Choice of Conditional in Japanese: Nara, Nonara and Nodattara

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ABSTRACT

The purpose of this thesis is to differentiate between the usage of three very similar Japanese conditionals: *nara*, *nonara*, and *nodattara*. A questionnaire study to find connections between the choice of conditionals depending on the surrounding expressions was conducted to establish potential rules and patterns of usage.

The research found that short sentences, negative *protases*, and conditionally realis type sentences correlate positively with *nara. Nonara,* on the other hand, correlates positively with long sentences, positive *protases* and conditionally irrealis type sentences. Furthermore, it was found that the conditional expression *nodattara* is a *neutral-masculine* expression. This means that the use of *nodattara* has more to do with the gender of the speaker than with the type of the sentence.

Previous research on the factors that either contributed to the choice of stimuli for the questionnaire, or that are needed to understand the results are showcased. These factors include *noda*, tense, certain modal expressions and grammatical forms

Keywords: Japanese, Conditionals, *Nara*, *Nonara*, *Nodattara*, *Noda*, Copula.

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TYPOGRAPHICAL CONVENTIONS

Italics will be for foreign words, concepts defined by authors I am citing, or concepts defined by me. Bold is used when highlighting something in an example sentence. Single quotes will be used for quotations in the running text. Borders will be used to separate *bunsetsu*. A [?] or a [*] in front of an example sentence is used to signify an example sentence is awkward or incorrect, respectively.

ROMANISATION

Romanisation in this thesis will be in accordance with the Modified Hepburn method.

GLOSSING RULES

Glossing in this thesis will be in accordance with the *Leipzig Glossing Rules*. However, Japanese conditional expressions will be codified by the romanisation of the expression in question.

LIST OF ABBREVIATIONS

Term	Abbreviation
Accusative Case	ACC
Adjectival Copula	COP.ADJ
Moshi and Moshimo	if.ADV
Adverb	ADV
-Ba-Conditional	BA
Causative Form	CAUS
Complementiser	COMP
Copula	COP
Dative Case	DAT
Derogative	DEROG
Directional Case	DIR
Genitive Case	GEN
Imperative Form or Use	IMP
Intstrumental Particle	INST
Locative Particle	LOC
Modal Expression	MDL
Nara-Conditional	NARA
Negative Form	NEG
Noda	NODA
Nodattara-Conditional	NODATTARA
Nodeareba-Conditional	NODEAREBA
Nominal Preposition	PREP
Nominaliser	NML
Nominative Case	NOM
Nonara-Conditional	NONARA
Non-Perfective Form	NPERF
Perfective Form	PERF
Polite form	POL
Potential Form	POT
Question Particle	QP
Tara-Conditional	TARA
Tari-Form	TARI
Te-Form	TE
To-Conditional	TO
Topic Particle	TOP
Volitional Form	VOL

1 INTRODUCTION

This thesis will explore the usage patterns of three of the Japanese conditionals: *nara*, *nonara*, and *nodattara*. These three conditionals, along with the conditional *nodeareba*, have a very similar meaning and use (Noda. 1997:163, henceforth N.H.). *Nodeareba* is generally only used in formal and literary works and hence is excluded from the study itself. The three expressions are often treated as effectively the same in many grammar books (e.g. N.H. 1997). My supervisor and I find them to slightly differ, however. While often interchangeable, situations where preferences of one conditional is used over the others seem to exist.

The thesis consists of two parts, an introductory part where relevant previous studies will be explained, and a research part, where results of the study and the conclusions will be presented.

The first part will delve into the existing studies on conditionals and other related factors. These are the factors that were predicted to influence the choice of conditional by participants in the research questionnaire that was conducted. Since the conditional *nodattara* is relatively under-researched, an attempt to define it will be made. The constituents of the other two conditionals in focus, namely *nara* and *nonara* will also be explored in detail.

1.1 HYPOTHESIS

The hypothesis in this paper is that the three conditional expressions *nara*, *nonara*, and *nodattara* follow different rates of usage in different sentence types. Sentences that have similar features are expected to have similar patterns of choice. It is also likely that different individuals will have biases of using certain expressions over the others. Commonalities in usage patterns should be detectable, however.

Furthermore, the gendered use of the Japanese copula combined with the informality and hence lower politeness level of the expression *nodattara* led me to

expect that the male participants' likelihood of choosing *nodattara* was higher than the female participants'.

1.2 ORGANISATION

In the initial sections of Chapter 2, previous research on conditionals and their constituents are explored. In the latter sections of Chapter 2, other expressions and grammar taken into consideration will be showcased. The expressions that were used when choosing stimuli will also be explained.

In Chapter 3, the factors found to contribute to the results of the research will be discussed, followed by further analysis of determining the order of influence these factors had on the results. Finally, the shortcomings, as well as further questions posed by the results will be discussed and a conclusion of the results will be made.

2 PREVIOUS RESEARCH

The beginning of this chapter will consist of an overview of research on conditionals. First, a brief definition of conditionals will be provided along with an explanation of the basic terms of conditional logic that will be used through the paper. This will then be followed by an explanation of Japanese conditionals.

The text will then expand into exploring several Japanese grammatical topics. These topics include *noda*, Japanese copula, tense and aspect, negation and noun modification, followed by an explanation of the conditional sentence types realis and irrealis. Studies on expressions such as *dōse* and *moshi*, and how they can be used to determine the type of conditional sentences will be explained. Some of these topics are brought up to establish what the conditional expressions consist of.

2.1 CONDITIONALS: *PROTASIS AND APODOSIS*

According to Akatsuka (1985:625), most studies on conditionals were until recently conducted by logicians and philosophers rather than linguists. Therefore, while this thesis lies within the field of linguistics, some terminology from the field of logic in philosophy will be utilised in this thesis and explained in this section.

A conditional is a word or a clause expressing a condition[1] (*OED Online*. 2017). A conditional sentence includes a *protasis* and an *apodosis*. Traugott (1985:290) explains that a conditional *protasis* is a clause with a: '[…] conjunction and other grammatical forms with approximately the function of English *if*'. Usually this is then followed by what is called a conditional *apodosis*, which represents the corresponding *then*-clause. In English, the basic structure of a conditional sentence is: *if A* (*protasis*) *then B* (*apodosis*), such as in the following example:

> If Socrates is a man, Socrates is mortal. (Russell. 1912:3)

Where, 'If Socrates is a man', is the *protasis*, and 'Socrates is mortal', is the *apodosis*.

[1] Condition as in a prerequisite for an action/event, rather than as in status.

2.2 CONDITIONALS IN JAPANESE

This section will showcase commonly used Japanese conditionals and give examples of them. Details on what differentiates the conditionals from each other will also be given. When naming the conditionals, a hyphen (-) is attached in front of the conditionals that do not attach to the *non-perfective*[2] of a verb or an adjective.

In Japanese, the conditional is generally attached to the end of a verb or an adjective (both of which can function as predicates in Japanese) after the contents of the *protasis*. For example:

Nara

Example 1 Own Example

Moshi	kare-ga	koko-ni	ku-ru	**nara**,
If.ADV	he-NOM	here-DIR	come-NPERF	NARA,

watashi-wa	kaer-u.
I-TOP	go.home-NPERF.

If he is coming here, then I will go home.

Most of the conditional expressions, including *nara*, can be attached to nouns. This can be done either by simply having it after the noun or via attaching it to the copula after the noun. In the case of *nara*, the former is the case:

Example 2 Own Example

Garasu	nara,	otoshite	ware-ru-hazu-da.
Glass	NARA	drop-TE	break-NPERF-should-COP.

If it is glass it should break by dropping.

Nara can also be found in the forms *naraba*, *nonara* and *nonaraba*. In this paper, *naraba* and *nara* are variants of each other, as are *nonara* and *nonaraba*, as the hypothesis is that *nara* and *nonara* have different usage. The *-ba* including forms of these conditionals are less and less used in modern, especially spoken Japanese, but not completely obsolete yet (Hasada 1997:287). In Japanese, the dependent clause located before the conditional is the *protasis*, and the following main clause is the *apodosis* of the conditional sentence.

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[2] *Non-perfective* and *perfective* refer to what are normally called the non-past and past tenses of Japanese, see 2.5.1.

Japanese conditional expressions are numerous, and they relate the contents of the *protases* to their respective *apodoses* differently from each other. The temporality of the conditional is one category in which many conditionals differ. An example of a *temporal* conditional is *-tara*:

-Tara:

Example 3 Own Example

Kare-ga	koko-ni	ki-tara,	watashi-wa	kaer-u.
He-NOM	here.DIR	come-TARA,	I-TOP	go.home-NPERF.

If he comes here, I will go home.

When the conditional of a sentence is *-tara*, *apodosis* cannot begin until after *protasis* has happened (this does not mean it must, or will occur immediately). Thus, to give an example in English, *-tara* functions as follows:

Once and if A becomes true, then B.

The strict order of *protasis* always occurring before the *apodosis* means it has *temporal* characteristics. In the case of the previously mentioned *nara*, however, the *apodosis* can take effect even before the *protasis* if it is confirmed that the *protasis* will happen in the future. As an explanation of the function:

If A happens (at any point in time), then B.

This differentiation can be used to roughly divide the conditionals into two groups: *temporal* and *hypothetical* conditionals (Haseda 1997:277). I have chosen to not differentiate between counterfactuals and hypotheticals for this thesis. Between these categories *-tara* is a more *temporal* conditional and *nara* is a more *hypothetical* conditional. In this thesis, the terms *temporal* and *hypothetical* are used to help explain the differences between each conditional.

-Tara can also be used after a noun. attached to the copula. After a copula, however, it describes continuing existence rather than perfective:

Example 4 Own Example

Kore-ga	garasu-dat-tara,	otos-u-koto-de
This-NOM	glass-COP-TARA,	drop-NPERF-COMP-INST

ware-ta-hazu-da.
shatter-PERF-should.COP.

If this were glass, it should have broken from falling.

After a noun, *nara* and *-dattara* are largely interchangeable. *-Dattara,* like *nara* when located after a noun, performs the following function:

If A, then B.

The remaining conditional expressions to be showcased here will be listed in an increasing order of *temporality*. Furthermore, the first three expressions display remarkably similar qualities with the previously mentioned *nara*.

Nonara:

Example 5 N.H. 1997:163
Ur-e-na-i nonara, modosh-ite-kudasa-i.[3]
Sell-POT-NEG-NPERF NONARA, return-te-please-NPAST.
If you cannot sell them, please return them.

N.H. (1997:163-164) points out how interchangeable *nara*, *nonara* and the following two expressions, *nodattara* and *nodeareba*, are in this example. It is also mentioned, however, that *nara* and *nonara* have a slight difference in strength and in the case of this example, *nonara*, would be preferable. The interchangeability is gone if the verb preceding the conditional is in perfective, however. *Nonara* cannot be used after a noun unlike the other conditionals. This is likely due to the way it is formed by a nominaliser followed by the embedded adjectival copula *-na*.

The next example is of *nodattara*:

Nodattara:

Example 6 N.H. 1997:160
A: Konna-mon-ja ur-e-na-i!
Like.this-thing-COP Sell-POT-NEG-NPERF!

B: Wakari-mashi-ta. Ur-e-na-i ndattara,
Understand-POL-PERF. Sell-POT-NEG-NPERF NODATTARA

modosh-ite-kudasa-i!
return-TE-please-NPERF!

A: This stuff does not sell!
B: I see. If it does not sell, please return it.

[3] See: Ur-e-*na*i *nara*/*nodattara*), *modos-ite-kudasai*, (If it cannot be sold, please return it)(N.H. 1997:163)

N.H. (1997:161) explains that *nodattara* has properties akin to *nara*; both *nodattara* and *nara* are used when the sentence *protasis* is expected to be true by the speaker. This is also true for the following expression, *nodeareba*:

Nodeareba:

Example 7 BCCWJ

- [1+1=2]-[4]no	shōmei-ga	sonzai-shi-mas-u-ka?
[1+1=2]-GEN	proof-NOM	exist-do-POL-NPERF-QP?
-Sonzai-sur-u	nodeareba	oshie-te-kudasa-i.
Exist-do-NPERF	NODEAREBA	tell-te-please-NPERF.

-Is there proof that 1+1=2?
-If there is, please tell me.

N.H. (1997:161) notes that *nodeareba* is 'difficult to utilise' in spoken Japanese, and that its scope of use is therefore limited to written Japanese.

The following conditional, *-ba*, is best explained to act like if does in the English language, or as similarly as possible:

-Ba:

Example 8 Own Example

Ame-ga	fure-ba	enki-ni	nar-u-darō.
Rain-NOM	precipitate-BA	postponement-DIR	become-NPERF-COP.MDL.

If it rains, it'll be postponed, won't it?

As for after a noun:

Deareba:

Example 9 Akagawa. 2011:118

Sokuratesu-ga	ningen-de.are-ba,	sokuratesu-wa	shin-u.
Socrates-NOM	human-COP-BA,	Socrates-TOP	die.NPERF.

If Socrates is a human, Socrates will die (eventually).

It is worth noting that the sentence in Example 9 is a translation of a famous example of deductive reasoning, which gives us a hint of the meaning of the expression. *-ba* is absolute, with a nuance akin to the following English example:

If A is true, then B is also true, with no exceptions.

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[4] *Bunsetsu* is not parsed for this sentence due to the calculation that is included.

-ba shares this quality with *to* but with the following exception: *to* unlike *-ba,* which can be used to express truth logic, is always and perfectly *temporal* and gives the impression that the *protasis* happens uncontrollably and is then followed by the contents of the *apodosis*.

To:

Example 10 Compernolle. 1993:62

Fuyu-ni	naru-to	Bahama-ni	ik-u.
Winter-DAT	come-TO	Bahamas-DIR	go.NPERF

Whenever winter comes, I go to the Bahamas.

Example 11 Example given by a native speaker

Yasai-da-to,	koko-no	sūpā-no-ga
Vegetables-COP-TO	here-GEN	supermarket-GEN-NOM

ichiban	oishi-i-yo.
most	delishious-NPERF-MDL

When it comes to vegetables, the ones at the supermarket here are the most delicious.

Compernolle (1993:62) explains the conditional *to* as follows: In use, *to* has various meanings such as *when*, *whenever*, *as soon as*, or *if*, and the context usually makes the meaning clear. This effect can be displayed in English as follows:

With A comes B.

When it comes to *to* as opposed to the other *temporal* conditional *-tara*, Kaiser et al. (2001:38) explains that the main difference is the fact that *to* cannot be used when the *apodosis* is a question, unlike *-tara*.

Most of the explained conditionals include a *-ra* as the final syllable within the expression. This *-ra* will hereafter be referred to as the *conditional marker*. The conditional expressions can be divided into four groups based on how the *conditional marker* is modified such as on the following table:

Copula+*Marker*	*Noda+Marker*	*Perfective+Marker*	Others
Na-ra	*Nona-ra*	*-Ta-ra*	*-Ba*
Datta-ra	*Nodatta-ra*		*-To*

With *dattara* being its own separate entity due to the explanation above about it being different from *-tara*.

2.2.1 The Conditional Adverb Moshi

The adverb *moshi* performs an interesting function in conditional sentences. It can be shown to perform a function akin to the English *if*, but grammatically it cannot be considered a conditional as it almost always needs a partnering conditional expression with some exceptions such as the expression *-temo*, which roughly means *even*.

There are cases where *moshi* cannot be used even when a conditional expression is used. Akatsuka (1985) gives an example of such in the following:

Example 12 Akatsuka. 1985:629

A: Boku,	fuyu-no	Los Angeles-ni	ik-u-koto-ni	
I,	winter-GEN	Los Angeles-DIR	go-NPERF-COMP-intent	
shi-ta-yo				
do-PERF-MDLI				

I **decided** to go to Los Angeles during winter.

*B: Moshi	Kimi-ga	iku nonara	boku-mo	ik-u-yo.
If.ADV	You.NOM	go.NPERF NONARA	I-too	go.NPERF-MDL.

If you are going, then I am going too.

Example 12 does not work since *moshi* cannot be used in a realis type conditional. Most often located in the beginning of a sentence, *moshi* adds a degree of uncertainty to the *protasis*. This will be relevant in Section 2.7, where certain qualities of conditional sentences will be explained.

2.3 NODA

Noda is a construction in Japanese with various functions and properties, and thus is used in multiple ways in various situations. It consists of the nominaliser *no*, and the copula *da* (the copula can also be: *desu*, *dearu*, *degozaimasu*). N.H. (1997), argues that most importantly *noda* as a function changes the properties of a sentence; it can perform and be divided into either a *scopal* or a *modal* function. The *no* in *noda* is often shortened to simply *n*, resulting in *nda*. Another shortening of *noda* is *no*, which is commonly used by female Japanese speakers. The shortening to *no* is also utilised as a kind of question particle by both genders (N.H. 1997:27). The last remaining form (excluding *perfective* and negation) in which *noda* appears is *nona,* the form which it only assumes when a part of the conditional *nonara.*

In the following two sections, the two types of *noda*, *noda of scope*, and *noda of mood* (N.H. 1997:11) will be introduced. After this, the conditionals *nonara* and *nodattara* will be examined as they include a *noda* in their form, followed by a brief comparison of them with *nara*.

2.3.1 Noda of scope: *Scope of Copular Expressions and Negation*

The *no* in the *noda of scope* functions as a nominaliser of the preceding verb phrase, making the sentence a nominal sentence (N.H. 1997:31). The entire clause preceding the *noda* effectively becomes a single noun, and this noun can then be modified with various copular expressions. In the following example (scope of negation bolded) *noda* is used to negate the nominal sentence preceding it:

Example 13 N.H. 1997:33

Kanashii-kara	**nai-ta**	nodewa-nai.
Sad-because	cry-PERF	NODA-NEG.NPERF

It is not that I cried because I was sad.

In the example, negation of the copula: *dewa-nai*, negates the entirety of the sentence before the nominaliser *no*. When compared with a regular negative sentence, the difference becomes apparent, and in the following case (scope of negation bolded), the lack of scope makes the sentence appear contradictory:

Example 14 Own Example

? Kanashii-kara	**naka**-nakat-ta.
Sad-because	cry-NEG-PERF

I did not cry, for I was sad.

Thus, in a sentence where the scope of negation is not widened using *noda*, the negation reaches only the predicate (N.H. 1997:39). This *scopal* function is also the function that *noda* performs in *nodattara* and *nonara*[5].

2.3.2 Noda of mood

According to N.H. (1997:62), *noda of mood*, just like *noda of scope*, makes a nominal sentence out of what would be a verbal sentence. However, the *noda of mood* applies a

[5] *Na* in *nonara* and *nara* is an alternative form of the copula *da* (Narahara 2002:5.) explained further in 2.6.

modal effect on the sentence, unlike *noda of scope*. A typical example (*noda* bolded) of this is given by N.H. from the novel *N.P.* by Banana Yoshimoto:

Example 15 Yoshimoto. 1990. 214

Saki	ina-i-yo.	Ryokō-ni	it-ta-**nda.**
Saki	is-NEG-NPERF-MDL.	travel-DIR	go-PERF-NODA.

Saki is not here… Actually, she went travelling.

N.H. explains that, the *noda* in the latter sentence points that the sentence is an explanation of what is told in the first.

In Example 14 it was shown that removing the *noda of scope* can alter a sentence's meaning drastically. In the case of *noda of mood*, however, the difference is not quite as drastic. Quite simply, only a difference of nuance can be detected, such as in the following example where the *noda* is removed:

Example 16 Own Example

Saki	ina-i-yo.	Ryokoo-ni	it-ta.
Saki	is-NEG-NPERF-MDL.	travel-DIR	go-PERF.

Saki is not here. She went travelling.

The nuance of the latter sentence comes out in a more matter-of-fact sense, rather than in the explaining, unaltered original example. This interpretation was confirmed by an informant. The informant further explained that the role of *noda* in this kind of a sentence is akin to the expression: *jitsu-wa* (*actually*). Unlike in Example 14, the functional meaning of the sentence does not change through the removal of *noda*; just like in Example 15, Saki is not present, she went travelling.

Beyond just use, grammatical differences between the *noda of mood* and *noda of scope* also exist. For instance, the topic of a sentence marked by the particle *wa*, does not fit within the scope of a *noda of scope*. In the following example, the topic fits into the scope of a *noda of mood*.

Example 17 N.H. 1997:63.

-Natsuko,	ko-na-i-ne.		
-natsuko,	come-NEG-NPERF-MDL		
-Kitto,	kyō-wa	kanojo-wa	isogashi-i-nda.
-For.sure,	today-TOP	she-TOP	busy-NPERF-NODA.

-Natsuko is not coming is she.
-I bet it is because she is busy today.

The latter sentence in Example 17 uses *noda* to imply that what was uttered was an explaining answer to what was stated prior to it.

Furthermore, *noda of mood* can be used after nouns unlike the *noda of scope*, like in the following example (the *noda* after a noun bolded):

Example 18 N.H. 1997: 63

-Susumu: Omae,	nani	yat-te-ru-nda-yo?
You.DEROG,	what	do-TE-PROG.NPERF-NODA-MDL?
-Naoko: Baito.	Ima	kyūkei-na-**nda**-yo.
Part.time.job.	Now	break-COP.ADJ-NODA-MDL.

Susumu: Hey you, what do you think you are doing?
Naoko: My part time job. I am on a break now.

In Example 18, just like in Example 15 and in Example 17, *noda* is used to imply explanation. Signalling various kinds of explanation is one of the functions of *noda of mood*.

Another *noda* is also used in this example. In the first sentence of the example, an asking *noda* is used. This can be used, for instance, in questions where you are awaiting an explanation or a confirmation as an answer (N.H. 1997:124-125). Mentioned above was the shortening of *noda* to *no*, which can also be used in this way:

Example 19 Own Example

Asagohan	tabe-ta-no?
Breakfast	eat-PERF-NODA?

Did you eat your breakfast?

To give a slightly more encompassing definition, the type of *noda of mood* that is displayed by Naoko's in her answer in Example 18, is used when an utterance has a connection with something that was stated or asked earlier when the earlier expression or question is sufficiently limited in potential answers. This means, that the previous expression cannot be something akin to 'What should I do?' Instead, it must be more limiting, like 'Is that heavy?' Using the latter, a Japanese example can be given:

Example 20 Own Example

-Sore,	omo-i	desu-ka?
That,	heavy-NPERF	POL-QP?
-Iie,	karui-i	ndesu.
-nah,	light-NPERF	NODA.POL.

-Is that heavy?
-Nah, it's actually light.

The example displays a nuance of *noda*. *Noda of mood* is not limited to only this kind of use. *Noda of mood* can also be used without prior sentences in some contexts. For example, when realising something:

Example 21 N.H. 1997: 72

Sōka,	kono	suicchi-o	os-u-nda!
Oh,	this	switch-ACC	push-NPERF-NODA!

Oh, so I should press this switch!

This type of *noda* expresses realisation rather than explanation. It might even be an answer to someone who explained something to you rather than the explanation itself.

2.3.3 Nonara and Nara

Nonara and *Nodattara* are conditional expressions that consist of a *noda* part in the beginning (*no* or *nodatta*), followed by the *conditional marker, ra*. *Nodatta* and *nodattara* will be further discussed in 2.5.3.

The *conditional marker* in *nara* (and other conditionals) behaves as if it were a noun being modified. Whatever precedes the *conditional marker* is modifying it. The *noda* in *nonara,* namely *nona*, performs a modal function. This can be displayed by breaking the *nonara* and moving the nominalised verb to the beginning of the sentence, like in N.H (1997:33):

Example 22 Own Example

Ie-o	ka-u	**nonara**	basho-wa	daiji-da.
House-ACC	buy-NPERF	NONARA	location-TOP	important-COP.

If you are buying a house, location is important.

Example 23 Own Example

Ka-u-**no**-ga	ie	**nara**	basho-wa	daiji-da.
Buy-NPERF-NML-GEN	house	NARA	location-TOP	important-COP.

If a house (as opposed to something else) is what you are buying, location is important.

The latter *protasis* is different due to the focus being on what is being bought rather than on the buying. *Nodattara* functions similarly but the copula part of the conditional is different. This same method will be used in 2.5.3 to display how the same is true for *nodattara*.

Indeed, the difference between *nara*, and *nonara* is subtle. Together with *nodattara* and *nodeareba*, the expressions are all similar (N.H. 1997:158). As *nara* can be attached to a noun, it logically should not have properties of a nominaliser, yet *nara* can also be used directly after a verb.

2.4 MODALITY AND THE GENDERED USE OF THE COPULA DA

As mentioned in 2.3, women will often drop the copula *da* from the expression *noda*. The dropping of the copula can also occur in sentences that do not include *noda*. Even in these cases, the inclusion of *da* is considered a more *masculine*, and the dropping of the copula (or *zero-copula*) is considered more *feminine*. Categorisation that used Narahara (2002) will also be referred to for each expression.

The copula *da* is a non-polite expression. A polite version of the copula is *desu*. The copulae are situated at the end of a sentence, like any other predicative in Japanese. Most notably, the copula can in some cases be omitted. This omission is employed more often by women than by men. Narahara (2002) discusses about the phenomenon:

Example 24 Narahara (2002:153)

Koko	shizuka-da-yo.
This.place	quiet-COP-MDL

Koko	shizuka-yo.
This.place	quiet-MDL

Both of which translate to roughly the same:

This place is quiet, I tell you.

According to Narahara, both examples yield an identical interpretation even in terms of tense, affirmative polarity and informal speech level. Yet, at least in written fiction, males are more likely to use the former, and women the latter. Narahara categorises the two into the two categories: *Neutral-Masculine*, and *Feminine*, respectively. Even when excluding modal sentence-end particles like *yo*, from the sentence, the gender difference in choice remains the same:

Example 25 Narahara (2002:155)

Un	shizuka(-da/-desu).
Yes	quiet(-COP/-COP.POL).

Yes, it is quiet.

While the use of *zero-copula* occurs in both men's and women's speech, the non-polite *-da* would be used primarily by men only (categorised as *masculine*). The *zero-copula* construction does not sound effeminate, but neutral (categorised as *neutral*). As a further example Tsutsui, (2006:120) lists male and female sentence endings. Among them, sentence endings such as *da-ne* are listed as *masculine*, and endings such as *no-yo* and *no-ne* are listed as *feminine*. The polite copula *-desu*, is not *masculine* or *feminine* although women might use it more often.

2.5 TENSE AND ASPECT

In this section, Japanese *temporal* expressions will be explained, followed by the relationship of these expressions to the conditionals in Japanese.

2.5.1 Past and Perfect in Japanese

Japanese has generally been considered a language with two tenses (or aspects), one that refers to past and one that refers to non-past (Kusanagi. 1972:52). Both forms, however, can refer to past, present or the future time. The terms past and non-past are established mainly because 'they refer only to past or non-past time in mono-clausal sentences in isolation' (Hasegawa 1998). The *perfective* in Japanese is marked by the ending *-ta*, as in the following example:

Example 26 Own Example

Watashi-wa	mō	tabe-ta.
I-TOP	already	eat-PERF.

I already finished eating.

A predicative preceding *nara*, *nonara* or *nodattara* (as well as *-to*), can also be in *perfective*. In such a sentence, the *protasis* would have to be completed before *apodosis*, but an emphasis is put on if it is already completed, rather than when, as opposed to in the case of *-tara*:

Example 27 Own Example

(After hearing the door closing:)

Kare-ga	koko-ni	ki-ta-nara,
He-NOM	here.DIR	come-PERF-cond,

watashi-wa	kaer-u.
I-TOP	go.home-NPERF.

If he came here, I will go home.

In Example 27, the speaker suspects that he already arrived, unlike in Example 3 where it was known or assumed to, by the speaker, that he had not arrived yet. *Ki-ta-nara* can only be used in this way if something indicates that someone whose identity is not known yet arrived.

These forms are referred to as the *perfective*, for the past, and the *non-perfective*, for the non-past in this thesis since it more accurately represents the utilisation of this form in conditional sentences, notably in *protases* and in *-tara*.

2.5.2 Non-past Use of the Perfective

The *perfective* is not limited in use to only past events. For instance, the simple past in English can be used when you recall something that will occur in the future:

Was the party tomorrow?

The *perfective* can be used in Japanese for the same effect:

Example 28 Kusanagi. 1972:52

Pātii-wa	ashita-dat-ta?
Party-TOP	tomorrow-COP-PERF

Was the party tomorrow?

Perfective form, does not necessarily describe what was and no longer is, but rather it describes what was observed. Takakura, (1990, as cited by Hasegawa 1998) describes the use of perfective by pointing out that: 'When -ta is selected […] […] the percipient disappears from the narrative, and the described situation is conceived as an objective fact in the voice of the narrator'.

In other words, the *perfective* description is something that was experienced, and as such, not up for debate from the listener's side; what may be referred to as a *prior observation.*

2.5.3 Nodatta and Nodattara

This section will discuss *nodatta*, a case of non-past, *perfective*, and how it compares with *nodattara*.

N.H. (1997: 102-103) discusses the use of *perfective noda* in story-writing. Having categorised this use of *noda* as a *noda of mood*, reminds us that while (modal) *noda* generally expresses the state of mind of the speaker, in the case of this use of *nodatta* (*noda* with the copular part in *perfective*), *nodatta* expresses, and can only, be used for the progression of a story. For example:

Example 29 Tanomura. 1990:125

Tarō-ni-wa,	sono-koto	dake-ga	kokoronokori-ni
Taro-DIR-TOP	that-COMP	only-NOM	regret-ADV

kanji-rare-ru	**nodeat-ta**.[6]
feel-POT-NPERF	NODA-PERF.

Only that one thing remained as a regret in Taro's mind.

N.H. explains that the effect of this *-nodatta* is the same as the effect of a formation where the topic is modified by the entire clause, followed by a *-datta.* As a result, the meaning of the previous example hardly differs from the following example:

[6] *(No)dear-u*, is a literal version of *(no)da.* It is also used in the following example.

Example 30 Tanomura. 1990:125

Sono-koto	dake-ga	kokoronokori-ni
That-thing	only-NOM	regret-ADV

kanji-rarer-u	Tarō-**de**.**at-ta**.
feel-POT-NPERF	Taro-COP-PERF.

Taro, to whom only that one thing remains regretful.

Nodattara follows this rule, too. This is proof that *nodattara* has modal properties. To showcase this, the following two examples have effectively the same meaning, as confirmed by two native speaker informants of mine:

Example 31 Own Example

Wain-wa	aji-ga	yoi	nodattara,
Wine-TOP	Taste-NOM	good	NODATTARA,

nedan-mo	taka-i-darō.
Price-too	high-NPERF-COP.MDL.

If a wine has a good taste, it is also expensive, is it not?

And:

Example 32 Own Example

Aji-ga	yo-i	wain-dat-tara,
Taste.NOM	good-NPERF	wine-COP-TARA,

nedan-mo	taka-i-darō.
price-too	high-NPERF-COP.MDL.

If it is wine of good taste, it is also expensive, is it not?

These two examples display that the similarity of *nodattara* to *nodatta* is not limited to the two expressions technically being in the *perfective*. It also shows that *nodattara*, like *nodatta* is modal. N.H. (1997:33) explains that the *noda of scope* has a function of expanding the area of copular expressions. She then posits that the scope can be reordered for a similar effect without using *noda*. If compared with Example 13, the following example showcases this effect by having a similar meaning:

Example 33 N.H.1997:33

Naita-no-wa,	kanashi-i-kara-dewa-na-i.
Cry-NML-TOP	sad-NPERF-because-COP-NEG-NPERF.

Me crying was not due to sadness.

This kind of reordering cannot be done for either Example 36 or Example 38, confirming that *nodatta* is indeed scopal. When attempting to reorder Example 38 in this manner, the meaning of the sentence changes and the sentence becomes nigh unusable:

Example 34 Own Example(?)

Aji-ga	yoi-no-ga	wain-dat-tara,
Taste-NOM	good-NML-NOM	wine-COP-TARA,
nedan-mo	takai-darō.	
price-too	high-is.it.not.	

If what has a good taste is wine, it is also expensive is it not?

Nodattara not being reorganizable in this manner is proof of *nodattara* being a non-scopal *noda of mood*.

As explained in 2.3.2, only *noda of mood* can be attached to a noun directly. According to my informant, *nodattara* can, be used after a noun too. For example (*nodattara* bolded):

Example 35 Example given by a native speaker.

Jagaimo-na	**ndattara**	watashi-wa	tabe-na-i.
Potato-COP.ADJ	NODATTARA	I-TOP	eat-NEG-NPERF.

If it is potato, I will not eat it.

In this case, *nodattara* could be replaced by a *nara* or a *dattara*, but this can only be done by removing the copula (*na*) from *jagaimo-na*, and attaching the conditional directly to the noun. *Nonara* cannot be attached to a noun, neither directly or after a *na*.

2.6 NEGATION OF VERBS AND ADJECTIVES

Negation of verbs and adjectives is done in one out of four ways, depending on the word class (for adjectives), or whether it has a consonant or a vowel final root (for verbs).

Verbs are negated according to two patterns depending on whether they have consonant-final roots (*yom-, read*) or vowel final roots (*tabe-, eat*) (Spencer. 2008:1000). These verbs in their *non-perfective* forms are *yom-u* and *tabe-ru*. Their corresponding *non-perfective* negations are *yom-anai*, and *tabe-nai*.

Japanese adjectives can be divided into two categories: *keiyōshi* (henceforth *I-adjective*), and *keiyōdōshi* (henceforth *Na-adjective*), based on whether the modifier form ends in *-na* or *-i* in the positive form. For verbs and *i-adjective*s this form is the same as the regular *non-perfective* form (*e.g. Utsukushi-i*, an *i-adjective*). The *i-adjective*s, are negated by replacing the *-i* with a *-kuna-i*, (*e.g. Utsukushi-kuna-i*).

*Na-adjective*s have two different *non-perfective* forms. The *non-perfective* modifier form is a different form from the sentence final *non-perfective* form; the *non-perfective* form for *Na-adjective*s ends in a *-da*. The *non-perfective* modifier form ends in a *-na*. While there is some debate on whether this *-da* or *-na* is a copula, it at the very least inflects in the same way (Narahara. 2002:8). *Na-adjective*s are negated by replacing the copular *-na* with the negative copula *-dewa-na-i.*

The negation of *perfective* verbs and adjectives works in the same way: the negator, *-na-i* or *-ana-i*, simply has the *non-perfective* signifying *-i, ru, u,* or *na*, replaced by a *perfective -katta.*

2.7 CONDITIONAL SENTENCE TYPES: *REALITY*

Per Akatsuka (1985: 625), conditional sentences can be given two categories, realis and irrealis. These categories define the reality of a sentence. A realis sentence is a type of sentence where the conditional clause is characterised by what Akatsuka calls a positive conviction. In an irrealis sentence, fulfilment of the conditional clause is characterised by 'surprise', 'uncertainty', or 'negative conviction'. These characterisations can be explained as follows:

> Positive Conviction – 'I know that this is the case'
>
> Surprise – 'I didn't know until this moment'
>
> Uncertainty – 'I don't know if this is the case'
>
> Negative conviction – 'I know that this is not the case'

Akatsuka gives examples of both realis and irrealis conditional sentences, showcased in the following two examples (notable differences in the initial statements bolded):

Realis:

Example 36 Akatsuka. 1985: 629

A: Boku,	fuyu-no	Los Angeles-ni	ik-u-**koto-ni**
I,	winter-GEN	Los Angeles-DIR	go-NPERF-COMP-DIR

shi-ta-yo
do-PERF-MDLI

B: Kimi-ga	iku	nonara	boku-mo	ik-u-yo.
You.NOM	go.NPERF	NONARA	I-too	go.NPERF-MDL.

A: I **decided** to go to Los Angeles during winter.
B: If you are going, then I am going too.

Irrealis:

Example 37 Akatsuka. 1985: 629

A: Boku-wa	fuyu-no	Los Angeles-ni	ik-u-**kamoshirenai**-yo.
I-TOP,	winter-GEN	Los Angeles-DIR	go-NPERF-perhaps-MDL.

B: Moshi	kimi-ga	ik-u	nonara	boku-mo
If.ADV	you-GEN	go.NPERF	NONARA	I-too

ik-u-yo.
go-NPERF-MDL.

A: I **might** go to Los Angeles during winter.
B: If you go, I will go too.

The previous sentences uttered by person A include the expressions *koto-ni-suru* and *kamoshirenai*. These contrast with each other in that the first expresses positive conviction, and the latter expresses uncertainty. Akatsuka (1985: Page 629) explains that:

> Superficially, [Example 36 and Example 37] are identical. But in [Example 36], Speaker B understands A's going to the LSA to be a certainty; in [Example 37], however, B does not." Furthermore "This difference is reflected in several ways, e.g., the adverb moshi can be added only in [Example 37].

Thus, the adverb *moshi* can reliably be used as a marker for irrealis.

The expressions *dōse* and *sekkaku* proved to be reliable markers of *realis*. Imanishi (2002) posits that the adverb *dōse* is used when the likelihood for the conditional clause to be true is considered extremely high by the speaker (page 9). Hasunuma (2012) writes that the likelihood of the condition to be true in a sentence with the adverbial *sekkaku*, is commonly considered to be high (page 21). McCready (2012), discussing sentences where both *sekkaku* and *noda* are used also supports this idea: 'Conditional

antecedents all become felicitous when the sentence-final element *noda* is inserted in the conditional antecedent'.

Thus, these expressions have been used as markers for realis. Further markers include the expressions *dōshitemo* and *kekkyoku*, which have been used as realis markers for semantic reasons and roughly translate to *inevitably* or *necessarily* and *ultimately* respectively. The verb ending -*shimau* is also used as one, since in the non-past form the verb ending has a nuance of inevitability.

2.8 SUMMARY

Negation, aspect and expressions that are concerned with reality were assumed to be the biggest factors for conditional choice prior to conducting the survey. During and after the survey, further factors like gender of the participants were found to also be related to the choice of conditional, and thus are explored. Aspect, on the other hand, was found to not contribute significantly at all.

Aspect and *noda* were explored to define the constituents of the three conditionals *nara*, *nonara* and *nodattara*. Comparisons were made between further Japanese conditionals and their use, to clarify the kind of sentence and situation where *nara*, *nonara*, can be used in.

The following chapter examines the conducted research and ties its results into the contents above.

3 THE PRESENT STUDY

This chapter is an overview of the research conducted. Firstly, a general overview of the proceedings of the research will be explained, followed by an explanation of the process through which stimuli were chosen. After this, factors contributing to the results of the study will be established. These factors will be explored in the order of impact they had on the results. The combined effects these factors had on the questions will also be explored.

In this chapter, a respondent is a person who answered my questionnaire. My informants on the other hand, are two people, one male and one female, whom I have discussed and analysed some of the data with.

3.1 METHODOLOGY

An online questionnaire was created using stimuli gathered from corpora, removing the conditional expression (*nara*, *nonara*, *nodattara*) from these stimuli. The questionnaire was then sent to native Japanese speakers from Kanto region, who were asked to pick a conditional expression (*nara*, *nonara*, *nodattara*) that in their opinion fit each sentence the best. It was not possible to leave a field empty.

The second part will consist of exploring the research conducted. Analysis of the data from various points of view will be done. Further influences on the results will also be explored and explained. Finally, a multiple facet analysis will be performed to establish which factors have the largest influence on choice of conditional.

All the example sentences that have been created by me, have been checked and sometimes corrected or improved by one or more native speakers of Japanese.

3.1.1 Stimuli

The stimuli for the questionnaire was formed through a process where an attempt to determine which expressions contributed to the choice of conditional was made. These contributing factors were explored in Chapter 2. After this process, *Balanced Corpus of Contemporary Written Japanese* (BCCWJ) (Maekawa et.al. 2014) and the *Asahi Shinbun Kikuzo Database* (Kikuzo, I. I. 2008), were used to find the stimuli. Two

further stimuli were created by a Japanese native informant to fill in some gaps in sentence types.

The stimuli had to at least use one of the three conditionals being studied (*nara*, *nonara*, *nodattara*). They would preferably include one or more of the contributing expressions too. An attempt was made to find three stimuli for each contributing expression, one stimuli each for each conditional expression studied, to see if the original conditional expression correlates with the results more than other factors. Shorter sentences with an apparent context were preferred. In some cases, when a sentence could not be found from the corpora, a native Japanese speaker was asked to provide a fitting sentence. The conditional adverb *moshi* can be used as an example of an expression with three found stimuli since stimuli with *moshi* (bolded) for each conditional were found:

For *nara:*

Example 38 BCCWJ

Moshi	kai.kae-ru **nara**	tsugi-wa	kōgakushiki-ni-shi-te-kudasa-i.
If.ADV	replace-NPERF NARA	next-TOP	optical-DIR-do-TE-please-NPERF

If you are going to replace it (a computer mouse), get an optical instead.

For *nonara*:

Example 39 BCCWJ

Moshi	daremo	watashitachi-no	tasuke-o
If.ADV	nobody	our-GEN	saving-ACC

hitsuyō-to	shi-na-i	**nonara**,
need-COMP	Do-NEG-NPERF	NONARA,

soredemo	kokkaron-o	kai-tari	yon-dari
Even.then	National.theory-ACC	Write-TARI	read-TARI

shi-ma-shō.
do-POL-VOL

Even if nobody needs our help, we shall keep on writing and reading the national theory.

And for *Nodattara*:

Example 40 BCCWJ

Moshi,	kono	kurushimi	-kara
If.ADV,	this.here	suffering	-from

sukut-te-kurer-u	**nodattara**,	
rescue-TE-give-NPERF	NODATTARA,	
nandemo	iu-koto-o	kik-imas-u.
whatever	what-is.said.ACC	listen-POL-NPERF

If you can release me from this pain, I will do whatever you say.

Note that in the questionnaire, further context was provided in some cases. For instance, in Example 38 the respondents were told that the topic is a computer mouse and in Example 39 it was included that the speaker is the ancient Roman lawyer, Cicero. These explanations were provided as, my informants found the sentences to be 'weird' without the further context.

The stimuli also included six such cases where a conditional appeared twice. The questions where this is the case will be called complex sentences. In the complex questions, the question stimuli consisted of either one sentence with two conditionals, such as in question 30, which goes as follows:

Example 41 BCCWJ

Watashi-to.shite-wa,		haien-to	hakketsubyō-ni	taish-ite,
I-as.for-TOP		pneumonia-AND	Leukemia-DIR	regarding-TE,
Sukoshi-demo	nanika	deki-ru	**nara**,	
little-even	something	be.able-NPERF	**NARA**,	
nyūin-shi-te		chiryō-s-ase-ta-i		kedo,
hospitalise-do-TE		treatment-do-CAUS-VOL-NPERF		however,
mikomi-ga	na-i	**nonara**	nozomutōri-ni,	
hope-NOM	no-NPERF	**NONARA**	as.wished-DIR,	
ie-de	sugos-ase-te-age-ta-i.			
home-LOC	spend.time-CAUS-TE-allow-VOL-NPERF.			

When it comes to pneumonia or leukaemia, if there is even the slightest chance of doing something I would want to hospitalise and treat the person. If, however, there is no hope, I would allow them to stay home as they wish.

Or of two sentences with a conditional each, like in question 34, which goes as follows:

Example 42 BCCWJ

Jiriki-de	hyakuten-ga	tore-nai **nodattara**
Own.effort-INST	best.grade-NOM	get-NEG **NODATTARA**
imi-ga	na-i!	
meaning-NOM	NEG.NPERF!	

Hyakuten-ja-na-i	**nodattara**	reiten-de	ii!
Best.grade-COP-NEG-NPERF	**NODATTARA**	lowest.grade-INST	fine!

If I cannot get a perfect grade through my own effort, it's pointless!
Also, if it's not a perfect grade it might as well be the lowest grade!

The conditionals (marked in bold in the above examples) were then replaced with a blank and labelled A and B, respectively.

3.1.2 Respondents

All in all, 81 respondents took part in the questionnaire, of which 71 were from Kanto. Out of the respondents from Kanto, 46 were female, 19 were male; six respondents preferred to not specify their gender. The respondents who chose to reveal their age were born between 1984 and 1998, with the median age of respondents at 20 years old (averaging 22.1 years old on 3. April 2017, the last day to answer the survey). Of the respondents, 19 of 71 preferred to not specify their age, and further nine people set their birth-year to be 2017, presumably unintentionally. These nine people were removed from the calculations for average and median.

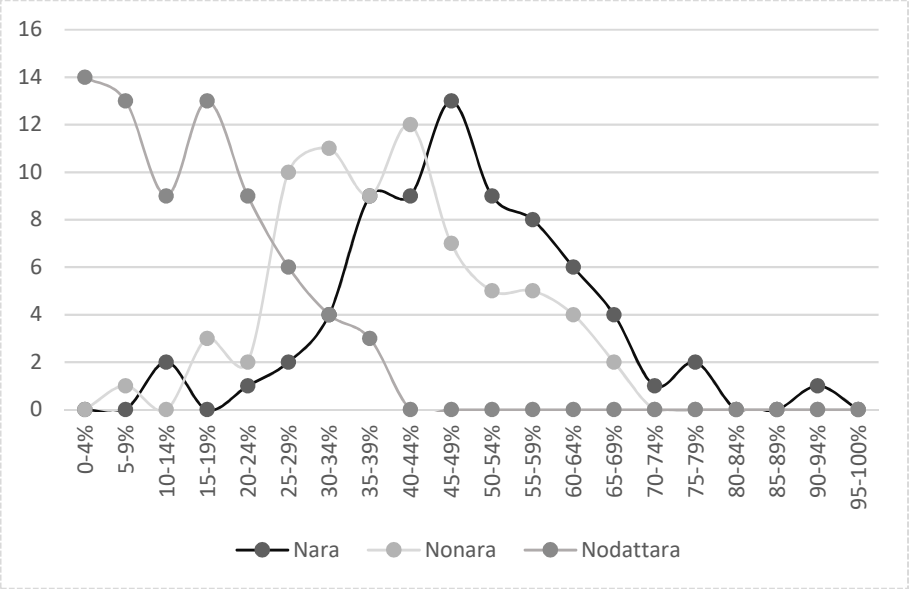
People who, regardless of birthplace, did not spend most of their years before turning 20 in Kanto region of Japan were excluded from the results. This is because there were some indicators that dialect might influence the choice of conditionals, as well as that, a lot of research points to dialect acquisition to be limited to earlier years in life (Chambers 1992. 688) as well as the fact that Kanto region mostly speaks Tokyo dialect or other similar dialects. Tokyo Dialect, as the basis of Standard Japanese (Shibamoto Smith & Okamoto. 2016:27). Due to the relative similarity of Tokyo Dialect with standard Japanese, participants who were deemed not to be native speakers of Tokyo dialect, or other nearby (Kanto) dialects, were excluded from the research.

3.2 BASIC RESULTS

The most commonly chosen answer to the questions was the same as the original conditional in 41% of the questions. A percentage of 33% would indicate zero correlation, which means a weak positive correlation exists. The weakness implies either that the original stimuli were not very typical, or that a more specific context would be required for the respondents to choose in the same way that the writers of the original sentences did. Furthermore, since it is not known where the writers of the stimuli are from, dialectal variance might also play a part.

In the following line chart, basic usage of each conditional is displayed. Graph 1 displays the distribution of usage percentages of each conditional. The fact that *nara* and *nonara* usage are normally distributed can also be seen. The distribution of *nodattara* follows more complicated patterns, which will be explored below.

Graph 1 Number of Answerers at 5% Interval Brackets for Each Conditional



In the chart, the respondents are divided into horizontal five percentage point brackets by usage of conditional based on the percentage of questions they answered using the conditional question. For instance, if person A used *nara* in 52% of the questions, person A would be horizontally in the 50-54% bracket. The vertical count is of the number of people who fit each of these five percentage point brackets.

3.3 BUNSETSU

When measuring the length of a sentence, the Japanese linguistic unit, *bunsetsu* will be used. *Bunsetsu* is the smallest unit of meaning in Japanese linguistics after *go* ('word') and the smallest unit of language that can be extracted without changing its pitch accent (Kindaichi et.al. 1988: 167-168). *Bunsetsu*, as a concept, has similarity with the concept of *phrase.* Throughout this thesis, *bunsetsu* are separated by black borders.

Example 43 Own Example BCCWJ

Kore-wa	Boku-no	aoi	tiishatsu-da.
This-TOP	I-POS	blue	t-shirt-COP

This is my blue t-shirt.

In Example 43, *boku-no aoi tiishatsu* constitutes a single noun phrase. When parsed for *bunsetsu*, it contains three, however. These *bunsetsu* are: *Boku-no*, *aoi*, and *tiishatsu(-da)*. The possessive case particle *no* is a part of the *boku bunsetsu* although considered a *go*. This is an example of a *bunsetsu* containing more than one *go*.

Parsing *bunsetsu* can at times be difficult. *Bunsetsu* can be defined both syntactically and phonetically. While the methods generally do agree, certain long syntactic *bunsetsu* might consist of two or more phonetic *bunsetsu*. Furthermore, some borderline cases such as *rekishiteki-kenzōbutsu – historic building*, exist, where it can be difficult to determine whether it is a single compounded noun, or a noun modified by another.

Example 44 Own Example

Sore-o	shinakya.naranai.
That-ACC	do.have.to

I must do it.

In Example 44, phonetic *bunsetsu* are being divided. *Shinakya-naranai*, syntactically, however, constitutes a single *bunsetsu*. In cases like this where the phonetic *bunsetsu* and syntactic *bunsetsu* disagree, I have chosen to use the phonetic *bunsetsu* as it, per my supervisor, functions better as a measure of length than the purely syntactic *bunsetsu*. Therefore, whenever *bunsetsu* is used in this thesis, it refers to the phonetic *bunsetsu*.

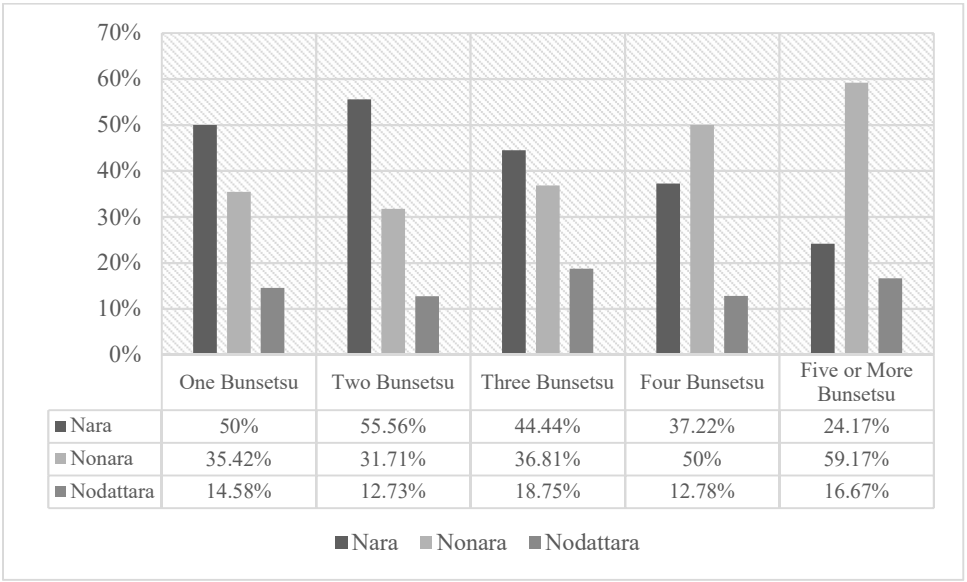
A long sentence, in this thesis, is a sentence that has four or more *bunsetsu* after the latest punctuation mark (。or 、) before the conditional. A short sentence on the other hand, only contains three or less. The length of the sentence besides this factor is not considered.

3.3.1 Sentence Length and Conditional

The count of *bunsetsu* before the conditional influences which conditional is used. While no strong connection can be found between the count of *bunsetsu* and *nodattara*, *nara* and *nonara* seem to have a strong connection to the sentence length; a low *bunsetsu* count before the conditional correlates heavily with the use of *nara* over *nonara*. The cut-out point for this shift between conditional use lies between three and four *bunsetsu*.

In the following graph, all the questions are divided by *bunsetsu* count into five groups: one, two, three, four, and five or more *bunsetsu* after punctuation and before the conditional. The relationship with increasing sentence length and conditional choice can clearly be seen:

Graph 2 Conditional choice by *Bunsetsu* Count



	One Bunsetsu	Two Bunsetsu	Three Bunsetsu	Four Bunsetsu	Five or More Bunsetsu
Nara	50%	55.56%	44.44%	37.22%	24.17%
Nonara	35.42%	31.71%	36.81%	50%	59.17%
Nodattara	14.58%	12.73%	18.75%	12.78%	16.67%

As an example of this phenomenon, question 20 had the lowest amount of '*nara*' answers and was a long sentence. It also had a high number of *nonara* answers Question 20 goes as follows:

Example 45 BCCWJ

Moshimo	hon-o	yon-da	koto-ga	nai	toiu
If.ADV	Book-ACC	read-PERF	COMP-NOM	neg.NPERF	said

nara	mazu-hon-ni	mukau-no-ga	jōsaku	ja-nā
COND	first-book-DIR	to face.NML-NOM	best-policy	COP-MDL

[If] (you) have not read the book, getting/reading the book would indeed be the best course of action.

The sentence has five *bunsetsu* before reaching the conditional. This likely contributed to the amount of *nonara* answers. The question also had more *nodattara* answers than *nara* answers, which was an uncommon result. However, in long sentences, *nodattara* being more common than *nara* was less rare.

To contrast, question 23 had the highest amount of *nara* answers. Question 23 goes as follows:

Example 46 BCCWJ

Nanika	yō-na-no-ka?
some	business.COP.ADJ-NODA-QP?

Yō-ga	aru	nara,	sassato	ie-yo.
Business-NOM	is.NPERF	NARA	immediately	say-MDL

Do you have some business (here)? If you do, then tell it already.

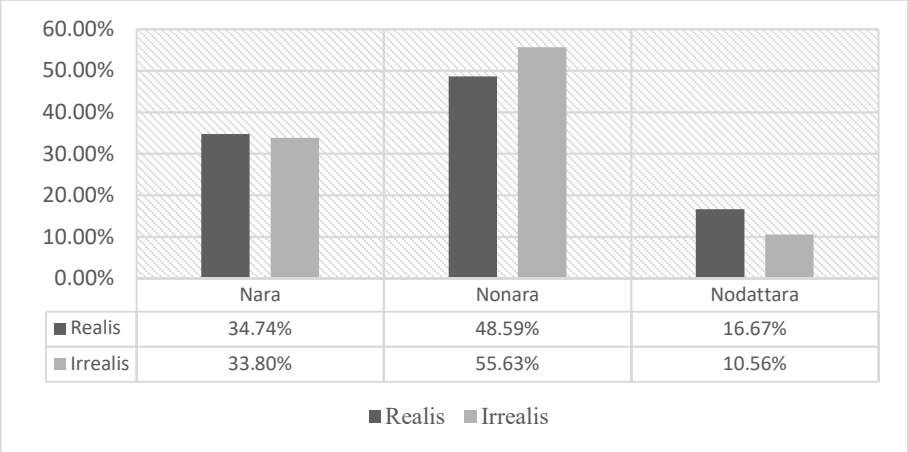
This sentence only has two *bunsetsu* after the last punctuation mark. This was the pattern for many of the questions where *nara* was the most common answer. In this question, the difference was even more profound compared to the others; it was among the three questions with the highest amount of *nara* answers, at 75% of the total. Like *nonara*, *nodattara* was also a very uncommon answer to the question, which would suggest that this kind of impactful sentence heavily prefers *nara* as a rule.

Both of my informants explained that the reason for the overwhelming majority being *nara* answers in the question is probably related to how the reader would have to do with the relationship between the imagined speaker and the imagined listener. It is possible that the high number of *nodattara* reflects a more sufficient context than in other questions. Furthermore, a shorter expression (*nara* is both orthographically and phonetically shorter than the other options) might make the sentence more direct and strong.

3.4 REALITY

Reality, which was explained in Section 2.7, has an influence on the choice of conditional. Reality is not as strong a predictor as *bunsetsu* is. Both *nara* and *nodattara* correlate positively with realis, although the correlation is weak for *nara*. *Nonara* has a significant correlation with irrealis. In the questions with realis sentences.

Graph 3 Answer Rates for Conditionals by Reality



Graph 3 was made by selecting six sentences of both realis and irrealis categories. This is because there were only six irrealis sentences, two of which were long and four were short. These were then compared to six realis sentences that were chosen to be as similar in length as possible.

3.5 NEGATIVE SENTENCES

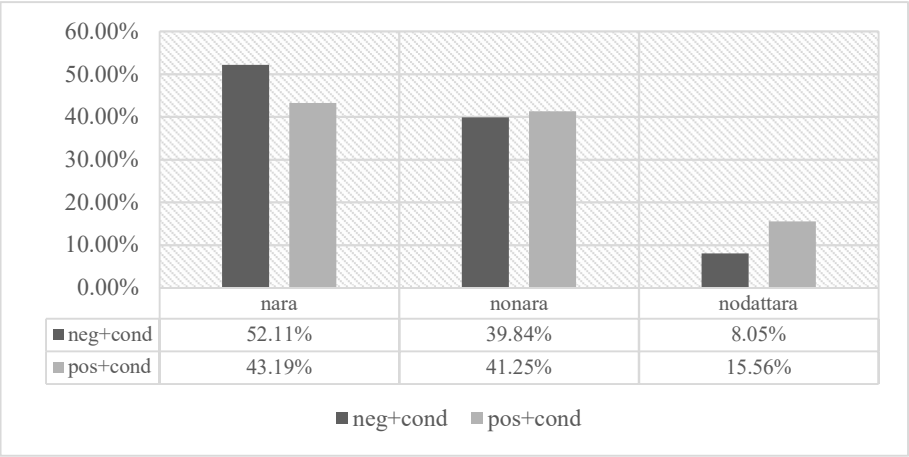
The simple questions consisted of 21 questions with a *positive-conditional*[7] combination. Seven of the questions had a *negative-conditional*[8] combination. The use of conditionals between these categorisations was investigated in the study. The results display a slight correlation between *negative-conditional* and *nara*. *Nodattara* and *positive-conditional* also correlate positively.

These differences have resemblances to the differences between the answers of men and women (discussed below). The following chart displays this difference. In *negative-*

[7] A positive predicate that is followed by a conditional.
[8] A negative predicate that is followed by a conditional.

conditional questions, 52% of the answers are *nara*, compared to the 43% of *nara* answers in *positive-conditional* sentences. *Nonara* answers are mostly the same between the categories at 39% for *negative-conditional* and 42% for *positive-conditional*. Finally, *nodattara* has a large gap, at 8% for *negative-conditional* questions and 16% for *positive-conditional* questions.

Graph 4 Answer Rates of Conditionals by Negation



The chart above displays the use of the three conditionals in the two categories of *positive-conditional* (light grey) and *negative-conditional* (dark grey).

3.5.1 Nodattara and Non-use

As established previously female participants had low rates of answering *nodattara.* Furthermore, negative *protases* correlate negatively with *nodattara*. This chapter will examine the conditions of *nodattara* non-use further.

Nodattara had low answer rates in quite a few questions. In question 10, *nodattara* was used the least frequently despite it being used in the original sentence from BCCWJ. The original sentence goes as follows:

Example 47 BCCWJ

Moshimo	sore-ga	kisoku-de,		
Moshimo	that-NOM	rule-COP.TE		
Jimu-ga	soitsu-o	yara-nakya	naranai	ndattara,
Jim-NOM	That.guy.ACC	murder-must	must	*NODATTA*RA
Sō	Sas-eru-sa.			
that.way	Do-CAUS-MDL			
Ore-wa	kisoku-ni	somuki-taku-na-i	kara-ne.	
I-TOP	rule-DAT	Disobey-VOL-NEG-NPAT	because.MDL	

If that is the rule, that there is no way out of Jim taking care of him (murder), then I'll have him do it. I do not want to go against rules, after all.

Per one of my informants, *nodattara* would sound very formal or stiff in the sentence, and a franker expression (like *nara*) fits the context better. My other informant, however, saw nothing akin to that.

Worth noting is that in question 24, *nodattara* was left largely unchosen due to the sentence being in honorific language; nodeshitara or similar, could have been used but at the time of conducting my research I was unaware of the expression.

3.6 Gender Differences in Usage

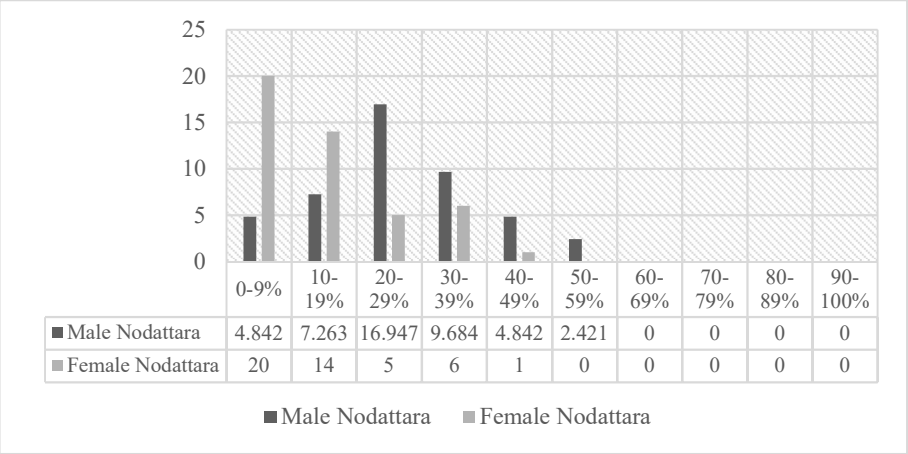
Japanese men and women are widely known to speak differently from each other. As the data analysis began, it was quickly found that there is gender difference in the choice of conditionals. Since *nodattara* is perhaps the most casual among the three expressions that were researched, the tendency of women to use slightly politer language than men is a likely contributor. The data indeed indicates that while women slightly more likely to use *nara* than men are, men are almost twice as likely to use *nodattara* than women are. Both genders use *nonara* in similar rates, but the questions men and women answered *nonara* to, differ.

3.6.1 Nodattara and Gender

Graph 4, which is normalised by gender, displays the gender difference. Questions that followed the *negative-conditional* pattern, which was discussed in Section 3.5, were excluded from the analysis. Additionally, one question that used honorific language was also removed from the set. The graph displays clearly how women and men chose

nodattara very differently. Note that unlike in Graph 1, the horizontal intervals are 10% point wide in the following graphs lest the data would be too fragmented.

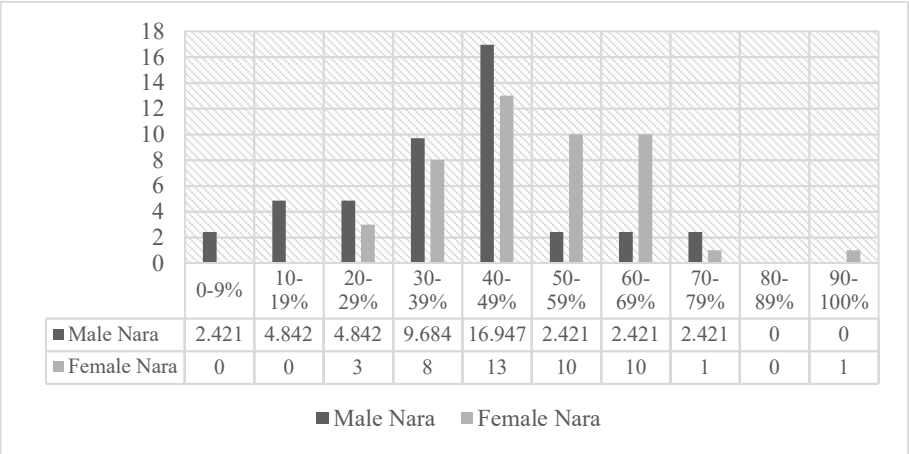
Graph 5 Number of *Nodattara* Answers at 10% Interval Brackets by Gender



There were 46 female participants and 19 male participants. In charts like these, where values are compared by gender, the values for males are multiplied by 2.421 to account for the difference in number of participants. The bars display the number of answerers who answered *nodattara* in an according percentage of questions. Almost half of the female respondents (20 out of 46) employed *nodattara* in 9% or less questions. Furthermore, only nine females used *nodattara* more than the average male.

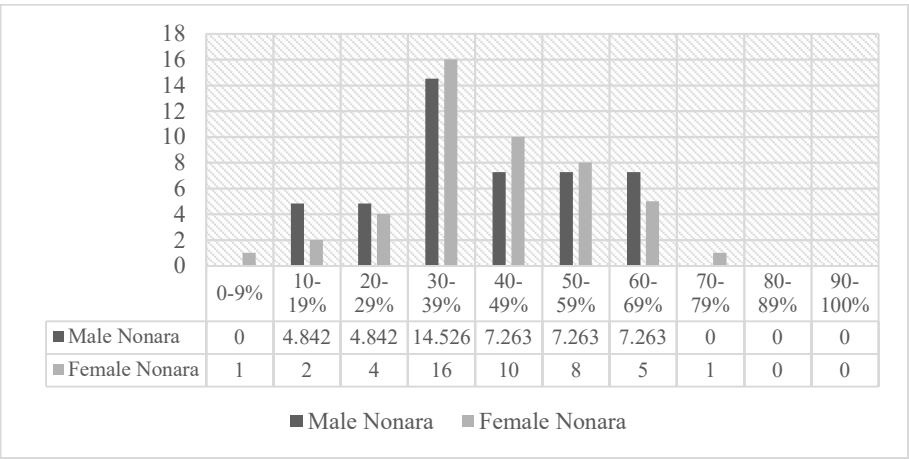
The *nodattara* use contrasts strongly with the other two conditionals. Analysing the same set of questions as in Graph 4 only. The values are starkly different from *nodattara* for the other two conditionals *nara* and *nonara.* These two conditionals are not differentiated by gender:

Graph 6 Number of *Nara* Answers at 10% Interval Brackets by Gender



	0-9%	10-19%	20-29%	30-39%	40-49%	50-59%	60-69%	70-79%	80-89%	90-100%
Male Nara	2.421	4.842	4.842	9.684	16.947	2.421	2.421	2.421	0	0
Female Nara	0	0	3	8	13	10	10	1	0	1

Graph 7 Number of *Nonara* Answers at 10% Interval Brackets by Gender



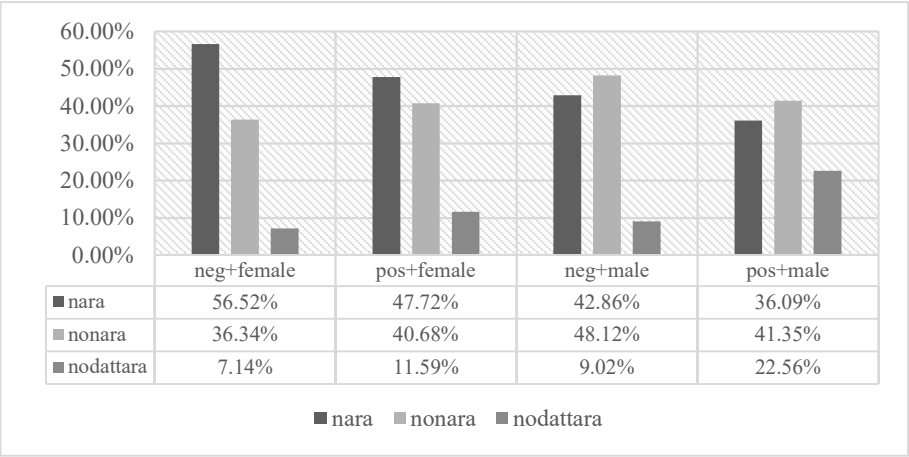
	0-9%	10-19%	20-29%	30-39%	40-49%	50-59%	60-69%	70-79%	80-89%	90-100%
Male Nonara	0	4.842	4.842	14.526	7.263	7.263	7.263	0	0	0
Female Nonara	1	2	4	16	10	8	5	1	0	0

Both conditionals, but especially *nonara* are used similarly both by men and women. Both conditionals follow a normal distribution for both genders. It is possible that the difference between men and women in *nara* would be smaller if the questionnaire only had the participants choose between *nara* and *nonara*.

In Section 3.5, the connection between *positive-conditional* and *nodattara* was established. When further analysed, male answerers to *positive-conditional* questions, were twice more likely to answer *nodattara* than women were to *positive-conditional* questions (22.6% vs. 11.6%). Male participants were also more than twice as likely to answer *nodattara* in *positive-conditional* than in *negative-conditional* questions (Male participant in *positive-conditional* questions at 22.6% vs. Male participant in *negative-conditional* questions at 9.0%).

The following graph below demonstrates this and another phenomenon. Male participants were more than three times more likely than female participants to answer *nodattara* in *positive-conditional* sentences. Furthermore, in *negative-conditional* questions, male participants were 12% more likely to answer *nonara* than female participants were:

Graph 8 Conditional Chosen by Negation and Gender



	neg+female	pos+female	neg+male	pos+male
nara	56.52%	47.72%	42.86%	36.09%
nonara	36.34%	40.68%	48.12%	41.35%
nodattara	7.14%	11.59%	9.02%	22.56%

The questions where (especially male participants) answered *nodattara* the most, were sentences characterised by the previously defined realis and short categories. The positive *protasis* further increases the likelihood, and when combining all these categories (male answerers to *positive-conditional* realis questions), the percentage of *nodattara* answers rises all the way up to 28%. While *nodattara* remains the least chosen conditional even after these controls, the change is significant: in the entire collected data, the total percentage of *nodattara* answers was 13.7%.

Considering that *nara* and *nonara* are void of politeness or impoliteness markers, they can be used irrespective of the level of politeness in the sentence, unlike *nodattara*. Since female Japanese speakers in general speak slightly more politely than male Japanese speakers do, this likely contributed to the lower rates of *nodattara* answers by the female participants. Furthermore, the politer expression *nodeshitara* was not a part of the questionnaire. Would *nodeshitara* be included in a research like this, it is probable that female participants would be likelier to select it than male participants in some or all questions.

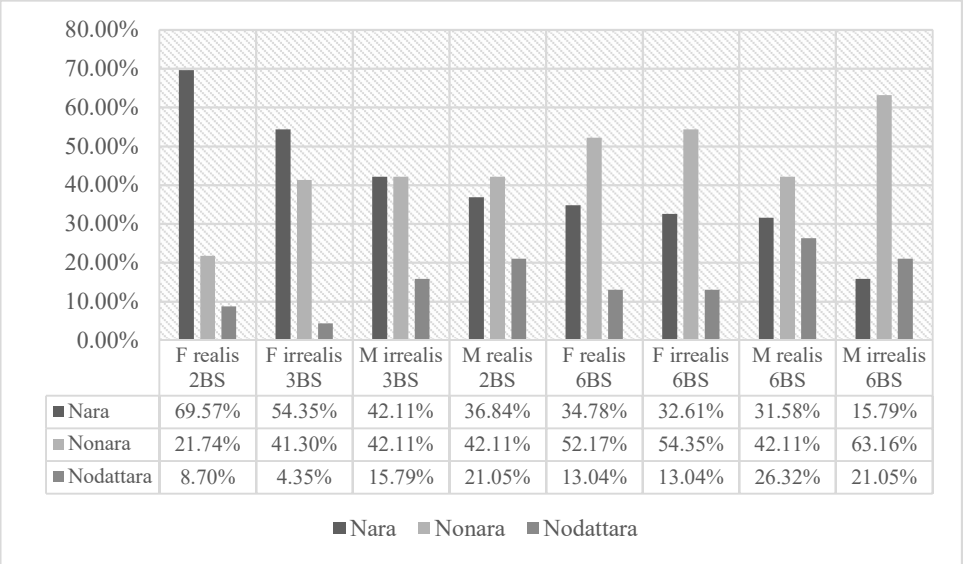
No significant difference was found between how either gender uses *nodattara* when categorising the sentences by politeness[9]; both genders had a similar loss of *nodattara* choices in polite sentences. A slight non-conclusive change between *nara* and *nonara* usage between the polite and impolite categories was found. *Nara* was relatively more commonly chosen in the impolite- and *nonara* in polite sentences but the gaps between politeness categories were similar for both male and female participants.

Finally, to draw parallels with the most basic *noda*. The common tendency of female Japanese speakers to drop the copular part of the expression resulting in a *no*, is not doable in the case of *nodattara*. This could be another reason for female participants choosing *nodattara* less often.

3.7 MULTIPLE FACET ANALYSIS: *FACTOR IMPACT*

The factors that influence the choice of conditional, appear to do so in this order of weight: sentence length, gender, reality.

Graph 9 Conditional Chosen by Gender, Reality and *Bunsetsu*



	F realis 2BS	F irrealis 3BS	M irrealis 3BS	M realis 2BS	F realis 6BS	F irrealis 6BS	M realis 6BS	M irrealis 6BS
Nara	69.57%	54.35%	42.11%	36.84%	34.78%	32.61%	31.58%	15.79%
Nonara	21.74%	41.30%	42.11%	42.11%	52.17%	54.35%	42.11%	63.16%
Nodattara	8.70%	4.35%	15.79%	21.05%	13.04%	13.04%	26.32%	21.05%

Graph 9 displays four selected questions: a short (two *bunsetsu*) realis sentence, a long (six *bunsetsu*) realis sentence, a short (three *bunsetsu*) irrealis sentence, and a long

[9] The politeness determined by whether the sentence uses the polite verb endings and or a polite copula.

(six *bunsetsu*) irrealis sentence, the answers to each of these questions were further divided into male and female categories.

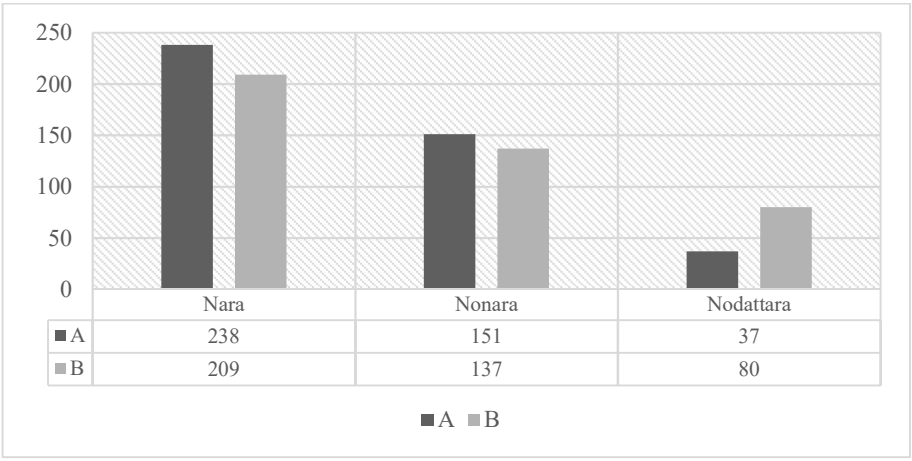
Nara correlates with, in order of impact: short sentence, gender and realis. *Nonara* correlates, again in order of significance: long sentence, gender, and irrealis. Finally, *nodattara* correlates with, again in order of significance: gender, and realis. There is also a weak positive correlation with longer sentences and *nodattara*.

The choice between *nara* and *nonara* being strongly impacted by length of the sentence could have to do with *nonara* offering a longer break between the *protasis* and the *apodosis*; a short sentence might not need such a break. *Nodattara* being slightly more common in longer sentences also supports this, although the choice of *nodattara* has more to do with gender.

3.8 QUESTIONS WITH MULTIPLE CONDITIONALS

The first analysis performed on this data was made by comparing the answers to the first questions of each sentence (questions labelled A in the questionnaire), to the second (questions labelled B in the questionnaire) which resulted in the following graph. The two question positions shall hereafter be referred to as position *A* and position *B*:

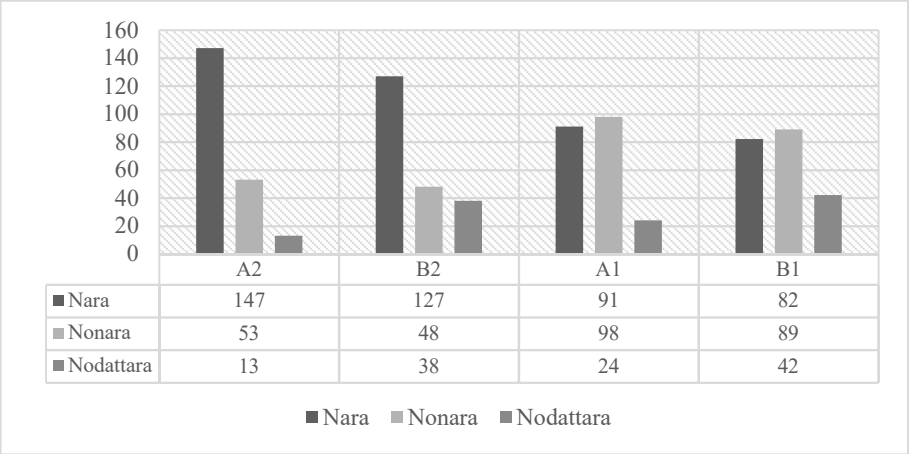
Graph 10 Conditional Chosen by Position in the Sentence



No notable changes between the use of *nara* and *nonara*. A slight increase in *nodattara* was the only major difference between the *positions*.

As mentioned in Section 3.1.1, some of the questions included a single sentence with two conditionals (such as in Example 41), while others had two separate conditional sentences (such as in Example 42). The number of sentences turned out to have a larger effect on the answers than *position* did:

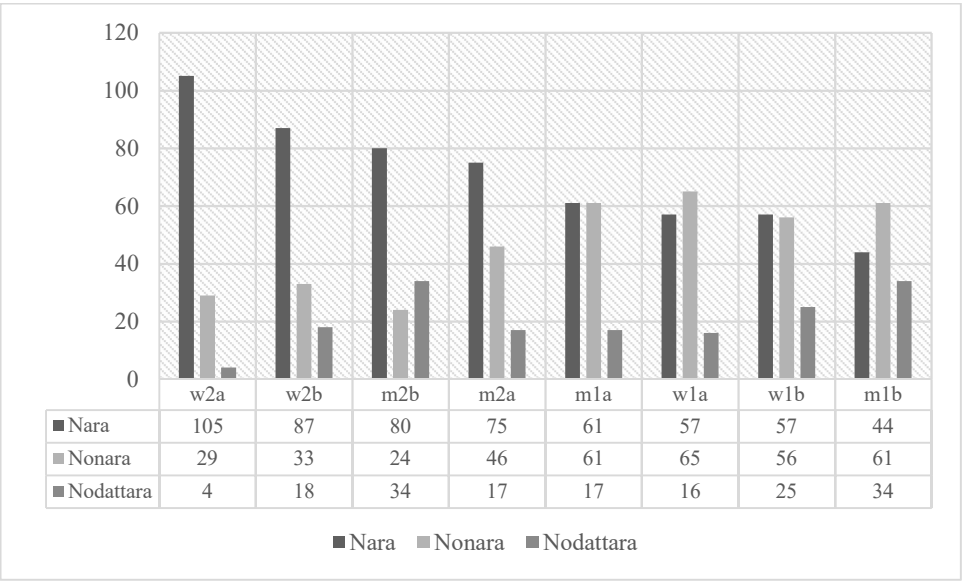
Graph 11 Conditional Chosen by *Position* and *Number of Sentences*



	A2	B2	A1	B1
Nara	147	127	91	82
Nonara	53	48	98	89
Nodattara	13	38	24	42

In Graph 11, A and B signify the same differences as they do in Graph 10. The digit following A or B signifies the *number of sentences*. A clear difference between the answers can be seen: *nara* and *nonara* become almost equally chosen, and *nodattara* is slightly more common in the data labelled with the digit 2. Further analysis led me to additionally compare the values in Graph 11 by gender:

Graph 12 Conditional Chosen by *Gender, Position,* and *Number of Sentences*



	w2a	w2b	m2b	m2a	m1a	w1a	w1b	m1b
Nara	105	87	80	75	61	57	57	44
Nonara	29	33	24	46	61	65	56	61
Nodattara	4	18	34	17	17	16	25	34

The gender normalised analysis indicates that while gender (*w/m*) has an effect in the questions with two conditional sentences, the questions with only one sentence seem largely unaffected.

4 CONCLUSION

Nara, *nonara* and *nodattara*, while similar, are not the same and have significant differences in usage. Very different usage patterns can be found between individuals. This does not, however, mean that the choice is arbitrary. A learner of Japanese can utilise these findings to improve their ability to sound natural when speaking Japanese. Most notably, these findings suggest the following:

Firstly, *nonara* can nearly always be used. *Nonara* could be recommendable in long sentences. *Nara*, however, is probably preferable when the conditional follows a negation, or when the sentence is short. However, as there is a lot of variance between speakers, one should not worry too much over which one to use.

Since *nodattara* has a masculine tone, a male speaker will find more situations to use it. *Nodattara* can especially be used by male speakers in place of *nara* in short positive sentences. It would be wrong to say that women cannot or do not use *nodattara*. However, due to its casualness, it is probably best left unused outside of spoken and familiar language by both genders. Using the categorisation employed by Narahara (2002), *nodattara* could be considered neutral-masculine.

4.1 SHORTCOMINGS OF THE METHOD AND FURTHER QUESTIONS

The research was limited to people from Kanto area and were roughly university aged. Dialectal differences, as well as age related differences are possible if not likely. The question determining whether the respondents were from Kanto was also not very well thought out, and I would form it differently would I have the chance. Further research could also aim to create sentences that have a higher preference for *nodattara*. Furthermore, in instances where the choices seemed equal, the context given for the sentence might have been lacking to make a proper choice.

Especially, a more thorough investigation of reality and its effect on the choice of conditional should be done as the differences in answer rates between the conditionals were very small. While the data from the questionnaire does indicate some differences between realis and irrealis, the differences in answer rates between the conditionals

might also be due to the sentences in both categories being very different from each other.

The conditionals *nara* and *-dattara,* as they occur after nouns, are very similar and interchangeable. It could be interesting to investigate usage preferences between the two in a similar fashion to this research.

Some comments were made mentioning that for some of the questions, conditional expressions outside of the given three would have suited the sentence better. This is surprising in the sense that one of the three was always used in the original. It is possible, that since many of the original sentences from BCCWJ were originally from sources like Yahoo!'s messaging- or Q&A-boards, the quality of the language was not always stellar.

One could conduct a study using similar sentences with minimal variation to help control for factors. Furthermore, clearer contexts for each question likely result in larger unity from the answers of respondents, like in question 23 (Example 46). The problem of conditional choice could also be approached through a corpus study.

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APPENDIX

Personal Questions

生年月日　（任意）

性別 (任意)

20 歳になるまでにもっとも長く住んだことのある都 道府県名を記入してくださ
い。

20 歳になるまでその都道府県に住んだ年数をえらんでください。

Simple Questions

1. 逃がしてしまう____つらなくてもいいようなものだが、釣り上げるとき魚が逃げようとしてあばれるのが何ともいえぬ喜びらしい。

2. どうせ寝る____、こっちのベッドの方がぐっすりと寝れるだろうなあ！

3. したくない____しなくてもいいです。

4. もしも、きちんとモノが言えて、組織が腐りきる前に救いたいと本気で思う____、外部の第三者機関に通報し、通報者も守る体制を国が整えるしかありません。

5. 結局一個買っても半分捨ててしまう____、百円で半分買った方が得である。

6. どうしても不足してしまう____、ビタミン剤で補充してもよいでしょう。

7. （マウスを）もし買い替える____次は光学式にしてください。

8. どうせ分かり合えない____、いっそ分けてしまった方がすっきりします。 (男女別車両についての会話)

9. 見おさめになる____、もっとよく見ておけばよかった。

10. もしもそれが規則で、ジムがそいつを殺らなきゃならない ____ 、そうさせるさ。おれは規則にそむきたくないからね。

11. 要る____どのくらい要るんですか？

12. せっかく、スペインに行くのに決めた____、現地に着くまでにちょっと(スペインについて)勉強しておこう。

13. まだ足りない____もっと作りましょう

14. (法学者キケロ): もし誰も私たちの助けを必要としない____、それでも『国家論』を書いたり読んだりしましょう。

15. 「坊主頭に統一しない____やめる」　昨年１１月、大泉野球部の緊急ミーティング。当時２年で主力だった外野手、今村大樹は部員たちの前で頑なだった。

16. どうせ体を動かす____仕事にした方がずっといいと思う。ストレッチしながら草がむしれていったり、 木が削れていったり、家が建っていったりした方がずっと面白い。

17. 私たちの仕事が新たな環境・生態系の創出に役立っている____うれしいことです。

18. せっかく東京に来る____他の見物もしたいところですかね。

19. お金がない____、送ってあげる。

20. もしも本を読んだことがないという____、まず本に向かうのが上策じゃなあ

21. 「そうかな、知っていた____、わざわざ、他人にやらせなくたって、自分でやればいいのに…」

22. どうせ歌う____最後まで歌ってほしい。

23. なにか、ようなのか。ようがある____、さっさといえよ。

24. 結局競争でございますから、条件が全く同じだとする____価格ということが勝負だと思います。

25. もし、この苦しみから救ってくれる____、何でも言うことを聞きます。

26. どうせ溺れさせちゃう____、金なんてやらなくてもよかったのに。

27. もう来ている____迎えに行きますよ。

28. せっかく遊びに来てくれる____ランチしましょう。

Complex Questions

29. かえる A: _____かえる。かえらない B: _____かえらない。どちらでもよい。

30. 私としては、肺炎と白血病に対して、少しでもなにかできる A_____入院して治療させたいけど、見込みがない B_____望むとおりに、家で過ごさせてあげたい。

31. 稼ぎたい A_____、フルタイムのほうですね。自分の時間を大切にしたい B_____、パートの方。

32. 長年の信頼と友情があると思う A_____「どうしてもという事情がある B_____話を聞かせてほしい」と電話して相手を呼び出して、話し合ってはいかがですか？

33. もしあなたがそういう A_____、男女のトイレも一緒にしたらどうですか、そこまでの覚悟がある B_____やりなさい。

34. 自力で百点が取れない A_____、意味がない！　百点じゃない B_____ 、〇点でいい！

Data from the Questionnaire part 1 of 4 (1=nara 2=nonara 3=nodattara)

性別	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
女性	2	3	1	1	2	3	1	1	2	2
女性	2	1	1	2	2	1	1	2	2	2
女性	2	1	1	2	1	2	1	2	1	1
女性	3	1	1	2	3	2	2	2	1	2
女性	2	1	2	2	2	2	1	3	3	2
女性	2	1	1	1	1	1	1	1	2	1
女性	2	1	1	2	3	3	1	2	1	2
女性	1	1	1	1	1	2	2	2	2	2
女性	2	1	1	2	2	3	2	2	1	2
女性	2	3	1	2	3	3	1	3	3	2
女性	1	1	1	2	3	2	1	3	3	2
女性	2	1	1	1	2	2	2	2	3	2
女性	1	3	1	1	1	1	1	1	3	1
女性	2	1	3	3	2	1	2	2	3	1
女性	2	1	1	1	2	3	1	2	3	3
女性	2	1	1	2	2	2	2	2	1	1
女性	1	1	2	3	2	2	2	1	1	2
女性	1	1	1	2	2	1	1	1	1	1
女性	2	1	2	2	2	2	1	3	2	1
女性	2	3	1	1	3	2	3	3	2	1
女性	2	1	2	2	2	2	2	2	3	1
女性	1	1	1	2	2	2	2	2	2	1
女性	2	1	2	2	1	1	1	1	3	1
女性	2	1	2	2	2	3	2	2	1	1
女性	2	1	1	3	2	2	2	1	1	1
女性	2	1	1	2	1	2	1	2	1	2
女性	2	1	1	3	1	1	2	3	3	2
女性	2	1	2	3	2	3	2	3	2	1
女性	2	1	2	3	1	3	1	1	3	1
女性	2	1	1	1	1	1	1	2	3	2
女性	2	2	1	2	1	3	2	1	2	1
女性	2	1	1	1	1	2	1	2	1	1
女性	2	1	1	2	1	2	2	1	1	2
女性	2	1	1	1	3	1	2	2	1	1
女性	2	1	1	1	2	3	1	1	3	2
女性	3	1	1	2	2	1	3	3	1	2
女性	2	1	1	2	2	2	1	2	1	1
女性	3	2	1	1	3	2	1	3	2	2
女性	1	2	3	2	1	2	1	2	3	2

女性	1	2	2	1	1	2	1	2	1	2
女性	2	2	1	2	2	2	1	2	1	1
女性	2	1	2	2	2	2	2	1	2	1
女性	2	1	2	2	2	2	2	1	2	1
女性	2	1	1	1	1	2	1	2	1	2
女性	1	1	2	2	1	1	1	1	1	1
女性	3	3	3	1	3	2	2	1	1	2
女性	1	1	1	2	2	2	1	2	3	3
女性	1	1	1	2	1	1	2	1	1	2
男性	2	1	1	2	1	3	2	1	2	1
男性	3	1	1	2	1	2	1	2	1	2
男性	2	2	2	1	2	1	1	1	1	1
男性	3	2	1	2	2	3	3	1	3	2
男性	2	1	1	3	2	3	2	2	3	1
男性	2	1	1	2	3	1	2	1	1	1
男性	2	3	2	3	1	3	1	2	2	1
男性	3	1	2	1	3	1	2	1	2	1
男性	2	3	2	2	3	2	1	2	2	2
男性	2	1	1	2	1	3	1	1	1	3
男性	3	1	2	1	3	2	1	3	2	1
男性	2	1	1	2	1	2	2	2	3	2
男性	2	1	1	3	2	3	3	2	3	1
男性	3	2	1	2	2	2	3	1	3	3
男性	3	2	1	2	2	1	1	2	3	2
男性	2	1	3	2	1	3	2	2	3	2
男性	2	3	1	3	3	2	2	2	3	2
男性	1	1	2	2	2	2	1	2	1	1
N/A	2	1	1	2	1	2	1	2	3	2
N/A	2	1	1	3	3	2	1	2	1	1
N/A	2	1	1	2	2	2	1	2	3	1
N/A	1	2	3	2	3	3	1	1	2	3
N/A	3	1	2	2	2	1	1	2	3	1
N/A	2	2	2	2	3	2	2	3	2	2

Data from the Questionnaire part 2 of 4 (1=nara 2=nonara 3=nodattara)

性別	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
女性	2	2	1	2	1	2	2	1	2	2
女性	1	2	1	2	1	1	2	1	1	2
女性	1	1	1	2	1	2	2	1	1	2
女性	2	2	2	2	1	1	1	1	1	2
女性	2	2	2	2	2	2	2	2	2	2
女性	2	1	1	1	1	2	1	1	1	2
女性	3	2	1	1	1	1	2	3	1	2
女性	1	2	2	2	2	1	1	1	2	2
女性	1	1	2	2	2	2	2	1	1	2
女性	1	1	1	2	1	1	2	1	3	3
女性	3	2	1	1	2	1	2	1	3	2
女性	1	1	1	2	2	1	2	1	1	2
女性	1	3	1	1	2	1	1	1	1	3
女性	1	3	1	2	2	3	2	1	1	2
女性	1	2	1	3	1	1	2	1	2	2
女性	1	3	2	2	1	1	1	1	1	1
女性	1	1	1	2	1	1	2	2	1	1
女性	1	2	3	2	3	1	3	1	1	2
女性	1	1	2	2	2	1	2	1	1	2
女性	2	3	1	2	1	2	3	2	1	2
女性	3	1	2	2	2	1	2	2	1	2
女性	2	1	1	2	1	1	2	2	1	2
女性	1	2	1	1	1	1	3	2	2	2
女性	2	1	1	2	1	2	3	1	1	2
女性	2	1	2	2	1	1	2	2	1	2
女性	1	2	1	2	2	2	1	1	1	2
女性	1	2	1	3	2	3	2	2	1	2
女性	1	1	1	3	1	1	2	1	1	2
女性	1	2	1	1	3	1	2	3	3	2
女性	2	2	2	3	2	1	2	2	1	2
女性	2	2	3	1	1	1	2	3	2	3
女性	2	2	2	2	2	1	2	2	1	2
女性	2	1	2	3	1	1	3	2	1	1
女性	1	3	1	1	2	2	2	2	1	2
女性	2	2	1	2	1	1	2	1	1	2
女性	3	3	2	2	1	3	2	1	3	2
女性	1	1	1	2	1	1	2	1	1	2
女性	1	2	1	1	2	3	1	3	1	2
女性	3	2	3	1	2	1	2	1	2	2

女性	1	3	2	2	1	2	2	1	1	3
女性	2	1	1	1	1	1	1	1	1	2
女性	1	2	1	1	1	1	2	1	1	2
女性	1	2	1	1	1	1	2	1	1	2
女性	1	2	1	2	2	1	3	3	2	1
女性	3	1	1	1	1	1	3	2	1	2
女性	1	3	1	1	2	3	2	1	3	1
女性	1	1	2	2	1	2	3	1	1	2
女性	2	1	1	1	1	1	1	1	1	1
男性	1	1	2	1	2	3	3	3	2	2
男性	2	1	2	2	2	2	2	2	1	2
男性	1	1	1	1	3	1	3	3	1	1
男性	2	3	2	3	1	3	1	2	2	3
男性	1	1	1	2	2	1	1	1	1	3
男性	1	2	2	2	2	3	3	2	1	2
男性	1	3	1	2	2	1	3	1	2	2
男性	2	1	2	2	3	1	2	2	2	2
男性	2	2	2	2	2	3	1	2	1	2
男性	1	3	1	2	1	2	3	1	2	2
男性	2	1	1	1	2	1	2	3	1	2
男性	1	1	3	1	2	1	2	3	3	2
男性	1	3	1	3	3	2	2	3	1	2
男性	1	2	1	3	1	1	2	3	1	3
男性	1	2	2	2	1	2	3	2	1	2
男性	3	1	1	2	1	1	2	3	1	2
男性	2	3	2	2	2	3	2	2	1	2
男性	2	2	2	2	1	2	2	3	2	2
N/A	3	2	2	1	2	2	2	1	1	1
N/A	1	3	1	3	1	1	1	3	1	1
N/A	1	3	1	1	1	3	2	2	1	2
N/A	1	1	1	2	1	1	3	3	2	3
N/A	1	3	3	2	1	1	2	3	1	1
N/A	2	2	2	2	2	2	3	2	2	2

Data from the Questionnaire part 3 of 4 (1=nara 2=nonara 3=nodattara)

性別	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28
女性	2	1	1	1	2	3	1	1
女性	2	1	1	2	2	1	1	2
女性	1	1	1	2	2	1	1	1
女性	2	1	1	2	2	1	2	3
女性	2	2	2	1	2	1	1	2
女性	2	1	1	2	2	1	2	1
女性	1	1	1	2	1	1	3	2
女性	1	2	1	1	1	2	2	1
女性	3	1	1	2	2	1	3	2
女性	2	2	1	1	2	2	1	3
女性	1	1	1	2	1	3	2	2
女性	2	2	1	1	2	2	2	2
女性	2	1	1	1	2	3	1	3
女性	1	3	1	1	2	1	1	1
女性	3	1	1	1	2	3	1	1
女性	1	1	1	2	2	1	1	1
女性	1	1	1	2	2	1	1	1
女性	3	1	1	2	2	2	1	1
女性	1	2	1	2	1	2	1	1
女性	1	3	1	2	3	1	3	1
女性	2	1	2	2	2	1	2	2
女性	1	1	1	1	3	2	2	2
女性	1	3	1	1	1	3	2	1
女性	1	2	1	3	2	1	2	1
女性	2	2	1	2	2	1	2	3
女性	2	2	1	2	1	2	1	1
女性	1	1	1	2	1	1	1	1
女性	1	2	1	2	2	1	2	1
女性	3	1	1	2	2	3	1	3
女性	2	2	1	2	2	2	1	1
女性	2	1	1	2	2	1	1	2
女性	1	1	1	2	1	1	2	2
女性	2	1	2	1	2	2	1	1
女性	2	1	2	2	2	2	2	2
女性	3	1	1	1	1	3	1	2
女性	1	1	1	2	2	3	1	1
女性	1	1	1	2	2	2	1	1
女性	1	1	2	2	2	3	1	3
女性	3	3	1	1	2	2	1	2

女性	1	1	2	2	1	2	1	1
女性	2	1	1	2	2	1	1	1
女性	2	1	1	1	1	1	1	3
女性	2	1	1	1	1	1	1	3
女性	3	1	2	1	1	1	2	2
女性	3	3	1	1	2	3	3	1
女性	3	1	1	1	2	2	1	3
女性	1	1	1	2	2	1	1	1
女性	3	1	2	1	1	1	1	1
男性	1	2	1	2	1	1	2	1
男性	1	1	1	2	2	1	1	1
男性	1	1	1	3	1	1	1	1
男性	2	3	1	2	2	3	1	3
男性	1	1	1	1	1	1	1	1
男性	1	3	1	2	2	1	1	1
男性	1	2	1	2	2	3	1	3
男性	1	1	2	1	3	1	3	1
男性	2	1	2	2	1	3	2	2
男性	2	2	2	2	3	1	3	1
男性	1	3	1	2	1	2	3	3
男性	2	2	1	2	2	2	1	2
男性	3	2	3	2	2	2	1	2
男性	1	1	1	1	2	2	3	1
男性	2	2	1	2	3	2	2	1
男性	1	3	3	2	3	1	3	1
男性	2	2	2	3	2	2	2	1
男性	1	2	1	2	1	2	1	2
N/A	2	1	3	2	2	3	2	3
N/A	2	1	1	1	2	2	1	2
N/A	3	2	2	1	2	3	1	2
N/A	2	2	3	2	3	1	2	2
N/A	3	1	1	2	1	2	3	1
N/A	2	2	2	2	2	3	1	2

Data from the Questionnaire part 4 of 4 (1=nara 2=nonara 3=nodattara)

性別	29A	29B	30A	30B	31A	31B	32A	32B	33A	33B	34A	34B
女性	1	1	2	3	2	3	1	3	2	3	1	1
女性	1	1	1	2	1	2	2	1	2	2	1	2
女性	1	1	1	2	1	2	2	1	2	1	2	1
女性	1	1	1	2	1	2	3	1	1	2	1	1
女性	1	1	2	1	1	2	2	1	2	1	2	1
女性	1	1	2	2	1	1	2	2	1	1	1	1
女性	2	1	1	1	2	2	2	1	1	3	2	1
女性	1	1	2	2	2	2	1	1	2	2	1	1
女性	1	1	2	2	1	2	1	1	2	1	1	3
女性	1	1	2	3	1	1	2	1	3	1	1	1
女性	1	1	2	1	1	1	1	2	1	1	1	3
女性	2	1	1	2	1	2	1	1	2	2	1	2
女性	1	2	2	1	1	1	1	2	2	2	1	3
女性	1	1	2	1	1	3	3	1	2	1	1	3
女性	1	1	2	2	1	1	1	1	2	3	1	1
女性	1	1	1	2	1	1	2	1	2	1	1	1
女性	1	1	2	2	1	1	1	2	2	1	2	1
女性	1	1	2	3	1	3	2	1	1	3	1	3
女性	1	1	2	2	1	2	1	2	2	3	1	1
女性	1	1	3	1	2	1	1	1	2	3	1	2
女性	1	1	2	1	1	2	1	2	1	2	1	2
女性	1	1	2	2	1	1	3	2	2	1	1	1
女性	1	1	1	1	2	2	1	1	2	3	2	1
女性	1	1	2	1	2	3	2	3	2	1	1	1
女性	1	1	2	2	2	2	3	2	2	2	1	1
女性	1	1	1	2	1	1	2	2	3	1	2	2
女性	1	1	3	2	1	1	2	1	2	1	1	1
女性	1	2	3	2	2	1	2	1	1	2	1	3
女性	1	1	1	3	2	2	1	3	1	3	2	1
女性	2	2	2	2	1	2	1	2	2	2	2	2
女性	3	3	1	3	1	3	3	1	2	3	1	1
女性	1	1	2	2	2	2	1	2	2	2	1	2
女性	1	1	2	1	1	1	1	1	2	1	2	1
女性	1	1	2	2	1	2	1	3	2	2	2	1
女性	2	1	2	1	1	1	1	2	2	3	1	3
女性	1	3	1	2	3	2	3	1	1	3	2	1
女性	2	1	1	2	2	1	1	2	1	2	1	2
女性	1	2	3	2	1	3	3	2	1	3	1	3
女性	1	1	2	1	1	1	1	2	3	2	2	1

女性	1	2	2	2	1	2	2	1	1	3	2	1
女性	1	1	2	2	1	2	1	1	2	2	1	1
女性	1	3	3	1	1	1	1	1	1	1	1	1
女性	1	3	3	1	1	1	1	1	1	1	1	1
女性	2	1	2	1	1	1	2	1	1	2	3	1
女性	1	3	1	3	1	1	3	1	1	2	3	1
女性	1	1	3	1	1	3	3	1	1	3	1	1
女性	1	1	1	2	1	1	1	3	1	1	1	1
女性	1	1	1	2	1	2	1	2	1	3	1	1
男性	1	1	2	2	1	3	1	2	1	2	1	2
男性	1	2	2	2	1	2	1	2	2	1	1	1
男性	1	1	2	1	1	1	2	1	1	1	1	1
男性	1	1	2	3	1	3	1	2	1	3	1	1
男性	1	1	1	1	3	3	1	1	1	1	1	1
男性	1	1	1	3	2	2	1	2	1	3	2	2
男性	2	3	3	1	2	3	2	1	2	3	2	1
男性	2	2	1	2	2	2	3	1	2	3	2	1
男性	1	1	2	2	3	3	1	2	1	2	3	1
男性	1	1	2	2	2	1	3	2	1	3	1	1
男性	1	1	2	3	1	3	1	3	1	1	1	1
男性	1	1	2	3	3	1	1	3	2	1	3	1
男性	2	3	2	2	1	3	3	2	2	3	2	3
男性	1	1	2	1	1	1	2	1	1	1	1	1
男性	1	1	1	2	1	1	1	2	1	2	2	1
男性	2	3	2	3	3	2	3	2	3	2	3	2
男性	2	3	3	2	1	3	2	2	2	3	2	3
男性	2	2	2	2	1	1	2	2	2	1	1	1
N/A	1	1	2	1	3	2	1	3	2	1	2	1
N/A	2	2	2	1	1	1	3	1	1	2	2	1
N/A	1	2	1	3	1	3	2	1	1	2	1	3
N/A	1	2	2	2	2	1	1	2	1	2	1	1
N/A	1	3	2	1	3	1	1	2	2	1	1	2
N/A	1	3	1	2	2	3	1	2	2	3	1	3