

**A Comparative Study of Clause Combining Strategies by Chinese L1 Japanese
Learners and Japanese Native Speakers**

By

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Abstract

The primary purpose of the present study is to compare the clause combining strategies used by Chinese L1 Japanese speakers and native Japanese speakers speaking Japanese. This study used storytelling data from the corpus I-JAS and involved both quantitative and qualitative analyses to identify clause combining forms used by each group, followed by a comparison between the forms (e.g., *soshite* ‘and/then’, *-toki* ‘when’, *-to* ‘when/if’) that clearly distinguished the native and learner groups. A relatively clear pattern emerged in which Japanese native speakers were inclined to use conjunctives; the Chinese speakers preferred conjunctives but that preference was not as strong as in the Japanese group. Forms such as conjunctive *-te* ‘and/then’ were similarly used by both groups, although the Chinese group preferred the conjunction *soshite* ‘and/then’ and the conjunctive *-toki* ‘when’. Of all the clause combining forms, the one that markedly distinguished native and learner groups was the conjunctive *-to* ‘when/if’, which was used by the vast majority of the native speakers, but not by the Chinese learners. It was also found to be used by native speakers in a specific context in which the first clause sets the frame for the discovery of a surprise event/action/change of state that occurs in the second clause; this use requires a certain level of Japanese language proficiency which seems to account for the less frequent use of *-to* by most Chinese L1 Japanese learners.

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Chapter 1. Introduction

The current thesis is a corpus-based study that examines how Japanese native and non-native speakers combine clauses in speaking Japanese. I focus on Chinese L1 Japanese learners since the clause-combining strategies are quite different between the two languages. We will see if that influences the way in which Chinese speakers combine Japanese clauses. I will start with a brief introduction on the Japanese and Chinese clause combining, along with previous studies on clause combining in a Japanese storytelling context. Then the research questions of this present study will be presented.

1.1. Japanese Clause Combining

Numerous studies have been done by linguists on clause combining as one of the core grammatical patterns of language, and it is a topic that has received continuing interest in actual discourse (Schegloff 1996a, Helasvuo 2001, Iwasaki 1992, 2002, Thompson and Couper-Kuhlen 2005, Laury and Ono 2014). With the growing emphasis on the investigation of spoken language, linguists have gained a deeper understanding and insight into clause combining. Clause combining involves clauses having a certain semantic relationship being combined into one sentence, and this is usually accomplished by using clause combining forms (Fujii 1993, Iwasaki 2002, Clancy 2020).

There are two types of clause combining forms in Japanese: conjunctions and conjunctives¹. Conjunctions are essentially independent words like those found in other languages (e.g., *and* in English). Example (1) is from a Japanese language textbook, Genki I; the two clauses are connected by the conjunction *soshite* ‘and/then’.

(1)

CL1 [bangohan no ato iroirona hanashi o shita]

CL2 [soshite kireina kimono o moratta.]

‘After dinner, we talked a lot. And I received a beautiful kimono.’

(Genki 1(2011): 331)

According to Iwasaki (2002), the canonical clause combining structure in Japanese has the first clause (CL1) with a clause combining form (CCF), implying a non-closure of the sentence, which is followed by another clause (CL2) ending with a finite predicate form (FPF).

[CL1 – CCF] [CL2– FPF]

In this case, the clause combining forms that occur at the clause-final position of the first clause are conjunctives. They are bound grammatical markers or bound morphemes, either conjunctive

¹ Some researchers use the term ‘connective’ instead of ‘conjunctive’ (Hasegawa 1992, Fujii 1993, Iwasaki 2002, Suzuki 2013, Xing 2016). However, ‘connective’ could be used as an umbrella term for forms that connect two clauses in a sentence (Mastumoto and Yo 1998). To avoid any contradictions in understanding, I have decided to use the terms ‘conjunctions’ and ‘conjunctives’ to differentiate the two types of clause combining forms.

suffixes or conjunctive particles (Iwasaki 2002, Mastumoto and Yo 1998). The following examples (2) and (3) below demonstrate these two types²:

(2)

CL1 [*ue no ko wa tookyoo de umarete*]

above COP: ATT child TOP (place) LOC be.born:TE

CL2 [*shita no ko wa hawai de umareta*]

bottom COP:ATT child TOP (place) LOC be.born:PAST

'The older child was born in Tokyo, and the younger one in Hawaii.'

(Iwasaki 2002)

Example (2), having the conjunctive suffixes *-te* 'and/then' involving conjugation of the verb *umareru* 'to be born' allows the clauses to be combined. The *-te* form usually marks that the sentence is not finished and another clause will follow later to complete the sentence. An example is the case of two clauses combined by the first clause ending with a non-finite conjunctive form *-te* and combining the following clause with a different subject.

² A slightly modified example from Iwasaki (2002).

(3)

CL1 [*ano mise yasui kedo*] CL2 [*umakunai yo*]

this restaurant is cheap but delicious:NEG PP

'That restaurant is cheap but not very good, you know.'

(Iwasaki 2002)

Example (3) is an example of using conjunctive particles for clause combining. Here, the conjunctive particle *-kedo* 'but' is attached to the end of the first clause *ano mise yasui* 'that restaurant is cheap', connecting to the following clause, *umakunai yo* 'not very good, you know'. The contrast is expressed by the conjunctive form *kedo* 'but' contrasting the restaurant's two qualities ('cheap' and 'not tasty'). Unlike the case of conjunctive suffixes, conjunctive particles attach to a finite predicate. In this example, conjunctive particle *-kedo* 'but' is attached to the adjective predicate *yasui* 'cheap', marking the non-closure of the clause and connecting it to the following clause. However, since this study will not explore the difference in usage between conjunctive suffixes and particles, I will refer to them collectively as conjunctives in the later sections.

Clauses are often combined multiple times using conjunctives. These types of continued long segmental clauses are rather common in spoken Japanese and are known as 'clause chaining' (Iwasaki 1992, 2002, Laury and Ono 2014, Clancy 2020). In clause chaining, multiple clauses chained together with conjunctives are referred to as 'medial' clauses (MC), and the last

clause, ending with a finite verb, is called the terminal/final clause (TC) (Iwasaki 2002, Clancy 2020).

[MC1] ([MC2]) [TC]

Iwasaki and Ono (2001) conducted a study on clause combining in Japanese spoken discourse, and they claimed that the clause combining system in Japanese is flexible; since Japanese is a verb/predicate-final language, the subordinate clauses left with conjunctive forms (such as *-te* ‘and/then’, *-tara* ‘when’, *-to* ‘when/if’, *-ba* ‘if’, *kara* ‘because’, and *kedo* ‘but’) allow the clause to continue until it is ended by a finite form. See the following slightly modified spoken narrative example from Iwasaki and Ono (2001):

(4)

1. ...*shooboo-jidoosha ga yakete*
fire-engine NOM burn:TE
2. *soko e onna ka otoko ka wa*
there ALL woman or man or TOP
wakannai-n-da kedo ne
know:NEG:NONPAST-SE-COP though PP
3. *are koo fuu-n naranai*
that this appearance-COP:ADV become:NEG:TE
4. *chanto koo-yatte*
neatly this.way-do:TE

5. *tatte-n* *no.*
stand.up:ASP:NONPAST SE

‘In front of it was a fire truck, all burned up, and
there was a body, I couldn’t tell if it was a man or woman.
Neatly like this, and
it stood straight.’

(Iwasaki and Ono 2001)

The above example illustrates the clause combining system in Japanese spoken discourse, where multiple clauses end with non-finite conjunctive forms (bolded) to show that the sentence is ongoing until it is completed by having a finite form in the last clause with the sentence-final particle *no*. Often, a clause chaining strategy is applied when describing events/actions with temporal sequences, and the conjunctive form *-te* ‘and/then’ is the most typical form. (Ono 1990, Iwasaki 2002, Clancy 2020, Sarvasy and Choi 2020). Iwasaki (1992, 2002) introduces temporal clause chaining strategies using RY (*ren’yoo*), also known as ‘verb stem’. Verb stem and conjunctive *-te* have a similar clause chaining function; the prominent difference is that the latter is more often used in spoken discourse for clauses with a tight semantic continuity, while the former is generally found in written language with a higher level of formality (Ono 1990). It is interesting to note that many of these clause combining forms can be characterized to make sequential connections between events as found in the glosses such as, *soshite* and *-te* both

meaning ‘and/then’, with the former being a conjunction, and the being latter is a conjunctive. We will be examining them in context in the rest of the thesis.

1.2. Previous research on clause combining strategies in a storytelling/narrative context

This section focuses on prior studies on clause combining strategies in a storytelling or narrative context. Laury and Ono (2014) pointed out that in Japanese, in the case of storytelling and making descriptions, clause chaining appears frequently. Clancy (2020) investigated the clause chaining strategies used by Japanese children (three- to - seven-year-olds) and adults in a narrative-telling setting, by having participants look at/watch (1) a hand-drawn cartoon and (2) a seven-minute video, and then narrate the plot from memory. The study attempted to address the issues of how clause chaining is different between young children and adults, whether different clause chaining forms are used in expressing the semantic relationship between sentences, and what factors may prompt the narrator to continue or end the clause chain. The results revealed that children around the age of two begin to use conjunctive *-te* to connect clauses, while other forms, such as *-kara* ‘because’, *-tara* ‘when’, *-tari* ‘and’, *-toki* ‘when’, *-to* ‘when/if’, etc., appear a little later. Although younger children rely more on single sentences, in terms of the use of clause chaining forms, *-te* ‘and/then’ is the primary clause chaining form being used, regardless of the age. In addition, unit boundaries and semantic relations are the two core factors of clause chaining; for instance, when the narrator's attention shifts, or when there is a scene boundary involving a change in time, place, character, and action, this affects whether the narrator continues to link clauses.

Fujii (1990, 1993) conducted a comparative study on the temporal clause combining strategies of Japanese native speakers and English L1 Japanese learners in a storytelling context and found that conjunctive *-to* ‘when/if’ is used extensively by Japanese native speakers as a temporal clause conjunctive, combining clauses in which the event or state in the first subordinate clause precedes what is expressed in the second clause. And usually, a change of state or a discovery is brought up in the second clause. Look at the following example:

(5)

CL1 [*uchi o deru to*] CL2 [*ame ga huri-hazime-masita*]

Home ACC get out of WHEN rain NOM fall-start-PAST

‘When I left my house, it started raining.’

(Fujii 1993)

The two events ‘left the house’ and ‘started raining’ happened almost simultaneously, but a temporal sequence can still be noted. Notice that the second clause involves a new change/discovery: it describes what is newly perceived by the subject of the sentence in the new temporal frame induced by the first clause.

1.3. Chinese Clause Combining

Having discussed the Japanese clause combining system, I will briefly introduce how clause combining is done in Chinese. According to previous studies on Chinese clause combining, we

know that similar to conjunctions in Japanese, Chinese has independent words that function as conjunctions³ (e.g., *danshi* ‘but’, *yinwei* ‘because’, *suoyi* ‘therefore’) and conjunctive adverbs (e.g., *cai* ‘only/then’, *jiu* ‘then’) to accomplish clause combining, they denote the semantic or logical relationships between the clauses to which they are connected to (Li and Thompson 1981, Yu 1993, Eifring 1995, Lin 2001). See the following example of conjunctions⁴:

(6)

CL1 [*yinwei* *tian* *hei* *le,*] CL2 [*suoyi* *wo* *mei* *chu* *qu*]

Because sky black CRS so I not exit go

‘Because it had gotten dark, I didn’t go out.’

(Li and Thompson 1981)

Example 6 is a canonical two-clause structure in Chinese and consists of the first clause having a conjunction *yinwei* ‘because’ at the clause initial position, and the second clause involving a conjunction *suoyi* ‘so’ which connects to the previous clause.

Another clause combining strategy is to use conjunctive adverbs⁵; they are essentially words that could function either as a conjunction or adverb, and they sometimes occur with a conjunction to combine clauses. For instance, in the following examples (7) and (8)⁶, we see that

³ There is a blurry definition of conjunctions in Chinese, as they are difficult to distinguish from prepositions and adverbs (Lin 2001, Chao 2011).

⁴ This Example from Li and Thompson (1981) is slightly modified.

⁵ Researchers have various name for this type of clause combining forms, I have chosen to use the name ‘conjunctive adverbs’ from Yu (1993) and Lin (2001).

⁶ The Examples from Lin (2001) have been slightly modified.

the conjunctive adverb *jiu* ‘then’ can combine clauses by itself, or with another conjunction, *zhiyao* ‘if’.

(7)

CL1 [*zhiyao* *ni qu*,] CL2 [*tamen* *jiu* *qu*]

if you go they then go

‘If you go, then they will go.’

(8)

CL1 [*ni qu*,] CL2 [*tamen* *jiu* *qu*]

you go they then go

‘(If) you go, then they will go.’

(Lin 2001)

Example (7), a conjunction *zhiyao* ‘if’ is in the clause initial position of the first clause and the conjunctive adverb *jiu* ‘then’ appears in the second clause, conjoining the two clauses. However, in (8), conjunction *zhiyao* is omitted but the sentence is still grammatical, and the meaning remains the same as (7).

Li and Thompson (1981) introduced a notion of forward-linking and backward-linking elements which categorizes Chinese clause combining forms into these two types. In Example (7), the subordinate clause 1 has the forward-linking conjunction *zhiyao* ‘if’ and the clause 2 has

the backward linking adverb *jiu* ‘then’. Clause 1 is a dependent clause needing the following clause to complete the meaning of the whole sentence. However, not all situations require both forward- and backward-linking elements; sometimes only one of them is needed to connect two clauses, which is demonstrated in example (8), which only has the backward-linking element *jiu* ‘then’ cojoining the two clauses.

Further, Chao (1986) discussed similar sentences as example (7) and (8) states that in Chinese, in some situations, it is unnecessary to have any clause combining forms to combine clauses, and this is known as ‘zero marker’. It is common in both coordinate and subordinate constructions.

(9)⁷

CL1 [*(ruguo)* *ni bu qu,*] CL2 [*wo* *(jiu)* *qu.*]

(if) you not go I (then) go

If you don’t go, I will./I’ll go if you don’t.

(Yu 1993)

In the above example (9), all clause combining forms, either the conjunction *ruguo* ‘if’ or the conjunctive adverb *jiu* ‘then’, are all optional and the sentence is still grammatical even though there are no overt clause combining markers. It seems to be a common phenomenon in spoken

⁷ If you omit either one, the meaning will be slightly different to the sentence which has both the conjunction/conjunctive adverb been used.

discourse in Chinese where the speakers do not use any clause combining forms (Yu 1993, Jiang 2005).

The above discussion of clause combining states that in Chinese clause combining is done exclusively through conjunctions/conjunctive adverbs, whereas there is no apparent equivalent of conjunctives commonly used in Japanese for clause combining⁸. Conjunctions are also a means of clause combining in Japanese, but as we have seen in examples (2) - (6) and in previous studies, the use of conjunctives seems to be a rather prevalent approach in Japanese. Furthermore, clause chaining strategies are often found in spoken Japanese and are achieved by using conjunctives (Kuno 1973, Shibata 2000, Iwasaki and Ono 2001, Iwasaki 2002, Laury and Ono 2014, Clancy 2020). The lack of conjunctives in Chinese raises the question, how do Chinese L1 learners of Japanese combine clauses when speaking Japanese? Does their native language influence their choice of clause combining forms?

⁸ There is a form, *~de shihou* ‘when’, which allows a use in Chinese which is similar to the Japanese conjunctive. It is a common structure expressing time and could appear at the end of the first clause. See example 10 (Yang and Kuo 1998, Pan and Pual 2018). However, it is also possible for the same form to appear elsewhere in a sentence, making it difficult to suggest that it is a clear case of conjunctive; therefore, it will not be taken as a conjunctive in this thesis.

(10)

Tā dào Běijīng de shihou, tiānqì bù tài hǎo.

He arrive Beijing SUB time weather NEG too good

‘When he arrived in Beijing, the weather was not good.’

(Pan and Pual 2018)

1.4. The present study

This study seeks to examine the similarities and differences of clause combining forms used by Japanese native speakers and Chinese L1 Japanese learners through a combination of quantitative and qualitative methods. A small number of English L1 Japanese learners are included as a reference group to determine whether the Chinese group uses any specific clause combining strategies. To this end, this study will concentrate on answering the following research questions:

1. What kind of clause combining forms are used by Japanese native speakers? Do they use both conjunctives and conjunctions frequently?
2. What kind of clause combining forms are used by the Chinese L1 Japanese learners? Do they use both conjunctives and conjunctions frequently?
 - 2.1. Does another non-native group, English L1 Japanese learners, behave in similar or different ways from the Chinese group?
3. What are the similarities and differences in the choice of clause combining forms between Japanese native speakers and Chinese and English Japanese learners?

One possible finding is that Chinese learners may have a greater preference for conjunctions since there are no conjunctives in Chinese. The English group may also display a similar tendency as the Chinese group.

In order to find answers to these questions, this study adopts storytelling data in an attempt to get all the speakers to talk about more or less the same sequence of events as a way to ensure that the language they produce will be directly comparable. After a screening process of the

speakers, a quantitative analysis of each group's data is presented, and a qualitative analysis of the forms frequently appearing in each group is performed. From there we will be able to identify differences in the preference for clause combining forms between the two learner groups, and between the native and learner groups. Finally, an analysis that focuses on the clause combining form that most distinguish the learner group from the native group will be presented.

Chapter 2. Data and Methodology

This study will answer the research questions by taking quantitative and qualitative approaches to examine data obtained from one of the tasks (storytelling) of a Japanese language corpus (I-JAS). The quantitative analysis reveals all the used conjunctions and conjunctives as well as their frequency for each speaker. In the qualitative analysis, I will focus on frequently appearing conjunctions and conjunctive forms and further analyze the differences in usage between native Japanese speakers and Chinese L1 Japanese learners.

Section 2.1 gives a brief introduction to the corpus. Sections 2.1.1. and 2.1.2. has a description of the two Japanese language proficiency tests used by the corpus for measuring learners' Japanese language proficiency. Then, section 2.1.3. provides detailed information for the data taken from the corpus, followed by section 2.1.4. which gives a description of the storytelling task. Section 2.2. outlines the procedures for the data analysis.

2.1. Corpus: International corpus of Japanese as a second language (I-JAS)

This study is based on the International Corpus of Japanese as a second language (I-JAS 2012). Researchers using this corpus can aim to conduct empirical research on various issues surrounding the teaching and learning of Japanese as a second language through collaboration among a wide range of academic disciplines, including second language acquisition research, contrastive linguistics, sociolinguistics, psycholinguistics, and corpus linguistics (Sakoda 2016, Clancy 2020). Publicly available spoken language data were collected through storytelling,

picture describing, role-play task, and interviews, all audio recorded with transcripts written in Japanese. Over the decade, it has collected data from 50 Japanese native speakers who fit the following criteria: 1. They live in Japan; 2. Their native language is Japanese (not bilingual); 3. They were not involved/employed in any Japanese language teaching institution.

I-JAS includes for around roughly 1000 Japanese learners with various language backgrounds living in Japan or overseas and consists of the following components: age, sexuality, language background, context when speaking Japanese, the country where they learned Japanese, textbooks used at the language learning institution, etc. Also, the corpus had all non-Japanese native participants take two types of Japanese language proficiency tests to ascertain their Japanese level: the Simple Performance-Oriented Test (SPOT) and the Japanese Computerized Adaptive Test (J-CAT). As it is challenging to evaluate all aspects of language proficiency with only one test, these two tests focus on different language skills so that they complement each other, which provides a more comprehensive assessment of the learner's Japanese proficiency (Sakoda, Konishi, Sasaki, Suga, and Hosoi 2016). In fact, it has been suggested that there is a high correlation between SPOT and J-CAT (Lee, Kobayashi, Imai, Sakai, and Sakota, 2015). Also, according to Hirotsu, Matsumoto, and Fukada (2017), a study looking at the validity of the SPOT and J-CAT measures of intermediate learners' speaking ability was examined through the storytelling task and interviews of the I-JAS. The results show a strong correlation between these two tests regardless of the task. Thus, for this study, I also adopted both tests to further screen the subjects, and I will briefly introduce them in the following sections.

2.1.1. Simple Performance-Oriented Test (SPOT)

SPOT is used to measure a learner's overall Japanese language ability in a short period of time. I-JAS has selected SPOT (Ver. 90) to examine Japanese learners' general proficiency⁹.

(https://ttbj.cegloc.tsukuba.ac.jp/doc/teacher/doc_en.pdf, Guide to the TTBJ for Teachers). Table 1 gives the scoring criteria and descriptions of each level.

Total score	Ability assessment	Explanation
0–30	Introductory level	The learner has studied virtually no Japanese.
31–55	Beginner level	Can understand basic Japanese in everyday situations if spoken to slowly.
56–80	Intermediate level	Can understand Japanese to a certain degree in everyday situations when spoken to at a natural speed.
81–90	Advanced level	Can understand Japanese in a broad range of situations when spoken to at a natural speed.

Table 1 Interpretation of Scores for SPOT (Ver.90)

(<https://ttbj.cegloc.tsukuba.ac.jp/p1.html>, based on TTBJ: Tsukuba Test-Battery of Japanese)

2.1.2. Japanese Computerized Adaptive Test (J-CAT)

J-CAT is an adaptive test for Japanese language learners that can be administered over the internet without restrictions on time and place (<https://j-cat.jalesa.org/>, Japanese Language Test

⁹ During the test, participants will listen to sentences or phrases in Japanese at a natural speed, while reading the same sentence/phrase written on the answer sheet. Some portions have been randomly taken out and the subjects must fill in an answer as they hear the sentence.

System). It measures learners’ listening, grammar, vocabulary, and reading ability (Imai, Ito, Nakamura, Kikuchi, Akagi, Nakasono, Honda, and Hiramura, 2009). Table 2 below shows the interpretation of J-CAT scores, dividing learners into seven levels. It also provides a short explanation of the primary levels for a better understanding.

J-CAT Score	Proficiency Level
-100	Basic
100-150	Pre-intermediate
150-200	Intermediate
200-250	Intermediate-High
250-300	Pre-Advanced
300-350	Advanced
350-	Near Native
	<ul style="list-style-type: none"> • “Novice” learners can use fixed expressions such as greetings • “Basic” learners can exchange basic ideas • “Intermediate” learners can manage daily communication • “Advanced” learners can manage academic and professional communication

Table 2 Interpretation of Scores for J-CAT

(Based on Imai, Ito, Nakamura, Kikuchi, Akagi, Nakasono, Honda, and Hiramura, P7, 2009)

2.1.3. Data and speaker selected from the corpus

The present study will examine the I-JAS corpus data, after a careful screening of the speaker’s background, I ended up with a total of 134 Chinese L1 Japanese learners, 50 Japanese native speakers and 24 English L1 Japanese learners. All speakers went through a selection process to satisfy the condition of a comparative study. I have chosen 134 Chinese speakers either from mainland China or Taiwan, and they were all university students by the time they participated in the data collection. In order to have a group consisting of learners who have a

similar Japanese learning experience, I have decided to exclude those who are currently studying or have past study experience in Japan and those who had either worked or lived in Japan (except for short-term travelling). I also excluded those who have close family members (grandparents, parents, brothers, and sisters) who reported their native language as Japanese to avoid having individuals who have more Japanese input than others; therefore, all participants have learned Japanese outside of Japan with no direct and daily input from native speakers. Based on proficiency tests, learners have been placed into appropriate levels. For this study, I will look at those at SPOT-intermediate and in either pre-intermediate, intermediate, intermediate-high, or pre-advanced J-CAT¹⁰. Three Chinese speakers passed the screening process but had a conflicting placement in SPOT-intermediate and J-CAT advanced; so, they were excluded from this study to maintain the consistency of the group.

As mentioned in the previous section, a screening process for the Japanese group was done by the corpus, and they were all selected as they fit well with the needs of this study. Lastly, another learner group, the English L1 group (N=24), was also included and screened by the same procedures as the Chinese group. It forms a reference with the Chinese group to demonstrate whether the Chinese group has language-specific clause combining strategies.

¹⁰ The reason for including J-CAT the pre-advanced group is that there are 30 participants who belongs to J-CAT Pre-advanced and SPOT intermediate (22.3%), whereas only eight participants in J-CAT Pre-advanced and SPOT-advanced. It is therefore reasonable to suggest that SPOT intermediate is equivalent to J-CAT pre-intermediate, intermediate, intermediate-high, and pre-advanced. Please note that as for J-CAT Pre-intermediate, only one belonged to SPOT intermediate; none SPOT beginner. Also, considering that participants need to have a certain level of Japanese language skills in order to successfully complete this task, beginner level learners are more likely to be unable to use certain conjunctions or conjunctives due to the limited knowledge of the language; thus, they are not the target group of this study.

2.1.4 The Storytelling Task

This corpus involves several data types; as mentioned in the previous section, the storytelling task was based on viewing a set of pictures (five in total) that illustrate a story. This task allows the participants to perform the same activity, thus ensuring consistency across the speakers' speech content. More importantly, as prior studies have suggested, clause chaining is commonly used in narrative and storytelling (Iwasaki 1993a, Laury & Ono, 2014, Clancy 2020); therefore, this data is appropriate for the investigation on clause combining strategies used between Japanese native speakers and Chinese L1 Japanese learners for this present study.

During the task, the written instructions in Japanese were provided. Also, the characters' names and vocabulary essential for the storytelling are given in Japanese and English translations beside the corresponding pictures with arrows pointing to the objects (as shown in Figure 1). Before the task begins, the participants are given one minute to look at the pictures and then told to tell a story based on the storyline of the pictures. A facilitator organizes and records the task; she does not provide feedback or interact with or disrupt the participant. The task length varies depending on the performance of the individual, generally within 2-3 minutes for Chinese participants and within 1-2 minutes for Japanese native speakers.

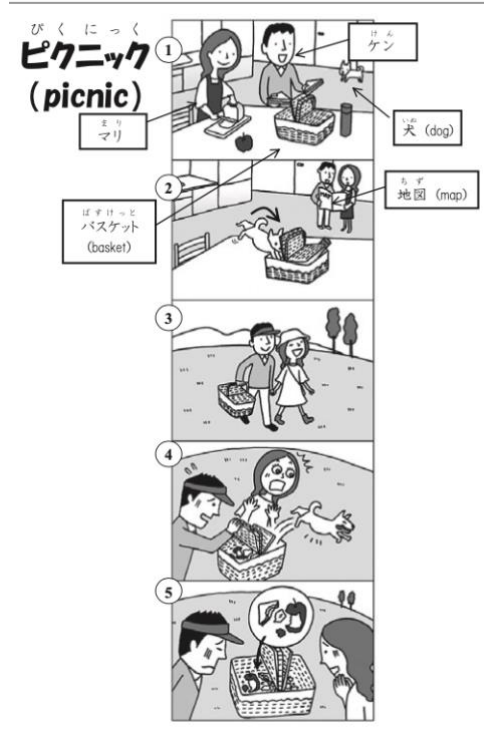


Figure 1 The Storytelling Task

2.2. Methodology

To start with, for each group, all the tokens of the clause combining from the storytelling sessions are identified and counted while listening to the audio recordings and reading through the transcripts. The transcripts are corrected if necessary. The following principles have been applied for the token counting:

- 1) When the same form is repeated twice, it is counted as one instance. However, if the speaker has switched between two clause combining forms, both will be counted.
- 2) For the exact conjunctions in which the first is not fully uttered but immediately articulated and completed, only the completed form will be counted. For instance, *soshi-* is supposedly

an incomplete version of *soshite* ‘and/then’; in this case, only the fully uttered *soshite* was included.

- 3) Those instances of clause combining forms that sound slightly different from, or those that might be considered ‘incorrect’ by the standard; for instance, where a speaker has incorporated an elongated vowel at the end or in the middle (e.g., *soshitee*, *sooshite* ‘and/then’), I have decided to count and group them with the corresponding conjunction in its commonly known form.

After obtaining all the tokens, a quantitative analysis was completed on the major patterns in the use of clause combining forms for each group with a detailed qualitative discussion of the use and frequency of individual forms. In addition, by comparing the results of the three groups, I will further discuss the most representative clause combining forms in each group. Please note that since the emphasis of this study is to investigate whether there are any different preferences in terms of clause combining strategies, as it stands, accuracy will not be examined.

Chapter 3. Analysis: General Quantitative Findings

This chapter is divided into two sections: a quantitative analysis and a discussion of the use and frequency of individual conjunctions and conjunctives. I will go over general figures of the overall usage of clause combining forms in the quantitative analysis portion. Later, an in-depth analysis of the most distinguishing conjunctions and conjunctives in the learner and native groups will be presented.

3.1. General results

This section focuses on the frequency of the conjunctions and conjunctives used by the Japanese, Chinese, and English groups. It presents a table with the overall results of all three groups and a demonstration and comparison of individual groups. In order to facilitate the comparison at the end, the Japanese group will be discussed first, followed by the Chinese and the English group. Note that there are various forms with similar meanings as we will see in the later chapters; for instance, *soshite*, *de*, *-te* ‘and/then’, *-to* ‘when/if’, and *-toki* ‘when’, all mark sequential relationships between the events expressed in the two clauses and there are subtle meaning differences in meaning among them. We will not get into a detailed discussion of the meaning as it is not the focus of this study.

Each group's preference for conjunctions or conjunctives can be seen in Table 3. It contains the frequency and percentage for the overall figures.

Group	Conjunctions	Conjunctives	Total
Japanese	52 (22%)	181 (78%)	233 (100%)
Chinese	341 (41%)	487 (59%)	828 (100%)
English	64 (55%)	53 (45%)	117 (100%)

Table 3 Overall Pattern of All Three Groups

The dominant clause combining strategy for Japanese native speakers is the use of conjunctives (78%); conjunctions are not as frequent. For Chinese L1 speakers, it appears that they prefer using conjunctives (59%) over conjunctions (41%), which is similar to the Japanese group. However, their preference for using conjunctives is not as clear-cut as the Japanese group. Later in this chapter, we will take a close-up view of the breakdown for each clause combining form that will display more distinct variations. Finally, the English group presented a different pattern from the other two groups, having more instances of conjunctions (55%) than conjunctives (45%). Still, the preference for the former over the latter was not overwhelming.

Table 4 further shows the average clause combining forms (conjunctions and conjunctives, respectively) for each speaker in the three groups used.

Group	Average # of conjunctions/speaker	Average # of conjunctives/speaker	Total number of speakers
Japanese	1.0	3.6	50
Chinese	2.5	3.6	134
English	2.7	2.2	24

Table 4 Average Number of Conjunctives/Conjunctions per Speaker

In terms of average clause combining usage per person, it is evident that the Japanese group has an overwhelming preference for conjunctives, on average 3.6 per person, which is more than three times as many conjunctives than conjunctions (1.0 per person). In comparison to the Japanese group, the Chinese group also prefers conjunctives but does not exhibit the same strong preference. On average, there is one more conjunction per person (3.6/person) than conjunctives (2.5/person). Unlike the first two groups, the English group, on average, used 2.7 conjunctions while 2.2 conjunctives per person; therefore, they seem more conjunction oriented.

Table 5 below presents the frequency and percentage of the users of the two types of clause combining forms for each group, further substantiating overall preference patterns. This table complements and corroborates the previous Tables 3 and 4.

Group	Number of speakers	Speakers used conjunctions	Speakers used conjunctives	Speakers used neither
Japanese	50	25 (50%)	48 (96%)	1 (2%)
Chinese	134	123 (92%)	133 (99%)	4 (3%)
English	24	21 (88%)	16 (67%)	2 (8%)

Table 5 Conjunctives and Conjunctions Users of Each Group

In the Japanese group, 48 out of 50 speakers (96%) used at least one conjunctive, and 25 (50%) used at least one conjunction. One speaker (2%) produced no clause combining forms. In the Chinese group, almost all speakers, 133 out of 134 (99%), used conjunctives, and 123 speakers (92%) used a minimum of one conjunction, and four used neither. Lastly, in the English group, having 24 speakers in total, 21 (88%) produced at minimum one conjunction, 16 (67%) used at least one conjunctive, and two used neither. From Tables 3, 4 and 5, we know that each group has a specific preference for clause combining. The leading choice for the Japanese group

seems to be conjunctives. Although Table 5 shows that the Chinese group has a relatively balanced tendency for both conjunctives and conjunctions, but we can still see from Tables 3 and 4 that they have a preference towards conjunctives. Finally, the English group is more inclined to use conjunctions, but conjunctives are also common, which is the opposite of both the Japanese native and the Chinese group.

3.2. The Results for the Japanese L1 Group

After discussing the three groups' general preferences, the remaining sections will focus on in-depth information about each group.

The following Table 6 gives the figures for each clause combining form used by the Japanese group. All clause combining forms are classified into two main categories: conjunctions and conjunctives. Each clause combining form is specified with the number of occurrences (N) and its percentage out of all the clause combining forms (%).

	Conjunctions	N	Conjunctives	N	%
			<i>-te</i> 'and/then'	84	36
			<i>-to</i> 'when/if'	46	20
	<i>de</i> 'and/then'	22			9
			stem 'and'	19	8
	<i>soshite</i> 'and/then'	14			6
			others (5 forms)	32	14
	others (8 forms)	16			7
Total N %		52 22%		181 78%	233 100%

Table 6 Japanese L1 Speakers' Performance in the Storytelling Task

We saw from the overall pattern in Table 3 that conjunctives are much more common than conjunctions for Japanese speakers in general. Table 6 underscores this finding. All the percentages in the table are based on the total number of clause combining forms (233 cases) used by Japanese speakers. It is clear that the most frequent conjunctive is the suffix *-te* ‘and/then’ (36% of the total frequency of all the clause combining forms, 84 tokens out of 233) followed by the conjunctive *-to* ‘when/if’ (20%, 46 tokens) and then the verb stem (8%, 19 tokens). The ‘others’ category consists of five different conjunctives all lower than 5% of the total; they account for 14% (32 tokens) of the total use of clause combining forms.

As we saw in Table 3, repeated in the bottom row of Table 6, conjunctions do not appear as often as conjunctives (22%, 52 tokens of all the clause combining forms). In fact, the great majority of the clause combining forms are conjunctives, a total of around 78%. Conjunctions *de* ‘and/then’ and *soshite* ‘and/then’ occupy only 9% (22 tokens) and 6% (14 tokens) of all cases of clause combining forms respectively; the remaining eight forms each have less than 5% and are combined under the ‘others’ category and rounded up to 7% of the entire clause combining forms.

In order to see how common these clause combining forms are used among the speakers; I will look at the frequencies and percentages of individuals using each clause combining form in the following Table 7. Also, to identify the overall trends in the use of the forms, the discussion will focus on those forms that occupy more than 5% of the total frequency.

Conjunctions	Conjunctives	Number of users
	<i>-te</i> ‘and/then’	40 (80%)
	<i>-to</i> ‘when/if’	33 (66%)
	stem ‘and’	13 (26%)
<i>soshite</i> ‘and/then’		12 (24%)
<i>de</i> ‘and/then’		10 (20%)
Total number of speakers		50

Table 7 Number of Users for Each Clause Combining Form for the Japanese Group

Among the conjunctives, *-te* ‘and/then’ has been shown to be “the most frequent clause-chaining/combining suffix” (Iwasaki 2002:261, Yamaguchi 2007:87, Clancy 2020). This characteristic is observed in the performance of individual speakers in my data. More specifically, 40 out of 50 speakers (80%) have used the conjunctive *-te*, further supporting that it is a highly common form for clause combining. The conjunctive *-to* ‘when/if’ is used by 33 speakers (66%), which also appeared quite often. For these two frequent conjunctives, 47 out of 50 speakers (94%) used either one or both; the fact that only three speakers did not use either one suggests further that the suffixes *-te* ‘and/then’ and *-to* ‘when/if’ are the primary clause combining forms for the Japanese group. And lastly, the verb stem had only 13 speakers (26%), indicating that it is far less preferred than *-te* ‘and/then’ and *-to* ‘when/if’.

For conjunctions, *soshite* ‘and/then’ and *de* ‘and/then’ are used by only 10 (20%) and 12 (24%) out of 50 speakers, respectively. Please note that these two forms have similar sequential meanings, and *de* appears to be a colloquial version (Sadler 2006, Sunagawa 2015). As seen in Table 7, the number of users of both is much fewer than the two most frequently used conjunctives *-te* ‘and/then’ and *-to* ‘when/if’. This reinforces the notion that conjunctives are the more pervasive and commonly used means of clause combining for Japanese native speakers.

We can conclude that conjunctives are the primary choice of clause combining for Japanese speakers, particularly the conjunctive *-te* ‘and/then’, which has been considered the most common conjunction in previous studies (Iwasaki 2002:261, Yamaguchi 2007:87, Clancy 2020). The primacy of *-te*, as well as the conjunctive *-to* ‘when/if’, is evident in Tables 6 and 7. The verb stem is also found in a significant number of instances. Conjunctions, *de* ‘and/then’ and *soshite* ‘and/then’ are used quite commonly. In sum, conjunctives *-te*, and *-to*, and conjunctions *de* and *soshite* are the forms preferred by the Japanese group.

3.3. The Results for the Chinese L1 Group

Now, let us look at the frequency of each clause combining forms by the Chinese group in Table 8.

	Conjunctions	N	Conjunctives	N	%
			<i>-te</i> ‘and/then’	262	31
	<i>soshite</i> ‘and/then’	158			19
			<i>-toki</i> ‘when’ ¹¹	125	15
	<i>demo</i> ‘but’	67			8
	others (11 forms)	116			14
			others (6 forms)	100	12
Total		341 41%		487 59%	828 100%
N %					

Table 8 Chinese L1 Speakers’ Performance in The Storytelling Task

¹¹ Conjunctive *-toki* ‘when’ is sometimes followed by an optional particle *-ni* ‘at’. I have counted all of them and categorized them under *-toki*.

As Table 3 showed, the Chinese group have more instances of conjunctives, indicating their slight preference for using conjunctives for clause combining. This finding is again reinforced by Table 8, above.

The conjunctive suffix *-te* ‘and/then’ (31%, 262 tokens out of 828, the total frequency of all the clause combining forms) once again takes up the most significant percentage of conjunctives, followed by another frequently produced conjunctive *-toki* ‘when’ (15%, 125 tokens). The remaining six forms of conjunctives, with less than 5% collected under ‘others’, added up to 100 tokens and took up to 12% of the total clause combining forms.

Regarding conjunctions, *soshite* ‘and/then’ (19%, 158 tokens of 828) is prevalent, as well as *demo* ‘but’ (8%, 67 tokens); the latter is a conjunction that is not extensively used by the Japanese speakers but accounts for more than 8% for the Chinese group. The other eleven forms in the ‘others’ category have 116 tokens, accounting for 14% of the total clause combining forms.

Table 9 gives the frequencies and percentages of people using the main clause combining forms. Only frequent forms with 5% or higher are included in the table.

Conjunctions	Conjunctives	Number of users
	<i>-te</i> ‘and/then’	91 (68%)
<i>soshite</i> ‘and/then’		74 (55%)
	<i>-toki</i> ‘when’	72 (54%)
<i>demo</i> ‘but’		47 (35%)
Total number of speakers		134

Table 9 Number of Users for Each Clause Combining Form for the Chinese Group

If we look at the total Chinese speakers using these two top conjunctives, conjunctives *-te* and *-toki*, they each had 91 (68%) and 72 users (54%) out of the total number of speakers (134), respectively. In addition, about 129 speakers (96%) had produced either one or both forms, further establishing their dominance among the overall conjunctives.

When looking at the conjunctions in Table 9, 74 out of 134 speakers (55%) used *soshite* ‘and/then’, and 47 speakers (35%) of the speakers produced *demo* ‘but’. The conjunction *soshite* in particular, which has the second highest number of users among all the clause combining forms, again demonstrates its commonality within the group.

Chinese L1 speakers used conjunctives (59%, 487 tokens) more often than conjunctions (41%, 341 tokens), with some gap in the frequency of the two types of clause combining forms. The Chinese group has the conjunctive *-te* ‘and/then’ being the most common form, and *-toki* ‘when’ also appeared quite often. The top two frequently used conjunctions are *soshite* ‘and/then’ and *demo* ‘but’. These four forms make up the most produced clause combining forms of the Chinese group.

3.4 The Results for the English L1 Group

The following Table 10 displays the conjunctions and conjunctives used by the English group. First of all, this is a relatively small data set with only 24 speakers; therefore, the results in this table need to be evaluated more carefully. But for this study, the English group is helpful as a reference group to determine whether the choice of forms for clause combining is particular to Chinese speakers or shared by Chinese and English speakers thus suggesting that it is a

general pattern for learners of Japanese. Since both groups are Japanese learners, they might exhibit similar clause combination strategies from a more holistic perspective.

	Conjunctions	N	Conjunctives	N	%
			<i>-te</i> ‘and/then’	26	22
	<i>soshite</i> ‘and/then’	17			15
	<i>sono ato</i> ‘after that’ ¹²	13			11
	<i>sorekara</i> ‘and/then’	11			9
	<i>demo</i> ‘but’	10			9
			<i>-toki</i> ‘when’	10	9
			others (6 forms)	17	15
	others (4 forms)	13			11
Total N %		64 55%		53 45%	117 100%

Table 10 English Speakers’ Performance in The Storytelling Task

From the previous discussion of Table 3, we know that the English group is the only one that has more instances of conjunctions. Given the very limited number of English participants, the conjunctions are more diverse and appear with considerable frequency.

Yet, the most frequent clause combining form is still the conjunctive *-te* ‘and/then’ (22%, 26 tokens out of 117, the total frequency of all the clause combining forms), as it is with the other two groups. The next most common conjunctive is *-toki* ‘when’ (9%, 10 tokens). And the

¹² Conjunctive *sono ato* ‘after that’ is sometimes followed by the optional particle *-de* ‘at’. I have counted all of them and categorized them under *sono ato*.

remaining six forms, each under 5%, fall under the ‘others’ category, making up 15% of the total clause combining forms.

On the other hand, compared to conjunctives, a wider variety of conjunctions is used. The conjunction *soshite* ‘and/then’ again comes out on top (15%, 17 tokens of 117, the total frequency of all the clause combining forms), and *sono ato* ‘after that’ (11%, 13 tokens), *sorekara* ‘and/then’ (9%, 11 tokens) and *demo* ‘but’ (9%, 10 tokens) are also common. The English group has two other frequent conjunctions which does not appear in the Chinese and Japanese group (*sono ato* ‘after that’ and *demo* ‘but’), which further demonstrates their preference for conjunctions. The ‘others’ category consists of four forms, each less than 5% adding up to 11% of the total clause combining forms.

Table 11 offers the frequencies and percentages of learners using those clause combining forms above 5% of the total.

Conjunctions	Conjunctives	Number of users
<i>soshite</i> ‘and/then’		8 (33%)
<i>demo</i> ‘but’		8 (33%)
	<i>-te</i> ‘and/then’	7 (29%)
	<i>-toki</i> ‘when’	7 (29%)
<i>sono ato</i> ‘after that’		6 (25%)
<i>sorekara</i> ‘and/then’		4 (17 %)
Total number of speakers		24

Table 11 Number of Users for Each Clause Combining Form for the English Group

Among the conjunctives we found, conjunctives *-te* ‘and/then’ and *-toki* ‘when’ are the most used, each contributed by seven out of the total of 24 speakers (29%). Also, as the table presents, although *-te* ‘and/then’ is the prevalent form for clause combining in terms of frequency, it does not necessarily have the highest number of users; conjunction *demo* ‘but’ and *soshite* ‘and/then’ comes before it. On average, each individual (seven in total) produced approximately four (3.7) *-te* during the task; it can still be seen that *-te* ‘and/then’ takes precedence over *-toki* ‘when’ (0.7) for clause combining. The most common conjunctions were *soshite* ‘and/then’ and *demo* ‘but’, with eight out of 24 in total (33%). The remaining *sono ato* ‘after that’ and *sorekara* ‘and/then’ have six (25%) and four users (17%), respectively.

None of the forms are used very often for the English group, as shown in Table 11; all the forms are used by less *than* 35% of the speakers. The English group generally has a higher frequency of conjunctions (55%, 64 tokens) and a larger variety of frequent conjunctions than conjunctives (45%, 53 tokens). There are four main conjunctions: *soshite* ‘and/then’, *demo* ‘but’, *sono ato* ‘after that’, and *sorekara* ‘and/then’. Conjunctive *-te* ‘and/then’ has been the most frequently used clause combining form, and *-toki* ‘when’ takes the second place among conjunctives.

To summarize, in terms of the overall quantitative figures, Japanese speakers have a distinct preference for using conjunctives. The Chinese group also has the same tendency, but it is not as pronounced as the preference of the Japanese group. The English group displays an opposite preference for clause combining forms to the other two groups, preferring to use conjunctions, and using a larger variety of conjunctions as well.

3.5. Comparison between Japanese, Chinese, and English groups

In the preceding sections, we have seen the use of clause combining forms by all three groups. This section offers a detailed and direct comparison between their uses.

It is readily apparent that the Japanese and Chinese groups are similar in terms of the preference for clause combining forms, while the English group is slightly different from the other two groups, as we saw above. As for the Japanese native speakers, conjunctives seem to be the primary choice for clause combining, whereas conjunctions are not as frequent. Likewise, the Chinese group also shows a preference for using conjunctives, yet conjunctions are also very commonly used. Finally, the English group is the only group presenting an opposite pattern with more tokens of conjunctions than conjunctives. In particular, we saw in Table 5 that almost all Japanese and Chinese speakers (between 96% to 99%) used conjunctives while only two-thirds of English speakers used them.

On the other hand, the majority of Chinese and English speakers (88% to 92%) used conjunctions, while only half of the Japanese speakers used them for clause combining. Also, as discussed in Table 4, on average, Chinese and Japanese speakers use almost the same number of conjunctives (3.6 conjunctives per person). English speakers use much fewer conjunctives (2.2 per person). Chinese and English speakers use nearly twice the number of conjunctions (2.5 and 2.7 per person) that Japanese speakers use (1.0 per person).

Taking the use of clause combining forms by the Japanese group as the norm, we certainly see a dependence by learners on conjunctions, suggesting that they have not yet fully mastered the use of conjunctives for clause combining. The Chinese group is more like the Japanese group in terms of preference for conjunctives than is the English group. The English group does not

appear to have acquired the use of conjunctives for clause combining as well as the Chinese group.

In the following paragraphs, I will highlight a comparison of the use of several key forms, starting with the conjunction *-te* in Table 12. The unified data from Tables 6-11 of all three groups will be presented. The second column shows the instance of *-te* ‘and/then’ and its percentage out of the total number of clause combining forms, while the third column gives the number of speakers who used the form and their percentages in each group.

Group	<i>-te</i> ‘and/then’ N (%)	Users (%)
Japanese	84 (37%)	40 (80%)
Chinese	262 (31%)	91 (68%)
English	26 (22%)	7 (29%)

Table 12 Unified Figures of Conjunctive *-te* From All Groups

As we already know from the previous discussion, the conjunctive *-te* ‘and/then’ accounts for a large percentage of all clause combining forms in all three groups (between 22% to 37%); in particular, it is used by a majority of Japanese (80%) and Chinese speakers (68%). It is undoubtedly the most commonly used form.

Table 13 gathers all relevant quantitative statistics of conjunctive *-to* ‘when/if’ of all three groups. It is another conjunctive that frequently appears conjunctives in the Japanese group; however, since the percentages of the learner groups with the conjunctive *-to* ‘when/if’ were below 5% of the total clause combining forms, it is not represented in Tables 8-11.

Group	-to ‘when/if’ N (%)	Users (%)
Japanese	46 (20%)	33 (66%)
Chinese	31 (4%)	29 (22%)
English	2 (2%)	2 (8%)

Table 13 Unified Figures of Conjunctive -to From All Groups

The conjunctive *-to* ‘when/if’ is the second highest clause combining form for the Japanese group; as we saw in Table 6, it occupies 20% of all clause combining forms. However, it was fewer than 5% of the total use of clause combining forms (4% for the Chinese group and 2% for the English group) Thus, not surprisingly, the number of users of conjunctive *-to* in the Japanese group is overwhelmingly higher than in the other two groups, 66% versus 22% for the Chinese group and 8% for the English group.

Instead, the conjunctive *-toki* ‘when’ was used frequently by the Chinese and English groups. The following Table 14 displays the quantitative numbers of *-toki* from each group discussed in Tables 8-11. The conjunctive *-toki* was less than 5% of the total clause combining forms for the Japanese group; therefore, it was not shown in the previous tables (Tables 6 and 7).

Group	-toki ‘when’ N (%)	Users (%)
Japanese	9 (4%)	8 (16%)
Chinese	125 (15%)	72 (54%)
English	10 (9%)	7 (29%)

Table 14 Unified Figures of Conjunctive -toki From All Groups

As we saw earlier in Tables 8 and 10, the conjunctive *-toki* ‘when’ takes the second place in the conjunctives after *-te* ‘and/then’ for both the Chinese (15% of the total clause combining forms) and English groups (9%). It is used by more than half (54%) of the Chinese group’s speakers and by about 29% of the speakers in the English group. Yet, it is not frequently found in the Japanese group, accounting for only 4% of all clause combining forms, and only about 16% of speakers use it. This shows that the use of *-toki* ‘when’ and *-to* ‘when/if’ is one clear difference between the Chinese and Japanese group.

Moving on to conjunctions, Table 15 shows the quantitative figures from Tables 6-11 of the conjunction *soshite* ‘and/then’, which it appears to be the most common conjunction among the learner groups.

Group	<i>soshite</i> ‘and/then’ N (%)	Users (%)
Japanese	14 (6%)	12 (24%)
Chinese	158 (20%)	74 (55%)
English	17 (15%)	8 (33%)

Table 15 Unified Figures of Conjunction *soshite* From All Groups

The conjunction *soshite* ‘and/then’ was very common in the learner’s groups, but very rare in the Japanese group. The Chinese group had *soshite* taking up to 20% of the total clause combining forms and it was used by more than half (55%) of the speakers. It accounted for 15% of the total clause combining forms of the English group and was produced by around 33% of the speakers. Although the English group did not use it as frequently as the Chinese group, its frequency is still considerable when compared to other forms used by the group. The Japanese

group had *soshite* ‘and/then’ making up about 6% of the total forms and only about a quarter (24%) of speakers used it for clause combining.

Table 16 shows the unified figures for the conjunction *de* ‘and/then’ which is considered a form having a similar meaning to *soshite*. The percentages of conjunction *de* ‘and/then’ for the learner groups were below 5% of the total clause combining forms, and thus were not represented in Tables 8-11.

Group	<i>de</i> ‘and/then’ N (%)	Users (%)
Japanese	22 (9%)	10 (20%)
Chinese	4 (0.5%)	4 (3%)
English	2 (2%)	1 (4%)

Table 16 Unified Figures of Conjunction *de* From All Groups

Conjunctive *de* ‘and/then’ is more common among the Japanese speakers than the learners. Referring to Table 6, in terms of frequency, *de* following *soshite* is the most used conjunction in the Japanese group; about 20% of the Japanese speakers have used *de*, accounting for 9% of the total. In the two learner groups, it was used by only 3% to 4% of the learners, comprising up to 0.5% to 2% of the total clause combining forms, respectively. It is apparent that conjunctive *de* is not a common clause combining form for the learners, who have a stronger preference towards *soshite* ‘and/then’. This also reflects that Japanese speakers make a distinct choice between the two forms, but the learners do not draw a distinction.

We have thus seen that the conjunctive *-te* ‘and/then’ is heavily dominant among all the clause combining forms of all groups. Still, the two learner groups may not have reached the level at which the native group uses it. The conjunctive *-to* ‘when/if’ was not common among the

learner groups but was used heavily by Japanese speakers. Instead, the Chinese and English groups are more favoured the conjunctive *-toki* ‘when’. In regards to conjunctions, the learner groups, especially the Chinese group, are more inclined to use *soshite* ‘and/then’ than the Japanese group, whereas the Japanese group seem to use *de* ‘and/then’ as an alternative to *soshite*.

To find out if the learners’ preferred clause combining forms were related to the order in which they were exposed to them, I have decided to look at the textbooks they have used to learn Japanese. Learners are divided by the region: mainland China and Taiwan. After excluding those who did not provide any information about the textbooks (Mainland N=21, Taiwan N=16), two sets of textbooks appears to be used by most learners, and were thus chosen for a further analysis¹³: 1. *Zonghe Riyu ‘Comprehensive Japanese’* (2010) for those who learned Japanese in mainland China (N=35); and 2. *Chuukyuu kara manabu Nihongo: teemabetsu ‘Intermediate Japanese’* (2014) for those from Taiwan (N=16).

Textbooks	Levels
Comprehensive Japanese Zonghe Riyu Revised edition (2010)	1 (Elementary 1) 2 (Elementary 2)
Intermediate Japanese Chuukyuu kara manabu Nihongo: teemabetsu Revised edition (2014)	Intermediate

Table 17 Textbook list

¹³ There is no official English name for the textbooks, so it has been translated from to their original titles.

It appears that the learner's tendency towards clause combining forms is traceable, and the forms that they actually use are the ones they have been exposed to from the early stage of their Japanese studies. The textbook series *Zonghe Riyu 'Comprehensive Japanese'*, which is widely used among Chinese L1 Japanese learners in mainland China, it appears that these set of textbooks does not explicitly indicate the level of Japanese corresponding to each book, but according to the content, both Volume 1 & 2 generally intended for the elementary level Japanese learners; Volume 2 is more challenging and appears to be at a higher beginner level. The target forms of clause combining forms *-toki* 'when', *soshite* 'and/then' and conjunctive *-te* 'and/then' are found in the first book of this series of textbooks, while conjunctive *-to* appears in the second book.

There is a great diversity of elementary level textbooks for Chinese L1 Japanese in Taiwan, thus I have decided to look at the intermediate level textbook. It seems that *Intermediate Japanese* is popularly adopted as an intermediate course material for most learners, and grammar descriptions for conjunctive *-to* also appears in this level.¹⁴ Furthermore, the conjunction *-de* does not seem to be covered in any of the aforementioned textbooks. From the evidence presented in textbooks above, conjunction *soshite*, and conjunctive *-te* and *-toki*, are the ones that are taught at the elementary level; however, conjunctive *-to* is generally covered at the intermediate level, while the introduction of *de* is absent in the intermediate stage yet. Hence, it is not unusual for learners to prefer to use clause combining forms that they are exposed to earlier.

¹⁴ I have also looked at two sets of textbooks, (*Marugoto: Japanese language and culture* and *Genki: An Integrated Course in Elementary Japanese*) used in North America and found with similar pattern, In *Marugoto: Japanese language and culture*, conjunction *soshite*, *-toki* and conjunctive *-te* were presented to learners either in the most basic level (Starter) or Elementary 1 (the first book for elementary Japanese), yet conjunctive *-to* is not introduced until Intermediate 1 (the first book for Intermediate Japanese). In *Genki: An Integrated Course in Elementary Japanese* also have a similar pattern as *Marugoto*, with conjunction *-toki*, *soshite* and conjunctive *-te* introduced successively in *Genki* I (the first book for elementary Japanese).

In brief, as we have seen from the data analysis, conjunctive *-te* is undoubtedly the most used clause combining forms in all three groups; and the use of conjunctives *-to* ‘when/if’, *-toki* ‘when’ and conjunctions *de* ‘and/then’ and *soshite* ‘and/then’, seems to be a major difference between the Japanese native and learner groups. Where conjunctive *-to* and conjunction *de* are used more commonly among the Japanese native speakers, while the Chinese group had a distinct preference for conjunction *soshite* and conjunctive *-toki*. As a reference group, the English group was quite similar to the Chinese group in the choice of clause combining forms with an inclination toward conjunctions, and they even have wider variety of conjunctions forms being used. The preference for conjunctions seems to be common among both Chinese and English learners, rather than being specific to the Chinese group. This finding is further supported by the textbooks, and it appears that the order in which forms were introduced to learners influenced their choice, with them preferring to use forms that were involved early in their Japanese learning experience. It is also interesting that learners use a larger variety of clause combining forms than the native speakers, who are obviously more skilled in the language. After obtaining all the necessary quantitative results, in the following sections, I will elaborate on the use of the different clause combining forms by the primary targets —the Chinese and Japanese groups.

CHAPTER 4. Further Analysis on Conjunctive *-to* and Other Clause

Combining Forms

As we observed from the previous analysis, conjunctive *-te* ‘and/then’ is overwhelmingly prevalent in all three groups, regardless of the number of the users. In addition, we found that conjunctive *-to* ‘when/if’ was used to a much greater extent in the Japanese group than in the Chinese group; the ratio of *-to* in the Japanese group was around 19% of the overall clause combining forms produced by 66% of the speakers. In comparison, it only accounted for 4% of the total clause combining forms in the Chinese group used by only 22% of the speakers.

In this chapter, I will focus on Chinese L1 Japanese learners and Japanese native speakers and investigate this theme more deeply from two aspects: 1) to examine the contexts and sequences in which most of the Japanese native speakers use conjunctive *-to*, and 2) to examine the clause combining forms Chinese L1 Japanese learners use under the same contexts.

4.1. Japanese Group’s Use of Conjunctive *-to*

For a quick recap of its features and functions, conjunctive *-to* ‘when/if’ appears at the clause-final position of the first clause to connect to the second clause.

(11)

CL1 [basuketto o akete miru-to]
basket ACC open look-when

CL2 [inu ga naka kara tobi-dashite-ki-mashi-ta]

dog NOM inside from jump-out-come-POL-PAST

‘When (they) open the basket, the dog jumps out from inside.’

From the previous analysis, we have encountered 46 tokens of *-to* from 33 Japanese speakers in total (See Table 13). When I examined all the examples, a clear pattern was observed in the use of *-to*: namely, in the majority of cases, *-to* was used to describe specific contexts in the story where a substantial change/discovery was presented. You may remember that the speakers told stories based on the set of pictures presented at the same time; hence, I classified these cases roughly into five groups in the following Table 18 based on the context used.






Scenes	Scene 1	Scene 2	Scene 3	Scene 4	Scene 5	Other	Total
Content	Preparing the food	Looking at the map	Walking (towards the picnic site)	Opening the basket	Looking inside the basket		
Picture							
N	0	5	0	17	16	8	46

Table 18 Distribution of Tokens in Different Scenes in Storytelling by JP speakers

The set of pictures illustrates a story of two characters, Ken and Mary, going for a picnic. Most instances of *-to* are used to connect specific sequences which involve a change in scene and lead to a new discovery, illustrated in Scene 2, which shows that while Ken and Mary are reading the map, the dog goes into the basket. In Scene 4 they open the basket and the dog jump

out, and in Scene 5 they look inside the basket and find that all the food has been eaten by the dog. Notice that Scenes 1 and 3, though they depict activities, do not involve a change of state or discovery. And interestingly, no use of *-to* is observed there. In contrast, Scenes 2, and particularly 4 and 5, are abundant with the use of *-to* connecting the sequences of ‘looking at the map’, ‘the dog gets into the basket’ (Scene 2, 5 tokens); ‘opening the basket,’ ‘the dog jumps out’ (Scene 4, 17 tokens)¹⁵; and ‘looking inside the basket’ followed by ‘finding out the food is gone (Scene 5, 16 tokens). All these cases account for 38 out of 46 cases, a total of 83%. The remaining eight cases turned out to be part of a fixed expression *~yooto(suru)* ‘try to~,’ not used for particular scenes.¹⁶

It is interesting to note that previous studies of Japanese have, in fact, highlighted this use of conjunctive *-to*, which connects two events and actions in that action in the first clause leads to the discovery or realization in the following clause (Kuno 1975, Nakama 2010, p.222-233, Tsutsui and Makino 1989, Fujii 1990,1993, Miyabe 2011, Marugoto B1 2016, p.92, Sunagawa 2015).

¹⁵ Two cases were found in which the speaker described the action of ‘arriving at the picnic site’ in the first clause connected by *-to*, I have categorized them into scenes based on the content of the second clause of *-to*, since they are all grouped into Scene 4 as the second clause describes what happens in Scene 4.

¹⁶ All eight cases in the other group involves: *~yooto(suru)* ‘try to~’. This is used to denotes an intention to do something, or a forthcoming action, recognized as a set phrase (Tsutsui and Makino 2008).

(12)

dekaketa saki de o bentoo o tabeyooto basuketto o akemashita

‘At the picnic site, they decided to eat their lunch and opened the basket.’

(13)

CL1 [eki ni tsuku-to] CL2 [tomodachi ga mukae ni kitte iru]

‘When I arrived at the station, my friend was already there to meet me.’

(Sunagawa 2015)¹⁷

In the above example, the first clause sets up the scene, and the second clause presents the discovery/change, in which the presence of the friend was discovered immediately upon the arrival of the speaker. This function of *-to*, which often appears in narratives or storytelling, will be the focus of our coming discussion.

In general, all conjunctive *-to* connected clauses found in my data fall into the pattern of the first clause setting the frame for the discovery of a surprise event/action/change of state that occurs in the second clause, i.e., either observed by the characters in the story or the storyteller. Let us look at some examples from my data:

a. CL1 [basuketto o akete miru-to] CL2 [inu ga naka kara tobidashite-kimashita]

‘When (they) open the basket, the dog jumps out from inside.’

b. CL1 [de naka o miru-to]

CL2 [basuketto no naka ni ireteatta tabemono ga zenbu taberarete-imashita]

‘Then, they look inside the basket and, (find out that) all the sandwiches they made were eaten (by the dog).’

¹⁷ This example has been slightly modified

c. CL1 [ken to mari wa chizu o miteiru-to]

CL2 [inu ga basuketto no naka ni haitte-kimashita]

‘When Ken and Mary were looking at the map, the dog went into the basket.’

As mentioned previously, there is a definite concentration of the use of *-to* in Scenes 2, 4 and 5 as a discovery or a new situation was introduced in these scenes. Examples (a) and (b) are from Scenes 4 and 5, respectively. Japanese speakers typically split the main body of the successive event shown in Scene 4 into two parts: ‘open the basket’ and ‘the dog jumps out’. As in (a), since the characters are unaware that the dog went into the basket when they opened it, they are surprised by the dog jumping out. It can be said that the physical movement of the basket being opened in the former clause triggers or sets an onset which brings the subject of the event to the discovery/occurrence in the latter clause (dog jumps out). Also, there are two cases where the scene is instead described as ‘arriving at the picnic site’ and ‘the dog jumps out’; this is also a clear demonstration of *-to* connected sequences denoting a physical movement of the subject in the first clause, which then leads to the discovery of the new event in the second clause.

As for (b), which describes Scene 5, it was again separated into two events by Japanese speakers: ‘look inside the basket’ and ‘the food has been eaten’. These two sequences again show that the former clause (looking inside the basket) provides a precondition, thus setting off the discovery described in the latter clause (that food has been eaten). The action of ‘looking in’ also enhanced perception, as the characters became better cognizant of the fact that the food had disappeared by looking inside the basket.

On the other hand, the use of *-to* in Scene 2, which connects the first clause of ‘looking at the map’ and ‘the dog gets into the basket,’ is slightly different from the previous two cases. The two events happen concurrently, which is clearly illustrated by the picture for Scene 2. However, the characters in the story do not notice the action of the ‘dog gets into the basket’; it is seen from the storyteller’s perspective. A change of state/surprise action happens during the durative event presented in the first clause (looking at the map), and the second clause which gives a description of a sudden incident (the dog gets into the basket) observed by the storyteller.

Fujii (1990,1993) has done a study on conjunctive *-to* construction in temporal clause linkage by Japanese native speakers from elicited narratives (using pictures). Her findings also suggested that conjunctive *-to* connects clauses having the first clause setting a new frame and the second clause describing the novel matters discovered/perceived in that scene¹⁸. The type of data used in my research is rather similar to Fujii's, with most of the use of conjunctive *-to* occurring when there is a discovery/change is introduced. Also, due to the nature of the storytelling task, the pictures have already organized a series of chronological events; therefore, the temporal function of conjunctive *-to* is often revealed in the clause 1- *to*- clause 2 construction.

To sum up, the use of *-to* among the Japanese speakers in this data set is mainly concentrated in Scenes 2, 4, and 5; in particular, it is more frequently found in Scenes 4 and 5. Moreover, the

¹⁸ Fujii (1990, 1993) introduced the idea that a new viewpoint or scene laid out in the first clause could be generalized to three conceptual schemes: 1) physical movement, 2) increased perception/perceptual change, and 3) mental/cognitive change. However, the three conceptual schemes defined by Fujii are specific to her examples, and are not fully displayed in my data, as the physical change, and perceptual change can be identified, but no mental/cognitive change as was found for *-to* in this particular data set, presumably due to the content of the pictures.

-to connected sequences are fairly consistent in each scene. In addition, it appears that my data can be accounted for by some of the ideas expressed by past researchers and textbooks, particularly Fujii's, in which the first clause sets up a new context/frame, and the second clause presents a discovery or change. This is, in fact, one of the main uses of *-to* discussed in earlier studies including language textbooks (Kuno 1975, Nakama 2010, p.222-233, Tsutsui and Makino 1989, Fujii 1990,1993, Miyabe 2011, Marugoto B1 2016, p.92, Sunagawa 2015).

4.2. Chinese Group's Use of Clause Combining Forms in Target Sequences

In this section, I would like to examine the clause combining strategies of the Chinese L1 Japanese learners. First, from our discussion in Chapter 3, *-to* was not very often used by the Chinese speakers; however, there are still some instances of *-to* spotted in the data. I would like to find out where the Chinese speakers applied the conjunctive *-to*, and whether if they are using it in a similar manner as native-speakers. The following Table 19 is identical to Table 18 with the distribution of tokens in different scenes for the Japanese group, but I have added the figures from the Chinese data in the bottom row. Please note that we found earlier that there were 31 instances of *-to* produce by Chinese speakers speaking Japanese.






Scenes	Scene 1	Scene 2	Scene 3	Scene 4	Scene 5	Other	Total
Content	Preparing the food	Looking at the map	Walking (towards the picnic site)	Opening the basket	Looking inside the basket		
Picture							
JP	0	5 (11%)	0	17 (37%)	16 (35%)	8 (17%)	46
CH	0	0	0	12 (39%)	16 (52%)	3 (6%)	31

Table 19 Distribution of Tokens in Different Scenes in Storytelling by JP and CH Speakers

The above table clearly shows that Chinese L1 learners mainly used *-to* to connect the sequences in Scenes 4 and 5, accounting for 28 of a total 31 tokens. 12 (39%) cases appeared in Scene 4 with the sequence of ‘open the basket’ and ‘dog comes out’ and 16 (52%) in Scene 5 connect the sequence of ‘look inside the basket’ and ‘find out the food has been eaten’.¹⁹ These are the scenes where the conjunctive *-to* most appeared in the Japanese data as well. The remaining three (6%) cases under ‘others’ were a set phrase *~yooto(suru)* ‘try to~’²⁰ which was also identified in the Japanese group. A few Japanese speakers used *-to* in Scene 2, connecting

¹⁹ There are some variations in the way these learners described the scenes. For instance:

(14)

koen ni tsuku-to basuketto no naka ni tabemono ga tabete-shimai-mashita

“After (they) arrived at the park, (they found out that) the food had been eaten (by the dog)”

In this example, the speaker connects the sequences of ‘arrived at the park’ and ‘(found out) the food has been eaten (by the dog)’. There is no action of ‘arriving’ in the first clause, but the second clause is clearly describing Scene 5. For any cases which are slightly different from the main pattern, I took the same approach as for the Japanese group, — that is, I categorized them based on the content of the second clause of *-to*.

²⁰ Please refer to footnote 16

the sequences ‘looking at the map’ and ‘the dog gets into the basket’; however, Chinese L1 learners did not use *-to* to describe this particular scene. Although the figures in the table above suggest that the pattern for the Chinese and native Japanese group are very similar, note that overall, only a very small proportion of Chinese L1 learners have produced *-to*. Let us look at Tables 20 and 21.

Group	Users (%)	Non-users (%)	Total
JP	33 (66%)	17 (34%)	50 (100%)
CH	29 (22%)	105 (78%)	134 (100%)

Table 20 All Users of *-to* for JP and CH Speakers

Group	<i>-to</i> ‘when/if’ N (%)	Other clause combining forms	Total
JP	46 (19%)	190 (81%)	236 (100%)
CH	31 (4%)	804 (96%)	835 (100%)

Table 21 All Cases of *-to* for JP and CH Speakers

Remember that in the last part of Chapter 3, we discussed the use of *-to* by the three groups and it was readily apparent from the data that *-to* is not a common clause combining form used by the Chinese group. Table 19 highlights the frequency and number of users of *-to* in the Chinese and Japanese groups. Again, it is evident that the majority of native speakers (66%) produced conjunctive *-to*, whereas in the Chinese group less than a quarter of the total number of users (22%) produced it. And in terms of the frequency shown in Table 21, the Japanese group is still significantly higher than the Chinese group with *-to* making up 19% of all clause combining forms, while the Chinese group has only 31 cases, accounting for only 4% of all clause combining forms. This led to the question of whether the 29 users who produced the 31 cases of *-to* are learners with a higher level of Japanese proficiency. Please see the following Table 22.

J-CAT levels (with SPOT - Intermediate)	Pre- Intermediate	Intermediate	Intermediate -High	Pre- Advanced	Total
-to users	0 [0%] (0%)	5 [17%] (17%)	11 [14%] (38%)	13 [43%] (45%)	29 (100%)
Non -to users	1 [100%] (1%)	24 [83%] (23%)	63 [85%] (60%)	17 [56%] (16%)	105 (100%)
Total	1 [100%]	29 [100%]	74 [100%]	30 [100%]	134

Table 22 Levels for Users of *-to* and Others for all CH Speakers

This Table shows the frequencies of the *-to* users and non-users among different levels of Japanese learning. As we saw in the methodology section, the selection of speaker was based on SPOT (Simple Performance-Oriented Test) and J-CAT (Japanese Computerized Adaptive Test). All 134 students are from SPOT-intermediate, and four various levels in J-CAT; they are: pre-intermediate, intermediate, intermediate-high, and pre-advanced. The percentages in square brackets are based on the total number of speakers in the four levels (represented vertically), and the percentages in parentheses are based on the total number of speakers who produced or did not produce *-to* (represented horizontally).

From Table 22, we find that learners who used *-to* are placed in at least the intermediate level in J-CAT. In fact, for the *-to* users, 83% of them were placed in the top two groups, and among those, almost half were placed in pre-advanced (45%). The table also shows that most Chinese speakers, regardless of their levels of Japanese, do not use *-to* (56-100%); however, there is an increasing tendency in the use of *-to* as learners' skill levels in Japanese increase (0-43%). Yet, from Table 20 we saw that 66% of the native speakers have produced *-to*; in contrast, even in the pre-advanced stage, *-to* is not a common clause combining form for Chinese L1 learners (22%). Hence, in the next section, we will further discuss and compare the use of other clause combining forms by the Japanese and Chinese groups where *-to* is frequently applied. I have

specifically chosen those who were assigned to SPOT-Intermediate and J-CAT Pre-Advanced (N=30); as they are certified as having a higher level of proficiency of Japanese in the J-CAT exam, they might show a trend similar to that of the native language group.

4.3. Other Clause Combining Forms Used by the Chinese and Japanese Groups in The Target Sequences

In this section, we will look at the clause combining forms used by the Chinese J-CAT Pre-advanced group and Japanese native group in the target sequences in Scene 4 with the sequences of ‘open the basket’ and ‘dog comes out’, and in Scene 5 with the sequences of ‘look inside the basket’ and ‘find out the food has been eaten’.

Let us start with the Japanese group. The table below gives a general overview of the clause combining forms used in Scene 4 and 5 by the Japanese group. The percentages in square brackets are aligned vertically, based on the total number of forms used in the corresponding scene, while the percentages in parenthesis are aligned horizontally, based on the total number of target forms used in both scenes.

Forms	Scene 4	Scene 5	Total
-to	17 [34%] (52%)	16 [32%] (48%)	33 [33%] (100%)
Others	21 [42%] (66%)	11 [22%] (34%)	32 [32%] (100%)
No form	12 [24%] (34%)	23 [46%] (66%)	35 [35%] (100%)
Total	50 [100%]	50 [100%]	100[100%]

Table 23 Overall Clause Combining Forms Used by JP Group in Target Sequences in Scenes 4 & 5

From a holistic aspect, the Japanese group had three different choices to describe the two scenes; using the conjunctive *-to* (33%), using other forms (32%), or not using any clause combining forms at all (35%). It appears that even for the native speakers, most choose not to use *-to* ('Others' and 'No forms' combine for 67%). Those cases with no clause combining forms include examples where speakers used only one sentence, and in most of those cases, speakers only described the outcome of the changes. Look at the following example:

(15)

odoroita koto ni basuketto no nakami no tsukutta sandoicchi ya ringo ga inu ni taberarete-shimai-mashi-ta

'To their surprise, the sandwiches they made and apples in the basket were eaten by the dog.'

Example 15 describes Scene 5 where the picture illustrates that characters discover all the food they prepared has been eaten (by the dog). But this speaker did not use an explicit sentence or description for the first action 'look into the basket'; they did not use any clause combining form but only described the discovery of the food being eaten (by the dog). Instances in which no form was used are not the focus of this study, and thus will not be discussed further.

From the above Table 23 the percentage of 'Other' forms is also significant (32%); therefore, the question that arises is, what forms, other than conjunctive *-to*, do native Japanese speakers use to connect the target sequences in Scenes 4 and 5? See the breakdown of the forms in the following table.

Forms	Scene 4	Scene 5	Total
<i>-to</i> 'when/if'	17 (34%)	16 (32%)	33 (33%)
<i>-tokoro</i> 'just about to/when'	8 (16%)	2 (4%)	10 (10%)
<i>-tara</i> 'when'	6 (12%)	2 (4%)	8 (8%)
<i>-te</i> 'and/then'	0 (%)	4 (8%)	4 (4%)
<i>-totan</i> ²¹ 'as soon as'	3 (6%)	0 (%)	3 (3%)
<i>suruto</i> 'thereupon'	3 (6%)	0 (%)	3 (3%)
<i>-toki</i> 'when'	1 (2%)	1 (2%)	2 (2%)
stem 'and'	0 (%)	2(4%)	2 (2%)
No form	12 (24%)	23 (46%)	35 (35%)
Total	50 (100%)	50 (100%)	100 (100%)

Table 24 Breakdown of the Forms Used by the JP Group in Target Sequences in Scenes 4 & 5

It appears that other than *-to*, native speakers use the following forms: *-tokoro* 'just about to/when' (10%), *-tara* 'when' (8%), *-totan* 'as soon as' (3%) and *suruto* 'thereupon' (3%) are the forms used by native speakers, these forms are longer than conjunctive *-to* and generally are more specific in meaning as their translations suggest. These forms are known to be used both in spoken and written narratives. (Baba 2013, Kuramochi and Suzuki 2007, Iwasaki and Ono 2001: 196-197, Watanabe 2012, Clancy 2020). Conjunctive *-totan* 'as soon as' is found in sentences like: 'As soon as she saw me, she started to cry'; *suruto* 'thereupon' is found in sentences like: 'Thereupon he received the following verse from her'; and conjunctive *-tokoro* 'just about to/when' is found in sentences like: 'I am just about to leave'. Conjunctive *-tara* 'when', it is used in sentences like: 'When I talked to my boss, he was glad to do it'. All these have a rather

²¹ Conjunctive *-totan* 'as soon as' is sometimes followed by an optional particle *-ni* 'at'.

specific meaning relating to the occurrence of the event, and we observed that native speakers use these forms with specific semantic and pragmatic meanings to present the sequence as part of the story.

Moving on to the Chinese group, the next Table introduces an overview of the performance of the Chinese speakers in the target sequences in Scene 4 and 5.

Forms	Scene 4	Scene 5	Total
-to 'when/if'	5 [17%] (38%)	8 [27%] (62%)	13 [22%] (100%)
Others	18 [60%] (64%)	10 [33%] (36%)	28 [47%] (100%)
No form	7 [23%] (37%)	12 [40%] (63%)	19 [32%] (100%)
Total	30 [100%]	30 [100%]	60 [100%]

Table 25 Overall Clause Combining Forms Used by CH Group in Target Sequences in Scenes 4 & 5

The highest-level Chinese group (J-CAT Pre-advanced) presents a similar pattern as the Japanese group, in which conjunctive *-to* (22%) in general, accounts for a sizable percentage. However, its use is not as common as in the case of Japanese group. Using other forms (47%) or not using any forms (32%) seemed to be more in favored by the majority (79%). Clause combining strategies for Scene 5 are more evenly distributed among the three types with not using any forms being the most common (40%). Also, it is striking that up to 60% of the forms in Scene 4 are forms other than *-to*. It is therefore worth taking a closer look at exactly which forms are being used and whether they are different from the Japanese group.

In addition, it is useful to have a direct comparison between the two groups on the forms been used other than *-to*. Table 26 gives the distribution of clause combining forms the Chinese group used in the target sequences in Scenes 4 and 5. And Table 27 depicts all the forms including *-to*,

which are used by the Japanese group to describe the target sequences in Scenes 4 and 5; it is the same as Table 24, but is placed together with Table 26 for a more intuitive display.

Forms	Scene 4	Scene 5	Total
<i>-to</i> 'when/if'	5 (17%)	8 (27%)	13 (22%)
<i>-toki</i> 'when'	10 (33%)	0 (0%)	10 (17%)
<i>-te</i> 'and/then'	1 (3%)	9 (30%)	10 (17%)
<i>-tara</i> 'when'	5 (17%)	1 (3%)	6 (10%)
<i>-totan</i> 'the moment'	2 (7%)	0 (0%)	2 (3%)
No form	7 (23%)	12 (40%)	19 (32%)
Total	30 (100%)	30 (100%)	60 (100%)

Table 26 (Above) Breakdown of the Forms Used by the CH Group in Target Sequences in Scenes 4 & 5

Forms	Scene 4	Scene 5	Total
<i>-to</i> 'when/if'	17 (34%)	16 (32%)	33 (33%)
<i>tokoro</i> 'just about to/when'	8 (16%)	2 (4%)	10 (10%)
<i>-tara</i> 'when'	6 (12%)	2 (4%)	8 (8%)
<i>-te</i> 'and/then'	0 (%)	4 (8%)	4 (4%)
<i>-totan</i> 'as soon as'	3 (6%)	0 (%)	3 (3%)
<i>suruto</i> 'thereupon'	3 (6%)	0 (%)	3 (3%)
<i>-toki</i> 'when'	1 (2%)	1 (2%)	2 (2%)
stem 'and'	0 (%)	2(4%)	2 (2%)
No form	12 (24%)	23 (46%)	35 (35%)
Total	50 (100%)	50 (100%)	100 (100%)

Table 27 (Right-side) Breakdown of the Forms Used by the JP Group in Target Sequences in Scenes 4 & 5

As Table 26 shows, the conjunctive *-te* 'and/then' and *-toki* 'when' are used quite commonly by the Chinese group, both at around 17% of the total clause combining forms used in the target sequences though *-toki* is preferred in Scene 4 and *-te* in Scene 5. As we know from the previous analysis, these two forms appear frequently among the Chinese group, not to mention that *-te* is the most common form among all groups. Thus, it is not surprising that they are well-used in the target sequences by the Chinese speakers. In Fujii's (1990) study, she discovered that the *-to* structure is difficult for Japanese learners to master because it requires a thorough semantic and pragmatic understanding, and that learners used *-toki* 'when' as a substitute for it. Fujii's and my

findings are similar in that the learners in both studies use *-toki* where native speakers use *-to* ‘when/if’. There is a potential motivation for the frequent use of *-toki*, as I discussed in footnote 8, because Chinese has the form *~de shihou* ‘when’ which behaves similarly to conjunctives, and it could be placed at the end of the first clause. This might explain why Chinese learners are comfortable using *-toki* ‘when’ even though it is a conjunctive. But still, *-to* is a frequent form used in the target Scenes by the Chinese speakers in this study (22%) ; although some, but not all, seem to have a fairly good grasp of the use of *-to* ‘when/if’. A small number of other forms, such as *-totan* ‘as soon as’ and *-tara* ‘when’, were also spotted in the Chinese group. This indicates that a small portion of learners have acquired some advanced clause combining forms. But in most cases, they did not (or were not able to) use longer narrative telling clause combining forms. Instead, they used generic clause combining forms such as *-te* ‘and/then’ and *-toki* ‘when’, which native speakers did not often use in describing the same scenes.

Comparing the two tables, the patterns presented by the Chinese Pre-advanced and Japanese native group are very similar in general, but the frequency of *-to* ‘when/if’ is still higher in the Japanese group. Both groups use alternative clause combining forms, but the sharpest difference is that Japanese speakers tend to use narrative telling forms which are often longer in form and have more specific meanings (*-tokoro* ‘just about to/when’, *-tara* ‘when’, *-totan* ‘as soon as’, and *suruto* ‘thereupon’), whereas Chinese speakers use generic clause combining forms (*-te* ‘and/then’ and *-toki* ‘when’) instead. To some extent, this suggests that many Chinese speakers have not yet mastered or learned how to tell narratives in an authentic way as native speakers do.

Chapter 5. Conclusion

5.1. Summary

This study examined the use of clause combining forms by Japanese native speakers and Chinese L1 Japanese learners, as well as similarities and differences in their uses, through a combination of quantitative (including a brief discussion of Japanese learners of English L1 as a reference group) and qualitative methods, and focused on answering the following research questions:

1. What kind of clause combining forms are used by Japanese native speakers? Do they use both conjunctives and conjunctions frequently?
2. What kind of clause combining forms are used by the Chinese L1 Japanese learners? Do they use both conjunctives and conjunctions frequently?
 - 2.1. Does another non-native group, English L1 Japanese learners, behave in similar or different ways from the Chinese group?
3. What are the similarities and differences in the choice of clause combining forms between Japanese native speakers and Chinese and English Japanese learners?

In terms of data and speaker selection, in order to have comparable data from different language groups, I chose the storytelling data provided by the I-JAS corpus (2012) to ensure that all speakers would talk about the same sequence of events, so that the language they produced would be directly comparable. For learner selection, all learners had no studying/living/working experiences in Japan (except short-term travel) and their Japanese proficiency belonged to SPOT Intermediate and J-CAT pre-intermediate, intermediate, intermediate-high, or pre-advanced to ensure homogeneity. To see whether if the results for the Chinese group are particular to them, a

small number (N=24) of English L1 Japanese learners were selected as a reference using the same criteria as I used to select the Chinese group.

From the quantitative analysis in Chapter 3 which provided the overall trends in the use of the forms, conjunctives seem to be more favored by the Japanese group and conjunctive *-te* ‘and/then’ was the most common among all clause combining forms. Conjunctive *-to* ‘when/if’ was also prominent. The Chinese group did not have a strong preference for either conjunctives or conjunctions in general, but conjunctives were relatively more frequent. Among all the forms, conjunctive *-te* ‘and/then’ was the most common, with other forms such as, conjunctions *soshite* ‘and/then’, *demo* ‘but’, and conjunctive *-toki* ‘when’ also used in a number of instances. The English group had a relatively noticeable inclination towards conjunctions as compared to the Chinese group; while they used more conjunctions such as *sono ato* ‘after that’, and *sorekara* ‘and/then’, the most frequent clause combining forms (conjunctive *-te* and conjunction *soshite*) were alike to the Chinese group, indicating that learners seem to behave similarly.

A possible motivation of the similarity between the two learner groups is that since Chinese and English are both SVO language with no conjunctives; however, what makes Japanese is a verb/predicate final language, which allows that speakers to choose whether if they want to end the sentence with a finite verb or continue with a non-finite verb. Therefore, using conjunctions may be a less complex strategy for the learners in Japanese. But for Chinese L1 Japanese learners, the absence of conjunctives in Chinese does not prompt them to rely on using conjunction extensively; they even had more instances of conjunctives overall; however, the more frequent use of conjunctions by Chinese speakers compared to Japanese speakers still show a clear influence from the native language. The case for the English group is interesting because, similar to Chinese, English is not a verb-final language and has no conjunctives; the English

group appeared to be even more conjunction-driven than the native Chinese speakers. On the other hand, In the literature review, we know that Chinese has the ‘zero marker’ strategy, i.e., meaning no overt forms is used when combining clauses. I did not observe any omitted clause combining forms when native Chinese speakers combine clauses in Japanese.

Given that we can consider the Japanese of the Japanese group as the baseline, I have highlighted the clause combining forms that most distinguish the Japanese and Chinese groups. As we know from earlier analysis, the use of the conjunctive *-to* is one of the main differences between the two group; therefore, I did a thorough investigation on *-to* from the following aspects:

- 1) To examine the contexts and sequences for which most of the Japanese native-speakers use conjunctive *-to*.
- 2) To examine the clause combining forms Chinese L1 Japanese learners use under the same contexts.

After gathering all the tokens of *-to* for the Japanese group, except for *-to* in the fixed expression, I found that most instances were concentrated in Scenes 4 and 5, with a few in Scene 2. All *-to* constructions present the pattern of having the first clause sets up a new context/frame, and the second clause present a discovery or change. The use of Conjunctive *-to* in the Chinese group was also clustered in Scenes 4 and 5, but *-to* was used by learners in J-CAT intermediate or above, and most of them are composed of learners at the pre-advanced level. Even for those learners, the use of *-to* was not very common compared to the Japanese group.

From the above analysis we can see that a considerable number of advanced learners use clause combining forms other than *-to*. Thus, in this study I have decided to focus on those in the

Chinese L1 group with SPOT intermediate and J-CAT pre-advanced level (N=30), examine the other forms they have been using in the same context (Scenes 4 & 5), and compare them with the Japanese group. A clear difference in the choice of forms between the two groups was found: the Japanese group used *-tokoro* ‘just about to/when’, *-totan* ‘as soon as’, *suruto* ‘thereupon’, and *-tara* ‘when’, which are longer forms with more specific meanings and are commonly used in spoken language/narrative (Baba 2013, Kuramochi and Suzuki 2007, Iwasaki and Ono 2001: 196-197, Watanabe 2012). The conjunctives *-toki* ‘when’ and *-te* ‘and/then’ most commonly appear among the Chinese group; they are forms that have general meanings and were taught in language textbooks at an early stage, and in fact we saw earlier that they are two of the most frequent clause combining forms used by the current group of Chinese speakers. This difference may indicate that many pre-advanced Chinese L1 Japanese learners have not yet mastered narrative strategies. Instead, they appear to continue to use the clause combining forms with general meanings which they are taught first and to which they are most commonly exposed. Also, form like *-toki* ‘when’ which has an equivalent expression in Chinese *~de shihou* ‘when’—this may be considered as a possible L1 transfer, thus leading learners to over-rely on this form.

5.2. Limitations and Implications of the Present Study and Suggestions for Future Studies

It should be pointed out that this is a preliminary comparative study on the uses of clause combining forms by Japanese (N=50) and Chinese L1 Japanese learners (N=134). While the size of the Chinese group was relatively large, and the Japanese group was quite limited. Also, for the in-depth comparison of the two groups, I only closely examined a small group of pre-advanced Chinese learners (N=30). Those less advanced learners’ use of clause combining forms is well worth further examination; for instance, possible research questions for further studies could be,

how do less advanced learners use those clause combining forms with general meanings? Do the least advanced learners use them? Is there an increase in use as their Japanese skills improve? What is going on with the sequences where no clause combining forms are used? Moreover, this study only focused mainly on the use of *-to* with limited analysis of other common forms; thus, possible future research would need to investigate in detail on other forms used by Japanese speakers and learners and whether some of these forms are used to describe specific types of scenes/sequences. Also, since accuracy was not really considered in this study, future studies could assess the accuracy of learners using clause combining forms.

More importantly, this thesis did not include a discussion about teaching clause combining forms in pedagogical contexts. As we have discovered, although some pre-advanced learners seem to have a good grasp of clause combining forms, showing a similar tendency as native speakers, there is still a clear difference in the choice of forms under specific language contexts between native speakers and learners. Thus, the ways in which learners can be introduced to a more authentic use of clause combining forms is a dimension worth for further reflection. Some examples might include looking at how clause combining forms are explained and taught in existing textbooks/classrooms or examining whether strengthening narrative practice in the classroom settings might improve learner's use of clause combining forms.

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