section 4.1 is corrected, the uncorrected data is presented in section 4.3. A summary of the chapter can be found in section 4.4.

4.1 By-participant

Figure 1 and table 2 show the results of the Japanese and Korean questionnaires as the means and standard deviations of the means of the z-score transformed judgment scores of each individual participant by sentence type, with data corrections carried out for sentence types 1, 2, 3, and 6. The data corrections were carried out by removing items 1.3, 2.1, 3.2, and 6.2 from the data. The reasons for removing these items from the data are discussed in detail in the next section dealing with the by-item data. The uncorrected data is presented in section 4.3.

As is clearly indicated by the error bars in figure 1, a fairly large variance between participants was obtained in the targeted items compared to the filler items. Sentence types 1,

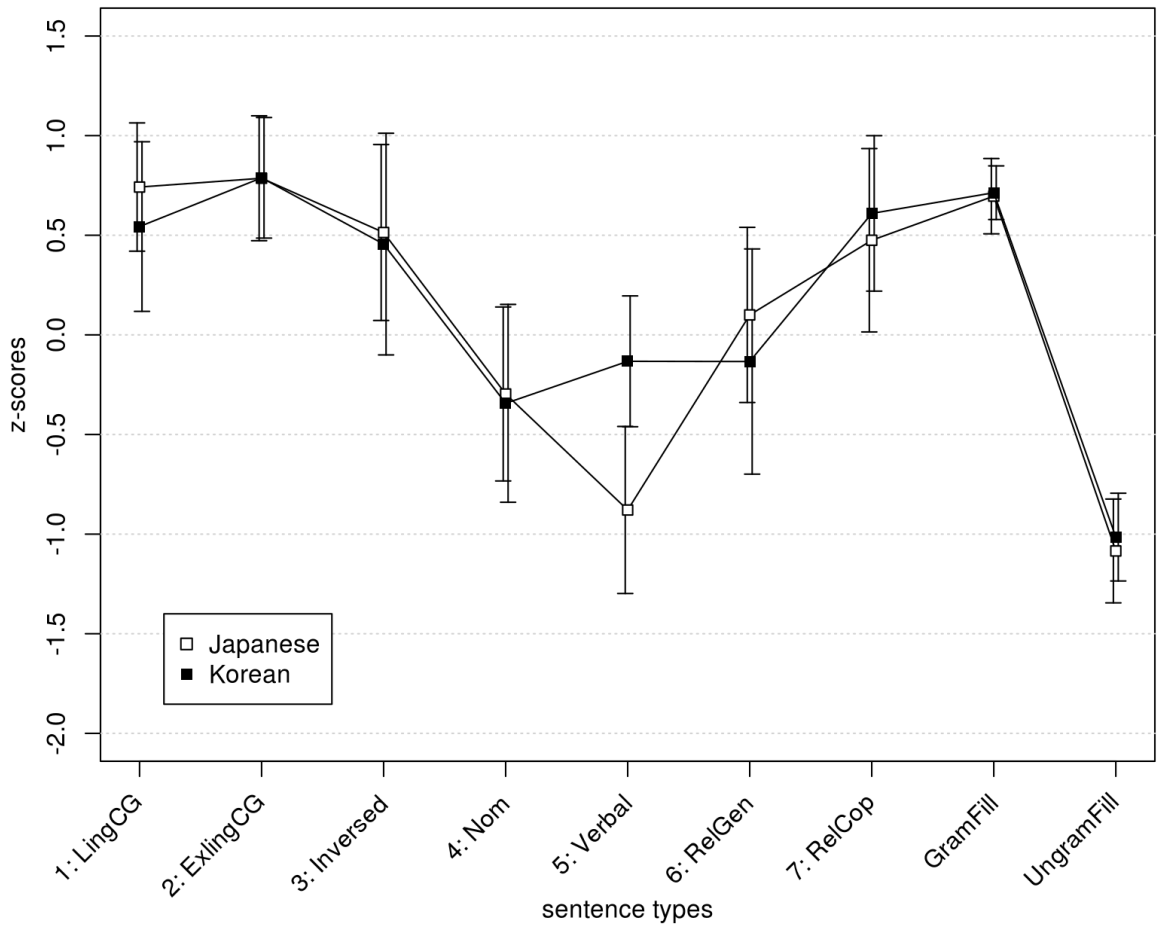

Figure 1: By-participant judgment scores (means and standard deviations; z-score transformed; data corrections for sentence types 1, 2, 3, and 6)

2, 3, and 7 all received judgment scores above average in both Japanese and Korean, comparable to the grammatical fillers, though the judgment scores for sentence type 1 were somewhat lower in Korean than in Japanese, while the situation is reversed for sentence type 7. Judgments for sentence type 4 received similar somewhat below average judgments in both Japanese and Korean. The biggest difference between the judgments made by Japanese and Korean participants can be found for sentence type 5 and 6. Sentence type 5 received an almost average score in Korean but a score almost as bad as the ungrammatical fillers in Japanese, while sentence type 6 received an average score in Japanese but a below average score in Korean, comparable to sentence type 4. As expected, the ungrammatical fillers received the lowest scores in both languages.

Table 2: By-participant judgment scores (z-score transformed; data corrections for sentence types 1, 2, 3, and 6)

Sentence Type	Japanese		Korean	
	Mean	SD	Mean	SD
1: LingCG	0.74	0.32	0.54	0.43
2: ExlingCG	0.79	0.31	0.78	0.30
3: Inversed	0.51	0.44	0.45	0.56
4: Nom	-0.30	0.44	-0.34	0.50
5: Verbal	-0.88	0.42	-0.13	0.33
6: RelGen	0.10	0.44	-0.13	0.57
7: RelCop	0.47	0.46	0.61	0.39
GramFill	0.70	0.19	0.71	0.13
UngramFill	-1.08	0.26	-1.01	0.22

To determine whether the distribution of the z-score transformed by-participant data of each sentence type can be assumed to be of normal distribution, and whether a parametric statistical test, e.g., a *t*-test, can be utilized, Shapiro-Wilk normality tests were conducted, as recommended by Gries (2013, pp. 328ff.). The results are presented in table 3. As can be seen, the null hypothesis that the data comes from a normally distributed population can reliably be rejected for at least one of the languages for all sentence types, except types 4 and 6. The non-normal distribution of the data for each sentence type can also be seen in the non-linearity of most of the Q-Q plots in figure 2 and figure 3.

In order to be able to utilize the same statistical analysis to test the significance of the difference in acceptability in all Japanese-Korean sentence type pairs, a non-parametric test (i.e., one that does not assume that the distribution of the data is normative), namely the Wilcoxon rank sum test (called the *U*-test by Gries [2013]), was chosen, as recommended by Gries (ibid., pp. 331f.). The results of the Wilcoxon rank sum tests, with the corrected data, are presented in table 4. As the data in table 4 shows, the null hypothesis that there is no

difference between the general Japanese and Korean populations in terms of acceptability of each sentence type can be reliably rejected for sentence types 1, 5, and 6 (*p*-value <0.05). The null hypothesis cannot be reliably rejected for the remaining sentence types.

Table 3: Results of Shapiro-Wilk normality tests for by-participant data (z-score transformed; data corrections for sentence types 1, 2, 3, and 6)

Sentence type	*P*-value		*p*<0.05 for at least one
	Japanese	Korean	
1: LingCG	0.002	0.061	Yes
2: ExlingCG	<0.001	<0.001	Yes
3: Inversed	<0.001	<0.001	Yes
4: Nom	0.282	0.407	No
5: Verbal	<0.001	0.409	Yes
6: RelGen	0.505	0.581	No
7: RelCop	0.047	0.016	Yes
GramFill	<0.001	0.124	Yes
UngramFill	<0.001	0.003	Yes

To summarize, the data obtained in this study suggests that there is a significant difference in the acceptability between some *unagi*-sentence types between Japanese and Korean. The types whose acceptability differs between the two languages are: type 1 (prototypical *unagi*-sentences with linguistic common ground), type 5 (*unagi*-sentences with verbal predicates), and type 6 (relative constructions with the genitive particle where there is an *unagi*-sentence-like relation between the relative clause and its head). The next section covers the by-item data.

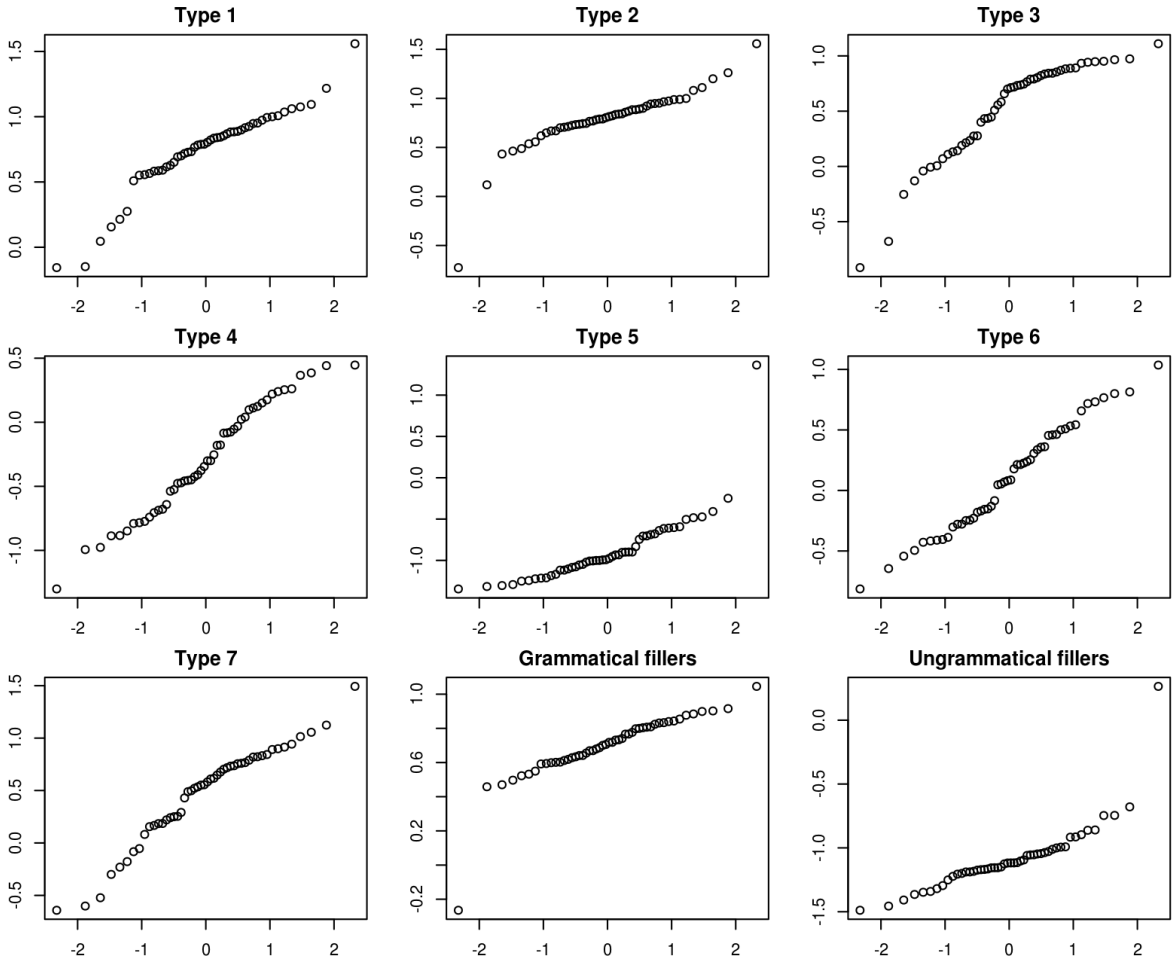

Figure 2: Q-Q plots for by-participant data in Japanese (z-score transformed; data corrections for sentence types 1, 2, 3, and 6; x-axis: theoretical quantiles; y-axis: sample quantiles)

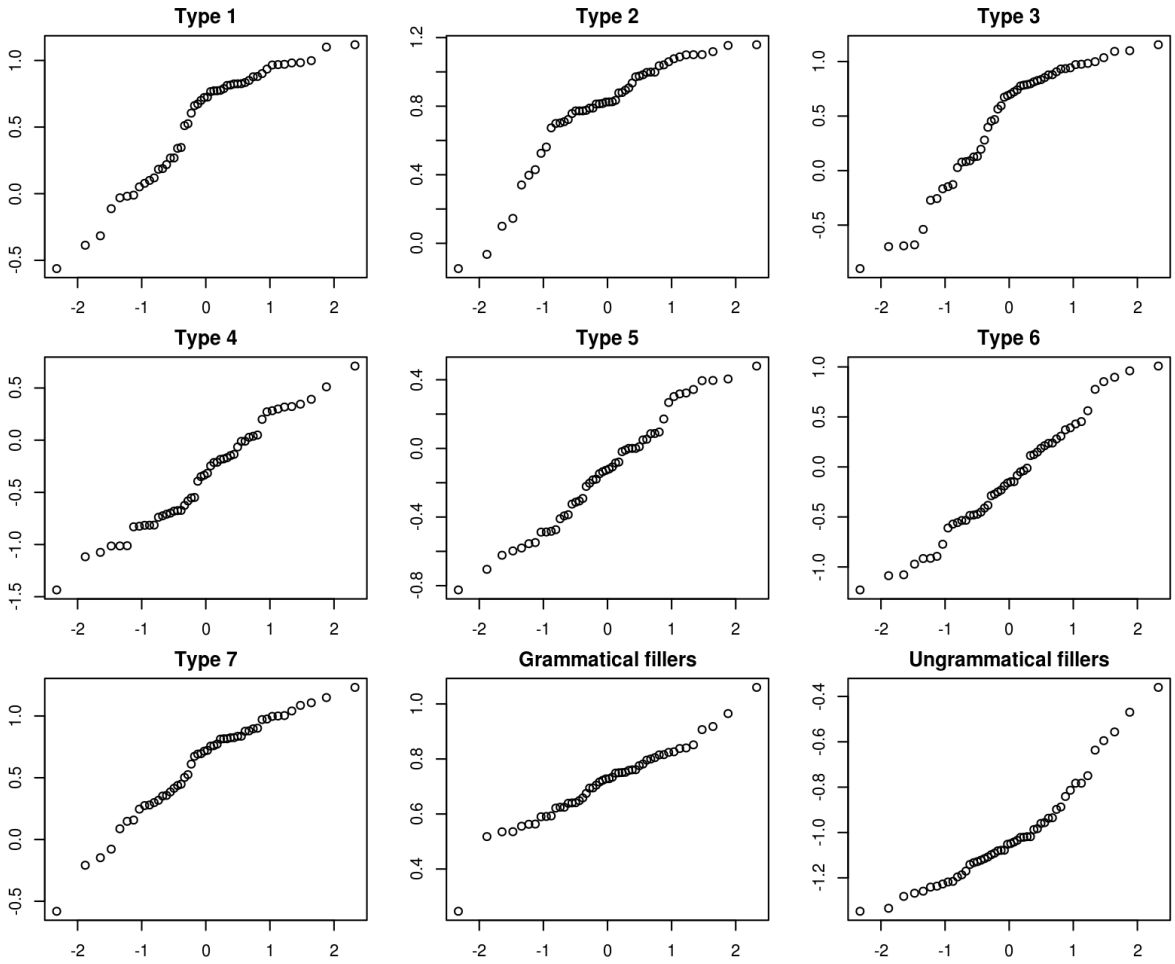

Figure 3: Q-Q plots for by-participant data in Korean (z-score transformed; data corrections for sentence types 1, 2, 3, and 6; x-axis: theoretical quantiles; y-axis: sample quantiles)

Table 4: Results of Wilcoxon rank sum test of by-participant Japanese-Korean pairs (z-score transformed; data corrections for sentence types 1, 2, 3, and 6)

Sentence type	*P*-value	Significant ($p<0.05$)
1: LingCG	0.038	Yes
2: ExlingCG	0.495	No
3: Inversed	0.951	No
4: Nom	0.610	No
5: Verbal	<0.001	Yes
6: RelGen	0.029	Yes
7: RelCop	0.097	No
GramFill	0.901	No
UngramFill	0.067	No

4.2 By-item

In this section, the data is presented in a by-item fashion, for the sake of determining whether the judgment scores per sentence type were evenly distributed over each item. The uneven distribution of judgment scores in Korean only for sentence types 1, 2, 3, and 6 is what lead to the removal of items 1.3, 2.1, 3.2, and 6.2 from the data. Without looking at the data of each sentence type by item, there is no way of telling whether a sentence type received modest judgment scores due to the overall unacceptability of the construction, or whether some individual item, that was unacceptable because of other linguistic or extralinguistic factors, pulled the sentence type mean down. In fact, items 1.3, 2.1, 3.2, and 6.2 received relatively low judgment scores in Korean only, while they were relatively acceptable in Japanese, which pulled the Korean mean down for sentence types 1, 2, 3, and 6, resulting in a statistically significant difference between these sentence types between Japanese and Korean, as shown by the uncorrected data presented in section 4.3. Since only one item received a relatively low score in Korean in these sentence types, it is doubtful whether the judgments of these items truly represented the judgment of the targeted sentence

constructions. These items were consequently removed from the data. In the end, a statistical significance of the difference in acceptability between the various sentence types could only be shown for sentence types 1, 5, and 6, as presented in the previous section.

What follows is a breakdown of the judgments of each of the sentence types to motivate the removal of the above mentioned data, as well as to confirm that the rest of the data can be taken to represent the acceptability of each respective sentence construction, as represented by each sentence type. See the appendix for a list of each individual item.

4.2.1 Sentence type 1

Figure 4 shows the by-item z-score transformed acceptability scores for the items belonging to sentence type 1. As is clearly seen, in Korean, the judgment scores for item 1.3 are significantly lower than the others, and the Korean by-participant score for sentence type 1 is significantly lowered because of this. The variance in judgments for item 1.3 is also very high. The reason why item 1.3 was judged relatively unacceptable by a portion of the Korean participants is unclear. Even though there is a difference in the mean acceptability for the remaining items of type 1 between Japanese and Korean, albeit a smaller difference than for 1.3, there is an uncertainty regarding the statistical significance of the difference in acceptability of sentence type 1 between Japanese and Korean that was obtained in the analysis of the uncorrected data (presented in section 4.3). It is uncertain whether the significance is due to a relative unacceptability of the sentence construction in Korean, or due to the fact that some Korean participants judged only item 1.3 as unacceptable, for whatever reason. To compensate for this uncertainty, item 1.3 was removed from the data in the by-participant analysis done in section 4.1. However, as can be seen from the data in table 4, the difference between Japanese and Korean remained significant even after removing item 1.3 from the data. This will be addressed further in section 5.1.

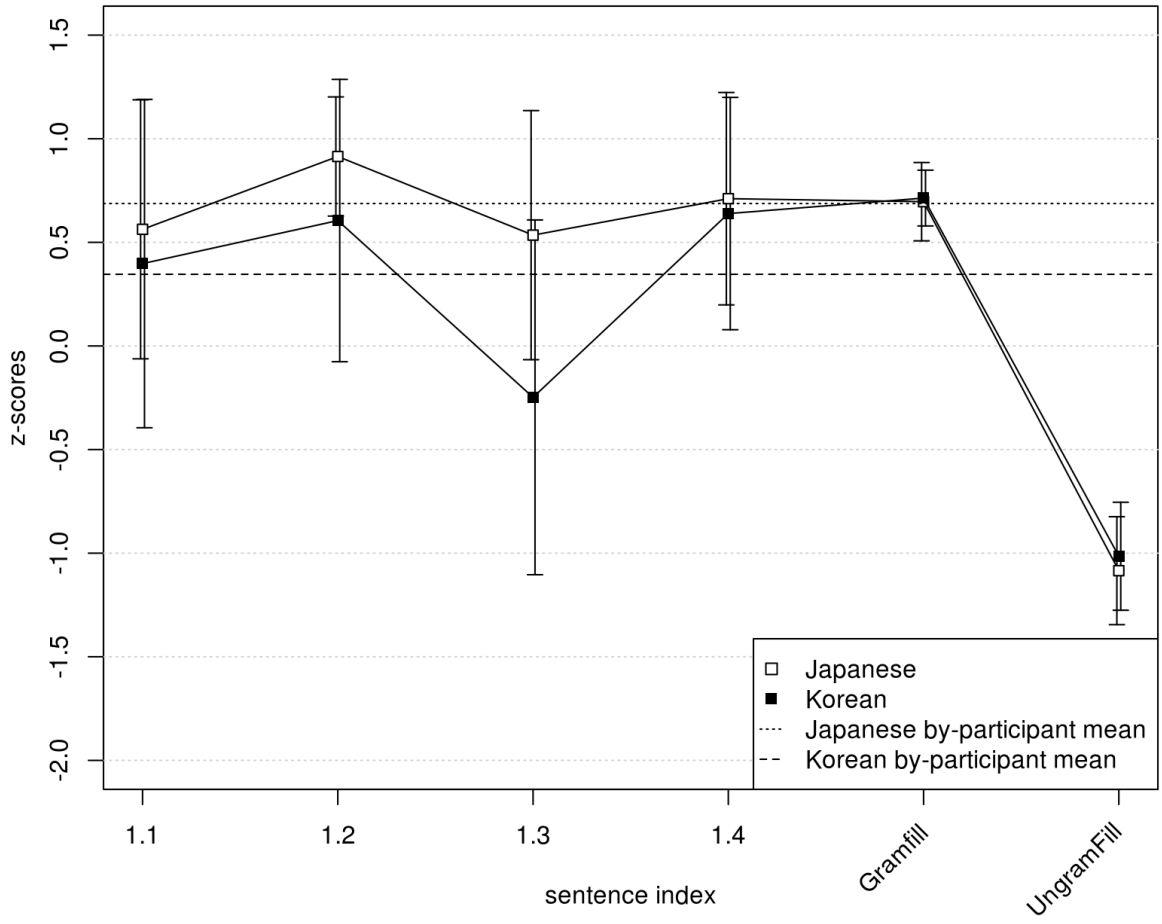

Figure 4: Judgment scores per item of sentence type 1 (means and standard deviations; with by-participant scores for the filler items and uncorrected by-participant means for sentence type 1; z-score transformed)

4.2.2 Sentence type 2

Figure 5 shows the by-item z-score transformed acceptability scores for the items in sentence type 2. A similar situation with sentence type 2, as with sentence type 1, is present here as well, namely that one item, item 2.1 in this case, received a lower judgment score by a portion of the Korean participants, resulting in a higher variance and a lower by-participant score for Korean compared to Japanese for sentence type 2. The reason for the unacceptability of this item in Korean is also unclear. It is, however, certain that the statistical significance of the difference of acceptability between Japanese and Korean for sentence type 2 obtained in the first analysis of the uncorrected data, as presented in section 4.3, can be accounted for due to the varied judgments of item 2.1 in Korean, and not due to a relative unacceptability of sentence type 2 in Korean compared to Japanese, since the by-participant

analysis carried out in section 4.1 with the corrected data showed that there is no statistical significance between the two languages for sentence type 2. The insignificance of the difference between the two languages for sentence type 2 is also apparent from the almost identical mean judgment scores for the remaining items, namely items 2.2, 2.3, and 2.4, between Japanese and Korean.

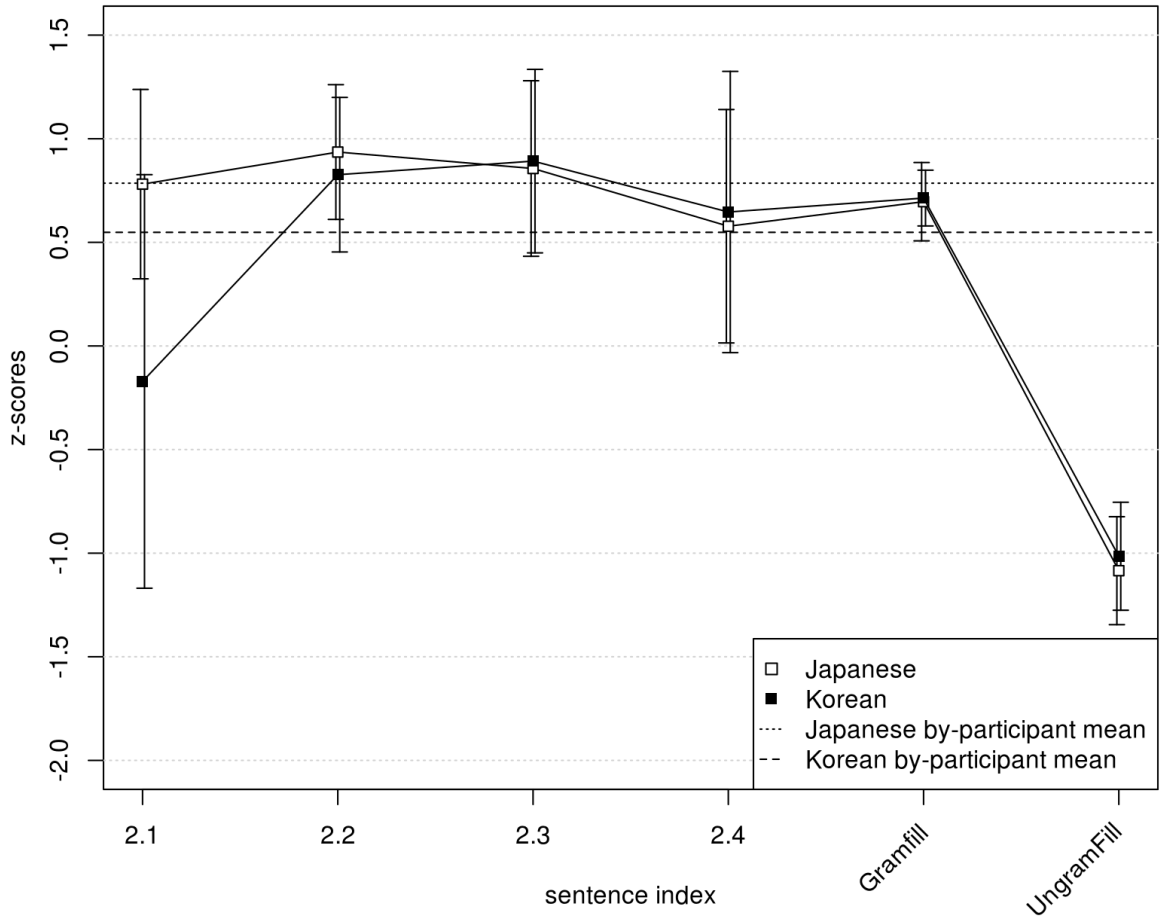

Figure 5: Judgment scores per item of sentence type 2 (means and standard deviations; with by-participant scores for the filler items and uncorrected by-participant means for sentence type 2; z-score transformed)

4.2.3 Sentence type 3

A similar effect is seen in figure 6 for sentence type 3, as in figure 4 and 5. More of the Korean participants judged item 3.2 with a lower score compared to the Japanese participants, while some still gave it high judgment scores, as indicated by the high variance of the Korean judgment scores. However, unlike items 1.3 and 2.1, the lowered judgment scores for item 3.2 can be attributed to a typographical error in the Korean questionnaire. This

justifies the correction of the data by removing item 3.2 from the data in the analysis done in section 4.1. As a result, the original significant difference found between Japanese and Korean with regard to sentence type 3, as shown in the analysis of the uncorrected data presented in section 4.3, is lost in the analysis of the corrected data.

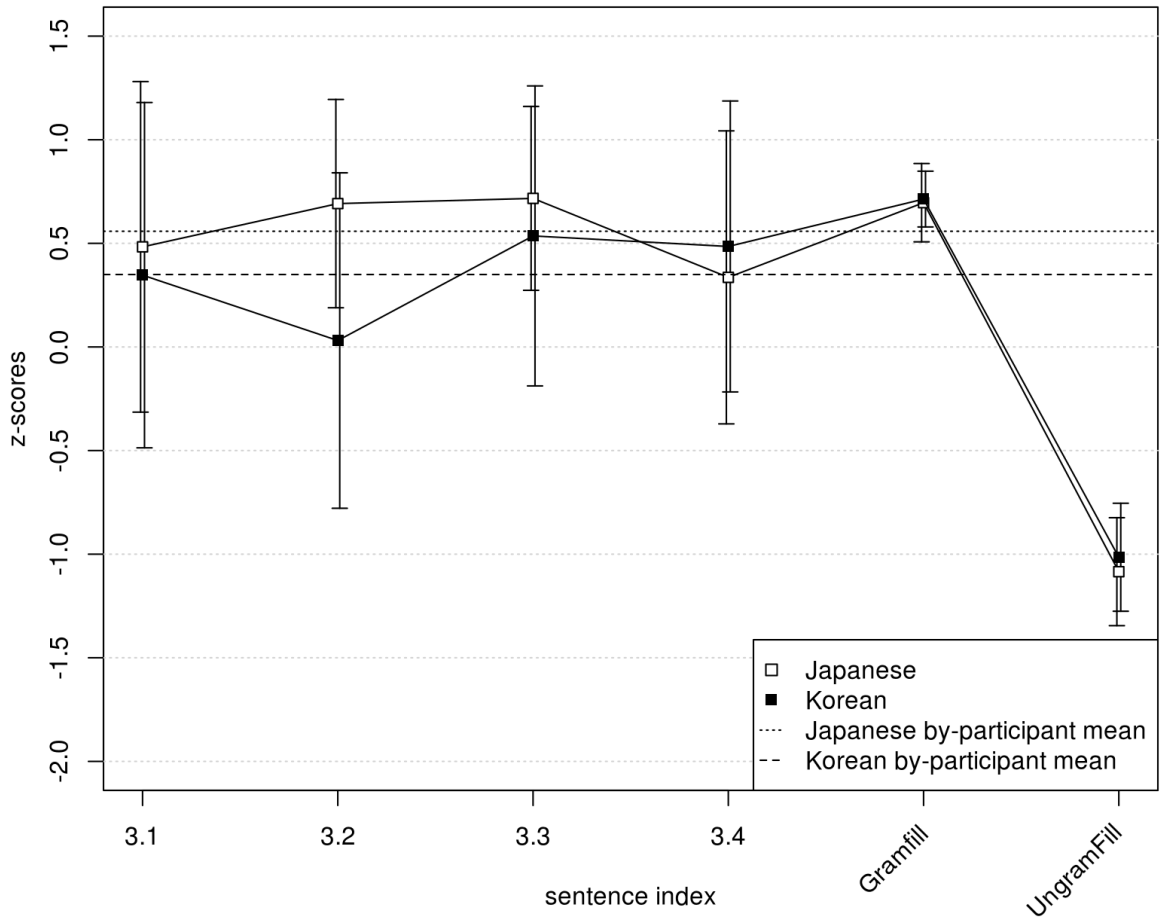

Figure 6: Judgment scores per item of sentence type 3 (means and standard deviations; with by-participant scores for the filler items and uncorrected by-participant means for sentence type 3; z-score transformed)

4.2.4 Sentence type 4

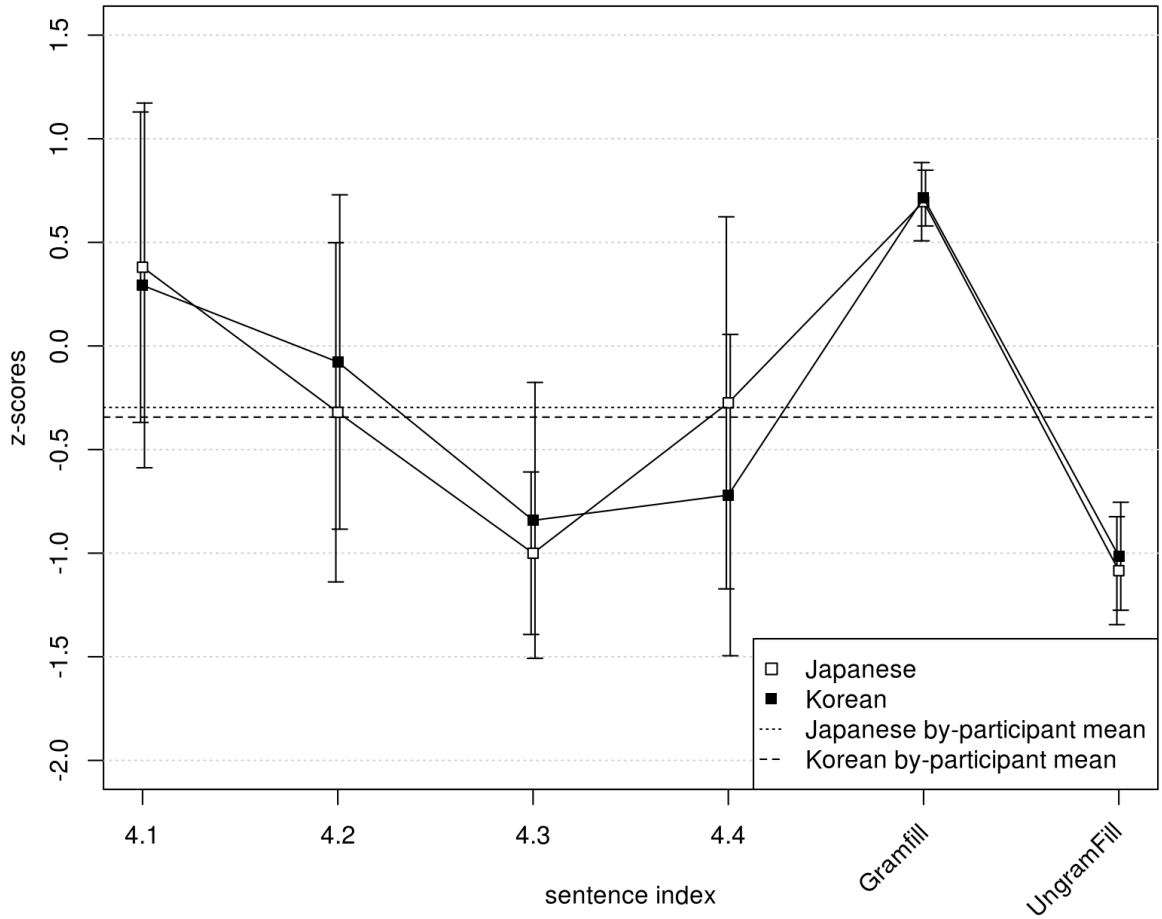

Figure 7: Judgment scores per item of sentence type 4 (means and standard deviations; with by-participant scores for the filler items and uncorrected by-participant means for sentence type 4; z-score transformed)

Figure 7 shows the by-item data for sentence type 4. As can be seen, the items belonging to type 4 received overall relatively low judgment scores in both languages with a general high variance. The between item variation is also high, with item 4.1 receiving the highest scores and item 4.3 the lowest. Since there was no significance found in the difference between Japanese and Korean regarding sentence type 4, no correction of the data with regard to sentence type 4 is necessary, and the individual differences between each item need not be analyzed further. Incidentally, as item 4.1 received a higher score compared to the other items of sentence type 4, one might doubt whether the judgment scores of item 4.1 are truly representative of the acceptability of the underlying construction in sentence type 4. However, this reasoning can only be applied when one item is lower than the mean, not when

it is higher. An otherwise unacceptable construction cannot be acceptable due to other linguistic or extralinguistic factors, only the other way around, unless, of course, the otherwise unacceptable construction is found in an idiom or in a very common expression[16].

4.2.5 Sentence type 5

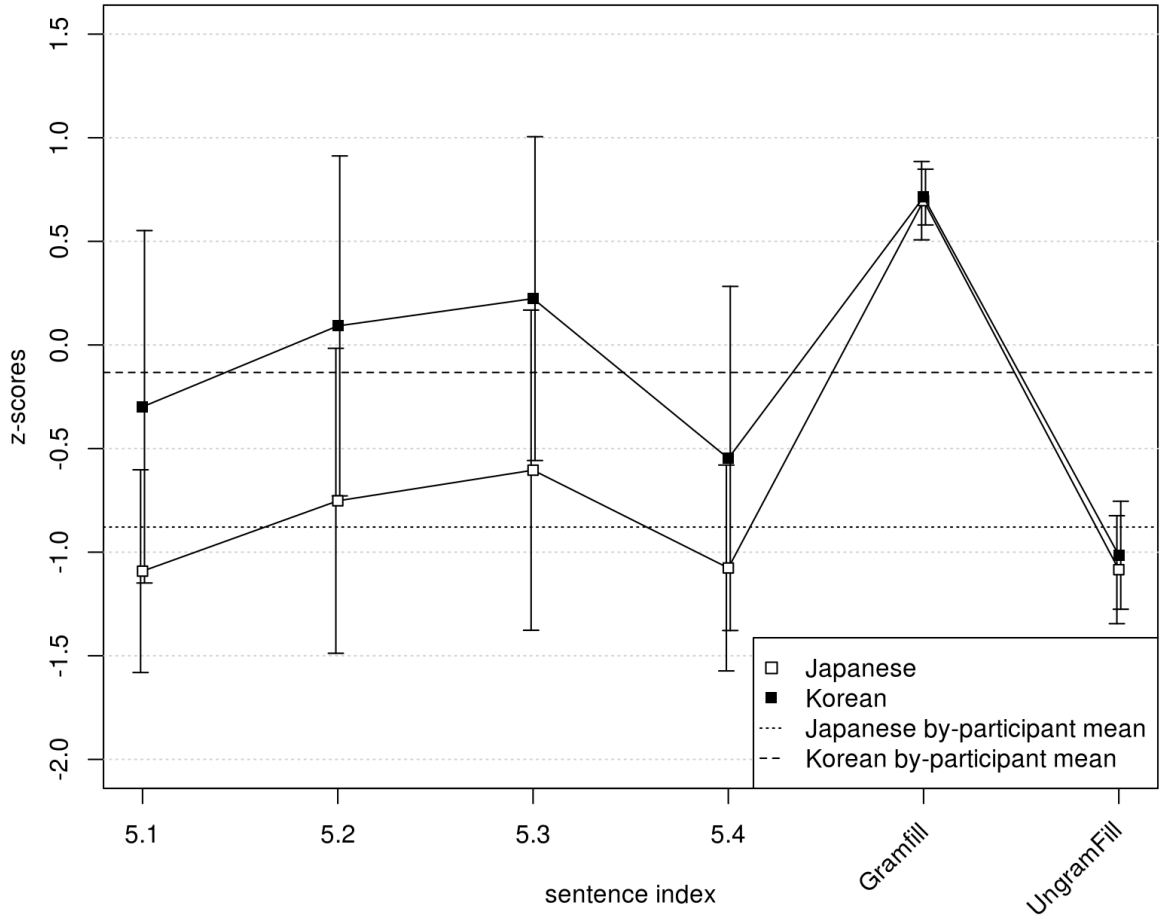

Figure 8: Judgment scores per item of sentence type 5 (means and standard deviations; with by-participant scores for the filler items and uncorrected by-participant means for sentence type 5; z-score transformed)

As can be seen in figure 8, there is a clear difference in acceptability of the items of type 5 between Japanese and Korean even when considering the by-item data. Even though there is a high variance between participants in both languages, the difference between the two languages in regard to mean judgment z-scores is more or less the same across all items.

16 An example of an otherwise unacceptable construction found in a common expression is ‘long time no see’ in English. In this case, the acceptability of the expression ‘long time no see’ cannot be taken as an acceptability of the underlying syntactic construction.

There is also some variance between items in both languages, with items 5.1 and 5.4 receiving lower scores than items 5.2 and 5.3. It is clear from the by-item data that the statistical significance found for the difference in acceptability for sentence type 5 between Japanese and Korean is reliably reflecting a difference in acceptability of the underlying sentence constructions, namely *unagi*-sentences with verbal predicates.

4.2.6 Sentence type 6

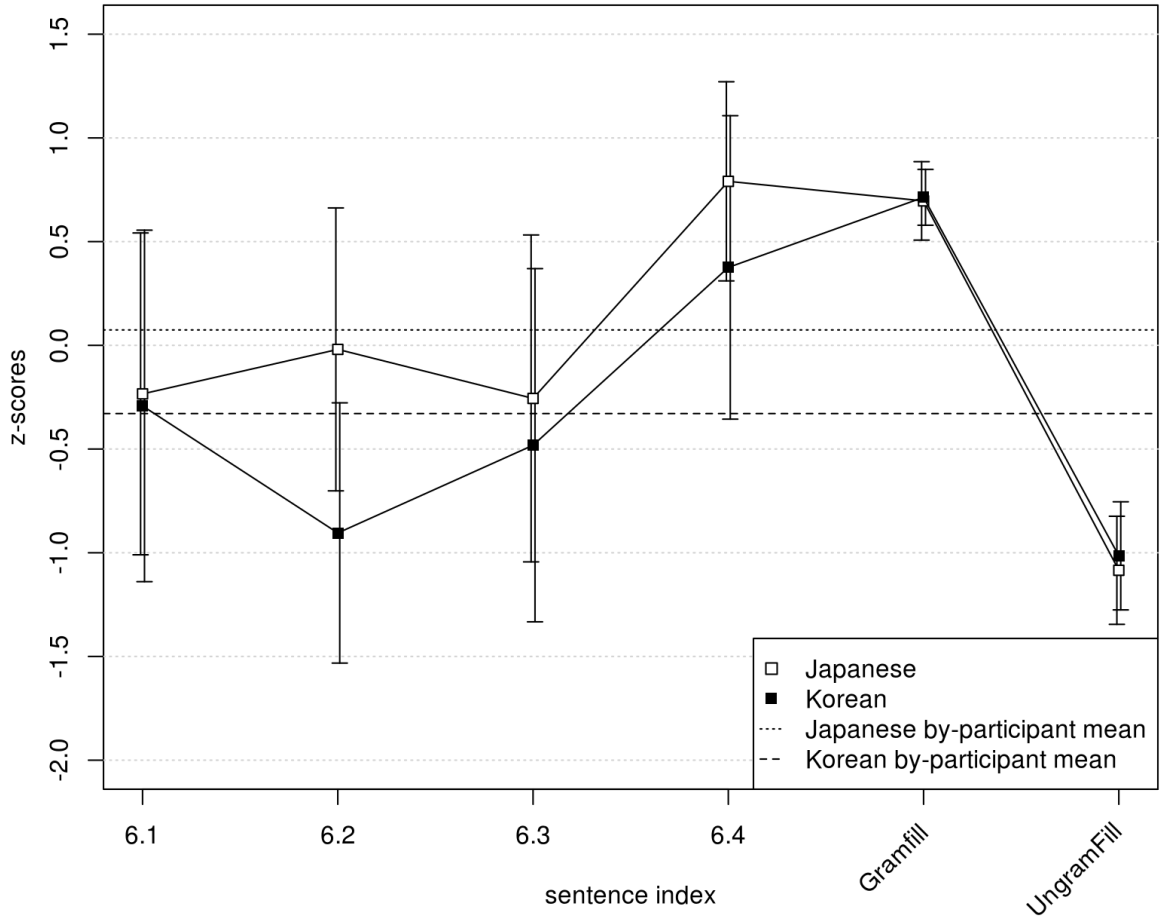

Figure 9: Judgment scores per item of sentence type 6 (means and standard deviations; with by-participant scores for the filler items and uncorrected by-participant means for sentence type 6; z-score transformed)

A high variance between items of type 6 can be seen from the by-item data in figure 9. Item 6.4 received much higher judgment scores compared to the others in both languages. The acceptability judgments made by the Korean participants were overall lower than those made by the Japanese participants, though the difference in judgment scores between the languages

vary between items. There was almost no difference with regard to both the mean and variance for item 6.1. The difference in mean judgment scores between the two languages for items 6.3 and 6.4 are bigger compared to 6.1. The variance is similar for both languages for item 6.3, but it is smaller for the Japanese data compared to the Korean data for item 6.4. There is a dip in the judgment scores provided by the Korean participants for item 6.2, similarly to items 1.3, 2.1 and 3.2 in the by-item data for sentence types 1, 2 and 3. The variance in the data for item 6.2 is not as high, however, as it was for items 1.3, 2.1 and 3.2. There seems to be a relatively larger consensus among the Korean participants that item 6.2 is less acceptable than the other items of type 6, something that cannot be said about items 1.3, 2.1 and 3.2, relative to the other items of the same type. The relative unacceptability of this item in Korean, as well as all of the items of type 6, seem to be explainable in terms of morphology (see section 5.1). However, the reliability of the significant difference found between Japanese and Korean with regard to the construction of sentence type 6 in the uncorrected data analysis (as shown in section 4.3) is still unclear, but the uncertainty seems lower compared to that of sentence types 1, 2 and 3. Item 6.2 was still removed from the data in the corrected data analysis shown in section 4.1. Despite this, the statistical significance of the difference between Japanese and Korean with regard to sentence type 6 remained.

4.2.7 Sentence type 7

The by-item data for sentence type 7 presented in figure 10 shows a higher variance in judgment scores within each item in the Japanese data compared to the Korean data. The consensus among the Japanese participants regarding the items of type 7 is relatively small compared to that of the Korean participants. Furthermore, the judgment means are higher in Korean compared to Japanese for items 7.1 and 7.2, while the situation is reversed for items 7.3 and 7.4. The difference between the two languages is, however, larger for items 7.1 and 7.2, compared to those for 7.3 and 7.4, resulting in a slightly lower mean in the by-participant data for this sentence type in Japanese, as presented in section 4.1. Since there was no significant difference found between the two languages with regard to sentence type 7, no correction of the data and no further analysis of the judgment scores of each individual item is required.

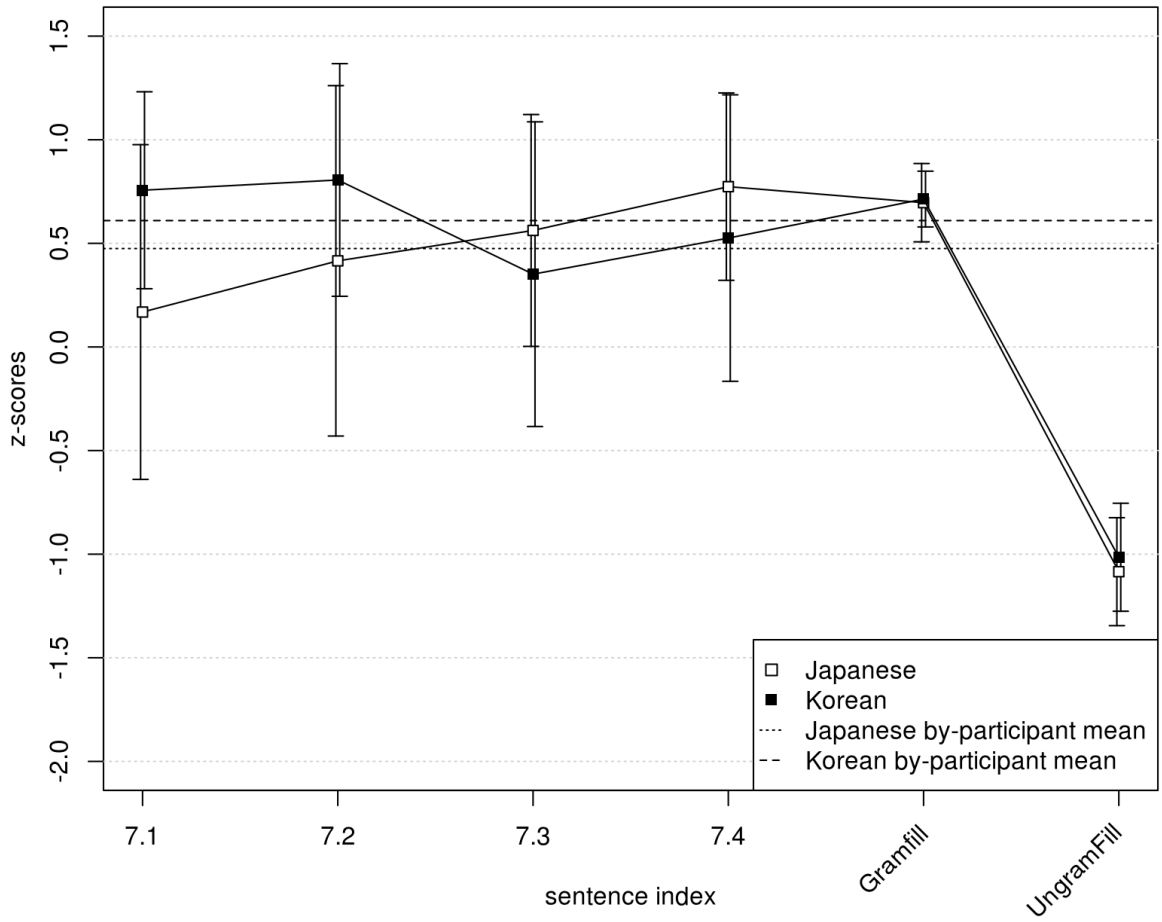

Figure 10: Judgment scores per item of sentence type 7 (means and standard deviations; with by-participant scores for the filler items and uncorrected by-participant means for sentence type 7; z-score transformed)

4.2.8 Filler sentences

Figure 11 and 12 show the by-item data for the grammatical and ungrammatical filler items, respectively. As for the grammatical fillers, items g.2, g.12 and g.14 received some unexpectedly low judgment scores in Korean, and items g.7 and g.9 received some unexpectedly low scores in Japanese. Regarding the ungrammatical fillers, it can be noted that item u.7 received a relatively large portion of relatively good judgment scores in Korean. However, since the overall difference in the judgment scores for the filler items between the two languages is small, and since no statistical difference was found, no further analysis of individual items is required.

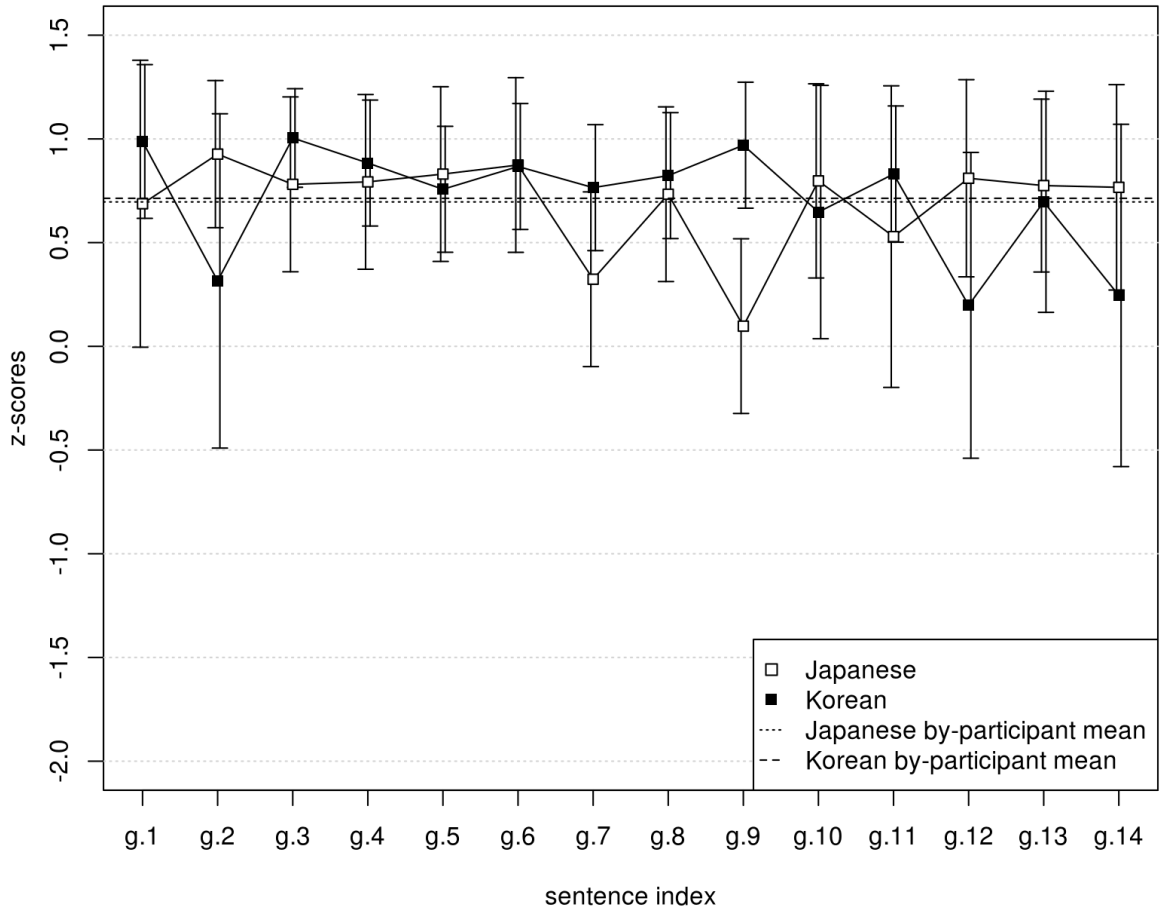

Figure 11: Judgment scores per grammatical filler item (means and standard deviations; with by-participant means; z-score transformed)

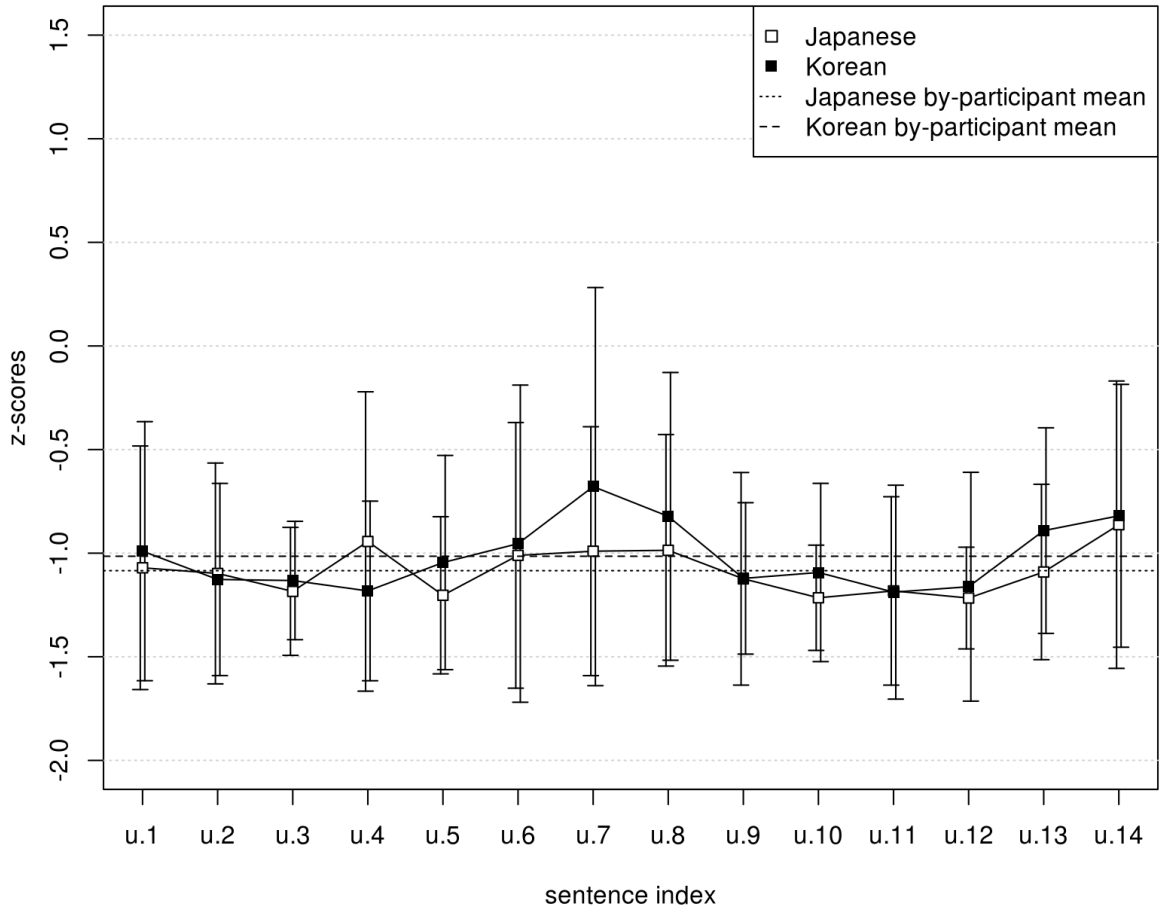

Figure 12: Judgment scores per ungrammatical filler item (means and standard deviations; with by-participant means; z-score transformed)

4.3 Analysis of uncorrected data

This section deals with the uncorrected data of the sentence types where only one item in Korean only received questionable judgments, resulting in potentially misleading statistical significance in differences. Since the reasons why these items received questionable judgments are not clear for all items, the results of the corrected data analysis in section 4.1 should be handled with care. Performing a statistical analysis with some of the data removed also means that the test is not as powerful, since there is less data to work with. Results indicating no significant difference in the corrected data analysis, where a significant difference was found in the uncorrected data analysis, can therefore not be fully trusted. However, correction of the data still sheds some light on the uncertainty regarding the

difference in acceptability between Japanese and Korean regarding sentence types 1, 2, 3, and 6.

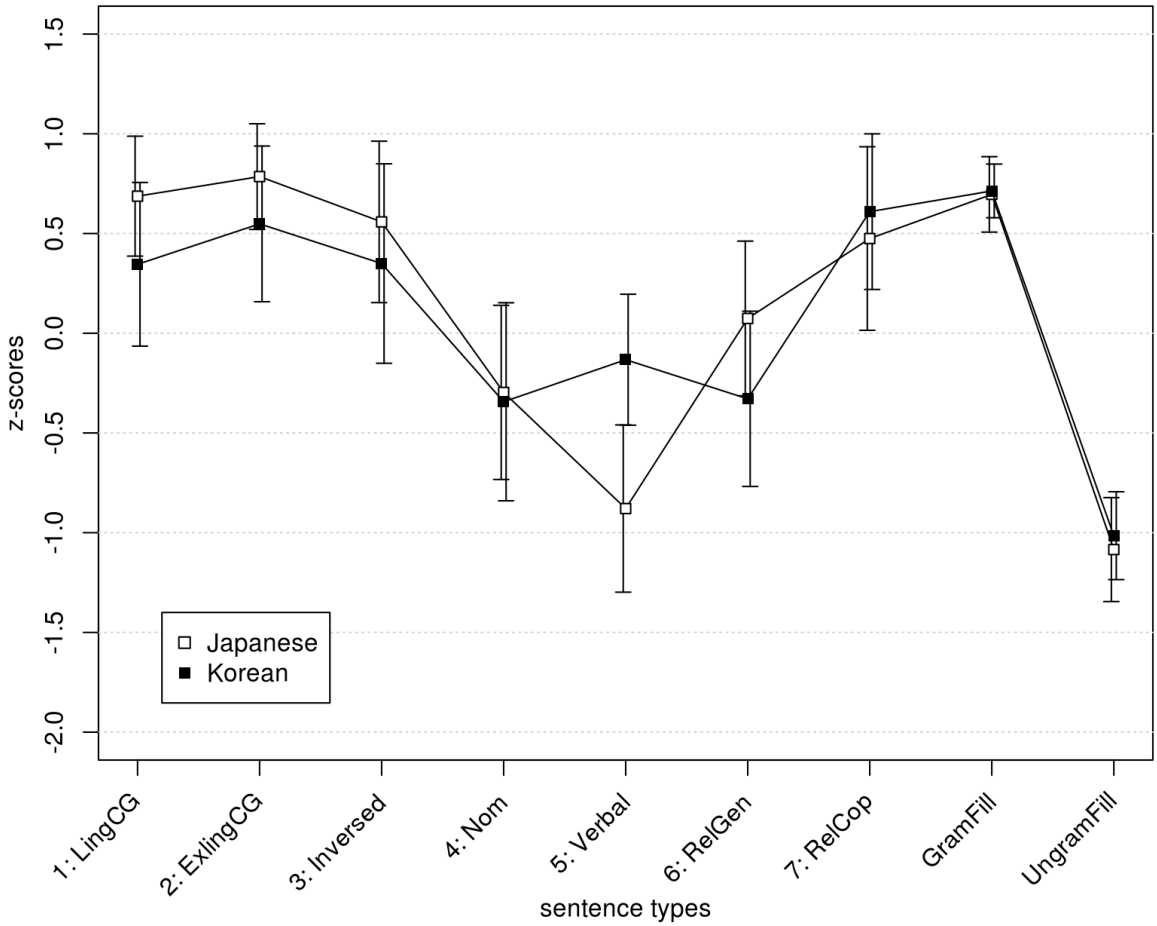

Figure 13: Uncorrected by-participant judgment scores (means and standard deviations; z-score transformed)

The means and standard deviations of the uncorrected data are presented in figure 13 and table 5. As can clearly be seen from figure 13, the difference between the Japanese and Korean means for sentence types 1, 2, 3, and 6 are larger than those in figure 1, and misleadingly so, since items 1.3, 2.1, 3.2, and 6.2 received relatively low judgment scores in Korean only, because of factors believed to be unrelated to the targeted constructions. The relative unacceptability of items 1.3, 2.1, 3.2, and 6.2 in Korean yielded an apparent statistical significance between Japanese and Korean with regard to sentence types 1, 2, 3, and 6 using the uncorrected data, as presented in table 6. The statistical significance of the difference with regard to sentence types 2 and 3 was lost in the corrected data analysis, but

remained for sentence types 1 and 6. Furthermore, there was no difference regarding the outcome of the Shapiro-Wilk normality test when taking the uncorrected data into account.

Table 5: Uncorrected by-participant judgment scores (z-score transformed)

Sentence Type	Japanese		Korean	
	Mean	SD	Mean	SD
1: LingCG	0.69	0.30	0.35	0.41
2: ExlingCG	0.79	0.27	0.55	0.39
3: Inversed	0.56	0.40	0.35	0.50
4: Nom	-0.30	0.44	-0.34	0.50
5: Verbal	-0.88	0.42	-0.13	0.33
6: RelGen	0.07	0.39	-0.33	0.44
7: RelCop	0.47	0.46	0.61	0.39
GramFill	0.70	0.19	0.71	0.13
UngramFill	-1.08	0.26	-1.01	0.22

Table 6: Comparison of results of Wilcoxon rank sum test for by-participant data

Sentence type	Uncorrected data		Corrected Data	
	P-value	Significant ($p<0.05$)	*P*-value	Significant ($p<0.05$)
1: LingCG	<0.001	Yes	0.038	Yes
2: ExlingCG	0.003	Yes	0.495	No
3: Inversed	0.040	Yes	0.951	No
6: RelGen	<0.001	Yes	0.029	Yes

4.4 Summary

To summarize, the results of the empirical survey indicate, after some data correction, that there is a statistically significant difference between Japanese and Korean with regard to prototypical *unagi*-sentences with linguistic common ground (sentence type 1), *unagi*-sentences with verbal predicates (sentence type 5), and relative constructions using genitive particles with *unagi*-sentence-like relations between modifier and head (sentence type 6). There was no statistical significance found with regard to any of the other sentence types, i.e., prototypical *unagi*-sentences with extralinguistic common ground (sentence type 2), *unagi*-sentences with inversed topics (sentence type 3), nominatively marked *unagi*-sentences (sentence type 4), and relative construction using the copula with *unagi*-sentence-like relations between modifier and head (sentence type 7). These sentence types were shown by the data to be equally acceptable in both Japanese and Korean.

The next chapter is concerned with accounting for the statistically significant differences between Japanese and Korean with regard to sentence types 1, 5, and 6, as well as explaining how and why *unagi*-sentences are possible.

5 Discussion

According to the data analysis in the previous chapter, there exist some differences in the acceptability of certain types of *unagi*-sentences between Japanese and Korean. If these differences are investigated, they might give valuable hints towards the underlying mechanics that make *unagi*-sentences possible in Japanese and Korean. This chapter focuses on a deeper analysis of these differences uncovered in the previous chapter and attempts an explanation of *unagi*-sentences with regard to these differences. Section 5.1 mainly discusses the apparent difference with regard to sentence type 1 and 6, while section 5.2 focuses on the clearer difference with regard to sentence type 5, a difference with regard to *unagi*-sentences with verbal predicates. A unifying account of *unagi*-sentences is then provided in section 5.3.

5.1 Interpreting the differences

After correcting the data with regard to sentence types 1, 2, 3, and 6, statistically significant differences between Japanese and Korean with regard to the acceptability of sentence types 1, 5, and 6 were found. This indicates that the difference in acceptability judgment scores between Japanese and Korean can be regarded as a difference in acceptability of the constructions represented by sentence types 1 and 6, just like the construction represented by sentence type 5, the acceptability of which is undoubtedly different between the two languages. The significance of the difference that was found using uncorrected data, was lost with regard to sentence types 2 and 3. The correction of the data with regard to sentence types 1, 2, 3, and 6 was motivated by questionable judgment scores of only one of the four items belonging to each sentence type in Korean only. The significance of the difference with regard to sentence types 1 and 6 remained, however, even after removing the questionable items from the data.

However, the notion that there would be a difference in acceptability in Japanese and Korean with regard to *unagi*-sentences with *linguistic* common ground, as represented by sentence type 1, but no difference with regard to *unagi*-sentences with *extralinguistic* common ground, as represented by sentence type 2, is problematic. It is very hard to imagine, let alone attempt to explain, that *unagi*-sentences in Korean become *more* acceptable if the

linguistic common ground is removed, as the data suggests. Instead, the only logical explanation is that the items constructed for this study to represent *unagi*-sentences with *linguistic* common ground, i.e., items of type 1, were perceived to be overall less pragmatically justified compared to the items constructed to represent *unagi*-sentences with *extralinguistic* common ground, i.e., items of type 2, which included more frequently used expressions and familiar situations. *Unagi*-sentences which require linguistic common ground have more pragmatic requirements that need to be fulfilled to be fully natural, compared to utterances with extralinguistic common ground, which have their requirements fulfilled from more or less semantic content alone. All of the pragmatic requirements needed for an *unagi*-sentence which relies on linguistic common ground can hardly be satisfactorily provided from one written pre-utterance, as was the situation in the questionnaires. This insufficiency of pragmatic requirements for sentence type 1 is also reflected in the Japanese by-participant data, where sentence type 2 received a slightly higher mean judgment score compared to sentence type 1.

The difference between Japanese and Korean can be thought to lie in the influence of prescriptive grammar, which means that prototypical *unagi*-sentences, both with linguistic and extralinguistic common ground, can be assumed to be equally acceptable in both Japanese and Korean, despite differences in the data. It is possible that the Korean participants were more influenced in their judgments by what is acceptable and what is not in English syntax, which they have come into contact with through their studies of English. The Japanese participants are believed to have been less influenced by English prescriptive grammar, and therefore did not judge the relatively less pragmatically justified *unagi*-sentences as low[17]. The judgments of sentence type 2, on the other hand, remained relatively uninfluenced by prescriptive grammar due to the higher familiarity of the expressions and

17 The fact that South Koreans are, compared to Japanese, overall more exposed to English grammar is reflected by a difference in English proficiency between the Japanese and South Korean populations. According to EF English Proficiency Index (English First 2016), South Korea ranks 27th in the world with 'moderate proficiency' while Japan ranks 35th with 'low proficiency.' When studying a syntactically different, non-pro-drop language such as English, Korean and Japanese learners are taught to analyze a sentence in terms of subject, verb, object, etc. This kind of thinking is thought to have been applied to the acceptability judgment task of the native language in the questionnaires by more Korean participants than Japanese participants, who, in comparison, study English less, as evident from the English First rankings. *Unagi*-sentences are not easily be analyzed in terms of subject and predicate, and were therefore rated comparatively lower by the Korean participants.

situations in the items constructed to represent *unagi*-sentences with extralinguistic common ground.

The differences between sentence types 5 and 6, on the other hand, are taken to indicate a difference in acceptability of the constructions involved. The difference is biggest and clearest for sentence type 5, which represents *unagi*-sentences with verbal predicates. It is clear that *unagi*-sentences with verbal predicates are more acceptable in Korean than they are in Japanese. This is the main hint towards the underlying mechanisms of *unagi*-sentences. We will return to this sentence type for a deeper analysis in section 5.2.

The difference found with regard to sentence type 6, which represents *unagi*-sentence-like genitive particle relative constructions, however, can be explained through a difference between the two languages in the usage of the genitive particle in genitive constructions, as well as as an attributive form of the copula in relative constructions. The genitive particle is frequently omitted in Korean if no ambiguity or semantic anomaly is caused by its omission (Sohn 1999, p. 301), while omission of the genitive particle generally does not happen in Japanese. The construction found in item 6.2, which received the lowest mean score in Korean, but an average score in Japanese, is much more felicitously expressed without the use of the genitive particle in Korean, as indicated in (32).

(32) a. Japanese: *kuruma no hito*
car GEN person

Korean: ? *cha uy salam*
car GEN person

‘person with a car’

b. Korean: *cha salam*
car person
‘car person’

However, when there is a genitive or relative construction without any genitive marker, the line between syntax and morphology gets blurred. It is possible that the construction in (32b) is a morphological one. The concept of relative clause constructions where the relative clause is juxtaposed to its head was therefore not tested in this study, where only purely syntactic constructions are of interest.

The data from sentence types 3, 4 and 7 showed no significance in terms of difference in acceptability of the constructions represented by the sentence types. This indicates that there is no difference between the two languages with regard to *unagi*-sentences with inversed constituents, *unagi*-sentences with nominatively marked first constituents, and relative constructions with an attributive form of the copula and an *unagi*-sentence-like relation between the relative clause and its head. Even though sentence type 4 representing *unagi*-sentences with nominatively marked first constituents received a lower by-participant score than most other *unagi*-sentences in both languages, not much can be said regarding the acceptability of nominatively marked *unagi*-sentences relatively to the other *unagi*-sentence types. As previously mentioned, the various linguistic and extralinguistic conditions paramount to an *unagi*-sentence's acceptability were not isolated and accounted for properly. Nominative *unagi*-sentences where these conditions are more satisfactorily fulfilled might have received as good by-participant judgment scores as the other fully acceptable *unagi*-sentences. Indeed, item 4.1 received an above average score in both languages, comparable to the other acceptable *unagi*-sentences.

To conclude this section, this study has shown that various types *unagi*-sentences are equally acceptable in Japanese and Korean. Not only are *unagi*-sentences acceptable when there is linguistic common ground, but also when there is extralinguistic common ground present and the meaning has to be inferred from the semantics of the lexical items alone. This result is problematic for any pro-form or transformational interpretation of *unagi*-sentences that rely upon the 'original' predicate being recoverable. It has also been shown that the order of the constituents in an *unagi*-sentence does not affect its acceptability, i.e., right dislocation is possible in *unagi*-sentences. Furthermore, relative constructions where the relation between the relative clause and its head is dependent upon context, similarly to the relation between the constituents in a prototypical *unagi*-sentence, were also shown to be acceptable in both languages. It is possible to form these context-dependent relative constructions using an attributive copula form in both languages, while it is possible to form them using the genitive particle as well in Japanese. The use of the genitive particle in this regard is somewhat limited in Korean due to the tendency to favor juxtaposition of elements to using the genitive particle in some situations. This means that the Japanese genitive particle is best interpreted as an attributive form of the copula where the relation between head and modifier is dependent

upon context as in an *unagi*-sentence, instead of ascribing unlimited functions to the genitive particle alone. These relative constructions can then be interpreted in the same way as *unagi*-sentences are, only with the first constituent extracted and modified by the copula predicate. We will deal with relativization of *unagi*-sentences more closely in subsection 5.3.4.

5.2 *Unagi*-sentences with verbal predicates

In this study, the biggest difference regarding the acceptability of various *unagi*-sentences between Japanese and Korean was found to be towards *unagi*-sentences with verbal predicates. The difference in the by-participant data between Japanese and Korean with regard to *unagi*-sentences with verbal predicates, as represented by sentence type 5, presented in figure 1, is taken to clearly indicate a considerable difference in acceptability between the two languages with regard to this sentence type. The *unagi*-sentences with verbal predicates that were tested for acceptability in this study were judged almost as ungrammatical as the ungrammatical fillers in Japanese, while they were judged only slightly below average in Korean. The difference in judged acceptability between the two languages is consistent across each individual sentence, as indicated by the by-item data represented in figure 8. None of the items received a particularly low judgment compared to the others in only one language, indicating that the judgment data is representative of the underlying construction represented by the sentence type for both languages. However, the data obtained in this study can only tell us about the relative difference in acceptability of this construction in Japanese and Korean. As previously stated with regard to nominatively marked *unagi*-sentences, not much can be assumed about the absolute acceptability or unacceptability of this construction in Korean, where only average scores were obtained, since the various linguistic and extralinguistic conditions that make them possible were not isolated in regard to the other sentence types. The low judgment scores in Japanese, however, give us important hints as to the infelicitousness of sentences like these in Japanese.

Looking at the data obtained in this study might give the impulse to conclude that all *unagi*-sentences with verbal predicates are impossible in Japanese, and that they are only questionable at best in Korean. However, this is not the case, since sentences such as (33)–(35) are equally natural in both languages. The relation between the topic marked constituent

and predicate in these sentences is ‘illogical,’ i.e., cannot be retrieved from syntax alone, just like in an *unagi*-sentence. However, what can be said about the sentences in (33)–(35) is that they are all generic. Furthermore, all of the predicates in (33)–(35) receive a causative-like reading[18], as indicated by their English translations. We will return to these observations in sections 5.3.1 and 5.3.2 respectively.

(33) Japanese: *konnyaku wa futora-nai*
konjac TOP get.fat-NEG

Korean: *kon.yak un an ccinta*
konjac TOP NEG get.fat

‘Konjac doesn’t make you fat.’

(34) Japanese: *ano kantoku no eiga wa itsumo naku*
that director GEN film TOP always cry

Korean: *ku kamtok uy yenghwa nun hangsang wulkey tway*
that director GEN film TOP always cry become

‘That director’s films always make me cry.’

(35) Japanese: *ano hito wa haratatsu*
that person TOP get.angry

Korean: *ku salam un ccacungna*
that person TOP get.angry

‘That person makes me angry.’

Why are the ‘illogical’ *unagi*-sentence-like expressions in (33)–(35) possible in both languages while the targeted part of items 5.1 through 5.4 tested in the questionnaires, the important parts presented here as (36)–(39), are acceptable in Korean only? The only logical explanation is that the sentences in (33)–(35) and those in (36)–(39) represent different constructions, both being possible in Korean while only the former is possible in Japanese (see footnote 23).

18 Temporal readings are also possible when the topic marked constituent has an explicit temporal semantic content, e.g., ‘Monday’ in (ii). Even though they are not intuitively *unagi*-sentence-like, sentences like (ii) still fall within the definition of an *unagi*-sentence, similarly to (40)–(42).

(ii) Japanese: *getsuyōbi wa okir-are-nai*
Monday TOP wake.up-POT-NEG

‘I cannot wake up on Mondays.’

(36) Japanese: # *watashi wa futte i-nai* (5.1)
I TOP rain be-NEG

Korean: *na nun an o-nuntey*
I TOP NEG rain-MOD

'It doesn't rain where I am.'

(37) Japanese: # *watashi wa itsumo hoeru noni* (5.2)
I TOP always bark MOD

Korean: *wuli*[19] *nun maynnal cic-nuntey*
I TOP always bark-MOD

'My dog always barks.'

(38) Japanese: # *watashi wa kakkoii yo* (5.3)
I TOP handsome MOD

Korean: *na nun cal sayngkyess-nuntey*
I TOP well handsome-MOD

'I think he is handsome.'

(39) Japanese: # *watashi mo ayashii* (5.4)
I also suspicious

Korean: *na to swusanghay*
I also suspicious

'I find it suspicious as well.'

The main difference between (33)–(35) and (36)–(39) is the function of the topic marked constituent. In (33)–(35) the topic-marked entity is what the sentence is about, i.e., it is a topic in the aboutness sense. The predicates in these sentences are therefore interpreted as describing an attribute of the topic, i.e., these sentences have a topic-comment structure. In (33) the predicate 'does not get fat' is described as a property of the topic 'konjac.' Likewise, in (34) 'always cry' is a property of 'that director's films.' The same thing goes for 'that person' and 'get angry' in (35). Who actually gets fat, who does the crying, and who gets angry is not relevant. This is because the predicate in these type of *unagi*-sentences are sentential predicates formed through a generation process which abstracts away the 'original' subject. We will return to this sentential predicate generation process later in section 5.3.2. For now, it is only important to note that topics in (33)–(35) are what the sentences are *about*.

19 *Wuli* is usually thought of as a first person plural pronoun. The first person plural pronoun is often used in genitive constructions to show intimacy with the possessed, even with singular possessors (Na & Choi 2009).

We can call *unagi*-sentences with this topic-comment structure ‘topic-comment *unagi*-sentences.’

In the Korean versions of (36)–(39), on the other hand, the topic marked entities are not what the sentences are about, but rather delimiters that set the frame within which the predicates should be interpreted. Here, the predicates are not interpreted as describing an attribute of the topic marked entities. There is therefore no surface topic-comment structure. ‘Handsome,’ for example, is not an attribute of ‘I’ in (38), but an attribute of a salient entity in the common ground, ‘he’ in this case. ‘I’ merely sets the frame where the predication ‘(he) is handsome’ is to be interpreted, best translated into English as ‘I think that he is handsome.’ As a result, the topic marked entities in (36)–(39) are not topics, in the aboutness topic sense, but frame setters, as described by Krifka & Musan (2012, pp. 31f.). We can therefore call these *unagi*-sentences that have frame-setting topic marked constituents ‘frame setting *unagi*-sentences.’

Since all of the *unagi*-sentences with verbal predicates judged for acceptability in this study were frame-setting *unagi*-sentences, and all of them received greatly unfavorable judgment scores in Japanese, one might be tempted to conclude that frame-setting *unagi*-sentences are impossible in Japanese, only being possible in Korean. This depends on which definition of *unagi*-sentences one chooses to employ. However, as they are defined in this study, sentences such as (40)–(42) definitely qualify as frame-setting *unagi*-sentences, and are completely natural in both languages.

(40) Japanese: *koko wa saite iru*
here TOP bloom be

Korean: *yeki nun phie issta*
here TOP bloom be

‘Flowers are in bloom here[20].’

20 This sentence also has the topic-comment reading available, where ‘here’ is interpreted as the subject of the predicate, giving the translation ‘this place is in bloom.’ When this reading is taken, the nominative case particle can, of course, replace the topic particle to create an exhaustive listing reading, as described below. This is however not possible with the frame setter reading.

(41) Japanese: *kinō* *wa* *sōjishi-ta*
yesterday TOP clean-PST

Korean: *ecey* *nun* *chengsohay-ss.e*
yesterday TOP clean-PST

'I cleaned yesterday.'

(42) Japanese: *kin'yōbi* *wa* *yasumu*
Friday TOP have.off

Korean: *kum.yoil* *un* *swinta*
Friday TOP have.off

'I have Fridays off.'

It is clear that the topic marked entities in (40)–(42) are not topics in the aboutness sense, but frame setters that set the frame in which the predicates are interpreted in. Naturally, 'here' is not the actor of the predicate 'bloom' in (40), just as the entity denoted by 'yesterday' is not what did the cleaning in (41), and it is not 'Friday' that has time off in (42). But since there are no further constituents present in these constructions, and the relation between the frame setter and the predicate cannot be retrieved from syntax alone, i.e., there are no postpositional particles explicitly marking temporal or locative readings[21], they qualify as *unagi*-sentences according to our definition. The difference between the frame setters in (40)–(42) compared to those in the Korean versions of (36)–(39) is their semantic content. The frame setters in (40)–(42) denote time and place, while those in (36)–(39) are personal pronouns, denoting animate entities. We can safely conclude that frame setters are most easily formed using the topic particle alone with entities denoting time and place, as they do in (40)–(42). They are not so easily formed with expressions denoting animate entities. For an animate entity to be able to act as a frame setter only being marked with the topic particle, it has to be clear that the it represents a frame in which a predication can be interpreted. Namely, the frame setter entity must be able to be classified as an experiencer, and the frame it represents must be

21 An interpretation of (40)–(42) involving some sort of ellipsis of temporal or locative postpositional particles (*ni/de* in Japanese; *ey/eyse* in Korean) might be tempting, but this approach proves unsatisfactory, at least in (41), since the temporal markers *ni/ey* do not bind with *kinō*/*ecey* in a purely temporal reading.

(iii) Japanese: * *kinō* *ni* *wa* *sōjishi-ta*
yesterday TMP TOP clean-PST

Korean: * *ecey* *ey* *nun* *chengsohay-ss.e*
yesterday TMP TOP clean-PST

'I cleaned yesterday.'

along the lines of the *place* where the entity is (and can therefore be experienced by the frame-setting animate entity), as in (36), the *things* possessed by or located in the vicinity of the entity, as in (37), or the *opinion* of the entity, as in (38) and (39). The predicates of (36)–(39), 'rain,' 'bark,' 'handsome,' and 'suspicious,' are interpreted within the frames represented by the topic marked first person pronouns[22].

What decides whether a topic marked entity can function as a frame setter is a combination of the lexical content of the topic marked entity and the degree of the topic particle's ability to mark frame setters. To explain the difference between Japanese and Korean in regard to what type of frame setters are possible, we can propose the simple hierarchy of an entity's lexical content in (43), to rank the felicitousness of a topic marked entity to function as a frame setter. The topic particles in Japanese and Korean differ in such a way that the Japanese topic particle can only easily make frame setters with meanings on the higher end of the hierarchy, while the topic particle in Korean can make frame setters of entities that belong to both sides of the hierarchy[23]. It is this ability of the topic particles to be able to create frame setters with entities other than those denoting time and place that is the difference between Japanese and Korean in terms of frame-setting *unagi*-sentences.

(43) time, place > experiencer

The use of experiencer frame setters in Korean is not limited to *unagi*-sentences. (44)–(46) are utterances that contain experiencer frame setters. In these utterances, the predicate

22 Experiencer frame setters can be marked explicitly using expressions such as *nitotte* in Japanese and *hanthey* in Korean, as in (iv).

(iv) Japanese: *watashi nitotte wa kakkoii yo*
I for TOP handsome MOD

Korean: *na hantey nun cal sayngkyess-nuntey*
I for TOP well handsome-MOD

'He is handsome for me.'

23 Experiencer frame setters do not seem to be entirely impossible in Japanese. In fact, the sentences in (36)–(39) are improved if the modal sentence final particle *nā* is added to them. *Nā* expresses a reflection or exclamation made by the speaker. This reading of reflection or exclamation is thought to facilitate establishing the topic marked entity as an experiencer that functions as a frame, i.e., the opinion of the speaker, in which the predication is interpreted.

(v) Japanese: *watashi wa kakkoii nā*
I TOP handsome MOD

'I think he is so handsome!'

does not have an ‘illogical’ relation to its subject, like it does in an *unagi*-sentence; the real subjects of the predicates are all present and marked with the nominative case particle.

(44) ‘Minswu is really handsome.’

Korean: *na nun chelswu ka cal sayngkyess-nuntey*
I TOP Chelswu NOM well handsome-MOD

‘I think Chelswu is handsome.’

(45) ‘It is raining here.’

Korean: *na nun nwun i o-nuntey*
I TOP snow NOM fall-MOD

‘It is snowing where I am.’

(46) ‘My cat always meows.’

Korean: *wuli nun kay ka maynnal cic-nuntey*
I TOP dog NOM always bark-MOD

‘As for me, my dog always barks.

The constructions in (44)–(46) resemble topicalized multiple nominative constructions, exemplified in (47), but cannot be classified as such, since they violate the ‘characteristic property’ constraint, set forth by Yoon (2009). The sentential predicate in a multiple nominative construction must denote a characteristic property of the major subject, in order to be felicitous (Yoon ibid.) (in (47), *chelswu* is the major subject, and *meli ka coh.ta* is the sentential predicate, which denotes a characteristic property of the major subject). Furthermore, contrarily to multiple nominative constructions, the topic particles in (44)–(46) cannot be switched out for nominative case particles to create an exhaustive listing reading, as indicated in (44′)–(46′). This is conclusive evidence that the utterances in (44)–(46) are not multiple nominative constructions, but are non-*unagi*-sentences with experiencer frame setters.

(47) a. Korean: c*helswu ka meli ka coh.ta*
Chelswu NOM head NOM good

‘Chelswu is smart.’

b. Korean: *chelswu nun meli ka coh.ta*
Chelswu TOP head NOM good

‘Chelswu is smart.’

(44′) Korean: * *nay ka chelswu ka cal sayngkyess-nuntey*
I NOM Chelswu NOM well handsome-MOD

‘*I* think Chelswu is handsome.’

(45′) Korean: * *nay ka nwun i o-nuntey*
I NOM snow NOM fall-MOD

‘It is snowing where *I* am.’

(46′) Korean: * *wuli ka kay ka maynnal cic-nuntey*
I NOM dog NOM always bark-MOD

‘*My* dog always barks.’

Naturally, experiencer frame setters cannot appear in Japanese in non-*unagi*-sentences, just as they cannot appear in *unagi*-sentences either, as exemplified in (48).

(48) Japanese: * *watashi wa yuki ga futte iru*
I TOP snow NOM fall be

‘It is snowing where I am.’

This means that the difference between Japanese and Korean found in this study is not a difference with regard to *unagi*-sentences per se, but rather a difference in the function of the topic markers ability to mark experiencer frame setters.

Returning to the dichotomy of topic and frame setter, one way that they differ is that topic marked entities can be marked with the nominative particle and receive an exhaustive listing reading, while entities marked as frame setters cannot. While this is hinted at from the possibility of nominative case marking in multiple nominative construction in (47b), compared to the infelicitousness of (44′)–(46′), it is true for frame setters in general, even temporal and locative ones, as shown in (49) & (49′), and (50) & (50′). Since the topic marked entities in (49) and (50) are frame setters, they become infelicitous when the topic particle is exchanged for nominative case particles in (49′) and (50′).

(49) Japanese: *kyō wa watashi ga gohan o tsukuru*
today TOP I NOM food ACC cook

Korean: *enwul un nay ka pap ul mantunta*
today TOP I NOM food ACC cook

‘I will cook today.’

(49′) Japanese: * *kyō ga watashi ga gohan o tsukuru*
today NOM I NOM food ACC cook

Korean: * *enwul i nay ka pap ul mantunta*
today NOM I NOM food ACC cook

‘*I* will cook today.’

(50) Japanese: *koko wa hana ga takusan saite iru*
here TOP flower NOM a.lot bloom be

Korean: *yeki nun kkoch i manh.i phie issta*
here TOP flower NOM a.lot bloom be

‘There are many flowers blooming here.’

(50′) Japanese: * *koko ga hana ga takusan saite iru*
here NOM flower NOM a.lot bloom be

Korean: * *yeki ka kkoch i manh.i phie issta*
here NOM flower NOM a.lot bloom be

‘There are many flowers blooming *here*.’

This difference between aboutness topics and frame setters holds true even for *unagi*-sentences. In (51) the topic particle is exchanged for a nominative case particle, giving an exhaustive listing reading that answers the question ‘who will have the eel?’ In (52) and (53), on the other hand, where the topic marked entities are frame setters, the topic particles cannot be exchanged for a nominative case particle to give an exhaustive listing reading that answers the questions ‘when...’ in (52) and ‘who...’ in (53). The frame-setting reading is completely lost when the topic particle is exchanged for a nominative case particle, rendering only a subject reading possible. (52) is therefore ungrammatical due to semantic mismatch between subject and predicate, and only the reading ‘I am handsome’ is available in (53).

(51) Japanese: *boku ga unagi da*
I NOM eel COP

Korean: *nay ka cange ta*
I NOM eel COP

‘*I* will have the eel.’

(52) Japanese: # *kin.yōbi ga yasumu*
friday NOM have.off

Korean: # *kum.yoil i swinta*
friday NOM have.off

‘I have *Fridays* off.’

(53) Korean: # *nay ka* *cal* *sayngkyess-nuntey*
I NOM well handsome-MOD
'*I* think he is handsome:'

The problem for frame setters with receiving an exhaustive listing reading with a nominative case particle is not due to a frame setter's inability to be focused, but rather their inability to be subjects, which is what the nominative case particles assign in these cases. Instead, an exhaustive listing reading is possible by dropping the topic particle and prosodically marking the frame setter. This is exemplified in (41′), which can be used to answer the question 'when did you clean?'

(41′) Japanese: *KINŌ* *sōjishi-ta*
yesterday clean-PST
Korean: *ECEY* *chengsohay-ss.e*
yesterday clean-PST
'I cleaned YESTERDAY.'

Naturally, the nominative case particle frame setter test cannot be applied when the topic marked constituent is a clear non-subject. This is because, unlike the topic particles with topicalization, the nominative case particles cannot appear together with postpositional particles nor replace the accusative case particles to create an exhaustive listing reading. An exhaustive listing reading is instead made available when the topic particle is absent, as suggested by Heycock (1993, 2008) for Japanese. Therefore, use of the nominative case particle in an exhaustive listing reading cannot be used to test whether an adverbial or accusative phrase is a frame setter or not, since the nominative particle would never bind to them anyway. This test seems very useful, however, to test whether the topic marked constituent in an *unagi*-sentence is a frame setter or not. We will henceforth refer to topic marked constituents that are non-objects and lack any postpositional particles as 'bare topic marked.' Among these, those that pass the nominative case particle test will be referred to as 'bare topics,' and those that fail, and therefore qualify as frame setters, as 'bare frame setters.'

On a final note, the question remains as to why the topic particle in Korean can mark experiencer frame setters, while the Japanese topic particle cannot. We can hypothesize that this is due to a difference in the ability to retrieve the semantic function of a topic marked entity. Lee & Shimojo (2016) found that the topic particles in Japanese and Korean differ in

terms of the definiteness they mark, namely that the Japanese topic particle marks hearer old entities, while the Korean topic particle marks episode old entities. Lee & Shimojo arrive at their conclusion from a comparison of Bible translations, among other things, where entities salient in discourse, but newly introduced in the current episode, are often marked with *wa* in Japanese but with *ka/i* in Korean. (54) is the relevant part of a Japanese example of this, while (55) is the Korean counterpart (Mark 2:23–24, adapted from Lee & Shimojo ibid., p. 13). While the disciples in (54) and (55) are discourse old entities, they are introduced for the first time in the episode from which (54) and (55) are extracted. Since the disciples are episode new, they are marked with the nominative case particle in Korean, but since they are discourse old, they are marked with the topic particle in Japanese.

(54) Japanese: *deshitachi wa aruki-nagara mugi no ho o tsumi hajime-ta*
disciples TOP walk-while grain GEN head ACC pick begin-PST
'...the disciples began to pick the heads of grain while walking'

(55) Korean: *ceycatul i hamkkey ka-myense milisak ul calla mek.-essta*
disciples NOM together go-while grain.head ACC cut eat-PST
'...his disciples walked with him, picking up and eating some heads of grain'

The Japanese topic particle can therefore be thought of as being able to 'reach further' than the Korean topic particle. We can hypothesize that an entity that is marked as topic in Korean is given more leeway in terms of its syntactic function, compared to a topic marked entity in Japanese. A topic marked entity in Korean is closer and more easily retrievable in the discourse, meaning that its syntactic function is also more easily accessible. In Japanese, on the other hand, the syntactic function of a topic marked entity is more limited, since its proximity in discourse cannot be guaranteed. The Japanese topic particle can therefore not mark a frame setter without the help of typical frame-setting semantic content, i.e., time and place. Another way of looking at it is as a limit in functional distribution. Since the Japanese topic particle has the ability to mark entities that are relatively far away in the discourse, it cannot also have the ability to unassistedly mark frame setters. Conversely, since the Korean topic particle can unassistedly mark frame setters, it cannot mark entities that are further away in the discourse than the current episode.

To summarize this section, the biggest difference between Japanese and Korean with regard to *unagi*-sentences is found in *unagi*-sentences with verbal predicates. While verbal *unagi*-sentences are possible in Japanese when there is a topic-comment structure present, frame-setting *unagi*-sentences are more limited. Frame-setting *unagi*-sentences are only possible in Japanese when the frame setter denotes a frame in time or place, not when the frame setter expresses what someone experiences as a frame. All types of frame-setting *unagi*-sentences are possible in Korean, however. This is due to a difference in what type of frame setters the topic markers in the two languages can mark. To test whether a topic marked entity is a frame setter or a topic in the aboutness sense, the topic particle can be exchanged for a nominative case particle. Only topics can be changed to nominatives, due to frame setters' inability to function as subjects.

5.3 Explaining *unagi*-sentences

In this section, an explanation of *unagi*-sentences in general terms is provided. Subsection 5.3.1 deals with time-stability of the predicate in topic-comment *unagi*-sentences, while 5.3.2 tackles the formation process of topic-comment *unagi*-sentences. Subsection 5.3.2 looks at frame-setting *unagi*-sentences specifically. After subsection 5.3.4, which deals with relativization of *unagi*-sentences, this section is concluded in 5.3.5 with a look at the function of the topic in *unagi*-sentences.

5.3.1 Time-stability and topic-comment *unagi*-sentences

The biggest unifying trait of all topic-comment *unagi*-sentences, be it ones with copular or verbal predicates, apart from a mismatch between literal and context meaning, is a time-stability property of the predicate. We can therefore hypothesize that time-stability of the predicate is a prerequisite for the forming of topic-comment *unagi*-sentences. However, before we can reach that conclusion, we must first establish that *unagi*-sentence predicates are indeed time-stable. First of all, let us take a look at *unagi*-sentences with copula predicates, and confirm that they are indeed topic-comment *unagi*-sentences.

Using the test for frame setters, described in the previous section, we can conclude that all of the *unagi*-sentences with copula predicates tested for acceptability in the questionnaires are topic-comment *unagi*-sentences. Indeed, the bare topic marked constituents in *unagi*-

sentences with copula predicates do not easily take the frame-setting reading, even when they denote time or place. (56a) and (57a) are *unagi*-sentences with topic marked entities denoting time and place, just like (40)–(42), but with copula predicates. Different from (40)–(42), however, is that the topic particle in (56a) and (57a) can be exchanged with a nominative case particle to create an exhaustive listing reading, as in (56b) and (57b). This means that (56) and (57) qualify as topic-comment *unagi*-sentences, provided that our test is valid.

(56) a. Japanese: *kinō* *wa* *ame* *dat-ta*
yesterday TOP rain COP-PST

Korean: *ecey* *nun* *pi* *y-ess.e*
yesterday TOP rain COP-PST

'It rained yesterday.'

b. Japanese: *kinō* *ga* *ame* *dat-ta*
yesterday NOM rain COP-PST

Korean: *ecey* *ka* *pi* *y-ess.e*
yesterday TOP rain COP-PST

'It rained *yesterday*.'

(57) a. Japanese: *koko* *wa* *kage* *da*
here TOP shade COP

Korean: *yeki* *nun* *kunul* *ita*
here TOP shade COP

'There is shade here.'

b. Japanese: *koko* *ga* *kage* *da*
here NOM shade COP

Korean: *yeki* *ka* *kunul* *ita*
here NOM shade COP

'There is shade *here*.'

In fact, copula predicates in general are not easily delimited by frame setters. This conclusion comes naturally from two observations; firstly, delimitation with frame setters requires potential variation in the domain of delimitation, and secondly, copula predicates are inherently time-stable. As the current research on frame setters is scarce, not much can be said about the fine details of the functionality of frame-setting at this time. However, it is clear that alternatives play a role in frame-setting. Jacobs (2001) defines frame-setting along the lines of (58).

(58) In (X Y), X is the *frame* for Y iff X specifies a domain of (possible) reality to which the proposition expressed by Y is restricted. (Jacobs ibid., p. 656)

This means that there is no point in explicitly restricting Y to the frame of X if there are no alternate realities where Y does not hold. Krifka & Musan (2012, p. 32) indeed acknowledge that explicit frame setters always indicate alternatives. Consequently, felicitous use of a temporal frame setter, for example, requires alternation in the domain of time, i.e., the proposition Y restricted to the temporal frame expressed by frame setter X needs to be able to show variation over time, to justify the use of frame setter X in the first place. In general terms, an utterance containing a proposition that is delimited by a frame setter requires said proposition to show variation in the dimension in which said frame setter operates to be felicitous.

Copula predicates, on the other hand, are inherently time-stable, making them naturally unfit for frame-setter delimitation. Pustet (2003, p. 85) concludes that, typologically, the higher time-stability value a given lexical class has, the higher percentage of the lexemes in that class predicate using a copula. Since high time-stability value means little variation in the domain of time, it is only natural that copula predicates are not easily compatible with frame setters, which often operate within the domain of time. Locative frame setters, on the other hand, can be compatible with copula predicates, provided some kind of variation in location is presupposed by the utterance, as in (59), adapted from Jacobs (2001). In (59), the proposition 'Peter was a crocodile' only holds in the (abstract) locative frame of 'in my dream,' it does not hold outside of it, i.e., there is variation in the proposition with regard to the domain of (abstract) location, in which the frame setter 'in my dream' operates.

(59) German: In meinem Traum war Peter ein Krokodil. (Jacobs ibid., p. 657)
in my dream was Peter a crocodile

'In my dream, Peter was a crocodile.'

However, as with the German example in (59), where the preposition *in* is used to express a locative frame setter, locative postpositional particles are also required in Japanese and Korean for explicit locative frame setters[24], as shown in (60), not making them 'bare topic

24 Sentence (40) in the previous section is an exception to this rule. The reason for (40) to allow a bare topic marked locative frame setter can be attributed to the intrinsically locative meaning of the topic marked entity, i.e., 'here.' The frame setter reading is however not admitted when the predicate is copular, as indicated by the nominative case particle test in (57). This can be taken to indicate that copulas also have an

marked.' This is contrastive to temporal frame setters, which are easily expressed 'bare,' i.e., without temporal postpositional particles (see (41) and (42) in the previous section).

(60) Japanese: *watashi no yume no naka de wa Peter wa wani*
I GEN dream GEN inside LOC TOP Peter TOP crocodile
dat-ta
COP-PST

Korean: *nay kkwum sok eyse nun Peter nun ak.e y-esse*
my dream inside LOC TOP Peter TOP crocodile COP-PST
'In my dream, Peter was a crocodile.'

We can therefore conclude that, since copula predicates are inherently time-stable, and since locative frame setters are seldom 'bare topic marked,' copula predicates are not easily delimited with 'bare' frame setters. Instead, any 'bare topic marked' constituent in a copula predicate clause is automatically taken as a 'bare topic,' which also lends itself to exhaustive listing reading by way of exchanging the topic particle for a nominative case particle.

Experiencer frame setters can, however, be used to delimit copular *unagi*-sentences in Korean. This is because there is potential variation with regard to what people experience. (61) can be uttered in a situation where two people are arguing about what something they see in the distance is. In (61), the proposition 'it's a rabbit' is delimited by the opinion or thought of the experiencer frame setter 'I.' Outside of this frame, it is not certain that the proposition holds true. What is seen in the distance might not be a rabbit. In any case, since people are arguing about what it is, 'it's a rabbit' does not hold true in the frame of the other person's opinion.

(61) Korean: *na nun thokki ya*
I TOP rabbit TOP
'I think it's a rabbit.'

In the case of (61), a topic-comment reading is also available, which would also permit exchanging the topic particle for a nominative case particle, creating an exhaustive listing reading. However, with the topic-comment reading, the topic/nominatively marked entity becomes what the sentence is about, while (61) is about the thing seen in the distance, not 'I,' when uttered in the situation imagined above.

inherent pan-locational implication, impeding delimitation using even intrinsically locative frame setters.

Moving on to verbal *unagi*-sentences, their predicates show properties of time-stability as well, since they have a generic reading, which is intrinsically time-stable. Looking once more at the verbal topic-comment *unagi*-sentences of (33)–(35), it is clear that changing the tense and aspect categories from simple present make their previously available *unagi*-sentence reading impossible. The sentences are reintroduced here as (62a)–(64a). (62b)–(64b) and (62c)–(64c) are unacceptable past tense and progressive aspect versions. In other words, only when a verbal predicate is in simple non-past tense/aspect, which makes a generic reading available, is the topic-comment *unagi*-sentence reading possible. One of the characteristics of a generic sentence is time-stability, i.e., there is no change over time. Carlson (1982) observes that generic sentences behave like habitual sentences, in that their truth-values show little change over time. The fact that generic sentences most felicitously take the present tense comes from the fact that the present tense, contrary to past and future tenses, does not contain the implication that things were/are/will be different at a different time (Carlson ibid., p. 167).

(62) a. Japanese: *konnyaku wa futora-nai*
konjac TOP get.fat-NEG

Korean: *kon.yak un an ccinta*
konjac TOP NEG get.fat

‘Konjac doesn’t make you fat.’

b. Japanese: # *konnyaku wa futora-nakat-ta*
konjac TOP get.fat-NEG-PST

Korean: # *kon.yak un an ccy-ess.e*
konjac TOP NEG get.fat-PST

‘Konjac didn’t make you fat.’

c. Japanese: # *konnyaku wa futotte i-nai*
konjac TOP get.fat be-NEG

Korean: # *kon.yak un an cciko iss.e*
konjac TOP NEG get.fat be

‘Konjac isn’t making you fat.’

(63) a. Japanese: *ano kantoku no eiga wa itsumo naku*
that director GEN film TOP always cry

Korean: *ku kamtok uy yenghwa nun hangsang wulkey tway*
that director GEN film TOP always cry become

‘That director’s films always make me cry.’

b. Japanese: # *ano kantoku no eiga wa itsumo nai-ta*
that director GEN film TOP always cry-PST

Korean: # *ku kamtok uy yenghwa nun hangsang wulkey tway-ss.e*
that director GEN film TOP always cry become-PST

'That director's films always made me cry.'

c. Japanese: # *ano kantoku no eiga wa itsumo naite iru*
that director GEN film TOP always cry be

Korean: # *ku kamtok uy yenghwa nun hangsang wulko iss.e*
that director GEN film TOP always cry be

'That director's films are always making me cry.'

(64) a. Japanese: *ano hito wa haratatsu*
that person TOP get.angry

Korean: *ku salam un ccacungna*
that person TOP get.angry

'That person makes me angry.'

b. Japanese: # *ano hito wa haratat-ta*
that person TOP get.angry-PST

Korean: # *ku salam un ccacungna-ss.e*
that person TOP get.angry-PST

'That person makes me angry.'

c. Japanese: # *ano hito wa haratatte iru*
that person TOP get.angry be

Korean: # *ku salam un ccacungnako iss.e*
that person TOP get.angry be

'That person is making me angry.'

We can therefore hypothesize that time-stability of the predicate is central to the forming of topic-comment *unagi*-sentences, regardless of what type of predicate they contain.

Time-stability also explains why copula predicates are most commonly associated with *unagi*-sentences, as evident from all the previous research on *unagi*-sentences that only focus on copula predicates. According to the markedness principle, the more frequent member of a binary opposition tends to be structurally less complex, i.e., unmarked, while the less frequent member tends to be structurally more complex, i.e., marked (Givón 1991). Since verbs function prototypically as predicates, they do so frequently and unmarkedly (Pustet 2003, pp. 17–20). Nouns, on the other hand, since they prototypically function as arguments, appear

less often in predicate position, often requiring a copula to do so (Pustet ibid., pp. 17–20). In other words, nominal predicates are less common, and compositionally more complex than verbal predicates. However, when it comes to *unagi*-sentences, in terms of frequency, the relation is reversed; copular nominal predicates are more common than verbal predicates. When time-stability of a predicate is taken as a prerequisite for the formation of *unagi*-sentences, this contradiction is easily explained. Nominal predicates appear more frequently in *unagi*-sentences since they are inherently time-stable. Verbal predicates, on the other hand, are inherently dynamic and transitory. They therefore require compositional complexity to become time-stable, receiving a generic reading in the process. As a result, more complex time-stable verbal predicates appear less frequently in *unagi*-sentences, compared to less complex copulated nominal predicates, which are inherently time-stable.

We can therefore hypothesize that there must exist a process for forming topic-comment *unagi*-sentence predicates. Since even *unagi*-sentences with copula predicates are more marked than prototypical copula constructions (they are obviously less frequent, if anything), this process must exist for both copular and verbal predicates, only the process creates a greater compositional complexity for verbal predicates than copula predicates, as observed above. This process will be dealt with in the next section.

5.3.2 Forming of topic-comment *unagi*-sentences

Topic-comment *unagi*-sentences are formed by having the predicate go through a process similar to the process that clauses go through to become sentential predicates in multiple nominative constructions, as described by Mihara (1994). Multiple nominative constructions have several things in common with topic-comment *unagi*-sentences. Firstly, they are not derived from another construction. Yoon (2015) shows that the major subject in multiple nominative constructions are not derived from a genitive clause through possessor raising. One of his arguments is that there are multiple nominative constructions that cannot be expressed using a genitive phrase, e.g., (65), adapted from Yoon (ibid.).

(65) a. Korean: *en.ehak* *i* *chwicik* *i* *elyepta* (Yoon ibid., p. 83)
linguistics NOM employment NOM difficult
'In linguistics, getting employed is difficult.'

b. Korean: * *en.ehak* *uy* *chwicik* *i* *elyepta*
linguistics GEN employment NOM difficult
'The employment of linguistics is difficult.'

The fact that *unagi*-sentences cannot be interpreted as being derived from, for example, cleft constructions is established in 2.1.2.

Secondly, both the topic-comment *unagi*-sentence predicate and the sentential predicate in multiple nominative constructions are time-stable. Mihara (1994) shows that the sentential predicate in multiple nominative constructions are stative (i.e., time-stable) by pointing out that dynamic adverbials cannot appear outside of the sentential predicate, as in (66), adapted from Mihara (ibid.). In (66), the verbal phrase adverbial *kubi o kakugo de* 'being prepared to lose their jobs' cannot appear before the major subject, outside of the sentential predicate, while it can appear in two positions inside the sentential predicate.

(66) Japanese: {**kubi* *o* *kakugo* *de}* *minato denki* (Mihara ibid., p. 112)
be.fired ACC preparation INS Minato electrics
wa, {kubi o kakugo de} kumiai ga {kubi o kakugo de} zenesuto
TOP union NOM general.strike
o *okonat-ta*
ACC do-PST
'As for Minato Electrics, the union organized a general strike, being prepared to lose their jobs.'

Lastly, in multiple nominative constructions, the (major) subject receives an exhaustive listing implicature when marked with a nominative case particle (Mihara 1994, p. 109; Vermeulen 2012, p. 197), just like the subject in topic-comment *unagi*-sentences. Since both topic-comment *unagi*-sentence predicates and multiple nominative construction sentential predicates are characterized as being time-stable, one can assume that they are individual-level as well. It is known that individual-level predicates receive an exhaustive listing implicature with a nominative subject (Vermeulen ibid., p. 196). However, this appears misleading for *unagi*-sentences, since *unagi*-sentences can be used to express events. As we know, depending on context, (67) can be interpreted to mean 'I will order an eel,' which can only be classified as containing a stage-level predicate. Clearly individual-level readings are also possible, in the right contexts, such as when used as an answer to the question 'As for you, what do you have a tattoo of?' (67) would mean 'I have a tattoo of an eel.'

(67) Japanese: *boku wa unagi da*
I TOP eel COP

Korean: *na nun cange ta*
I TOP eel COP

'As for me, eel.'

Therefore, the individual-level characteristic of topic-comment *unagi*-sentence predicates does not come from its meaning (depending on the context it is used in, both individual-level and stage-level readings become available), instead, it is best explained as a result of the process that formed it. Mihara (ibid.) similarly reasons that the exhaustive listing reading is forced on nominatively marked subjects in multiple nominative constructions due to the stative reading that the sentential predicate receives in its generation process.

Due to all the similarities between topic-comment *unagi*-sentences and multiple nominative constructions stated above, we can hypothesize that they are formed using similar processes. In Mihara (1994), multiple nominative construction major subjects and their sentential predicates are base-generated in nesting IPs, which accounts for a difference in tense between sentential predicate and the sentence as a whole, though this is not mentioned explicitly. In (68), adapted from Mihara (ibid.), the sentential predicate appears in an IP nested inside the IP of the major subject. Therefore, (68) is able to denote a time-stable individual-level characteristic of 'Mr. Tanaka,' even though the sentential predicate contains an inner predicate in the past tense.

(68) Japanese: [$_{IP}$ *tanaka san ga* [$_{IP}$ *musuko ga sensei* (Mihara ibid., p. 109)
Tanaka Mr. NOM son NOM teacher

o nagut-ta]]
ACC hit-PST

'As for Mr. Tanaka, his son hit his teacher.'

We can therefore hypothesize that topic-comment *unagi*-sentences are generated in nested IPs as well, also forming sentential predicates. (69) and (70) show the nested structure of topic-comment *unagi*-sentences, with copular and verbal predicates respectively. This gives us the general structure of topic-comment *unagi*-sentences in (71).

(69) Japanese: [$_{IP}$ *boku wa* [$_{IP}$ *unagi da*]]

Korean: [$_{IP}$ *na nun* [$_{IP}$ *cange ta*]]

(70) Japanese: [$_{IP}$ *konnyaku wa* [$_{IP}$ *futora-nai*]]

Korean: [$_{IP}$ *konyak un* [$_{IP}$ *an ccinta*]]

(71) [$_{IP}$ NP [$_{IP}$ PRED]]

The fact that the predicate of topic-comment *unagi*-sentences forms a sentential predicate in an IP separate from the subject explains its time-stability, just like with sentential predicates in multiple nominative constructions. Whatever the time-stability value inside the inner IP is, it does not project outside of it; the outer IP is time-stable on its own. Furthermore, since copulas are inherently time-stable, nothing is forced upon them in the forming of a sentential predicate, making them less marked. Verbal predicates, on the other hand, being inherently transitory, need to have time-stability forced upon them when they form a sentential predicate, making them more marked.

The sentential predicate approach of *unagi*-sentences also explains its context dependency. In the process of forming a sentential predicate, the subject which would otherwise be associated with the predicate in its 'original form' is unnecessary, and is absent from both deep structure and surface structure. In this way, the syntactic structure of the predicate in its 'original form' gets abstracted. What remains is its semantic content, which the new sentential predicate then predicates about the subject, in a way that is filled in by context.

One might argue, that the original subject of the predicate only disappears from the surface structure, and that it still remains in the deep structure, since they can be made to appear explicitly in utterances such as (72). If this is true, *unagi*-sentences would be multiple nominative constructions, with the second nominative merely being realized as a zero pronoun.

(72) a. Japanese: *ano eiga wa Ø* n*aku*
that film TOP cry

'That film makes you cry.'

b. Japanese: *ano eiga wa miru hito ga naku*
that film TOP watch person NOM cry

'That film makes the person who watches it cry.'

However, multiple nominative constructions and verbal *unagi*-sentences differ on one key point. Multiple nominative constructions do not have to have a generic reading, while verbal *unagi*-sentences do. Imagine a situation where two films are screening at the same time, and that a person can directly observe both audiences watching each film. If the audience watching one of the films is crying, the observer may utter (73), which is in the progressive aspect, something that is impossible for the generic reading necessary for verbal topic-comment *unagi*-sentences (see section 5.3.1).

(73) Japanese: *ano eiga wa mite iru hito ga naite iru*
that film TOP watch be person NOM cry be
'As for that film, the people who are watching it are crying.'

This means that verbal topic-comment *unagi*-sentences are structurally different from multiple nominative constructions. We can therefore assume that the original subject of the predicate in its 'original form,' before it forms a sentential predicate in a topic-comment *unagi*-sentence, does not exist even in the deep structure of the complete topic-comment *unagi*-sentence. This is assumed to be true both for topic-comment *unagi*-sentences with copula predicates, as well as those with verbal predicates.

Furthermore, the generation process of topic-comment *unagi*-sentences described above is also compatible with the fact that, while copular *unagi*-sentences have an unlimited number of possible interpretations and meanings, verbal *unagi*-sentences are limited to a causative-like meaning, as observed in section 5.2. As per the generation process described above, the generated sentential predicate merely associates its semantic content with the subject in some way that is retrievable from context. In copular *unagi*-sentences, it is two noun phrases that are put in relation to each other, since copulas have noun phrases as their predicate nucleus (the other noun phrase is the topic). As a consequence, the number of possible meanings of copular *unagi*-sentences is unlimited, since the number of ways two noun phrases can relate to each other is limited only by context. With verbal *unagi*-sentences, on the other hand, since the predicate nucleus is a verbal, it is a noun phrase and a verbal that are put in relation with each other. The number of ways a noun phrase and a verbal predicate can relate to each other should be as many as there are syntactic functions (cases) for noun phrases in verbal predicate constructions. However, since the subject in an *unagi*-sentence is 'bare,' i.e., not

marked with any postpositional particle, we are limited to the number of syntactic functions a bare noun phrase can have. Iwasaki (2013, p. 237f.) states that the particles *ga*, *o*, and temporal *ni* (sometimes) are dropped when topicalized with the topic particle *wa,* i.e., subject, object and temporal functions can appear as 'bare topics.' The same situation holds for Korean. Subject (agent) and object are out from the start due to the definition of *unagi*-sentences (see then definition (7) in subsection 1.4.1). This leaves only the temporal function, which is indeed possible (see footnote 21), and subject in the form of causer. In other words, only the function of causer is 'left' for a bare topic constituent in a verbal topic-comment *unagi*-sentence, which has the natural consequence that verbal topic-comment *unagi*-sentences receive a causative reading.

Finally, the process by which topic-comment *unagi*-sentence predicates are formed differs from the process by which sentential predicates are formed on one important point. Namely, the predicate in multiple nominative constructions can deviate from the simple non-past tense/aspect, as seen from (68), while the verbal predicate in topic-comment *unagi*-sentences cannot. This shows us that the processes by which the predicates of these two construction types form are not identical, merely similar.

5.3.3 Frame-setting *unagi*-sentences

Conversely to topic-comment *unagi*-sentences, frame-setting *unagi*-sentences do not include a base-generated sentential predicate. Instead, frame setters occupy a frame-setter phrase (FrP) above the IP, which encapsulates and delimits the IP. This means that the tense of the predicate is the final tense of the whole sentence, and that the 'original' subject of the predicate is still existent in deep structure, making it a zero pronoun in surface structure. (74a) and (75a) are exemplifications of the structure of frame-setter *unagi*-sentences. (74a) is a temporal frame-setter *unagi*-sentence in Japanese, and (75a) is an experiencer frame-setter *unagi*-sentence in Korean. As (74b) and (75b) illustrate, the empty pronoun can be expressed explicitly. Frame-setter *unagi*-sentences that have their zero pronoun appear in surface structure do not classify as *unagi*-sentences per se, since there is no conflict for the predicate to locate its 'logical' subject. They instead become regular sentences that are delimited to the frame expressed by the frame setter. Furthermore, when the subject of the predicate appears in surface structure, these sentences again resemble multiple nominative constructions. They

are, however, not the same as multiple nominative constructions, since the frame setter cannot be nominatively marked, as illustrated in (74c) and (75c). Additionally, frame setter delimited sentences do not contain a time-stable sentential predicate, like multiple nominative sentences do, since a verbal phrase adverbial can be inserted before the topic marked constituent, as in (74d) and (75d). The fact that there is no time-stable sentential predicate in frame-setter delimited sentences means that they are not constrained in terms of what tense and aspect forms they can appear in, as indicated in (74e–f) and (75e–f).

(74) a. Japanese: [$_{FrP}$ *kin'yōbi* *wa* [$_{IP}$ Ø *yasumu*]]
Friday TOP have.off

'I have Fridays off'

b. Japanese: *kin'yōbi* *wa* *watashi* *ga* *yasumu*
Friday TOP I NOM have.off

'On Fridays, I have the day off.'

c. Japanese: * *kin'yōbi* *ga* *watashi* *ga* *yasumu*
Friday NOM I NOM have.off

'On *Fridays*, I have the day off.'

d. Japanese: *kubi* *o* *kakugo* *de* *kin'yōbi* *wa* *watashi* *ga* *yasumu*
be.fired ACC prepared INS Friday TOP I NOM have.off

'On Friday, I will take the day off with the preparation of losing my job.'

e. Japanese: *kin'yōbi* *wa* *yasunde* *iru*
Friday TOP have.off be

'I am having Fridays off.'

f. Japanese: *kin'yōbi* *wa* *yasun-da*
Friday TOP have.off-PST

'I had Friday off.'

(75) a. Korean: [$_{FrP}$ *na* *nun* [$_{IP}$ Ø *an* *o-nuntey*]]
I TOP NEG rain-MOD

'It doesn't rain where I am.'

b. Korean: *na nun* *pi* *ka* *an* *o-nuntey*
I TOP rain NOM NEG rain-MOD

'It doesn't rain where I am.

c. Korean: * *nay ka pi ka an o-nuntey*
I NOM rain NOM NEG raing-MOD

'It doesn't rain where *I* am.'

d. Korean: *ecey to an w-ass-tus.i na nun pi ka an*
yesterday also NEG rain-PST-just.like I TOP rain NOM NEG

o-nuntey
rain-MOD

'It doesn't rain where I am, just like it didn't rain yesterday.'

e. Korean: *na nun an oko iss-nuntey*
I TOP NEG rain be-MOD

'It's not raining where I am.'

f. Korean: *na nun an w-ass-nuntey*
I TOP NEG rain-PST-MOD

'It didn't rain where I was.'

This gives us the general structure for frame-setting *unagi*-sentences shown in (76).

(76) $[_{FrP}$ NP $[_{IP}$ Ø PRED]]

5.3.4 Relativization of *unagi*-sentences

Relative constructions with a context-dependent *unagi*-sentence-like relation between the relative clause and its head can be explained to form from topic-comment *unagi*-sentences with sentential predicates. The sentential predicate is extracted from the original *unagi*-sentence, and put as a modifier in front of the subject. In this process, the sentential predicate receives an attributive form. In the case of the Japanese copula, at least two forms are possible: the genitive particle *no* and the formal form *dearu*. This relativization process is represented in (77). This relativization process is also valid for topic-comment *unagi*-sentences with verbal predicates, as represented in (78).

(77) Japanese: *boku wa unagi da → unagi no/dearu boku*
I TOP eel COP eel GEN/COP I

Korean: *na nun cange ta → cange i-n na*
I TOP eel COP eel COP-ATT I

'I will have the eel.' → 'I who will have the eel'

(78) Japanese: *konnyaku wa futora-nai → futora-nai konnyaku*
konjac TOP get.fat-NEG get.fat-NEG konjac

Korean: *kon.yak un an ccinta → an cci-nun kon.yak*
konjat TOP NEG get.fat NEG get.fat-ATT konjac

'Konjac doesn't make you fat.' → 'the konjac that doesn't make you fat'

However, relativization of frame-setting *unagi*-sentences is not possible. At first glance, relativization appears to be possible only for temporal frame setters, as indicated in (79), while they are impossible for experiencer frame setters, as in (80).

(79) Japanese: *kin.yōbi wa yasumu → yasumu kin.yōbi*
Friday TOP have.off have.off Friday

Korean: *kum.yoil un swinta → swi-nun kum.yoil*
Friday TOP have.off have.off-ATT Friday

'I have Fridays off.' → 'Fridays that I have off'

(80) Korean: *na nun cal sayngkyessta → #cal sayngki-n na*
I TOP well handsome well handsome-ATT I

'I think he is handsome.' → 'I who think he is handsome'

After further scrutiny, as explained in Iwasaki (2013, pp. 201–212), several types of relative constructions are possible, whose relative clause-head relation is equivalent to the function of different case/postpositional particles, many of which cannot be explained as being derived from frame-setter *unagi*-sentences. For example, apart from the relative clause-head relation equivalent to temporal *ni*, which (79) would be, relative clause-head relations equivalent to instrumental *de*, and allative *e* are also possible. (81) and (82) are examples of these two respectively, adapted from Iwasaki (ibid.).

(81) Japanese: *kodomo ga inu o ut-ta bō* (Iwasaki ibid., p. 205)
child NOM dog ACC hit-PST stick

← *kodomo ga sono bō **de** inu o ut-ta*
child NOM that stick INS dog ACC hit-PST

'the stick that the child hit the dog with' ← 'The child hit the dog with the stick.'

(82) Japanese: *shōjo* *ga* *aruite* *it-ta* *eki* (Iwasaki ibid., p. 205)
girl NOM walk go-PST station

← *shōjo* *ga* *sono* *eki* ***e*** *aruite* *it-ta*
girl NOM that station ALL walk go-PST

'the station to which the girl walked' ← 'The girl walked to the station.'

Since instruments and destinations cannot readily be interpreted as representing frames to which propositions can be limited, there can be no instrumental and allative bare frame setters. As a consequence, relative clause-head relations such as those in (81) and (82) cannot be explained to have come from a relativized frame-setting *unagi*-sentence. In other words, since not all frame-setting *unagi*-sentences can be relativized, and since relative clause-head relations are better explained in terms of equivalence to the function of case/postpositional particles, frame setter *unagi*-sentences can not be said to be able to relativize.

5.3.5 The topic of *unagi*-sentences

Finally, a note on the role of the topic in *unagi*-sentences is in order. It is important to note that the topics of topic-comment *unagi*-sentences are very often, but not always, as have previously been assumed (e.g., Obana [2001], Tokizaki [2003]), contrastive in meaning. Apart from the frame-setting function of the topic particles discussed above, the topic particles in Japanese and Korean are generally believed to have (at least) two functions in terms of information structure; they mark both non-contrastive topic and contrastive topic (Vermeulen 2009). Non-contrastive topic does not presuppose the existence of any other items and has no connotations about any other items, while contrastive topic presupposes the existence of other items and includes the connotation that the predication in the utterance might not hold for them (Krifka & Musan 2012, p. 30). The fact that the topic of topic-comment *unagi*-sentences is almost always contrastive is without surprise, since *unagi*-sentences are short utterances that leave out anything that is already present in the common ground and is therefore not necessary (Kuno 1978, pp. 90–92). If the topic constituent was not needed to convey contrast with other items, it too would be dropped, rendering predicate-only utterances. It is therefore believed that the topics of topic-comment *unagi*-sentences are, frequently, but not by definition, contrastive in nature. The exception is sentences such as (83), which is the targeted sentence in item 2.3 of sentence type 2, representing *unagi*-sentences with extralinguistic common ground used in the questionnaires. *Unagi*-sentences

such as (83) are completely acceptable without any linguistic common ground. The only information thought necessary for interpreting (83) correctly is to know that Ehime/Jeju Island is a place famous for its satsuma mandarins. This readily available ‘famous for/best for’ reading of *unagi*-sentences make them excellent for advertisement slogans, as mentioned by Maruya (2002, pp. 38ff.) and Tokizaki (2003, p. 578). The topic constituent can hardly be interpreted to contrast with other items in *unagi*-sentences such as (83), since so little is presupposed that no entities that can be contrasted with can be said to exist in the common ground.

(83) Japanese: *yappari, mikan* *wa* *ehime* *da* (2.3)
after.all satsuma.mandarin TOP Ehime COP

Korean: *yeksi, kyul* *un* *ceycwuto* *ya*
after.all satsuma.mandarin TOP Jeju.Island COP

‘After all, satsuma mandarins are best from Ehime/Jeju Island.’

As for topic marked constituents in frame setter *unagi*-sentences, a contrastive reading is forced, since frame setters are inherently contrastive (Krifka & Musan 2012, p. 32).

6 Conclusion

6.1 Summary

This study set out to investigate so-called *unagi*-sentences from a broad perspective, including both copular and verbal constructions, in Japanese and Korean. To do this, experimental acceptability judgment questionnaires, targeted at native Japanese and Korean speakers, were utilized to test the acceptability of various types of *unagi*-sentences in Japanese and Korean. The sentence types that were tested are:

1. Copular *unagi*-sentences with linguistic common ground
2. Copular *unagi*-sentences with extralinguistic common ground
3. Copular *unagi*-sentences with inversed topic constituents
4. Nominatively marked copular *unagi*-sentences
5. Verbal *unagi*-sentences
6. Genitive particle relative constructions with *unagi*-sentence like relations between the relative clause and its head
7. Copular relative constructions with *unagi*-sentence-like relations between the relative clause and its head.

According to the data obtained through the questionnaire study, there exists a statistically significant difference between Japanese and Korean in the acceptability of copular *unagi*-sentences with linguistic common ground (type 1), verbal *unagi*-sentences (type 5), and genitive particle relative *unagi*-sentence-like constructions (type 6). There were no statistically significant differences found for the other sentence types. Among the sentence types that showed a difference in overall acceptability between the two languages, sentence types 1 and 6 can be ascribed to be due to reasons unrelated to *unagi*-sentences, namely, difference in the influence of prescriptive grammar, and difference in genitive particle usage, respectively. Therefore, the biggest difference between Japanese and Korean with regard to *unagi*-sentences was found to be towards verbal *unagi*-sentences. The verbal *unagi*-sentences

that were tested in the questionnaires were judged significantly higher by the Korean participants compared to the Japanese participants.

By analyzing the verbal *unagi*-sentences tested in the questionnaires together with other verbal sentences that are possible in both languages, we can hypothesize that there are two subtypes of *unagi*-sentences, here referred to as 'topic-comment *unagi*-sentences' and 'frame-setting *unagi*-sentences.' In topic-comment *unagi*-sentences, the topic marked entity is what the rest of the sentence is about, i.e., it is an aboutness topic. To test whether a topic marked constituent in an *unagi*-sentence is an aboutness topic, the topic particle can be exchanged for a nominative case particle. Only aboutness topics allow the topic particle to be exchanged for a nominative case particle, creating an exhaustive listing reading. The *unagi*-sentences that fail this test are frame-setting *unagi*-sentences. The topic marked entity in a frame-setting *unagi*-sentence is not what the sentence is about. Instead, it works like a frame in which the proposition in the sentence is interpreted. There exist different types of frame setters that are marked using topic particles alone. The most common ones are locative and temporal frame setters that delimit the proposition to the spacial or temporal domain expressed by the frame setter. In Korean, there are also experiencer frame setters that delimit the proposition to the domain of that which is experienced by the entity in the frame setters. Common uses of experiencer frame setters are to delimit a proposition to the opinion of the entity referred to in the frame setter, or to the location where the entity is located, i.e., that which is directly experienced by the entity. Experiencer frame setters are not felicitous in Japanese, explaining the difference in acceptability between the two languages with regard to verbal *unagi*-sentences tested in the questionnaires, which were all frame-setting *unagi*-sentences. Temporal and locative frame setters marked with the topic particles only are, however, possible in both languages in verbal *unagi*-sentences.

In copular *unagi*-sentences, on the other hand, temporal and locative frame setters cannot easily appear. This is due to two aspects: (i) there must be potential variation for the predicate within the domain in which a frame setter delimits for the frame setter to be able to delimit the predicate, and (ii) copula predicates are inherently time-stable. There is therefore no variation in the domain of time for copula predicates, meaning they cannot be delimited by temporal frame setters. Locative frame setters are usually marked with postpositional

particles, not allowing them to be interpreted as an ‘apparent subject’ for the predicate, which is part of the definition of *unagi*-sentences employed in this study. Experiencer frame setters in copular *unagi*-sentences are possible in Korean, since copular proposition can vary in the domain of opinion or location experienced by the entity referred to in the frame setter.

From the data obtained in this study, we can also hypothesize that a unifying trait for all topic-comment *unagi*-sentences is time-stability of the predicate. While copula predicates are inherently time-stable (Pustet 2003), verbal predicates in topic-comment *unagi*-sentences also exhibit time-stable properties, as can be seen from their generic reading. Time-stability of the predicate is further hypothesized to be a result of the formation process of topic-comment *unagi*-sentences. The process by which the predicate in topic-comment *unagi*-sentences forms is showed to be similar to the formation process of sentential predicates in multiple nominative constructions, which also exhibit characteristics of time-stability (Mihara 1994). Mihara shows that sentential predicates in multiple nominative constructions occupy a separate nested IP. Following Mihara (ibid.), we can therefore hypothesize that the predicate of topic-comment *unagi*-sentences are sentential predicates, and that the structure of topic-comment *unagi*-sentences is [$_{IP}$ NP [$_{IP}$ PRED]], where the original subject of the predicate is removed even from base structure. Frame-setting *unagi*-sentences, on the other hand, since they not exhibit any time-stability constraint, do not have a nested IP structure. Instead, the frame setter occupies a higher frame-setter phrase, and the subject of the predicate is merely appearing as a zero pronoun in the surface structure, yielding the structure [$_{FrP}$ NP [$_{IP}$ Ø PRED].

Furthermore, we have shown that relative constructions where the relations between the relative clause and its head can be explained as being relativized topic-comment *unagi*-sentences. In the case of copular topic-comment *unagi*-sentences, relativization can be done in two different ways in Japanese, namely using the genitive particle, and the formal copula form *dearu*; in Korean only an attributive form of the copula can be used. Frame-setting *unagi*-sentences are best interpreted as not be able to relativize, since (i) experiencer frame setters cannot relativize, and (ii) the non-nominative relations that relative clauses can have with their heads are best explained to be equal to the functions of postpositional particles.

6.2 Improvements and further research

Many improvements could be made on the design of the experiment employed in this study. For one, more items for each sentence type would ensure that the overall judgment score of one sentence type is representative of its construction. Having only four items per sentence type meant that even one misconstructed item in one language was able to pull the mean for its sentence type down in one language, yielding a misleading significant difference between the two languages for that sentence type. More items per sentence type would have prevented misconstructed items affecting the mean of their sentence type as much. Secondly, a factorial design could have been employed to ensure that the influence of each variable is isolated properly. Using a factorial design would potentially have nullified the effect of prescriptive grammar on the Korean participants' judgments, which resulted in copular *unagi*-sentences with linguistic common ground appearing significantly less acceptable in Korean, compared to Japanese. Also, information regarding proficiency in English could have been extracted from the participants, in order to be able to account for influence from prescriptive English syntax more directly. Furthermore, to ensure that items appearing earlier in the questionnaire do not affect the judgments of later items as little as possible, randomization in blocks, as described by Cowart (1997, p. 94), could have been utilized. One block contains one item from each sentence type, together with the correct amount of fillers. This ensures that two items from the same sentence type do not appear too close together, which could otherwise encourage informants to develop answering techniques. More filler items could also have been constructed, to further obscure the purpose of the questionnaire to the informants. However, the simple randomization and the number of filler items used in the questionnaires in this study did not produce any apparent artifact due to participants developing answering techniques.

While this study focused solely on *unagi*-sentences in Japanese and Korean, there is no reason to believe that *unagi*-sentences should be a phenomenon that is limited to only these two languages. We can predict that similar context-dependent 'illogical' constructions should be possible in other topic prominent languages. A good place to start looking would be copular constructions, since their inherent time-stability contributes to easy forming of *unagi*-sentence predicates. Examining other topic prominent languages where related constructions

can be found will help better defining *unagi*-sentences as a typological phenomenon. A first starting point for further crosslinguistic research could be Mandarin Chinese, where a similar construction can be found (Li & Thompson 1981, p. 150). Li & Thompson explain that in sentences like (84) (adapted form Li & Thompson [ibid.]), the Mandarin copula allows a loose linkage or connection between the two nouns on both sides of the copula, where the information in the speech context clarifies the precise nature of this linkage. This resembles the explanation of topic-comment *unagi*-sentences in Japanese and Korean employed in this study.

(84) Mandarin: *wǒ shì chǎofàn* (Li & Thompson ibid. p. 150)
I COP fried.rice
'As for me, fired rice.'

Finally, this study has given some new insights into what a frame setter is and how it differs from regular aboutness topics. *Unagi*-sentences have proved to provide an environment where different types of frame setters can be discerned and tested. Undoubtedly, *unagi*-sentences will play a significant role in future research on frame setters in Japanese and Korean. When examining frame setters and what is possible, it will be important to base observations on empirical data, either gathered from corpora or from experiments, like in this study.

References

Abe, J. (1999). On directionality of movement: a case of Japanese right dislocation. Ms., Nagoya University.

Carlson, G. L. (1982). Generic terms and generic sentences. *Journal of Philosophical Logic*, 11, pp. 145–181.

Chafe, W. L. (1976). Givenness, contrastiveness, definiteness, subjects, topics, and point of view. In: N. L. Charles, ed., *Subject and Topic*. New York: Academic Press, pp. 27–55.

Chung, D. (2009). An elliptical coordination analysis of the right dislocated construction in Korean. *The Linguistic Association of Korea Journal*, 17(4), pp. 1–23.

Cowart, W. (1997). *Experimental Syntax: Applying Objective Methods to Sentence Judgments*. Thousand Oaks: Sage Publications.

Edley, N. & Litosseliti, L. (2010). Contemplating interviews and focus groups. In: L. Litosseliti, ed., *Research Methods in Linguistics*. London/New York: Continuum International Publishing Group, pp. 155–179.

Education First (2016). English Proficiency Index 2016. [pdf] Available at http://www.theewf.org/uploads/pdf/ef-epi-2016-english.pdf [Accessed 21-May-17].

Givón, T. (1991). Markedness in grammar: distributional, communicative and cognitive correlates of syntactic structure. *Studies in Language*, 15, pp. 335–370.

Grice, H. P. (1975). Logic and conversation. In: P. Cole & L. J. Morgan, eds., *Syntax and Semantics, Volume 3: Speech Acts*. New York: Academic Press, pp. 22–40.

Gries, S. T. (2013). Basic significance testing. In: R. J. Podesva & D. Sharma, eds., *Research Methods in Linguistics*. Cambridge/New York: Cambridge University Press, pp. 316–336.

Heycock, C. (1993). Focus projection in Japanese. *Proceedings of North East Linguistic Society*, 24, pp. 157–171.

Heycock, C. (2008). Japanese *-wa*, *-ga*, and information structure. In: M. Saito & S. Miyagawa, eds., *The Oxford Handbook of Japanese Linguistics*. Oxford: Oxford University Press, pp. 54–83.

Horn, L. R. (1996). Presupposition and implicature. In: S. Lappin, ed., *The Handbook of Contemporary Semantic Theory*. Oxford: Blackwell Publishing, pp. 299–319.

Ikegami, Y (1981). *suru to naru no gengogaku (The Linguistics of* suru *and* naru*)*. Tokyo: Taishukan Publishing.

Inoue, K. (1969). *A Study of Japanese Syntax*. The Hague: Mouton.

Iwasaki, S. (2013). *Japanese: Revised Edition*. Amsterdam: John Benjamins Publishing Company.

Jacobs, J. (2001). The dimensions of topic-comment. *Linguistics*, 39(4), pp. 641–681.

Kawamoto, S. (1976). nihongo no bunpō no tokushoku (The characteristics of Japanese grammar). In: H. Kindaichi, ed., *nihongo no sugata (The Characteristics of Japanese)*. Tokyo: Taishukan Publishing, pp. 55–90.

Keenan, E. & Comrie, B. (1977). Noun phrase accessibility and universal grammar. *Linguistic Inquiry*, 8(1), pp. 63–99.

Kim, J. U. (2015). ‘ita’ kwumun uy hwayongcek yongpep ey kwanhan soko: ‘na nun ccacangmyen ita’ lyu uy haysek ul cwungsim ulo (A study regarding the pragmatical use of ‘*ita*’ constructions: concentrating on the interpretation of sentences like ‘*na nun ccacangmyen ita*’). *Journal of Bangyo Language and Literature*, 41, pp. 263–283.

Kitahara, Y. (1984). *nihongo bunpō no shōten (Focus on Japanese Grammar)*. Tokyo: Kyoiku Shuppan.

Kiyose, G. N. (1989). *nihongo bunpō shinron: hasei bunpō josetu (A New Approach to Japanse Grammar: An Introduction to Derivational Analysis)*. Tokyo: Ōfūsha.

Koizumi, T. (1990). *gengai no gengogaku (Linguistics of Implicature)*. Tokyo: Sanseido.

Krifka M. & Musan R. (2012). Information structure: overview and linguistic issues. In: M. Krifka & R. Musan, eds., *The Expression of Information Structure*. Berlin/Boston: Walter de Gruyter, pp. 1–44.

Kuno, S. (1978). *danwa no bunpō (The Grammar of Discourse)*. Tokyo: Taishukan Publishing.

Lee, C. H. (2004). 'ita' kwumun uy '-usi-' ilchi hyensang (The agreement phenomenon of '-*usi*-' in '*ita*' constructions). *Journal of Korean Linguistics*, 43, pp. 209–246.

Lee, E. & Shimojo, M. (2016). Mismatch of topic between Japanese and Korean. *Journal of East Asian Linguistics*, 25(1), pp. 81–112.

Li, C. and Thompson, S. A. (1981). *Mandarin Chinese: A Functional Reference Grammar*. Berkeley etc.: University of California Press.

Martin, S. (1975). *A Reference Grammar of Japanese*. New Haven: Yale University Press.

Maruya, S. (2002). unagibun no daikenkyū (The study of the *unagi*-sentence). In: K. Akagi, ed., *nihongo to iu kotoba (The Language Called Japanese)*. Tokyo: Popular Publishing, pp. 21–50.

Mihara, K. (1994). *nihongo no tōgo kōzō: seisei bunpō riron to sono un'yō (The Syntactic Structure of Japanese: Generative Grammar Theory and its Application)*. Tokyo: Shohakusha.

Na J. & Choi, I. (2009). Culture and First-Person Pronouns. *Personality and Social Psychology Bulletin*, 35(11), pp. 1492–1499.

Nam, K. I. (2004). *hyentay kwuk.e 'ita' kwumun yenkwu ('*Ita' *Constructions in Modern Korean)*. Seoul: Hankookmunhwasa.

Numada, Y. (1987). unagibun (*Unagi*-sentences). In: H. Teramura, T. Suzuki, H. Noda, & M Yazawa, eds., *kēsustadi: nihon bunpō (A Case Study: Japanese Grammar)*. Tokyo: Ōfūsha, pp. 78–83.

Nunberg, G. (1995). Transfers of meaning. *Journal of Semantics*, 12(2), pp. 109–132.

Obana, Y. (2001). *Unagi*-sentences in Japanese and mutual knowledge. *Journal of Pragmatcs*, 33, pp. 725–751.

Okutsu, K. (1978). *boku wa unagi da no bunpō: da to no (The Grammar of* boku wa unagi da: da *and* no*)*. Tokyo: Kuroshio Shuppan.

Pustet, R. (2003). *Copulas: Universals in the Categorization of the Lexicon*. New York: Oxford University Press.

Rasinger, S. M. (2010). Quantitative methods: concepts, frameworks and issues. In: L. Litosseliti, ed., *Research Methods in Linguistics*. London/New York: Continuum International Publishing Group, pp. 49–67.

Sato, Y. (1992). unagibun no kōzō (The structure of *unagi*-sentences). *gobun ronsō*, 20, pp. 57–73.

Schütze, C. T. & Sprouse, J. (2013). Judgment data. In: R. J. Podesva & D. Sharma, eds., *Research Methods in Linguistics*. Cambridge/New York: Cambridge University Press, pp. 27–50.

Shilling, N. (2013). Surveys and interviews. In: R. J. Podesva & D. Sharma, eds., *Research Methods in Linguistics*. Cambridge/New York: Cambridge University Press, pp. 96–115.

Shimada, M. (1980). ‘unagibun’ ronsō no gimon (Some questions about the disputation of unagi syntax). *Studies and Essays. Language and Literature*, 3, pp. 1–41.

Sohn, H. (1999). *The Korean Language*. Cambridge: Cambridge University Press.

Takamoto, J. (1995). unagibun no goyōronteki bunseki (1): bunmyaku ni okeru goi tōgo kōzō no hatten to kakuchō (A pragmatic analysis of so-called *unagi*-sentence (1): contextual development and expansion of lexico-syntactic structure). *Bulletin of Joetsu University of Education*, 15(1), pp. 123–136.

Takamoto, J. (1996). unagibun no goyōronteki bunseki (2): bunmyaku ni okeru goi tōgo kōzō no hatten to kakuchō (A pragmatic analysis of so-called *unagi*-sentence (2):

contextual development and expansion of lexico-syntactic structure). *Bulletin of Joetsu University of Education*, 15(2), pp. 405–419.

Tan, N. N. (2014). han-cwung kyeysa kwumun uy yuhyengloncek tayco yenkwu (A Typological-Contrastive Study on Copula Construction in Korean and Chinese). PhD. Kyungpook National University.

Tan, N. N. & Nam, K. I (2013). hankwuk.e wa cwungkwuk.e kyeysa kwumun uy tayco yenkwu: thongsacek punpho wa uymi kinung hwakcang ul cwungsim ulo (A contrastive study on copular construction in Korean and Chinese: focused on syntactic distribution and extension of semantic function). *Teaching Korean as a Foreign Language*, 38, pp. 253–278.

Tanaka, H. (2001). Right-dislocation as scrambling. *Journal of Linguistics*, 37(3), pp. 551–579.

Tokizaki, H. (2003). *Eel* sentences in Japanese and English. In: T. Honma, M. Okazaki, T. Tabata, & S. Tanaka, eds., *A New Century of Phonology and Phonological Theory: A Festschrift for Professor Shosuke Haraguchi on the Occasion of His Sixtieth Birthday*. Tokyo: Kaitakusha, pp. 571–581.

Vermeulen, R. (2009). On the syntactic typology of topic marking: a comparative study of Japanese and Korean. *UCL Working Papers in Linguistics*, 21, pp. 335–363.

Vermeulen, R. (2012). The information structure of Japanese. In: M. Krifka & R. Musan, eds., *The Expression of Information Structure*. Berlin/Boston: Walter de Gruyter, pp. 187–216.

Yagihashi, H. (2009). Why can a Japanese unagi-sentence be used in a request?. *Lodz Papers in Pragmatics*, 5(2), pp. 227–240.

Yoon, J. H. (2009). The distribution of subject properties in multiple subject constructions. In: Y. Takubo, ed., *Japanese-Korean Linguistics 16*. Stanford: CSLI Publications, pp. 64–83.

Appendix

Each individual item used in the questionnaires is presented here, romanized and glossed.

Type 1: copula predicates with linguistic common ground

1.1 Japanese: (“*watashi wa tonkatsu ni suru.*”)
I TOP pork.cutlet DAT do

“*ja, boku wa soba da.*”
then I TOP buckwheat.noodles COP

Korean: (“*na nun tonkkasu lul mek.-ulkey.*”)
I TOP pork.cutlet ACC eat-MOD

“*kurem, na nun meymil kwukswu ya*”
then I TOP buckwheat noodles COP

‘(I will have the pork cutlet.) Then I will have the buckwheat noodles.’

1.2 Japanese: (“*neko wa kawaisa ga miryoku da kedo, inu wa?*”)
cat TOP cuteness NOM charm COP but dog TOP

“*inu wa chūjitsusa da ne.*”
dog TOP loyalty COP MOD

Korean: (“*koyangi nun aykyo ka maylyek i-ciman, kay nun?*”)
cat TOP cuteness NOM charm COP-but dog TOP

“*kay nun chwungsilham i-ci.*”
dog TOP loyalty COP-MOD

‘(Cats’ charm is their cuteness, but what about dogs?) As for dogs, it’s their loyalty.’

1.3 Japanese: (“*boku wa sūgaku ga nigate da.*”)
I TOP math NOM bad COP

“*sō? watashi wa kokugo da.*”
really I TOP Japanese COP

Korean: (“*na nun swuhak ul cal moshay.*”)
I TOP math ACC well cannot.do

“*kuley? na nun kwuk.e ya.*”
really I TOP Korean COP

‘(I’m bad at math.) Really? For me, it’s Japanese/Korean.’

1.4 Japanese: (“*tarō wa gaishokusuru to itsumo hanbāga o*
Taro TOP eat.out COND always hamburger ACC

taberu ne.”) “*sō da ne. soshite, hanako wa itsumo*
eat MOD like.that COP MOD and Hanako TOP always

piza da ne”
pizza COP MOD

Korean: (“*chelswu nun oysikha-l ttay hangsang haympeke lul*
Chelswu TOP eat.out-ATT when always hamburger ACC

mek.e.”) “*mac.a. kuliko, yenghuy nun hangsang phica ya.*”
eat right and Yenghuy TOP always pizza COP

‘(Taro/Chelswu always eats hamburgers when he eats out.) That’s right. And as for Hanako/Yenghuy, it’s always pizza. ’

Type 2: copula predicates with extralinguistic common ground

2.1 Japanese: *(jitensha de hodō o hashiru hito ni)*
bicycle INS sidewalk ACC ride person DAT

“*oi, jitensha wa shadō da-rō!*”
hey bicycle TOP roadway COP-MOD

Korean: *(cacenke lo poto eyse tani-nun salam eykey)*
bicycle INS pavement LOC ride-ATT person DAT

“*ipwa, cacenke nun chato ci!*”
hey bicycle TOP roadway (COP-)MOD

‘(To a person riding a bicycle on the sidewalk) Hey, bicycles are supposed to be ridden on the roadway!’

2.2 Japanese: (“*otōsan wa?*”) “*otōsan wa mada kaisha da yo.*”
dad TOP dad TOP still company COP MOD

Korean: (“*appa nun?*”) “*appa nun acik hoysa i-ntey.*”
dad TOP dad TOP still company COP-MOD

‘(Where is dad?) Dad is still at work.’

2.3 Japanese: “*yappari, mikan wa ehime da ne.*”
after.all satsuma.mandarin TOP Ehime COP MOD

Korean: “*yeksi, kyul un caycwuto ya.*”
after.all satsuma.mandarin TOP Jeju.Island COP

‘After all, satsuma mandarins are best from Ehime/Jeju Island.’

2.4 Japanese: “*asa wa pan da-rō.*”
breakfast TOP bread COP-MOD

Korean: “*achim un ppang i-ci.*”
breakfast TOP bread COP-MOD

‘For breakfast, bread is best.’

Type 3: inversed topics

3.1 Japanese: (“*kimi wa tanaka san o shijisuru darō?*”)
you TOP Tanaka Mr. ACC support MOD

“*chigau yo. yamada san da yo, boku wa.*”
no MOD Yamada Mr. COP MOD I TOP

Korean: (“*ne nun pak ssi lul ciciha-ci?*”)
you TOP Park Mr. ACC support-MOD

“*ani-ntey. i ssi i-ntey, na nun.*”
no-MOD Lee Mr. COP-MOD I TOP”

‘(You support Mr. Tanaka/Park, don’t you?) No. I support Mr. Yamada/Lee.’

3.2 Japanese: (“*chikatetsu de kaeru no?*”)
subway INS go.home MOD

“*ūn. jitensha da yo, boku wa.*”
no bicycle COP MOD I TOP

Korean: (“*cihachel*[25] *ul thako cip ey ka-nunkeya?*”)
subway ACC ride home DAT go-MOD

“*ani-ntey. cacenke i-ntey, na nun.*”
no-MOD bicycle COP-MOD I TOP

‘(Are you going home by subway?) No. I’m going by bike.’

3.3 Japanese: (“*kimi wa sutēki o tanon-da darō?*”)
you TOP steak ACC order-PST MOD

“*chigau yo. pasuta da yo, boku wa.*”
no MOD pasta COP MOD I TOP

Korean: (“*ne nun sutheyikhu lul cwumunhay-ss-ci?*”)
you TOP steak ACC order-PST-MOD

“*ani-ntey. phasutha i-ntey, na nun.*”
no-MOD pasta COP-MOD I TOP

‘(You ordered the steak, didn’t you?) No. I ordered the pasta.’

25 This word was incorrectly represented as *cihacel* in the Korean questionnaire.

3.4 Japanese: (“*ima doko? minna matte iru yo.*”)
now where everyone wait be MOD

“*gomen. mada densha da yo, ore wa.*”
sorry still train COP MOD I TOP

Korean: (“*cikum eti? tatul kitaliko iss-nuntey.*”)
now where everyone wait be-MOD

“*mian. acik kicha i-ntey, na nun.*”
sorry still train COP-MOD I TOP

‘(Where are you? Everyone is waiting.) I’m sorry. I’m still on the train.’

Type 4: nominative particles

4.1 Japanese: (“*dare ga pafe o tanon-da kke? tarō?*”)
who NOM parfait ACC order-PST MOD Taro

“*un, tarō ga pafe dat-ta.*”
yes, Taro NOM parfait COP-PST

Korean: (“*nwu ka phaluphey lul cwumunhay-ss-ci? chelswu?*”)
who NOM parfait ACC order-PST-MOD Chelswu

“*ung, chelswu ka phaluphey y-esse.*”
yes, Chelswu NOM parfait COP-PST

‘(Who ordered the parfait? Taro/Chelswu?) Yes, Taro/Chelswu ordered the parfait.’

4.2 Japanese: (“*ano akai ie ni sunde iru no wa dare ka shitte iru?*”)
that red house LOC live be NML TOP who Q know be

“*un, hanako ga ano ie da yo.*”
yes Hanako NOM that house COP MOD

Korean: (“*ku ppalka-n cip ey sa-nun salam un*
that red-ATT house LOC live-ATT person TOP

nwukwu i-nci al.a?”) “*ung, yenghuy ka ku cip i-ntey.*”
who COP-Q know yes Yenghuy NOM that house COP-MOD

4.3 Japanese: (“*kono hon o kai-ta no wa jirō da tte shitte i-ta?*”)
this book ACC write-PST NML TOP Jiro COP QT know be-PST

“*e? jirō ga kono hon da to?*”
what Jiro NOM this book COP QT

Korean: (“*i chayk ul ssu-n salam i minswu la-nun*
this book ACC write-ATT person NOM Minswu (COP-)QT-ATT

kes ul alko iss-ess.e?”) “*mwe lako? minswu ka*
NML ACC know be-PST what QT Minswu NOM

i cheyk i-lako?”
this book COP-QT

4.4 Japanese: (“*kono purezento wa hanako ga okut-ta kke*[26]*?*”)
this present TOP Hanako NOM send-PST MOD

“*un, tashika hanako ga kono purezento dat-ta.*”
yes I.believe Hanako NOM this present COP-PST

Korean: (“*i senmul un yenghuy ka ponay-n ke y-ess-ci?*”)
this present TOP Yenghuy NOM send-ATT thing COP-PST-MOD

“*ung, ama yenhuy ka i senmul i-ess.e*[27]*.*”
yes, I.believe Yenghuy NOM this present COP-PST

‘(Did Hanako/Yenghuy send this present?) Yes, I believe Hanako/Yenghuy sent that present.’

26 This modal marker was incorrectly represented as *ke* in the Japanese questionnaire.

27 This past tense marker was incorrectly represented as *yess.e* in the Korean questionnaire.

Type 5: verbal predicates

5.1 Japanese: *([denwa de] "koko wa ame ga futte iru.")*
phone LOC here TOP rain NOM rain be

"sō? watashi wa futte i-nai."
really I TOP rain be-NEG

Korean: *([cenhwa eyse] "yeki nun pi ka oko iss.e.")*
phone LOC here TOP rain NOM rain be

"kulay? na nun an o-nuntey."
really I TOP NEG rain-MOD

'([On the phone] It's raining here.) Really? It's not raining where I am.'

5.2 Japanese: *("watashi no inu wa totemo sizuka da.")*
I GEN dog TOP very quiet COP

"sō? ore wa itsumo hoeru noni."
really I TOP always bark MOD

Korean: *("wuli kay nun acwu coyonghay.")*
I dog TOP very quiet

"kulay? wuli nun maynnal cic-nuntey."
really I TOP always bark-MOD

'(My dog is very quiet.) Really? My dog always barks.'

5.3 Japanese: *("ano hito tte kakkoyoku nai ne.")*
that person QT handsome NEG MOD

"watashi wa kakkoii yo."
I TOP handsome MOD

Korean: *("ku salam, mos sayngkyess-ney.")*
that person NEG handsome-MOD

"na nun cal sayngkyess-nuntey."
I TOP well handsome-MOD

'(That person isn't very handsome, is he?) I think he is handsome.'

5.4 Japanese: (“*sakki no hito, nani o shite ta ndarō?*”)
before GEN person what ACC do (be-)PST MOD

“*un, watashi mo ayashii.*”
yes I also suspicious

Korean: (“*akka ku salam, mwe l hay-ss-ci?*”)
before that person what ACC do-PST-MOD?

“*ung, na to swusanghay.*”
yes I also suspicious

‘(What was that person just now doing?) Yes, I find it suspicious as well.’

Type 6: genitive attributive relative clauses

6.1 Japanese: (“*foagura o chūmons-are-ta okyakusama wa dare?*”)
foie.gras ACC order-SH-PST customer TOP who

“*foagura no okyakusama wa asoko ni irassharu.*”
foie.gras GEN customer TOP there LOC be:SH

Korean: (“*phuakula lul cumunha-si-n kokayknim un nwukwu ya?*”)
foie.gras ACC order-SH-ATT customer TOP who COP

“*phuakula uy kokayknim un ceki ey kyeysye.*”
foie.gras GEN customer TOP there LOC be:SH

‘(Who is the customer who ordered foie gras?) The customer who ordered foie gras is over there.’

6.2 Japanese: (“*ie made okutte kureru?*”) “*e? boku wa kuruma ga*
home TERM drive give what I TOP car NOM

nai kara, sore wa kuruma no hito ni kika-naito.”
not.have because that TOP car GEN person DAT ask-must

Korean: (“*cip kkaci taylyeta cwu-lsuiss.e?*”) “*mwe? na nun cha ka*
home TERM drive give-POT what I TOP car NOM

eps.-unikka, ku kes un cha uy salam eykey
not.have-because that thing TOP car GEN person DAT

mul.epwa-yaci.”
ask-must

‘(Could you drive me home?) What? I don’t have a car, so you’ll have to ask that to a person with a car.’

6.3 Japanese: (“*mite, kono ie wa niwa ga kichinto teires-arete iru*
look this house TOP garden NOM neatly care.for-PSS be

noni, ano ie wa mae ni omocha ga ippai chirakatte
MOD that house TOP front LOC toy NOM a.lot scatter

iru ne.”) “*sō da ne. ano omocha no ie ni kodomo*
be MOD so COP MOD that toy GEN house DAT child

ga sunde iru nichigainai ne.”
NOM live be without.a.doubt MOD

Korean: (“*pwa, i cip un matang i cal cengli-toye iss.nuntey,*
look this house TOP garden NOM well tidy-PSS be-MOD

ce cip un aph ey cangnankam i manh.i ecillecye
that house TOP front LOC toy NOM a.lot scatter

iss-ney.”) “*kuleh-ney. ce cangnankam uy cip ey elin ai*
be-MOD is.so-MOD that toy GEN house LOC young child

ka salko iss-nun key tullim.eps-ney.”
NOM live be-ATT NLM without.a.doubt-MOD

‘(Look, this house has a neatly cared for garden, but that house has a lot of toys scattered in front of it.) That’s right. Without a doubt, children live in that house with the toys.’

6.4 Japanese: (“*koko ni kuruma o tome-temoii kana.*”)
here LOC car ACC park-may MOD

“*ano akai bōsi no hito ni kik-ō.*”
that red hat GEN person DAT ask-VOL

Korean: (“*yeki eytaka cha lul seywe-totoy-lkka?*”)
here LOC car ACC park-may-MOD

“*ce ppalka-n moca uy salam eykey mul.epo-ca.*”
that red-ATT hat GEN person DAT ask-MOD

‘(I wonder if it’s okay to park our car here.) Let’s ask that person with the red hat.’

Type 7: copula attributive relative clauses

7.1 Japanese: *binkan hada dearu hito wa, senjōryoku no tsuyoi*
sensitive skin COP person TOP cleansing.power GEN strong

kagakuseibun o fukun-da senganzai o siyōsuru to,
chemical ACC contain-PST face.cleanser ACC use COND

hadaare nado no mondai o shōjis-asete shimai-masu.
dry.skin etc. GEN problem ACC develop-CAU ASP-POL

Korean: *minkamseng phipu i-n salam un, seycenglyek i*
sensitive skin COP-ATT person TOP cleansing.power NOM

kangha-n hwahaksengpun ul phohamha-n sey.ancey lul
strong-ATT chemical ACC contain-ATT face.cleanser ACC

sa.yongha-l ttay, phipu ka kechil.eci-nun tung uy muncey
use-ATT when skin NOM dry.up-ATT etc. GEM problem

ka palseyngha-lswuiss-supnita.
NOM develop-POT-POL

‘When someone with sensitive skin uses a face cleanser that contains strong chemicals, problems such as dry skin can develop.’

7.2 Japanese: *nihon kokuseki dearu hito wa nyūkoku no sai,*
Japan citizenship COP person TOP immigration GEN time

jidōka gēto o riyōshite kudasai
automated gate ACC use give:IMP:SH

Korean: *hankwuk kwukcek i-n salam un ipkwuk si,*
Korea citizenship COP-ATT person TOP immigration time

catonghwa keyitu lul sayongha-sipsio
automated gate ACC use-IMP:SH

‘Persons with Japanese/Korean citizenships, please use the automated gate upon immigration.’

7.3 Japanese: *afurikānsugo o daiiti gengo to shite iru hito wa 600*
Afrikaans ACC first language DAT do be people TOP 600

man nin shika i-nai ga, daini gengo dearu hito wa
10,000 CLS only be-NEG but second language COP people TOP

1000 man nin iru.
1000 10,000 CLS be

Korean: *aphulikhansue lul ceyil en.e lo ha-nun salam un 600*
Afrikaans ACC first language DAT do-ATT people TOP 600

man myeng pakk.ey eps-ciman, ceyi en.e i-n
10,000 CLS only not.be-but second language COP-ATT

salam un 1000 man myeng issta.
people TOP 1000 10,000 CLS be

'There are only 6 million people who speak Afrikaans as a first language, but there are 10 million people who speak it as a second language.'

7.4 Japanese: *gōkei shotoku kingaku ni taiōsuru shūnyū kingaku no*
total income amount DAT correspond earnings amount GEN

gutairei nitsuite wa, shita no hyō o
concrete.example regarding TOP below GEN table ACC

sanshōshite kudasai. shita no hyō no kingaku ika
refer give-IMP:SH below GEN table GEN amount under

dearu hito ga rinji fukushi kyūfukin no taishō to
COP person NOM special welfare grant GEN subject DAT

nari-masu.
become-POL

Korean: *hapkyey sotuk kum.ayk eytayha-n swuip kum.ayk uy*
total income amount correspond-ATT earnings amount GEN

kwucheycek i-n yey eytayhayse, taum uy phyo lul
concrete COP-ATT example regarding following GEN table ACC

chamkohay cwu-sikipalapnita. taum uy phyo uy kum.ayk
refer give-IMP:SH following GEN table GEN amount

iha i-n salam un imsi pokci pocokum taysang
under COP-ATT person TOP special welfare grant subject

i toy-pnita.
NOM become-POL

'Regarding the income corresponding to the total amount of earnings, please refer the table below. Persons who have an income lower than that in the table below are subject to the special welfare grant.'

Grammatical fillers

g.1 Japanese: (“*kinō no yūgohan wa nani tabe-ta?*”)
yesterday GEN dinner TOP what eat-PST

“*kinō wa nabe o tabe-ta.*”
yesterday TOP hot.pot ACC eat-PST

Korean: (“*ecey cenyek un mwe l mek.-ess.e?*”)
yesterday dinner TOP what ACC eat-PST

“*ecey nun cenkol ul mek.-ess.e.*”
yesterday TOP hot.pot ACC eat-PST

‘(What did you eat for dinner yesterday?) Yesterday I ate hot pot.’

g.2 Japanese: (“*kuruma o doko ni tome-yō kana.*”)
car ACC where LOC park-VOL MOD

“*asoko no chūshajō de ii njanai?*”
there GEN parking.lot LOC good MOD

Korean: (“*cha lul eti eyta seywu-lkka?*”)
car ACC where LOC park-MOD

“*ceki cwuchacang ey kwaynchanh-cianh.a?*”
there parking.lot LOC okay-MOD

‘(Where should we park the car?) That parking lot seems fine.’

g.3 Japanese: (“*senshū no tesuto wa yoku deki-ta?*”)
last.week GEN test TOP well succeed-PST

“*un, sonnani muzukashiku nakat-ta.*”
yes that difficult NEG-PST

Korean: (“*cinan cwu sihem un cal pw-ass.e?*”)
last week test TOP well take-PST

“*ung, kulehkey elyepci anh.a-sse.*”
yes that difficult NEG-PST

‘(Did last week’s test go well?) Yes, it wasn’t that difficult.’

g.4 Japanese: (“*naze inu ga kirai nano?*”)
why dog NOM hate MOD

“*itsumo hoeru kara kirai da yo.*”
always bark because hate COP MOD

Korean: (“*way kay lul silh.ehay?*”)
why dog ACC hate

“*hangsang cic.-ese silh.e.*”
always bark-because hate

‘(Why do you hate dogs?) I hate them because they are always barking.’

g.5 Japanese: (“*ie made dōyatte kaeru no?*”)
home TERM how go.home MOD

“*boku wa kuruma de kaeru yo.*”
I TOP car INS go.home MOD

Korean: (“*cip kkaci ettehkey ka?*”)
home TERM how go

“*na nun cha lo ka-nuntey.*”
I TOP car INS go-MOD

g.6 Japanese: (“*sono purezento wa dare ni okuru?*”)
that present TOP who DAT send

“*kono purezento wa hanako ni okuru yo.*”
this present TOP Hanako DAT send MOD

Korean: (“*ku senmul un nwukwu eykey ponay-lkeya?*”)
that present TOP who DAT send-MOD

“*i senmul un yenghuy eykey ponay-lkentey.*”
this present TOP Yenghuy DAT send-MOD

‘(Who will you send that present to?) I will send this present to Hanako/Yenghui.’

g.7 Japanese: (“*ano ie ni tarō ga sunde iru kke?*”)
that house LOC Taro NOM live be MOD

“*un, tarō ga ano ie ni sunde iru.*”
yes Taro NOM that house LOC live be

Korean: (“*ce cip ey chelswu ka salko iss-na?*”)
that house LOC Chelswu NOM live be-Q

“*ung, chelswu ka ce cip ey salko iss.e.*”
yes Chelswu NOM that house LOC live be

‘(Does Taro/Chelswu live in that house?) Yes, Taro/Chelswu lives in that house.’

g.8 Japanese: (“*ie kara gakkō made doregurai aru?*”)
house ABL school TERM about.how.much be

“*gakkō made 2 kiro gurai aru.*”
school TERM 2 kilometer about be

Korean: (“*cip eyse hakkyo kkaci elmana tway?*”)
house ABL school TERM how.much be

“*hakkyo kkaci 2 khillo cengto tway.*”
school TERM 2 kilometer about be

‘(How long is it from your house to school?) It’s about 2 kilometers to school.’

g.9 Japanese: (“*shūmatsu ni nani o suru tsumori?*”)
weekend TMP what ACC do intention

“*shūmatsu ni wa tada ie de yasumi-tai.*”
weekend TMP TOP only home LOC rest-want

Korean: (“*cwumal ey nun mwe l ha-l yeyceng iya?*”)
weekend TMP TOP what ACC do-ATT intention COP

“*cwumal ey nun kunyang cip eyse swi-kosiph.e.*”
weekend TMP TOP only home LOC rest-want

‘(What do you intend to do this weekend?) I just want to rest at home this weekend.’

g.10 Japanese: (“*hanako ga ichiban suki na terebi bangumi wa nani*
Hanako NOM most like COP:ATT TV program TOP what

ka shitte iru?”) “*ūn, hanako no konomi wa yoku wakara-nai.*”
Q know be no Hanako GEN taste TOP well know-NEG

Korean: (“*yenghuy ka kacang coh.aha-nun thipi phulokulaym un*
Yenghuy NOM most like-ATT TV program TOP

mwe nci al.a?”)
what (COP-)Q know

“*ani, yenghuy uy chwihyang un cal molla.*”
no Yenghuy GEN taste TOP well not.know

‘(Do you know what TV program Hanako/Yenghuy likes the most?) No, I don’t know Hanako’s/Yenghuy’s taste that well.’

g.11 Japanese: (“*tarō ga doko de hataraite iru tte shitte iru?*”)
Taro NOM where LOC work be Q know be

“*un, tarō wa shuppansha de hataraite iru yo.*”
yes Taro TOP publishing.company LOC work be MOD

Korean: (“*chelswu ka eti eyse ilha-nunci al.a?*”)
Chelswu NOM where LOC work-Q know

“*ung, chelswu nun chwulphansa eyse ilhako iss-nuntey.*”
yes Chelswu TOP publishing.company LOC work be-MOD

‘(Do you know where Taro/Chelswu works?) Yes, Taro/Chelswu works at a publishing company.’

g.12 Japanese: *2 kai bubun wa honnin ya kazoku ga netomarisuru supēsu*
2 floor area TOP himself and family NOM sleep space

toshite tsukatte iru.
as use be

Korean: *2 chung pupun un pon.in kwa kacok i muk-nun*
2 floor area TOP himself and family NOM sleep-ATT

kongkan ulo ssunta.
space as use

‘He uses the area on the second floor as sleeping space for himself and his family.’

g.13 Japanese: *jibunjishin o apīrusuru tame, aruteido, jibunjishin no*
self ACC appeal in.order.to some self GEN

yoi hanashi ya seikōshi-ta hanashi o tsutaeru no wa
good story and succeed-PST story ACC tell NML TOP

taisetsu desu.
important COP:POL

Korean: *cakicasin ul ephilha-kiwihay, enucengto, cakicasin uy*
self ACC appeal-in.order.to some self GEN

coh.-un iyaki wa sengkongha-n iyaki lul centalha-nun kes
good-ATT story and suceed-ATT story ACC tell-ATT NML

i cungyohata.
NOM important

‘In order to appeal for oneself, it is important to tell some good stories about oneself or one’s success stories.’

g.14 Japanese: *sakunen no ima goro wa, yuki busoku no tame ōpun*
last.year GEN now around TOP snow lack GEN cause open

o enkisuru sukījō ga aitsuide i-ta.
ACC postpone ski.resort NOM continue.one.after.the.other be-PST

Korean: *caknyen i mamttay ccum ey nun, nwun pucok ulo*
last.year this time around TMP TOP snow lack cause

kaycang ul yenkiha-n sukhicang i
open ACC postpone-ATT ski.resort NOM

isttala-ssta.
continue.one.after.another

'Around this time last year, ski resorts had to postpone opening, one after the other, due to lack of snow.'

Ungrammatical fillers

u.1 Japanese: ("*watashi wa nani o chūmonshi-yō kana.*")
I TOP what ACC order-VOL MOD

"*sarada ga chūmonshi-tara dō?*"
salad NOM order-COND how

Korean: ("*na nun mwe l cwumunha-lkka?*")
I TOP what ACC order-MOD

"*saylletu ka cwumunha-myen ettay?*"
salad NOM order-COND how

'(What should I order?) How about a salad orders?'

u.2 Japanese: ("*koko wa tenki ga ii yo.*")
here TOP weather NOM good MOD

"*sō? koko o ii tenki ja-nai.*"
really here ACC good weather COP-NEG

Korean: ("*yeki nun nalssi ka coh.a.*")
here TOP weather NOM good

"*kulay? yeki lul coh.-un nalssi ka aniya.*"
really here ACC good-ATT weather NOM COP:NEG

'(The weather is good here.) Really? It doesn't good weather here.'

u.3 Japanese: (“*ne, konshū no tesuto han’i oshiete.*”)
hey this.week GEN test scope teach

“*gomen, watashi wa han’i ga wakaru-nai yo.*”
sorry I TOP scope NOM know-NEG MOD

Korean: (“*isscanh.a, ipen theysuthu pem.wi allye cwe.*”)
hey this test scope teach give

“*mian, na nun pem.wi ka an al.a.*”
sorry I TOP scope NOM NEG know

‘(Hey, teach me the scope of this test.) Sorry, I not know the scope.’

u.4 Japanese: (“*annani takusan tabe-tara dō suru?*”)
so much eat-COND how do

“*boku o daijōbu da yo.*”
I ACC okay COP MOD

Korean: (“*kulehkey manh.i mek.-umyen ettehkey hay?*”)
so much eat-COND how do

“*na lul kwaynchanh.a.*”
I ACC okay

‘(Don’t eat so much.) It okays me.’

u.5 Japanese: (“*boku wa kokugo ga ichiban suki da.*”)
I TOP Japanese NOM most like COP

“*sō? watashi o sūgaku ni ichiban suru.*”
really I ACC math DAT most do

Korean: (“*na nun kwuk.e lul ceyil coh.ahay.*”)
I TOP Korean ACC most like

“*kulay? na lul swuhak ey ceyil iya.*”
really I ACC math DAT most COP

‘(I like math the most.) Really? It does me most to math.’

u.6 Japanese: (“*kinō nani shi-ta?*”) “*ie made zutto yasunde i-ta.*”
yesterday what do-PST home TERM all.the.way rest be-PST

Korean: (“*ecey mwe l hay-ss.e?*”)
yesterday what ACC do-PST

“*cip kkaci kyeysok swiko iss.-ess.e.*”
home TERM all.the.way rest be-PST

‘(What did you do yesterday?) I rested all the way home’

u.7 Japanese: (“*ranchi ni nani o tabe-ta?*”)
lunch DAT what ACC eat-PST

“*watashi wa hanbāga ni tabe-ta.*”
I TOP hamburger DAT eat-PST

Korean: (“*cemsim ttay mwe l mek.-ess.e?*”)
lunch time what ACC eat-PST

“*na nun haympeke ey mek.-ess.e.*”
I TOP hamburger DAT eat-PST

‘(What did you eat for lunch?) I ate for a hamburger.’

u.8 Japanese: (“*watashi o jitensha ni nosete ie made okutte kureru?*”)
I ACC bicycle LOC pick.up home TERM drive give

“*gomen, jitensha o koware-te, deki-nai yo.*”
sorry bicycle ACC break-because can.do-NEG MOD

Korean: (“*na lul cacenke ey thaywuko cip kkaci teylyeta*
I ACC bicycle LOC pick.up home TERM drive

cwu-lswuiss.e?”) “*mian, cacenke lul kocangna-se, ha-lswueps.e.*”
give-POT sorry bicycle ACC break-because do-POT:NEG

‘(Could you pick me up on your bike and drive me home?) Sorry, I can’t because it broke my bike.’

u.9 Japanese: (“*itsu tōchakusuru? minna matte ru yo.*”)
when arrive everyone wait be MOD

“*gomen, mada ie de dete ja-nai.*”
sorry still house LOC leave COP-NEG

Korean: (“*ency tochakhay? tatul kitaliko iss.e.*”)
when arrive everyone wait be

“*mian, acik cip eyse nawase aniya.*”
sorry still home LOC leave COP:NEG

‘(When do you arrive? Everyone is waiting.) Sorry, It isn’t left at home yet.’

u.10 Japanese: (“*neko to inu, dotchi ga ichiban suki?*”)
cat and dog which NOM most like

“*watashi o neko ni suki da.*”
I ACC cat DAT like COP

Korean: (“*koyangi lang kay, enuccok i ceyil coh.a?*”)
cat and dog which NOM most like

“*na lul koyangi ey coh.a.*”
I ACC cat DAT like

‘(Cats and dogs, which do you like more?) It likes me to cats.’

u.11 Japanese: (“*ashita no ensoku wa doko ni iku?*”)
tomorrow GEN excursion TOP where LOC go

“*ashita wa yamanoborishi-ta yo.*”
tomorrow TOP hike-PST MOD

Korean: (“*nayil sophung un eti ey ka?*”)
tomorrow excursion TOP where LOC go

“*nayil un tungsan ul hay-ss.e.*”
tomorrow TOP hike ACC do-PST

‘(Where are you going on tomorrow’s excursion?) Tomorrow we went hiking.’

u.12 Japanese: *pikotarō wa saikin hitori ga yūmei na*
Pikotaro TOP recently one.person NOM famous COP:ATT

owarai da.
comedian COP

Korean: *phikhothalo nun choykun han myeng i yumyengha-n keykumayn*
Pikotaro TOP recently one QFT NOM famous:ATT comedian

ita.
COP

‘Pikotaro is famous one comedian recently.’

u.13 Japanese: *ochiba ga tsumikazanat-ta hiroba de, kodomotachi e*
fallen.leaves NOM pile.up-PST square LOC children ALL

chirabatte kyōmi no aru mono o ijiri hajime-ta.
spread interest GEN have thing ACC play begin-PST

Korean: *nak.yep i ssah.iko ssah.i-n kwangcang eyse, aitul*
fallen.leaves NOM pile.up pile.up-ATT square LOC children

eykey guth.ecyese hungmi ka iss-nun kes. ulo
ALL scatter interest NOM have-ATT thing INS

nolki sicakhay-ssta.

play begin-PST

‘In the square where fallen leaves had piled up, it scattered to the children and started playing with interested looking things.’

u.14 Japanese: *chinamini watashi wa, wakai koro, shimekiri ni maniawa-nai*
by.the.way I TOP young time deadline DAT be.in.time-NEG

shippai o nandoka keikenshi-masu.
mistake ACC many.times experience-POL

Korean: *tesputh.icamyen na nun, celm.-ess-ul ttay, makam ul*
by.the.way I TOP young-PST-ATT time deadline ACC

ceyttay machuci mosha-n silphay lul myechpenina
properly be.on.time cannot-ATT mistake ACC several.times

kyenghemha-pnita.
experience-POL

‘By the way, when I was young, I experience not being able to make the deadline several times.’