



**LUND**  
UNIVERSITY

## Is it *Wa* or is it *Ga* – that is the question

A study of Swedish learners' knowledge of the Japanese particles *Wa*  
and *Ga*

Lily Chan

li8142ch-s@student.lu.se

Supervisor: Shinichiro Ishihara

Centre of Languages and Literature, Lund University

Bachelor Thesis in Japanese

Spring term 2018

## Abstract

The aim of this thesis is to test Swedish Japanese learners' knowledge of the Japanese topic and subject markers, *wa* and *ga*. This was done through sending out surveys, where the participants were forced to choose an answer out of four options for each sentence. The four types of sentences which were tested were embedded clauses with individual-level predicates, embedded clauses with stage-level predicates, main clauses with individual-level predicates and main clauses with stage-level predicates. In the end, the conclusion was that Swedish Japanese learners had a relatively good knowledge of *wa* and *ga* in the four sentence types, except in embedded clauses, especially embedded clauses with individual-level predicates. Overall, the Swedish learners of Japanese preferred *wa* over *ga*. Furthermore, participants that had studied at Lund University or had studied in Japan before preferred for the most part the same particles as the Japanese native speakers in the sentence types, except in main clauses with stage-level predicates.

Keywords: Japanese, *wa* and *ga*, embedded clause, individual-level predicates, stage-level predicates

## Acknowledgements

I want to thank my supervisor Shinichiro Ishihara for keeping me on track and pointing me in the right direction whenever I was lost. I also want to thank Axel Svahn for some helpful tips during the writing process. I would also like to give a thank you to my early peer-reviewer Johanna Olsson for reading through the early draft. And finally, I want to give a big thank you to Axel Engman, Christoffer Axtegen, Helena Uddefors, Vincent Medic and Betty Andersson for peer-reviewing the last version of the thesis.

# Table of Contents

Abstract

Acknowledgements

List of figures

List of tables

Conventions

Abbreviations

1	Introduction .....	1
1.1	Research aims .....	1
1.2	Structure of the thesis .....	2
2	Previous research .....	3
2.1	Wa and Ga .....	3
2.2	Correlation between predicates and readings of Wa and Ga .....	5
2.3	Correlation between embedded clauses and the use of Wa and Ga .....	8
3	Research .....	11
3.1	Research question.....	11
3.2	Stimuli: Sentences types .....	11
3.2.1	Main clauses with Stage-level predicates .....	12
3.2.2	Main clauses with Individual-level predicates.....	13
3.2.3	Embedded clauses with Stage-level predicates.....	13
3.2.4	Embedded clauses with Individual-level predicates .....	13
3.2.5	Summary of the sentence types.....	14
3.3	Methodology: The questionnaire .....	14
3.4	Discussion of alternative methods.....	16
4	Results .....	17
4.1	Responses based on mother tongue.....	17
4.2	Responses based on Swedish university.....	20
4.3	Responses based on how long Swedish native speakers have studied in Japan .....	25
4.4	Summary of the results from learners of Japanese and native speakers of Japanese .....	28
4.5	Summary of university responses .....	28
4.6	Summary of the responses from those that had studied in Japan.....	28
5	Discussion .....	29
5.1	Swedish native speakers and Japanese native speakers .....	29
5.2	Universities .....	30
5.3	Studies in Japan.....	31

6	Conclusion.....	32
6.1	Improvements and further research.....	32
7	References .....	33
8	Appendix.....	34
8.1	Sentences used in the survey.....	34
8.2	Filler sentences.....	36
8.3	Links to the surveys.....	39
8.4	Background information of the participants .....	40
8.4.1	Native speakers of Japanese .....	40
8.4.2	Native speakers of Swedish .....	41

## List of figures

Figure 1.....	17
Figure 2.....	18
Figure 3.....	20
Figure 4.....	25
Figure 5.....	40
Figure 6.....	40
Figure 7.....	41
Figure 8.....	41
Figure 9.....	42
Figure 10.....	42

## List of tables

Table 3.2-1.....	14
Table 4.1-1.....	18
Table 4.1-2.....	19
Table 4.2-1.....	21
Table 4.2-2.....	22
Table 4.2-3.....	23
Table 4.2-4.....	24
Table 4.3-1.....	26
Table 4.3-2.....	26
Table 4.3-3.....	27
Table 4.3-4.....	27

# Conventions

The Modified Hepburn system is used for the Japanese romanization in this thesis. Examples and words in Japanese are in italics to ease the reader. Examples of English words and translations are in quotation marks. Leipzig glossing rules' word-by-word alignment is used in the sentence examples.

# Abbreviations

ACC accusative

COMP complementizer

COMP<sub>DEC</sub> declarative complementizer

COMP<sub>INT</sub> interrogative complementizer

CON conjunction

COP copula

GEN genitive

INT interjectory particles

LOC locative

NEG negative

PST past

NPST nonpast

PROG progressive

E+S embedded clause + stage-level predicate

E+I embedded clause + individual-level predicate

M+I main clause + individual-level predicate

M+S main clause + stage-level predicate

# 1 Introduction

When studying Japanese, one is bound to come across the two particles *wa* and *ga*. A student is often confused as to how to use these two particles, since sentences such as the following can occur.

(1) *Watashi-wa kaichō desu.*  
I-WA chairman COP  
'I am the chairman.'

(2) *Watashi-ga kaichō desu.*  
I-GA chairman COP  
'I am the chairman.'

(Noda 1996: xiii)

Looking at the sentences in (1) and (2), what exactly is the difference here? Both (1) and (2) mean that the speaker is the chairman. For the untrained eye, both particles seem to be interchangeable and have the same usage. However, there is more to it than what can be seen. In example (1), it is implied that the topic is *watashi* 'I', therefore there is a nuance of "speaking of me, I am the chairman" with *wa*. In (2) however, it is implied that "I and only I am the chairman". How can one tell when it is *wa* or *ga* or, in some cases, both? A native speaker of Japanese will be able to pick up the difference, but the question is, will a Japanese learner be able to pick it up? In this study, I will therefore test Swedish Japanese learners on their *wa* and *ga* knowledge. This will be tested with four different sentence types through a survey.

## 1.1 Research aims

The aim of this study is to see if Swedish Japanese learners struggle with *wa* and *ga* in specific sentence types. If they do struggle with *wa* and *ga*, then this study might help, for example, teachers and inspire further research into why and how one can improve the Swedish Japanese learners' understanding of *wa* and *ga*. If they do not struggle with *wa* and *ga*, then it proves that Swedish learners of Japanese have a good understanding of how to use *wa* and *ga*. This can inspire other countries teaching and research into how Swedish Japanese courses teaches.

This study will try to answer the following three questions:

- What particle, *wa* or *ga*, do Swedish Japanese learners tend to lean towards in main clauses with stage-level predicates?
- How do the Swedish Japanese learners' understanding of *wa* and *ga* in M+I, M+S, E+I and E+S sentence types compare to the Japanese native speakers'?
- Is there a correlation between the university/school and their choice of particle?

## 1.2 Structure of the thesis

The structure of the thesis is divided into six chapters. In this chapter, the aim of the thesis was presented. Also, an introduction to the problem were presented. Chapter two will provide the previous research for the thesis. Chapter three will explain the method of the thesis study. Chapter four presents the results from the study. In chapter five, the results will be discussed. In chapter six the conclusion will be presented.



## 2 Previous research

This study has three major areas that intertwine with each other: the Japanese particles *wa* and *ga*, predicate types and clause types (main and embedded clauses). This chapter will therefore shed light on what the three areas are and how they intertwine with each other. That is why previous research from these areas will be provided in three sections: 2.1, 2.2 and 2.3. In the first section 2.1 there will be an introduction to the particles *wa* and *ga* and some previous research on the particles. In 2.2 an introduction to the two predicate types will be provided and how these two correlate to *wa* and *ga*. Lastly, in 2.3 there will be an introduction to the embedded clause types and an explanation to how these correlate to *wa* and *ga*.

### 2.1 Wa and Ga

In Japanese, the particle *wa* is a topic marker and *ga* a subject marker. According to Kuno (1973:59-60) the difference between the two particles are, as their names imply, that *wa* marks the topic and *ga* marks the subject of a sentence. These two particles, however, have more nuances and usages than simply marking the topic and the subject. The work of Kuno (1973) is based on Kuroda (1965) who described the different nuances. Kuno then summarized and categorized the nuances of the particles in a simple way, such as the following.

(3) a. **Thematic wa**

*John-wa gakusei desu.*  
John-WA student COP  
'John is a student.'

b. **Contrastive wa**

*Ame-wa futte-imasu ga...*  
Rain-WA fall-PROG but  
'It is raining, but...'

c. **Neutral ga**

*Ame-ga futte-imasu.*  
Rain-GA fall-PROG  
'It is raining.'

d. **Exhaustive ga**

*John-ga gakusei desu*  
 John-GA student COP  
 ‘John is a student.’

(Kuno 1973:38)

e. **Object marking ga**

*John-wa eigo-ga deki-ru*  
 John-WA English-ACC able to do-NPST  
 ‘John can (speak) English.’

(Kuno 1973:61)

The example above shows that the difference between Thematic *wa* (a) and Contrastive *wa* (b) is that the first one is used for indicating the topic of a sentence, while the latter *wa* has a contrast nuance to it. According to Kuno (1973:44), the way to know if a sentence has Thematic *wa* or not is to see whether the sentence is generic or anaphoric. What Kuno (1973) means with anaphoric is that the topic is already known to the listener (Kuno 1973:39). Kuno’s definition of generic sentences is that the topic is a generic class, such as humans, Swedes, cats and so on (Kuno 1973:41).

The difference between the Exhaustive listing *ga* (d) and the Neutral *ga* (c) is that the Exhaustive listing *ga* focuses on the subject, while the Neutral *ga* does not have this nuance and is simply used descriptively. The *ga* in (e) is used as an object marker instead of another object marker, *o*, for certain verbs such as *wakaru* ‘to know’ and marks the object for transitive verbs with existential properties, such as *dekiru* ‘to be able to do’ (Kuno 1973:55). Note, however, that this object marking *ga* will not be relevant to this study.

Another way *wa* and *ga* differ is, as Noda (1996:4) describes, “known information” and “new information that can become the topic”, where *wa* indicates a piece of information that both the speaker and the listener know about and *ga* indicates new information that the listener does not know about. After the listener has heard this new information it can then become the topic. The following is an example from Noda (1996:5) that showcases this scenario.

(4) a. *Ojiichan: kodomotachi-ga i-na-i ne.*  
 Grandpa: kids-GA be-NEG-NPST oh  
 ‘Grandpa: Oh, the kids aren’t here.’

- b. *Obāchan: kodomotachi-wa ima mukō*  
 Grandma: kids-WA now opposite side  
*de karē-o tsukutte-iru yo*  
 LOC curry-ACC make-PROG INT  
 ‘The kids are making curry at the neighbors.’

In the scenario in (4) we can see that the grandpa uses *ga* to state something new to the listener, which in this case is the grandma. The grandma then replies back using *wa*, making the kids (*kodomotachi*) into the topic.

## 2.2 Correlation between predicates and readings of Wa and Ga

In this study, the terms coined by Carlson (1977) will be used to address the two subclasses of predicates: stage-level and individual-level. A stage-level predicate has the property of being in a “temporal” state or action. Below is an example from Kuroda (1965:53).

- (5) *Sora-ga akai.*  
 Sky-GA red  
 ‘The sky is red.’

In (5) we all understand that the sky’s color changes throughout the day. The sky being red is therefore just a “temporal” state of the sky at that moment when the utterance (5) is being said, hence, the predicate *akai* ‘red’ is a stage-level predicate for the subject *sora* ‘sky’.

Stage-level predicates with *ga* can, as Kuno (1973:52-53) says, “potentially be ambiguous” when it comes to whether they have a neutral or an exhaustive reading. Depending on the context it could be either one. However, if it is a neutral description of something or an observation with stage-level predicates then the *ga* is neutral (Kuno 1973:53-54). However, this description, observation of something needs to be in the place of the speaker for it to sound natural (Kuno 1973:54).

An individual-level predicate is the opposite of a stage-level predicate. It has the property of being “permanent” throughout the object’s or individual’s existence. Below is an English individual-level predicate example from Kratzer (1995:128), which we will translate into Japanese in (7).

- (6) Manon is a dancer

- (7) *Manon-wa odoriko da.*  
 Manon-WA dancer COP  
 ‘Manon is a dancer.’

The *odoriko da* ‘is a dancer’ in (6-7) is an individual-level predicate. Manon being a dancer, is not a temporary property of hers, it is permanent. The fact that she is a dancer, will not change the same way as the sky in (5). Observe that the particle is different in the Japanese examples (5) and (7). This has to do with the different properties of stage-level and individual-level, “temporal properties” and “permanent properties” respectively. Carlson (1980:186-187) points out that individual-level predicates cannot be modified with adverbs that have to do with manners compared to stage-level predicates, such as *angrily*, *slowly*, *cutely* and so on. The following examples from Carlson (1980:187) show this clearly.

- (8) *Inu-wa yukkuri hashi-ru.*  
 Dogs-WA slowly run-NPST  
 ‘Dogs run slowly.’

- (9) \**Bill-wa yukkuri yunikōn da.*  
 Bill-WA slowly unicorn COP  
 ‘Bill is a unicorn slowly.’

In (8) the sentence works fine with the manner adverb since it is a stage-level predicate. However, in (9) it doesn’t work. The sentence becomes ungrammatical because the predicate here is an individual-level predicate, which makes the sentence strange.

Kratzer (1995:128) points out another difference between the two predicates, which is that spatiotemporal locations do not work with individual-level predicates, while, they do work with stage-level predicates. The following translated examples from Kratzer (1995:128) shows this.

- (10) *Manon-wa shiba de odotte-iru.*  
 Manon-WA lawn LOC dance-PROG  
 ‘Manon is dancing on the lawn.’

- (11) *Manon-wa kesa odotte-iru.*  
 Manon-WA this morning dance-PROG  
 ‘Manon is dancing this morning.’

- (12) *Manon-wa kesa odoriko da.*  
 Manon-WA this morning dancer COP  
 ‘Manon is a dancer this morning.’

The examples (10) and (11) both have the stage-level predicate *odotteiru* ‘is dancing’, whereas (12) has the individual-level predicate *odoriko* ‘dancer’. However, while the stage-level predicates in (10) and (11) remain stage-level with the spatiotemporal location, the individual-level predicate in (12) changes to a stage-level predicate due to the spatiotemporal location *kesa* ‘this morning’. This spatiotemporal location in (12) changes the meaning of the individual-level predicate, giving the meaning that Manon is a dancer temporarily, hence becoming a stage-level predicate.

As mentioned in the beginning, the terms stage-level and individual-level predicates were coined by Carlson (1977). However, Kuroda (1965) mentioned on the two different predicates, before Carlson (1977) but in connection to Japanese. Kuroda (1965:46-48) mentions that a stage-level predicate can either have an exhaustive-listing or a neutral reading for the *ga*, when the *ga* is marking the subject in a main clause. When the *ga* is marking the subject in a main clause that has an individual-level predicate, it can only have the exhaustive-listing reading. The examples below from Tomioka (2013:299), show this correlation:

- (13) a. *Mari-ga tensai da.*  
 Mari-GA genius COP  
 ‘It is Mari that is a genius.’
- b. *Mari-wa tensai da.*  
 Mari-WA genius COP  
 ‘Mari is a genius.’

In (13a) the subject “Mari” gets, as mentioned before, an exhaustive-listing reading to it, because of *ga* and the individual-level predicate *tensai da* ‘is a genius’. To state that “Mari is a genius” neutrally, *ga* cannot be used in (13a). However, *wa* can achieve this neutral reading with the individual-level predicate, as seen in (13b) compared to (13a).

These readings of *ga* and the two predicates do not always happen, but what Kuroda (1965) wanted to point out with all this was that there is a correlation between predicates and the readings of *ga*.

## 2.3 Correlation between embedded clauses and the use of Wa and Ga

According to Diesing 1988 (cited in Heycock 1993:4), English embedded clauses get different pitch accents depending on whether the clause has an individual-level or stage-level predicate. If there is a stage-level predicate in the embedded clause, the narrow focus would be on the whole embedded clause. However, if it is an individual-level predicate in the clause then the narrow focus would only be on the embedded clause's subject (Heycock 1993:4). The following examples from Heycock (1993:4) highlight the focus in the sentence with [<sub>F</sub>].

(14) I only said that [<sub>F</sub> blowfish] are poisonous. (individual-level predicate)

(15) I only said that [<sub>F</sub> blowfish are available]. (stage-level predicate)

In (14) “are poisonous” is an individual-level predicate for the embedded subject “blowfish”. According to Diesing 1988 (cited in Heycock 1993:4), because of the predicate, the narrow focus is on the subject “blowfish”. On the other hand, the whole embedded clause receives the focus, because of the stage-level predicate in (15) “are available”.

Heycock (1993:4) then points out that the narrow focus in main clauses is the same as embedded clauses, in which if it is an individual-level predicate the main clause's subject gets an accented focus and if it is a stage-level predicate the whole main clause is accented.

Compare the embedded focus in (14) with the focus in (16)'s main clause and (15) with (17).

(16) [<sub>F</sub> Blowfish] are poisonous. (individual-level predicate)

(17) [<sub>F</sub> Blowfish are available]. (stage-level predicate)

When comparing Heycock's examples above, it can clearly be seen that the English narrow focus in main clauses act the same way as in embedded clauses.

In contrast to the narrow focus in English, the Japanese *ga* in embedded clauses does not function the same way as in main clauses (Heycock 1993:5). The exhaustive reading of *ga* is often thought of as a focus marker capable of narrow focusing, which is similar to pitch accent in English (Heycock 2008:58). In a main clause with *ga* that has an individual-level predicate (see example (18) below), the subject gets a narrow focus, or in the terms of Kuno (1977), an exhaustive reading (Heycock 1993:8). The following examples are from Heycock (1993:2).

(18) *John-ga kashikoi*

John-GA smart

‘John is smart’ or ‘It is John that is smart.’

- (19) *John-ga kita.*  
 John-GA came  
 ‘John came.’

However, this narrow focus (exhaustive reading) is not obligatory for *ga*-marked subjects with stage-level predicates, such as in example (19) (Tomioka 2013:299). In (19) it could either be read as exhaustive or descriptive. When these distinctions are in an embedded clause, the exhaustive reading gets neutralized (Heycock 1993:8).

*Wa* in embedded clauses is quite restricted in comparison to *ga*. Depending on the embedded clause type, *wa* can sometimes be/not be licensed in them (Tomioka 2013:269). According to Carnie (2013:213), there are three types of embedded clauses: complement clauses, adjunct clauses and specifier clauses. The first two clauses will only be explained briefly, since they are more relevant to the study of the thesis.

Complement clauses complement the main verb, examples of complementizers are “if” and “that” etc. (Carnie 2013:213). In Maki (1999:8) and Tomioka (2013:269), it is mentioned that the Japanese complement clauses that have the declarative complementizer *-to* ‘that’ and interrogative complementizer *-ka* can have *wa* in them. Furthermore, nominalized clauses that have *koto/no* ‘fact/thing’ are also able to host *wa* (Tomioka 2013:269). The examples below from Tomioka (2013:270) show examples of *wa*-enabling embedded clauses.

- (20) a. *Mari-wa [Ken-wa mō kae-tta-to] omotte-iru.*  
 Mari-WA [Ken-WA already go.home-PST-COMP<sub>DEC</sub>] think-PROG  
 ‘Mari thinks that Ken has gone home already.’
- b. *Yoko-wa [Naoya-wa doko-no shusshin-ka] oboete-iru.*  
 Yoko-WA [Naoya-WA where-GEN birth.place-COMP<sub>INT</sub>] remember-PROG  
 ‘Yoko remembers where Naoya is from.’
- c. *Kana-wa [Nanako-wa mō kae-tta koto-o] shitte-iru.*  
 Kana-WA [Nanako-WA already go.home-PST fact-ACC] know-PROG  
 ‘Kana knows that Nanako has gone home already.’

Adjunct clause is, as its name suggests, a clause that is like an adjunct, which means that the information given in the adjunct clause is not essential but additional to the sentence. An example of an adjunct clause is relative clauses (Carnie 2013:213). Maki (1999:10) thinks that it is impossible for relative clauses to license *wa*. On the other hand, Tomioka (2013:298)

thinks that *wa* in relative clauses are possible, although they have “extremely limited” conditions.

All in all, there is a correlation between the type of embedded clauses and the use of *wa* and *ga*. *Wa*-licensing in embedded clauses is still a phenomenon which is being explored. Therefore, a satisfactory explanation as to why the use of *wa* is restricted in embedded clauses remains to be discovered.



## 3 Research

In this chapter, I will further explain my research questions and present the sentence types used in my study. Thereafter, I will explain the method used in this study. Lastly, there will be a discussion about other possible methods that could have been used.

### 3.1 Research question

The research questions for this study are the following:

- What particle, *wa* or *ga*, do Swedish Japanese learners tend to lean towards in main clauses with stage-level predicates?
  - What particle do Swedish Japanese learners tend to lean towards overall, in comparison to the Japanese native speakers?
- How do the Swedish Japanese learners' understanding of *wa* and *ga* in M+I, M+S, E+I and E+S sentence types compare to the Japanese native speakers'?
- Is there a correlation between the university/school and their choice of particle?

### 3.2 Stimuli: Sentences types

To get a good and manageable range of different usages of *wa* and *ga*-sentences, a 2x2 factorial design was used to construct the stimuli. The 2x2 factorial design consists of two independent variables, each variable having their own two levels (Schütze & Sprouse 2013:121-122). The two variables that were looked at in this study were clause embedding and predicate types. Each variable had two levels:

- Clause embedding: main clause vs. embedded clause
- Predicate types: stage-level vs. individual-level predicates

The reason for choosing these two variables is because they can grammatically control whether a nominative noun can be *wa* or *ga*. At the same time, they give a good range of different usages of *wa* and *ga*-sentences.

To avoid ungrammatical sentences and non-relevant *wa* and *ga*-sentences, the stimuli was therefore taken from examples in existing research papers (see appendix or the subsections below, for more details). Only a few were created from scratch. Some of the stimuli have been modified to be more natural-sounding, since examples from linguistic research papers can sometimes be grammatical but unnatural-sounding. An example of one of

the stimuli that was modified were the following example from Maki (1999:9), the question mark indicates that the sentence is strange:

(21) ?*John-wa Mary-ga kono hon-o yonda no-o kōkaishite-iru.*  
John-WA Mary-GA this book-ACC read thing-ACC regret-PROG  
'John regrets that Mary read this book.'

(22) *John-wa Mary-ga kono hon-o yonda no-o yorokonde-i-ta.*  
John-WA Mary-GA this book-ACC read thing-ACC glad-PROG-PST  
'John is glad that Mary read this book.'

The verb 'regret' in (21) was changed to 'glad' in (22), even though the sentence was grammatical with the verb 'regret'. However, this sentence did not sound natural with the verb 'regret' and was therefore substituted for the verb 'glad', which sounds more natural with the sentence.

A detailed description and explanation on the different sentence types tested in the study will be further explained in the following subsections. Furthermore, an explanation of why the sentences were chosen and what properties they tested in the study will also be mentioned.

The following four sentence types were tested in the study:

- Main clauses with Individual-level predicates
- Main clauses with Stage-level predicates
- Embedded clauses with Individual-level predicates
- Embedded clauses with Stage-level predicates

### 3.2.1 Main clauses with Stage-level predicates

Main clauses with stage-level predicates can have both *wa* and *ga*. The difference in nuances between the two are very small. Therefore, this type of sentence is used to test which of the two particle is mostly preferred, amongst the participants. At the same time, it is there to test whether they know that this type of sentence can have both *wa* and *ga*. If the participants, however, have a tendency toward one particle over the other, it can possibly indicate that they favor a particle more than the other. There are five items for this type of sentence in the survey.

The example below is an example of this type of sentence.

(23) *Hillary-san-wa/ga ebaresuto ni hajimete noborimashi-ta.*  
Ms. Hillary-WA/GA Mount Everest LOC begin climb-PST  
'It was the first time that Ms. Hillary climbed Mount Everest.'

### 3.2.2 Main clauses with Individual-level predicates

This type of sentence tests whether the participant knows that main clauses with individual-level predicates have *wa* instead of *ga* in a neutral sentence. Therefore, if the majority answers *ga* here it would be ungrammatical and show that they do not have a good grasp of the particle for this type of sentence. There are five items of this type of sentence in the survey.

The following is an example of a main clause with individual-predicate sentence that was used in the study.

- (24) *Sūpāman-wa chikara-ga tsuyoi.*  
 Superman-WA power-ACC strong.  
 ‘Superman is powerful.’

(Ueyama 2015:90)

### 3.2.3 Embedded clauses with Stage-level predicates

This type of sentence also tests whether the participant knows or can feel that it is *ga* in the sentence. The structure of this sentence type is the same as the type in subsection 3.2.3: embedding with individual-level predicates. What differs is only the type of predicate. This will test whether they have a tendency or not, towards *ga* or *wa* on individual-level and stage-level predicates. There are also five items of this sentence type.

The following sentence is an example from the study of an embedded clause with a stage-level predicate:

- (25) *Mary-ga koron-da node, mae-o aruite-i-ta*  
 Mary-GA fall-PST CON forward-ACC walk-PROG-PST  
*Ken mo koron-da.*  
 Ken also fall-PST.  
 ‘Since Mary fell forward, Ken who was walking in front also fell.’

(Tomioka 2013:270)

### 3.2.4 Embedded clauses with Individual-level predicates

This type of sentence tests whether the participant knows or can feel that the grammatical answer is *ga*. If the majority chooses another option, it would suggest that they do not know

or are not able to feel the difference between embedded clauses and main clauses with individual-level predicates. There are five items each of this type of sentence in the survey.

The sentence below used in the study is an example of an embedded clause with individual-level predicate.

(26) *Ano ko-ga 20 sai da-to-wa kigatsukimas-en deshi-ta.*  
 That kid-GA 20 years COP-COMP<sub>DEC</sub>-WA notice-NEG COP-PST  
 ‘I didn’t notice that the kid was 20 years old.’

(Ueyama 2015:90)

### 3.2.5 Summary of the sentence types

Table over the four different sentence types		
	Type of predicates	
Type of clause	Individual-level Predicate	Stage-level Predicate
Main Clause	<b>Main + Individual</b>	<b>Main + Stage</b>
Embedded Clause	<b>Embedded + Individual</b>	<b>Embedded + Stage</b>

Table 3.2-1.

The table show how the four sentence types were made by crossing the type of predicates and type of clauses with each other.

## 3.3 Methodology: The questionnaire

To be able to gather a lot of data from many participants in an abbreviated time, a forced-choice survey was chosen as the method. The other reason for choosing this method is because of the ease of comparing the difference between conditions (Schütze & Sprouse 2013:33). One questionnaire was used for two groups of subjects, Japanese native speakers and Swedish native speakers. The only difference in the survey for the two groups were the questions that was asked in the beginning of the survey, which was about their background. The answers from the Japanese native speakers were used as a reference for the Swedish native speakers. In this study there are four conditions, five sentences per condition and ten filler sentences. In total, there are 30 sentences with four choices in the survey. The usage of fillers is to reduce the chance of letting the participants know what sentence types are being tested (see 3.2 for the sentence types tested).

The sentences for the questionnaire are taken from various Japanese linguistic research papers, see 3.2 for more detailed information about the sentences. Therefore, there is a potential error source in which the sentences may sound unnatural for native speakers, even if the sentences are grammatically correct. Seven out of 30 sentences are made by me to prevent

the stimuli from being too repetitive. All sentences have been checked and approved by Shinichiro Ishihara and two native Japanese speakers from an app called Hinative before they were published. The sentences were presented to the participants in a randomized order in the survey.

According to Sprouse and Almeida (cited in Schütze & Sprouse 2013:39), the Forced choice task is the most powerful task out of the four judgement tasks (Likert scale, Yes and No, Magnitude estimation, Forced choice) when it comes to detecting differences between data. The estimated number of participants required to get a good coverage for forced-choice surveys are around fifteen participants (Sprouse and Almeida, cited in Schütze & Sprouse 2013:40), however, the number may vary a bit depending on one's stimuli and how many of them there are going to be.

To qualify for the survey the participant had to be either a native Japanese speaker or a native Swedish speaker that has studied or is studying Japanese. To find these Swedish native speakers, the questionnaire was distributed through social media and sent out to other universities that offer Japanese courses. This was an attempt to get as even results as possible from different schools, since there is a risk that only people from the same school will answer the questionnaire if only distributed on Facebook, etc. To find Japanese native speakers, the questionnaire was distributed through social media and acquaintances.

In the questionnaire for the native Japanese speakers the following was asked of them:

- Age
- Gender
- Whether they had Japanese as their first language or not

These questions were asked in case all or most of the participants that answered are a certain gender or age group. If so, it would be a possible error source for biased results. For Swedish native speakers, the personal questions that were asked was:

- Age
- Gender
- Whether they had Swedish as their first language or not
- What school they had studied or are studying Japanese in
- Whether they had studied Japanese in Japan before
- If they had studied there, how long did they study in Japan

The reason for asking age and gender is the same as for the questionnaire for the Japanese. However, the questions about what school they came from and if they had studied in Japan

before were asked because one of the hypotheses I have is that there is a clear difference between those who have studied Japanese longer and those who have not. The reason why I asked what school they came from is to see whether the participants are spread out throughout Sweden. If all the participants come from one school, there is a potential risk of the answers being influenced. Influenced in a way, were everyone have had the same teachers and courses, which results in that every participant has a very similar Japanese education background. More spread out results from different schools would tell more about whether their Japanese education backgrounds influence their choices made in the survey.

It was stated in the beginning of the questionnaire that the answers were anonymous. It was also stated that the data collected would only be used for this thesis for linguistic research purposes. By sending in the answers, the participants have agreed that their answers will be used in the study. A short instruction was provided before the actual questions to ease the participants. Before the survey went online, a test run was conducted. After the finishing touches, the survey went online for two weeks from March 28<sup>th</sup> till April 10<sup>th</sup>.

### 3.4 Discussion of alternative methods

An alternative method to construct this survey, instead of forced choice task, is the Likert scale. Instead of having the participants choose preset options, they will instead grade a sentence if it is acceptable or not on a scale from zero to five for example, by making or taking different sentences and exchange out the *wa* for *ga* and vice versa. The outcome of this will show if a sentence type is considered acceptable on a scale, depending on the clause and predicate types. The downside with the Likert scale is that its data requires at least 30-35 participants to be considered trustworthy (Schütze & Sprouse 2013:40). That is why, the forced choice task was chosen for this study, since it only requires 15 participants for the data to be considered trustworthy.

## 4 Results

In this chapter, the results will be presented in three sections, 4.1, 4.2 and 4.3. The first section 4.1 will present the responses based on the participants' first language. Thereafter, in 4.2 the responses based on which university the native Swedish speakers went to will be presented. In the third section, 4.3, the responses based on whether the native Swedish speakers had studied in Japan or not will be presented. Lastly, 4.4, 4.5 and 4.6 are short summaries of the results.

### 4.1 Responses based on mother tongue

A total of 66 participants responded to the survey, of which 42 of the participants were Swedish native speakers and 21 were Japanese native speakers. Three participants had another language as their first language and were therefore not taken into account. For more information about the participants, see appendix 8.4.

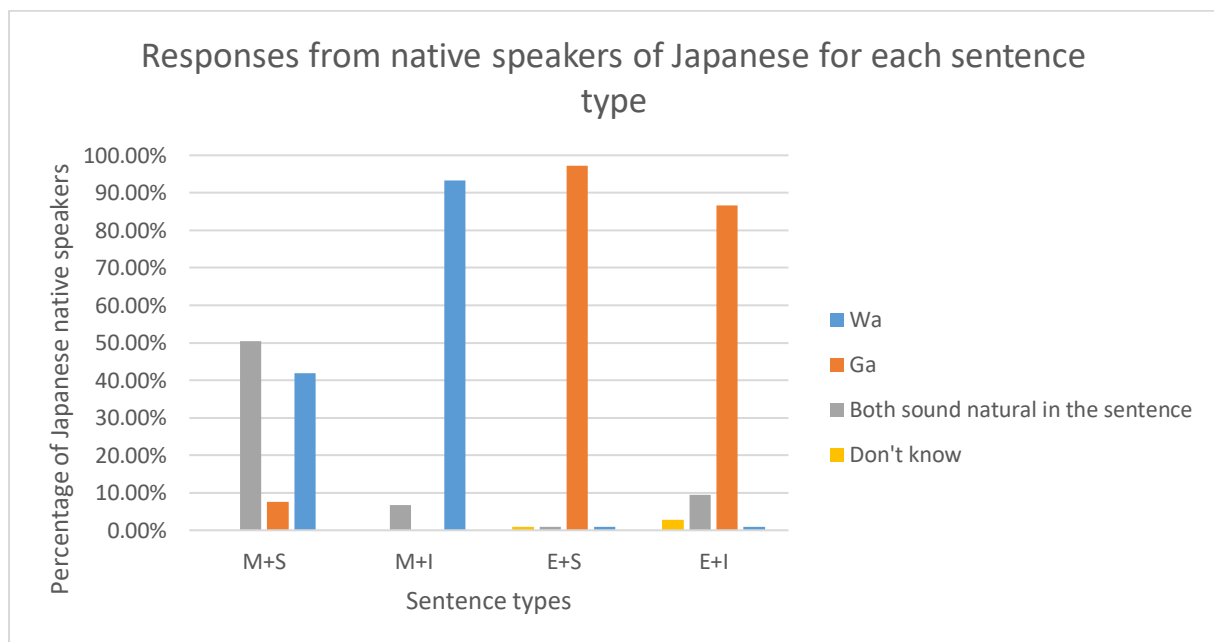


Figure 1.

The figure shows that the native Japanese speakers are mostly unified in their choice of particle for the different sentence types, except for in M+S sentence type.

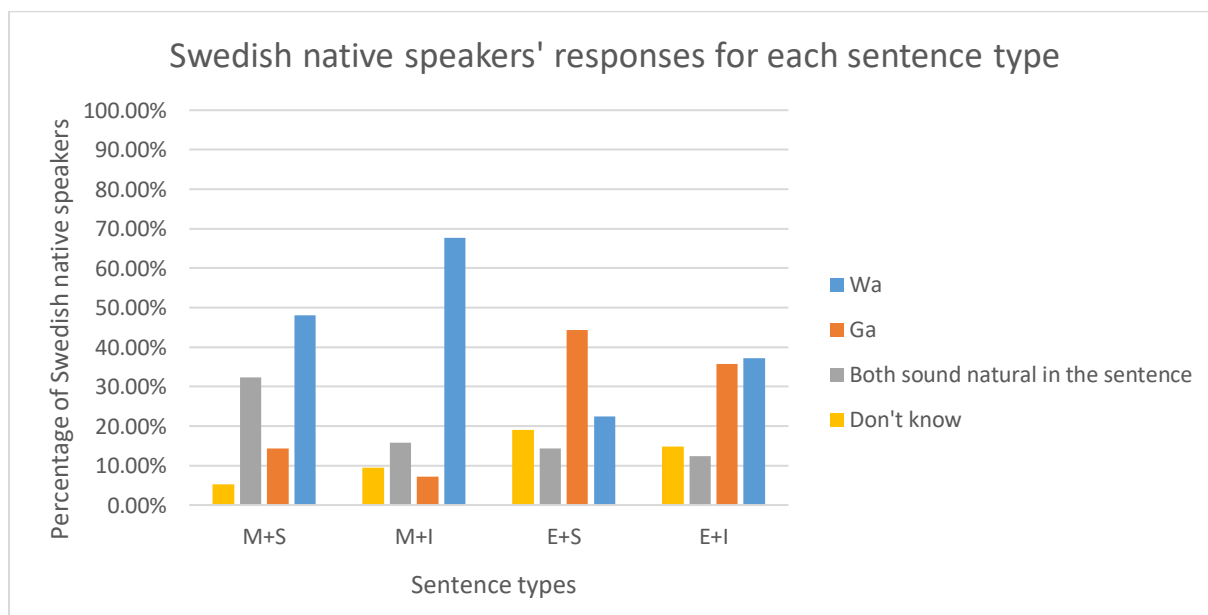
The first sentence type, main clause + stage-level predicates, showed some varied results from both groups. Japanese native speakers seemed to prefer the option “both sound natural in the sentence” over the other options (see figure 1).

Table of Japanese native speakers' responses in percent					
Sentence types	Wa	Ga	Both sound natural	Don't know	Total sum
M+S	41,90% (44)	7,62% (8)	50,48% (53)	0,00% (0)	(105)
M+I	93,33% (98)	0,00% (0)	6,67% (7)	0,00% (0)	(105)
E+S	0,95% (1)	97,14% (102)	0,95% (1)	0,95% (1)	(105)
E+I	0,95% (1)	86,67% (91)	9,52% (10)	2,86% (3)	(105)
<b>Total sum</b>	<b>34,29% (144)</b>	<b>47,86% (201)</b>	<b>16,90% (71)</b>	<b>0,95% (4)</b>	<b>(420)</b>

Table 4.1-1.

The table show that the native Japanese speakers are mostly unified in their choice of particle for the different sentence types, except for in M+S sentence type.

In contrast, Swedish native speakers preferred *wa* the most in this sort of sentence type (see figure 2). Intriguingly, *wa* seemed to be the most preferred choice for this type of sentence for both groups (see both figure 1 & 2). The majority of Japanese native speakers may have preferred “both sound natural in the sentence” option over *wa*. However, a portion of the Japanese native speakers seemed to prefer *wa* in this type of sentence (see figure 1). The reason for this will be further discussed in chapter 5. The *ga* option was interestingly not popular in both groups (see figure 1 & 2).



Figur 2.

In the figure, we can see that the native Swedish speakers are not as unified in their choice of particle in the sentence types, in comparison to the native Japanese speakers' figure.

For the second sentence type, both native Japanese speakers and native Swedish speakers preferred *wa* in main clause + individual-level predicate type of sentences (see figure 1 & 2). Japanese native speakers were very unanimous in their preference for this type of sentence. Interestingly, a small portion of the Japanese native speakers' and Swedish native speakers' group chose “both sound natural in the sentence” instead of *wa*. Swedish native speakers in comparison were not as unified in their choices, as some people chose the other options



instead of *wa* (see figure 2 and table 4.1-2). On the other hand, this choice of *wa* was the most unified answer out of all the other sentence types, when it comes to native Swedish speakers.

Table of Swedish native speakers' responses in percent					
Sentence types	Wa	Ga	Both sound natural	Don't know	Total sum
M+S	48,10% (101)	14,29% (30)	32,38% (68)	5,24% (11)	(210)
M+I	67,62% (142)	7,14% (15)	15,71% (33)	9,52% (20)	(210)
E+S	22,38% (47)	44,29% (93)	14,29% (30)	19,05% (40)	(210)
E+I	37,14% (78)	35,71% (75)	12,38% (26)	14,76% (31)	(210)
<b>Total sum</b>	<b>43,81% (368)</b>	<b>25,36% (213)</b>	<b>18,69% (157)</b>	<b>12,14% (102)</b>	<b>(840)</b>

Table 4.1-2.

In the table, we can see that the native Swedish speakers are not as unified in their choice of particle in the sentence types, in comparison to the native Japanese speakers' table.

For the third sentence type, embedded clause + stage-level predicates, both Swedish native speakers and Japanese native speakers preferred *ga* the most (compare figure 1 and 2). The Japanese native speakers were especially unified in their preference for this sentence type, because almost all the native speakers of Japanese preferred *ga*. Close to none preferred the other choices (see table 4.1-1). In contrast, Swedish native speakers had once again more varied results and were not as unified in their preference as the Japanese native speakers. Interestingly, some of the Swedish native speakers preferred *wa* over *ga* in E+S type of sentences. Furthermore, Swedish native speakers' preference for *wa* was lower in this sentence type than the E+I type of sentences (see table 4.1-2).

As we can observe in figure 1, a majority of the Japanese native speakers' group preferred the option *ga* for embedded clause + individual-level predicates. Some people in this group, however, preferred the option "both sound natural in the sentence". In comparison to the much preferred *ga* in the results of native Japanese speakers, the native Swedish speakers' preference for this sentence type was more varied. However, even though it was varied, native speakers of Swedish seemed to prefer *wa* over *ga* a bit more for this type of sentence (see figure 2 and table 4.1-2). Furthermore, the Swedish native speakers' results in figure 2 and table 4.1-2, the "both sound natural in the sentence" and "don't know" options have a higher percentage overall in all the sentence types in comparison to the Japanese native speakers' group.

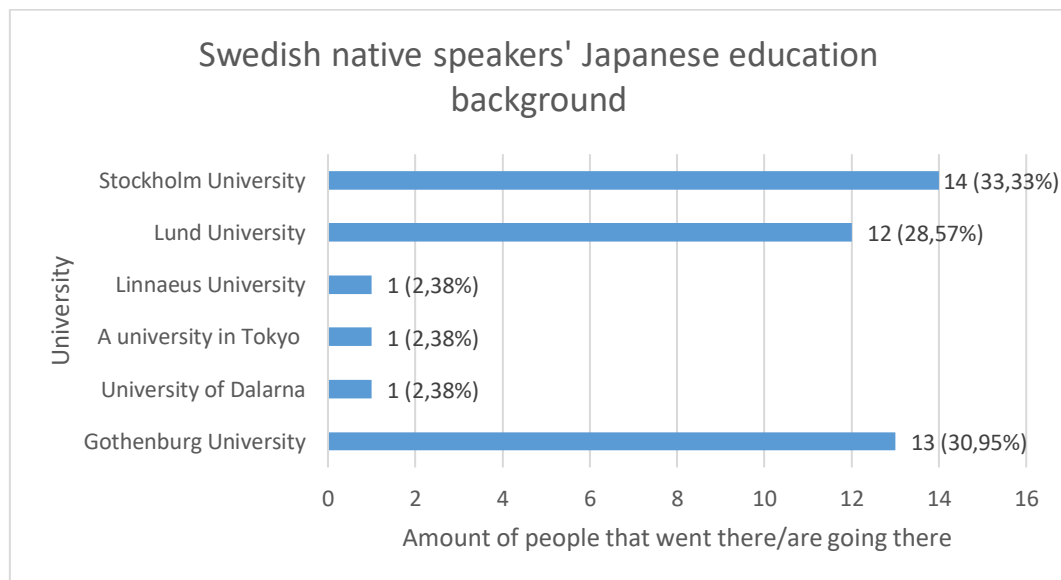
Lastly, when we observe the native Swedish speakers' results in figure 2 and table 4.1-2, the "both sound natural" and "don't know" options have a higher percentage overall in all the sentence types in contrast to the native Japanese speakers.

## 4.2 Responses based on Swedish university

The table below presents the responses based on what Swedish university the Swedish native speakers went to and how long they studied the Japanese language there. A few participants from Linnaeus University and University of Dalarna were in the survey (see figure 3).

However, they are not included in the comparison because of insufficient participants.

Therefore, table 4.2-1 to 4.2-4 below will only compare Stockholm, Gothenburg and Lund University to each other.



*Figur 3.*  
*The figure show that a large majority of the native Swedish participants come from Stockholm University, Gothenburg University and lastly Lund University.*

Responses based on Swedish University: Main clause + Stage-level predicate									
	wa	ga		Both sound natural		Don't know		Total	
Total for M+S	46,67%	91	14,36%	28	33,33%	65	5,64%	11	195
Gothenburg University	40,00%	26	23,08%	15	30,77%	20	6,15%	4	65
1 semester	53,33%	16	26,67%	8	6,67%	2	13,33%	4	30
1 year	33,33%	5	20,00%	3	46,67%	7	0,00%		15
3 years	13,33%	2	13,33%	2	73,33%	11	0,00%		15
7 years	60,00%	3	40,00%	2	0,00%		0,00%		5
Lund University	55,00%	33	16,67%	10	28,33%	17	0,00%		60
1 semester	66,67%	10	13,33%	2	20,00%	3	0,00%		15
1 year	80,00%	4	20,00%	1	0,00%		0,00%		5
2 years	30,00%	6	10,00%	2	60,00%	12	0,00%		20
3 years	60,00%	6	30,00%	3	10,00%	1	0,00%		10
5 years	60,00%	3	20,00%	1	20,00%	1	0,00%		5
10 years	80,00%	4	20,00%	1	0,00%		0,00%		5
Stockholm University	45,71%	32	4,29%	3	40,00%	28	10,00%	7	70
1 semester	40,00%	2	0,00%		60,00%	3	0,00%		5
1 ½ semester	20,00%	2	0,00%		70,00%	7	10,00%	1	10
1 year	51,43%	18	5,71%	2	25,71%	9	17,14%	6	35
2 years	66,67%	10	6,67%	1	26,67%	4	0,00%		15
4 years	0,00%		0,00%		100,00%	5	0,00%		5

Table 4.2-1

The table show, in the following order that Lund University, Stockholm University and Gothenburg University preferred *wa* the most in M+S sentence types.

All three schools preferred *wa* over the other options for M+S sentence types. Note that the Japanese native speakers knew that M+S could have both *wa* and *ga*, since the majority chose “both sound natural in the sentence” (see table 4.2-1), which indicates that there is a preference for *wa* in all schools. However, the results do not say whether it depends on the school or not. The second most popular choice was “both sound natural in the sentence”, in which Stockholm University had the highest percentage that chose it.

Responses based on Swedish University: Main clause + Individual-level predicate									
	wa		ga		Both sound natural		Don't know		Total
Total for M+I	68,72%	134	6,15%	12	15,38%	30	9,74%	19	195
Gothenburg University	61,54%	40	7,69%	5	12,31%	8	18,46%	12	65
1 semester	53,33%	16	13,33%	4	6,67%	2	26,67%	8	30
1 year	66,67%	10	0,00%		26,67%	4	6,67%	1	15
3 years	66,67%	10	0,00%		13,33%	2	20,00%	3	15
7 years	80,00%	4	20,00%	1	0,00%		0,00%		5
Lund University	68,33%	41	10,00%	6	20,00%	12	1,67%	1	60
1 semester	73,33%	11	0,00%		20,00%	3	6,67%	1	15
1 year	40,00%	2	60,00%	3	0,00%		0,00%		5
2 years	75,00%	15	5,00%	1	20,00%	4	0,00%		20
3 years	80,00%	8	10,00%	1	10,00%	1	0,00%		10
5 years	20,00%	1	20,00%	1	60,00%	3	0,00%		5
10 years	80,00%	4	0,00%		20,00%	1	0,00%		5
Stockholm University	75,71%	53	1,43%	1	14,29%	10	8,57%	6	70
1 semester	60,00%	3	0,00%		40,00%	2	0,00%		5
1 ½ semester	80,00%	8	0,00%		20,00%	2	0,00%		10
1 year	71,43%	25	2,86%	1	8,57%	3	17,14%	6	35
2 years	86,67%	13	0,00%		13,33%	2	0,00%		15
4 years	80,00%	4	0,00%		20,00%	1	0,00%		5

Table 4.2-2.

The table show that Stockholm University, Lund University, Gothenburg University preferred *wa* the most in M+I sentence types. Stockholm University had the highest percentage and Gothenburg University the lowest out of the three schools.

Secondly, all three schools' participants preferred *wa* in M+I sentence types. This is, as said before, the most unified choice out of all the other results from the other sentence types, when it comes to Swedish native speakers. This data shows that Swedish native speakers are sure about using *wa* in M+I sentence types.

Responses based on Swedish University: Embedded clause + Stage-level predicate									
	wa		ga		Both sound natural		Don't know		Total
Total for E+S	21,03%	41	45,13%	88	14,87%	29	18,97%	37	195
Gothenburg University	27,69%	18	36,92%	24	16,92%	11	18,46%	12	65
1 semester	30,00%	9	33,33%	10	6,67%	2	30,00%	9	30
1 year	33,33%	5	40,00%	6	20,00%	3	6,67%	1	15
3 years	13,33%	2	40,00%	6	33,33%	5	13,33%	2	15
7 years	40,00%	2	40,00%	2	20,00%	1	0,00%		5
Lund University	16,67%	10	56,67%	34	21,67%	13	5,00%	3	60
1 semester	33,33%	5	0,00%		60,00%	9	6,67%	1	15
1 year	20,00%	1	60,00%	3	20,00%	1	0,00%		5
2 years	5,00%	1	75,00%	15	10,00%	2	10,00%	2	20
3 years	30,00%	3	70,00%	7	0,00%		0,00%		10
5 years	0,00%		80,00%	4	20,00%	1	0,00%		5
10 years	0,00%		100,00%	5	0,00%		0,00%		5
Stockholm University	18,57%	13	42,86%	30	7,14%	5	31,43%	22	70
1 semester	20,00%	1	60,00%	3	20,00%	1	0,00%		5
1 ½ semester	0,00%		50,00%	5	10,00%	1	40,00%	4	10
1 year	25,71%	9	20,00%	7	2,86%	1	51,43%	18	35
2 years	20,00%	3	80,00%	12	0,00%		0,00%		15
4 years	0,00%		60,00%	3	40,00%	2	0,00%		5

Table 4.2-3

The table show that the schools prefer *ga* in E+S sentence types. Lund University had the highest percentage choosing *ga* out of the three schools. Gothenburg University had the lowest percentage choosing *ga*.

Thirdly, majority of the three schools' participants preferred *ga* in E+S sentence types. Those from Stockholm and Lund University who had studied two years preferred *ga* the most. This data shows that the participants are sure about the particle in E+S sentence types. For some reason a large majority of the participants who had studied one year at Stockholm University chose the option "don't know" for E+S sentence types. This occurrence is most likely not because of one participant, since one participant can only answer five times per sentence type (see 3.2.3). However, it could possibly be three to four participants that answered, "don't know", on all or most of the E+S sentences, which resulted into the high percentage of "don't know". Another plausible explanation for this spike in "don't know" is that it could indicate that those who had studied only one year in Stockholm University are especially unsure about E+S sentence types.

Responses based on Swedish University: Embedded clause + Individual-level predicate									
	wa		ga		Both sound natural		Don't know		Total
Total for E+I	36,92%	72	35,38%	69	12,82%	25	14,87%	29	195
Gothenburg University	38,46%	25	24,62%	16	20,00%	13	16,92%	11	65
1 semester	46,67%	14	13,33%	4	10,00%	3	30,00%	9	30
1 year	53,33%	8	26,67%	4	20,00%	3	0,00%		15
3 years	13,33%	2	26,67%	4	46,67%	7	13,33%	2	15
7 years	20,00%	1	80,00%	4	0,00%		0,00%		5
Lund University	40,00%	24	53,33%	32	5,00%	3	1,67%	1	60
1 semester	66,67%	10	20,00%	3	6,67%	1	6,67%	1	15
1 year	60,00%	3	40,00%	2	0,00%		0,00%		5
2 years	25,00%	5	70,00%	14	5,00%	1	0,00%		20
3 years	50,00%	5	50,00%	5	0,00%		0,00%		10
5 years	0,00%		80,00%	4	20,00%	1	0,00%		5
10 years	20,00%	1	80,00%	4	0,00%		0,00%		5
Stockholm University	32,86%	23	30,00%	21	12,86%	9	24,29%	17	70
1 semester	40,00%	2	40,00%	2	20,00%	1	0,00%		5
1 ½ semester	40,00%	4	40,00%	4	0,00%		20,00%	2	10
1 year	37,14%	13	5,71%	2	14,29%	5	42,86%	15	35
2 years	20,00%	3	73,33%	11	6,67%	1	0,00%		15
4 years	20,00%	1	40,00%	2	40,00%	2	0,00%		5
<b>Total sum</b>	<b>43,33%</b>	<b>338</b>	<b>25,26%</b>	<b>197</b>	<b>19,10%</b>	<b>149</b>	<b>12,31%</b>	<b>96</b>	<b>780</b>

Table 4.2-4.

The table show that Gothenburg University and Stockholm University prefer *wa* in E+I sentence types. The exception is Lund University who prefer *ga* over *wa* in E+I sentence types.

As can be seen, it was very evenly split between *wa* and *ga* in table 4.2-4 for the participants that studied in Gothenburg University. However, most preferred *wa* over *ga* in E+I sentence types. The majority that had studied for under one year chose the option *wa* for this sentence type, while those that had studied over two to three years mostly chose the option *ga* for E+I sentence types (see table 4.2-4). When it comes to the “both sound natural in the sentence” option, only those that had studied three years and under chose this option. The responses from those that had studied under a year in Gothenburg University show an uncertainty for this type of sentence, since most of them chose *wa*, which the Japanese did not do (compare table 4.2-4 with table 4.2-1).

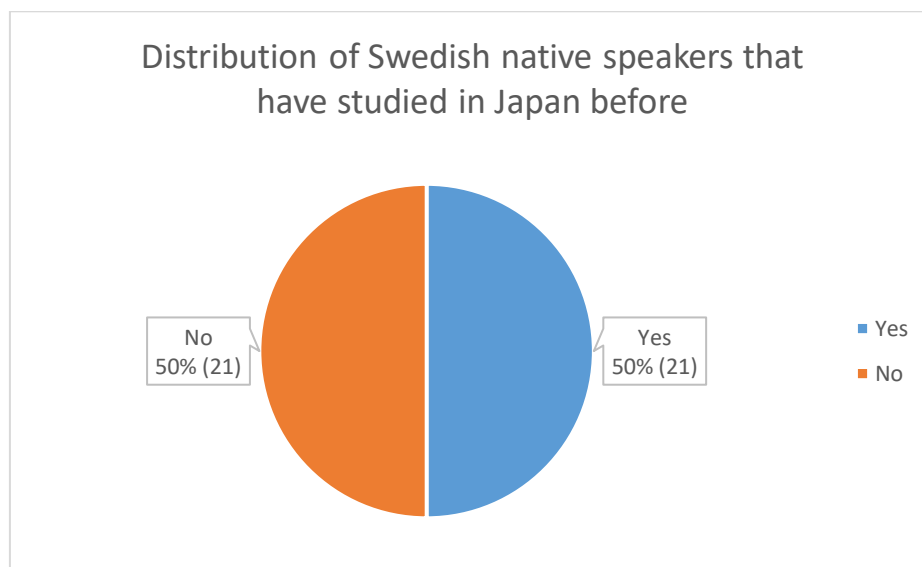
For Lund University in the E+I sentence type, the majority preferred *ga* over *wa*. However, those that had mostly studied for under a year chose *wa* over *ga*, while the majority who had studied for two years or more chose *ga* over *wa* (see table 4.2-4). Very few chose the “both sound natural in the sentence” option, in contrast to Gothenburg University. Responses from Lund University and also those that had studied for more than two years aligned more with the responses from the native speakers of Japanese. In contrast to the responses from Lund University, almost no one in the Japanese native speakers’ group chose *wa*. But among

the Lund University participants there was a noteworthy amount that chose *wa*, even if the majority preferred *ga* over *wa*.

Stockholm University also had an even split between *wa* and *ga*, just like Gothenburg University. They also mostly preferred *wa* over *ga* for E+I sentence types, similarly to Gothenburg University. It was even split between *wa* and *ga* for those that had studied under one and a half semester and under, in Stockholm University (see table 4.2-4). Those who had studied for one year mostly preferred *wa* over *ga*. The majority that had studied two years and more preferred *ga* over *wa*. When it comes to the option “both sound natural in the sentence”, mostly those who had studied one year, and four years preferred this option. Once again, responses from native speakers of Japanese preferred *ga* over other options. This data shows that those who had studied for under one year and a half are not certain about this sort of sentence type, since they mostly preferred *wa*.

To summarize for the E+I sentence type, Gothenburg and Stockholm University preferred *wa* over *ga*, compared to Lund University who preferred *ga* over *wa*. Stockholm University had the highest percentage that chose the option “both sound natural in the sentence”. On the other hand, Lund University had the lowest percentage that chose this option. Lastly, those that had studied for more than two years had a tendency to pick the same option as the native Japanese speakers.

### 4.3 Responses based on how long Swedish native speakers have studied in Japan



Figur 4.  
The figure show that half of the participants have studied in Japan and half of the participants have not.

The majority that have studied in Japan answered as the Japanese participants (see table 4.1-1 & figure 1). Those who had not studied in Japan before mostly answered differently from the Japanese participants and those who had studied in Japan (see all table 4.3).

Responses based on how long Swedish native speakers have studied in Japan: Main clause + Stage-level predicate									
	wa		ga		Both sound natural		Don't know		Total
Total for M+S	48,10%	101	14,29%	30	32,38%	68	5,24%	11	210
Less than 1 semester	60,00%	9	6,67%	1	33,33%	5	0,00%		15
1 semester	35,00%	7	20,00%	4	40,00%	8	5,00%	1	20
1 year	46,67%	21	26,67%	12	26,67%	12	0,00%		45
2 years	40,00%	6	6,67%	1	53,33%	8	0,00%		15
3 years	40,00%	4	20,00%	2	40,00%	4	0,00%		10
Never studied in Japan	51,43%	54	9,52%	10	29,52%	31	9,52%	10	105

Table 4.3-1.

The participants who have studied in Japan preferred *wa* in M+S sentence types. The never studied in Japan also preferred *wa* in M+S sentence types.

Firstly, in M+S sentence types, the majority who have not studied in Japan preferred *wa* over other options. Those who have studied in Japan preferred *wa* over other options. However, those who studied in Japan chose *wa* fewer times than those who had not studied in Japan. The *ga* option was more popular for the “have studied in Japan”-participants than the “have not studied in Japan”-participants in table 4.3-1. The “have studied in Japan”-participants also chose the “both sound natural in the sentence” more than the “have not studied in Japan”-participants.

Responses based on how long Swedish native speakers have studied in Japan: Main clause + Individual-level predicate									
	wa		ga		Both sound natural		Don't know		Total
Total for M+I	67,62%	142	7,14%	15	15,71%	33	9,52%	20	210
Less than 1 semester	66,67%	10	26,67%	4	6,67%	1	0,00%		15
1 semester	45,00%	9	5,00%	1	30,00%	6	20,00%	4	20
1 year	71,11%	32	11,11%	5	13,33%	6	4,44%	2	45
2 years	73,33%	11	0,00%		26,67%	4	0,00%		15
3 years	90,00%	9	10,00%	1	0,00%		0,00%		10
Never studied in Japan	67,62%	71	3,81%	4	15,24%	16	13,33%	14	105

Table 4.3-2.

Both the participants who have studied in Japan and those who have not preferred *wa* in M+I sentence types. The participants who have studied in Japan preferred *wa* less than those who have not studied in Japan.

Japanese native speakers thought that in M+I sentence types, *wa* sounded most natural (see table 4.1-1). The majority that had studied in Japan also picked *wa*. The majority who had not studied in Japan also picked *wa* over *ga*. However, the ones that had studied in Japan had a lower amount of responses of *wa* instead of *ga*. As we can see in the M+I table above,



those who had not studied in Japan had a higher amount of responses of *wa* than those who did study in Japan.

Responses based on how long Swedish native speakers have studied in Japan: Embedded clause + Stage-level predicate									
	wa		ga		Both sound natural		Don't know		Total
Total for E+S	22,38%	47	44,29%	93	14,29%	30	19,05%	40	210
Less than 1 semester	13,33%	2	73,33%	11	6,67%	1	6,67%	1	15
1 semester	10,00%	2	55,00%	11	20,00%	4	15,00%	3	20
1 year	31,11%	14	44,44%	20	15,56%	7	8,89%	4	45
2 years	6,67%	1	73,33%	11	20,00%	3	0,00%		15
3 years	20,00%	2	60,00%	6	20,00%	2	0,00%		10
Never studied in Japan	24,76%	26	32,38%	34	12,38%	13	30,48%	32	105

Table 4.3-3.

Participants that have studied in Japan and those who have not preferred *ga* in E+S sentence types.

In E+S sentence type, the majority that had studied in Japan preferred *ga* over *wa* as the Japanese participants (see table 4.1-1). Those who had not studied in Japan before also preferred *ga* over *wa*. However, those who had studied in Japan before chose *ga* more than those who had not studied in Japan. For E+S sentence types, the “don’t know” option was a close second choice for the participants who have not studied in Japan before. In contrast, almost none of the participants who have studied in Japan chose “don’t know”.

Responses based on how long Swedish native speakers have studied in Japan: Embedded clause + Individual-level predicate									
	wa		ga		Both sound natural		Don't know		Total
Total for E+I	37,14%	78	35,71%	75	12,38%	26	14,76%	31	210
Less than 1 semester	33,33%	5	66,67%	10	0,00%		0,00%		15
1 semester	15,00%	3	60,00%	12	20,00%	4	5,00%	1	20
1 year	37,78%	17	40,00%	18	15,56%	7	6,67%	3	45
2 years	26,67%	4	53,33%	8	20,00%	3	0,00%		15
3 years	30,00%	3	70,00%	7	0,00%		0,00%		10
Never studied in Japan	43,81%	46	19,05%	20	11,43%	12	25,71%	27	105
<b>Total sum</b>	<b>43,81%</b>	<b>368</b>	<b>25,36%</b>	<b>213</b>	<b>18,69%</b>	<b>157</b>	<b>12,14%</b>	<b>102</b>	<b>840</b>

Table 4.3-4.

The table show that the participants who have studied in Japan prefer *ga* over *wa* in E+I sentence types. The participants who have not studied in Japan prefer *wa* over *ga* in E+I sentence types.

Lastly, in E+I sentence type, the majority of those who had studied in Japan before preferred *ga* over *wa* as the Japanese participants in figure 1 and table 4.1-1. However, the majority of those who had not studied in Japan before preferred *wa* over *ga*.

#### 4.4 Summary of the results from learners of Japanese and native speakers of Japanese

Overall the results from native speakers of Japanese were more unified and precise, in comparison to the Swedish native speakers' results (compare figure 1 and 2). The Swedish native speakers' results were more spread out for each sentence type that was tested (see figure 2). In E+I and E+S sentences, the Japanese preferred *ga* (see figure 1), while Swedish native speakers preferred *wa* for E+I sentence types and *ga* for E+S sentence types (see figure 2). In M+I, both the Japanese and the Swedish native speaker groups preferred *wa*. However, the Japanese native speakers prefer "both sound natural" in M+S sentences (see figure 1), while the Swedish native speakers preferred *wa* in M+S sentences (see figure 2).

#### 4.5 Summary of university responses

To summarize the university responses, Gothenburg and Stockholm University students preferred *wa* over *ga* for the sentence types E+I, M+I and M+S. However, they preferred *ga* over other options in E+S sentence types (see table 4.2-1). The Lund University students, who preferred *ga* over *wa* in E+I, E+S and *wa* over *ga* in M+I and M+S, chose almost the same as the Japanese native speakers (compare table 4.1-1 and all the table 4), except in M+S, where all the schools preferred *wa* over other options. Gothenburg University had the overall highest percentage of students who chose the option "both sound natural in the sentence". On the other hand, Lund University had the lowest percentage (see table 4.1-1).

#### 4.6 Summary of the responses from those that had studied in Japan

Those who had studied in Japan before were more likely to choose the same options that the Japanese participants chose (see table 4.1-1 and all the table from 4.3-1 to 4.3-4), whilst those who had not studied in Japan before differed. However, most of those who had studied in Japan still preferred *wa* over other options in M+S sentences as the participants that had not studied in Japan.

## 5 Discussion

In this chapter there will be discussions about the results and attempts to answer the thesis questions. The chapter will begin with section 5.1, where there will be a discussion about the results from native speakers of Swedish and native speakers of Japanese. Thereafter in 5.2, there will be a discussion on the results based on what University the participants came from. Lastly in 5.3, there will be a discussion on the results that are based on whether the participants have studied in Japan before or not.

### 5.1 Swedish native speakers and Japanese native speakers

From the results in 4.1, we can see that Swedish Japanese learners tend to lean towards *wa* in instances such as embedded clause + individual-level predicates and main clause + individual-level predicates and main clause + stage-level predicates. The only exception is embedded clause + stage-level predicates. The Japanese native speakers had a very specific particle that they preferred in different sentence types. However, in main clause + stage-level predicates they preferred both *wa* and *ga*. Studying the M+S sentence types in the survey (see appendix 8.1), all the sentences were what Kuno (1973:44) called anaphoric sentences. Furthermore, they could all be interpreted as a neutral description or an observation. The sentences given to the participants could therefore be taken as neutral *ga* or thematic *wa*. This may be a reason as to why the Japanese native speakers preferred both *wa* and *ga* for M+S type of sentences. There was still a substantial amount of Japanese native speakers that preferred only *wa* for M+S sentence types (see figure 1). Therefore, based on this study's results for M+S sentence types, it is still possible that there is an overall preference for *wa* amongst the native Japanese speakers.

For Swedish Japanese learners there could be many reasons as to why they prefer *wa* overall. A possibility is that they do not really know when and how to use *wa*. As can be seen in figure 2, they seemed a bit unsure about which particle to use for each sentence type in comparison to the Japanese, since the results were more spread out among the options. It was close, but many of the Swedish native speakers preferred *wa* over *ga* in embedded clauses with individual-level predicates, which was the opposite of the Japanese results, of which a big proportion preferred the *ga* option. As mentioned before, *wa* in embedded clauses is more restricted than *ga* (Tomioka 2013:269). Therefore, *ga* is often found to be in embedded clauses than *wa*. This restriction reflects the way the Japanese native speakers chose for the embedded clause sentence types (see figure 1). As we can see in the sentence types for E+I in

the appendix, all the embedded clauses had a *wa*-enabling complementizer, such as *koto*, *deareba* and *to* (Tomioka 2013:269). These *wa*-enabling complementizers may be another possibility as to why the Swedish Japanese learners chose *wa* over *ga* for this type of sentence. Japanese native speakers, however, rarely chose *wa* in E+I sentence types. The reason may be because they instinctively felt that *ga* was more grammatical in E+I sentence types.

In E+S sentence types they mostly chose *ga*, but there was a noteworthy amount of native Swedish speakers that chose *wa* and “both sound natural” option. A possible speculation on why the participants had an easier time discerning if it was *wa* or *ga* in E+S sentence types than in E+I sentence types may be because of the stage-level predicates, since the native Swedish speakers seem to have a harder time knowing if it is *wa* or *ga* in E+I sentence types.

As mentioned before, in the M+S sentence type, there was an overall preference for *wa* in the results from native speakers of Swedish. Even though both *wa* and *ga* worked in the M+S sentence types, the Japanese and the Swedish preferred *wa* or both *wa* and *ga*, but not only *ga* (see figure 1 & 2). A possible reason for this preference could be that if it is only *ga*, then it would be taken as a neutral reading. According to Kuno (1973:54) if this neutral reading is outside of the place of the speaker (the participants in this case), it will sound a bit awkward. Therefore, the *wa* option was chosen more than the *ga* option, because the participants are not in the same discourse as the sentences. This feeling may also be the reason as to why they chose “both sound natural in the sentence”, since depending on where they are, the neutral *ga* can sound natural. As said before, the M+S sentence types are anaphoric sentences and can therefore host *wa*. That may be another reason, as to why *wa* was preferred over *ga*, since the thematic *wa* is not bound to where the speaker is, in contrast to neutral *ga*.

## 5.2 Universities

People from Stockholm and Gothenburg University answered differently compared to the Japanese native speakers in the sentence types main clause + stage-level predicates and embedded clause + individual-level predicates (compare table 4.1-1 with table 4.2-1 and 4.2-4). However, the participants from Lund University mostly preferred the same answer as the Japanese native speakers, except in M+S sentence types, where the majority from all schools preferred *wa* over other options.

Why is there a difference between the schools when it comes to embedded clause + individual-level predicates? One reason could be that Gothenburg and Stockholm University

teach differently or that they use different books compared to Lund University. Another, more plausible, reason could be that those who came from Gothenburg and Stockholm University were mostly those who had studied for under a year, while the spread was larger for participants from Lund University. Therefore, a reason as to why most of the Lund University participants preferred the same answers as the Japanese native speakers could be because, for example, there were more people that had studied Japanese longer in this group (see table 4.2-4). Most of those that studied in Gothenburg and Stockholm University only studied for a year. Therefore, the results from these two groups do not reflect the Japanese knowledge of all alumni or students from these two schools. With that said, it also does not reflect the Japanese knowledge of all the Lund University alumni and students either. If there had instead been more spread out participants that had studied for a longer period of time, the results could be more trustworthy and give a clearer picture of a correlation between the participants and the schools. But as it is now there are too few participants from each school for it to work. However, the results still show that there is a possibility that there is a correlation between what university and what preference in particles the participants have for the different sentence types.

### 5.3 Studies in Japan

The results in table 4.3-1 to 4.3-4 show that those who had studied in Japan were more prone to prefer the same options as the Japanese native speakers in table 4.1-1. A probable reason could be because those who had studied there had a deeper knowledge overall of Japanese in comparison to those who had not studied there. Their fluency level is on another level than those who had not studied there. Perhaps that is why their answers are close to what the Japanese answered.

## 6 Conclusion

Swedish Japanese learners tend to lean towards *wa* in main clause + stage-level predicate types of sentences. They are also unsure about whether there should be *ga* or not in embedded clause + individual-level predicate type sentences. However, they are relatively sure about the particle being *ga* in embedded clause + stage-level predicate type sentences (see table 4.1-2 & figure 2). The Swedish Japanese learners have a relatively good understanding of *wa* and *ga* in the sentence types main clause + individual-level predicates and main clause + stage-level predicates. However, the Swedish Japanese learners do not have a good understanding of the particles when it comes to embedded clauses, especially embedded clauses with individual-level predicates, compared to the Japanese native speakers. Furthermore, those who have studied in Lund University performed better overall in comparison to the other schools. Also, the participants that had studied Japanese before in Japan had a better understanding of *wa* and *ga*, in comparison to the participants that had not studied there before.

### 6.1 Improvements and further research

There are many things that could be improved in this study. For example, it would be better if there were more participants from different schools in Sweden. If there were enough participants, it could potentially show a better correlation for what particle students from different schools prefer in the sentence types. The study of this thesis is lacking when it comes to the number of different participants that have studied for more than a year. An even more extensive study on if those who had studied in Japan have a better understanding of *wa* and *ga* could be done, as this study lacks other questions about their education in Japan, what level of Japanese they studied and so on. Instead of forced choices, another conceivable way of seeing if a group prefers one particle over the other is the Likert scale. However, the Likert scale requires many participants for the results to be considered trustworthy, as mentioned in 3.4.

For a future research in the same field, to add another variable such as type of embedded clauses, more specifically adjunct clauses, would be very interesting, since Tomioka (2013:298) and Maki (1999:10) both think that it is hard to host *wa* in those type of embedded clauses. Comparing other countries' results would also be interesting.

## 7 References

- Carnie, Andrew. 2013. Syntax: A generative introduction (Third ed.). Oxford: Wiley-Blackwell. *Introducing linguistics series*. p. 544. ISBN-10: 0470655313
- Carlson, Greg. N. 1977. A unified analysis of the English bare plural. *Linguistics and philosophy volume 1, issue 3*. p. 413-456
- Carlson, Greg. N. 1980. Reference to kinds in English revised version. In Jorge Hankamer (ed.) *Outstanding dissertations in linguistics*. New York: Garland. p. 289
- Heycock, Caroline. 1993. Focus projection in Japanese. In Mercè González (ed.) *Proceedings of NELS 24*. Amherst, Mass.: GLSA publications. p. 159-187.
- Heycock, Caroline. 2008. Japanese -*Wa* and -*Ga*, and Information structure. In Shigeru Miyagawa & Mamoru Saito (ed.) *The Oxford Handbook of Japanese Linguistics*. Oxford: Oxford University Press. p. 54-83. DOI: 10.1093/oxfordhb/9780195307344.001.0001
- Kratzer, Angelika. 1995. Stage-level and Individual-level predicates. Chicago: Chicago University Press. In Gregory N. Carlson & Francis Jeffry Pelletier (ed.) *The generic book*. p. 125-175. ISBN: 9780226092928
- Kuno, Susumu. 1973. *The structure of the Japanese language*. London: The Massachusetts Institute of Technology press. *Current studies in linguistics series, third issue*. p. 410. ISBN: 9780262110495
- Kuroda, Shige-Yuki. 1965. *Generative Grammatical Studies in the Japanese Language*. PhD dissertation, MIT.
- Maki, Hideki; Kaiser, Lizanne; Ochi, Masao. 1999. Embedded topicalization in English and Japanese. Amsterdam: Elsevier. *Lingua 107*. p. 1-14.
- Noda, Hisashi. 1996. 「wa」 to 「ga」 (shin nihongo bunpō sensho (1) [Wa and Ga (New Japanese grammar anthology 1)]) Tokyo: Kurushio publisher. p. 331. ISBN-10: 487424128X
- Schütze, Carson T.; Sprouse, Jon. 2013. Judgement data. In Robert J. Podesva & Devyani Sharma (ed.) *Research Methods in Linguistics*. Cambridge: Cambridge University press. p. 27-121. ISBN: 9781107696358
- Tomioka, Satoshi. 2013. Embedded wa-phrases, predication, and judgement theory. *Natural language & Linguistic Theory, 2015, volume 33, Issue 1*. p. 267-305. DOI: 10.1007/s11049-014-9258-4
- Ueyama, Ayumi. 2015. Hajimete no hito no gengogaku (21 ed.) [Beginner's introduction to linguistics]. *Kotoba no sekai e [To the world of languages]*. Tokyo: Kurushio publisher. p. 218. ISBN: 978-4-87424-051-9

## 8 Appendix

### 8.1 Sentences used in the survey

#### **Embedded clauses with Stage-level predicate:**

1. Kuroda 1972, p.171 (slightly modified)

Sentence: *John wa inu ga neko o oikaketa koto o shitteiru.*

‘(lit.) John knows that a dog chased a cat.’

2. Kuroda 1972, p.173 (slightly modified)

Sentence: *Moshi Pluto ga John o oikakete-ireba, John wa hashiteiru ni chigainai.*

‘If Pluto is chasing John, John must be running.’

3. Maki 1999, p.9 (slightly modified)

Sentence: *John wa Mary ga kono hon o yonda no o yorokondeita.*

‘John is glad that Mary read this book.’

4. Tomioka 2012, p.270

Sentence: *Mary ga koronda node, mae o aruiteita Ken mo koronda.*

‘Because Mary fell, Ken, who was walking in front of her, also fell.’

5. Ueyama 2015, p.93

Sentence: *Kare ga wazawaza mi ni kita to iu koto ga ayashīzo.*

‘It seemed suspicious for him to specially come and see me.’

#### **Main clause with Individual-level predicate:**

1. Kuroda 2005, p.7

Sentence: *Microsoft no shachō no Gates-san wa ōkanemochi desu.*

‘Mr. Gates, the president of Microsoft, is very rich.’

2. Ueyama 2015, p.90

Sentence: *Supāman wa chikara ga tsuyoi.*

‘Superman’s powers are strong.’



3. By me

Sentence: *Hiyoko wa kiiri desu.*

‘chickens are yellow.’

4. Kuno 1973, p.46

Sentence: *Subete no ningen wa byōdō desu.*

‘All human beings are equal.’

5. Iwasaki 2002, p.223

Sentence: *Zō wa karada ga ookī.*

‘The elephant - it’s body is big.’

**Main clause with Stage-level predicate:**

1. Kuroda 2005, p.55

Sentence: *Hillary-san wa/ga Everest ni hajimete noborimashita.*

‘Ms Hillary scaled Mt. Everest for the first time.’

2. Iwasaki 2002, p.237

Sentence: *Somerset Maugham (samasetto mōmu) wa/ga kono heya de shōsetsu o kakimashita.*

‘Somerset Maugham wrote a novel in this room.’

3. By me

Sentence: *Inu to neko wa/ga oshōgatsu no hanabi no oto ni bikkurishita*

‘(the) dog and (the) cat was surprised by the sound from the New Year’s Eve fireworks.’

4. By me

Sentence: *Haha wa/ga soto de ki o ueteita.*

‘Mother was outside planting trees.’

5. By me

Sentence: *Gates-san wa/ga Microsoft biru de mini-gorufu o yatteimashita.*

‘Mr. Gates was playing mini-golf in the Microsoft building.’

## 8.2 Filler sentences

### Exhaustive listing

1. Kuno 1973, p.64

Context: *dare ga mainichi gakkō ni iku?*

Answer: *John ga mainichi gakkō ni iku.*

‘John (and only John) goes to school every day.’

2. Kuno 1973, p.65

Context: *Nihon wa doko ga sumi-yoi desu ka.*

Answer: *Nihon wa Tokyo ga sumi-yoi desu.*

‘As for Japan, Tokyo is comfortable to live in.’

3. Kuno 1973, p.66

Context: *Nihongo wa dare ga heta desu ka.*

Answer: *Nihongo wa John ga heta desu.*

‘As for Japanese, it is John who is bad at it.’

4. Kuno 1973, p.51–52

Context: *dare ga gakusei desu ka.*

Answer: *John ga gakusei desu.*

‘(Of all the people we are talking about) John (and only John) is a student; it is John who is a student.’

5. Kuno 1973, p. 51-52

Context: *Nani ga ningen no shinyū desu ka.*

Answer: *Inu ga ningen no shinyū desu.*

‘It is the dog (and only the dog) that is the man’s best friend.’

### Contrastive Wa

1. Heycock 2008 p.55

Sentence: *John ga pai wa tabeta ga kēki wa tabenakatta.*

‘John ate (the) pie, but he didn’t eat (the) cake.’

2. Heycock 2008 p.75

Sentence: *Mary wa kashikoi ga John wa kashikokunai.*

‘Mary is smart, but John is not.’

3. Kuno 1973, p.46

Sentence: *Ame wa futte-imasu ga taishita koto wa arimasen.*

‘It is raining, but it is not much.’

4. Shibatani 1990, p.265

Sentence: *Tarō wa toshokan ni itta ga, hon wa yomanakatta.*

‘Taro went to the library but did not read a book.’

5. Shibatani 1990, p.265

Sentence: *Ame wa futte-iru ga yuki wa futte-inai.*

(lit.) ‘The rain is falling, but the snow isn’t falling.’

### **Embedded clauses with Individual-level predicate:**

1. Kuroda 2005, p.16

Sentence: *Moshi Natsume Sōseki ga Nihon ichi no sakka de areba, Nogami Yaeko wa Nihon dai ni no sakka desu.*

‘If Natsume Sōseki is the greatest writer of Japan, Nogami Yaeko is the number two writer of Japan.’

2. Ueyama 2015, p.90

Sentence: *Ano ko ga hatachi da to wa ki-ga-tsukimassen deshita.*

‘I didn’t notice that the girl was 20 years old.’

3. Ueyama 2015, p.90

Sentence: *Supāman ga chikara ga tsuyoi koto wa atarimae da.*

‘Superman being strong is an obvious thing.’

4. Ueyama 2015, p.93

Sentence: *Ichirō wa Keiko ga gakusei de aru koto o wasureteita.*

‘Ichirō forgot that Keiko is a student.’

5. By me

Sentence: *Kare wa haha-oya ga SONY no jimuin de aru koto o shiranakatta.*

‘He did not know that his mother was an office worker at SONY.’

### 8.3 Links to the surveys

The survey for Swedish native speakers:

[https://docs.google.com/forms/d/e/1FAIpQLSdA-wgBU-r3Pgxznrnn\\_dMbYCqTeIYgmjvQRMbbGGBVjaHHdg/viewform?usp=pp\\_url](https://docs.google.com/forms/d/e/1FAIpQLSdA-wgBU-r3Pgxznrnn_dMbYCqTeIYgmjvQRMbbGGBVjaHHdg/viewform?usp=pp_url)

The survey for Japanese native speakers:

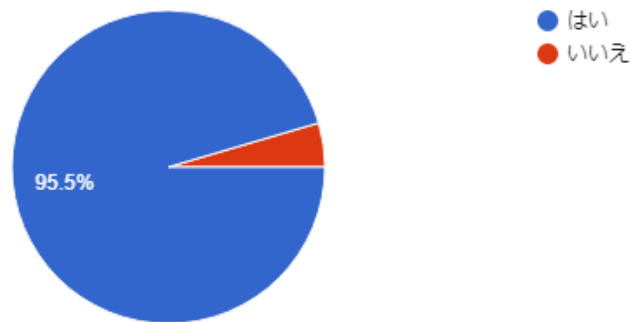
[https://docs.google.com/forms/d/e/1FAIpQLScUnf0YHkal7I4FoLTrFUXy5r-cvo7t9pFd51X2XNFOHkTRNg/viewform?usp=pp\\_url](https://docs.google.com/forms/d/e/1FAIpQLScUnf0YHkal7I4FoLTrFUXy5r-cvo7t9pFd51X2XNFOHkTRNg/viewform?usp=pp_url)

## 8.4 Background information of the participants

### 8.4.1 Native speakers of Japanese

あなたは日本語の母国語話者ですか。

22 responses

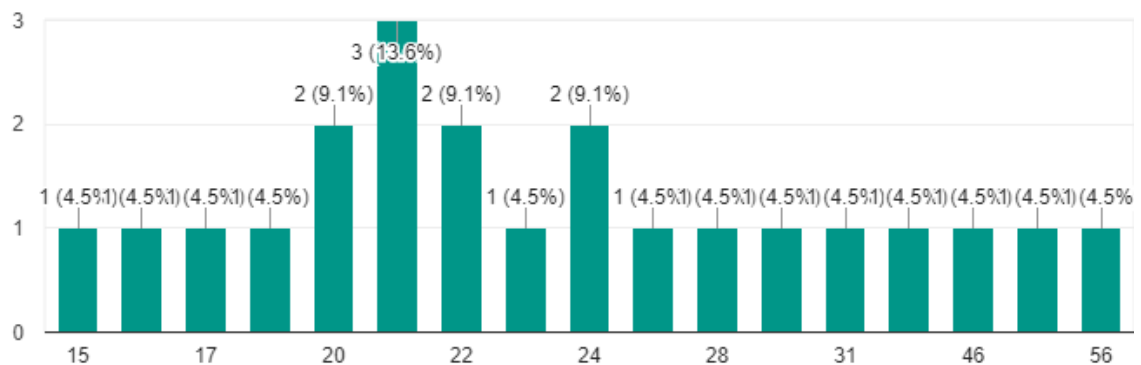


Figur 5.

This figure show whether the participant have Japanese as their first language or not. Blue stands for Yes. Red stands for No. 95,5% out of 22 participants in the figure are native Japanese speakers.

おいくつですか。

22 responses

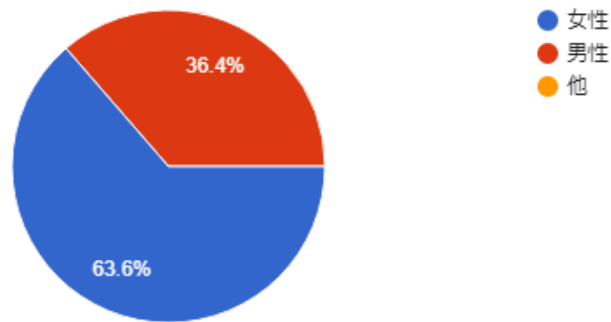


Figur 6.

This figure shows the age of the native speakers of Japanese. Y-axle is the number of participants. X-axle is the age. Majority are 20-24 years old.

あなたの性別は何ですか。

22 responses



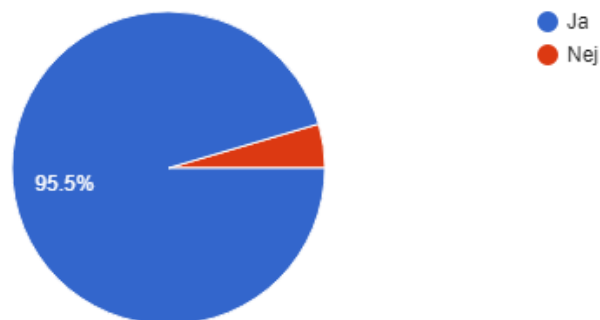
Figur 7

*This figure shows what gender the Japanese native speakers have. Blue is for female. Red is for male. Yellow is for other. 63,6% out of 22 participants are female. The rest are male.*

#### 8.4.2 Native speakers of Swedish

Har du svenska som modersmål?

44 responses

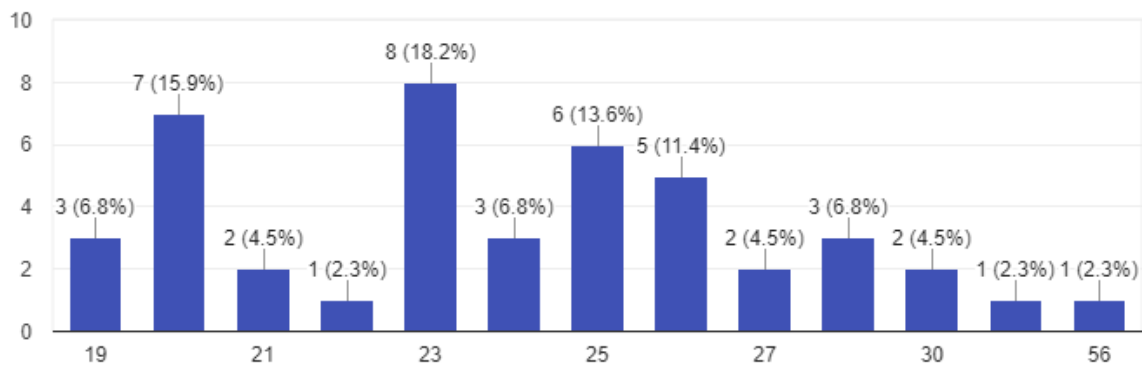


Figur 8.

*This figure shows if the participant has Swedish as their first language or not. Blue is Yes. Red is No. 95,5% out of 44 participants has Swedish as their first language.*

## Hur gammal är du?

44 responses

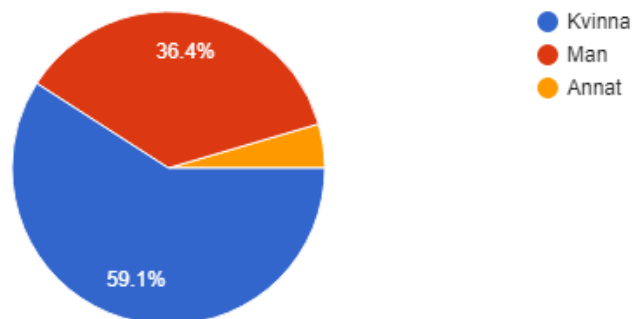


Figur 9.

This figure shows how old the native speakers of Swedish are. Y-axle is the number of participants. X-axle is the age. Majority are in their early twenties.

## Ange ditt kön

44 responses



Figur 10.

This figure shows the Swedish native speakers' gender. Blue is female. Red is male. Yellow is other. 59,1% out of 44 participants are female and 36,4% out of 44 participants are male. The 4,5% are other.