

The Perception of Number and Gender in the Japanese Language

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Abstract This article investigates how native speakers of Japanese interpret number and gender in a language lacking obligatory morphological marking for either category. Based on a questionnaire completed by 47 native speakers, it analyses the syntactic, semantic and pragmatic factors guiding interpretation. The findings show that number is primarily determined by contextual and grammatical cues, whereas gender is largely shaped by cultural stereotypes and world knowledge. The study demonstrates that Japanese nominal interpretation relies on contextual inference rather than morphological encoding.

Keywords Japanese language. Number interpretation. Gender perception. Bare nouns. Plural markers. Contextual inference.

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1 Introduction

It is well established that Japanese nouns do not exhibit morphological distinctions for number or gender. Nevertheless, constituents within an utterance that lack such formal marking may still be interpreted as singular or plural, or as masculine or feminine.¹ This paper examines the mechanisms that lead native Japanese speakers to construe nouns in these terms. The primary objective is to identify the factors that trigger a particular construal, while also considering instances in which interpretation remains ambiguous according to native-speaker intuitions. To this end, a questionnaire was administered to a sample of 47 native Japanese speakers, recruited primarily² from undergraduate and postgraduate university populations. The examples presented in the questionnaire were drawn from the BCCWJ (*Balanced Corpus of Contemporary Written Japanese*),³ selected directly from Japanese novels, or, where authors are cited, sourced from previous academic studies.

2 Singular and Plural

As noted above, Japanese, unlike languages such as Italian, French, German, or Russian, does not morphologically distinguish between singular and plural. For example, if we say:

1 This article uses the current version of the Hepburn transcription system to romanise texts. When examples are taken from other studies, the morphosyntactic markers follow the form found in the quoted sources, which may differ from those adopted independently for this study. All abbreviations used are listed at the end of the article.

2 The questionnaire was administered anonymously to students at Waseda University and the University of Tokyo. With only one exception, the sample consisted of undergraduate and postgraduate students in the humanities, aged between 18 and 26, enrolled in B.A., M.A. and PhD programmes; however, given the age distribution of the respondents, it is plausible that a small number (5) of university faculty members – namely those involved in distributing the questionnaire – also participated in the study. Of the 47 respondents, 26 identified as women, 20 as men, and one did not report their gender. Not all respondents answered every item. The percentages presented in the response graphs therefore represent the proportion of respondents who answered each individual question. I wish to thank Professor Yada Tsutomu (University of Tokyo) and Professor Moriyama Takurō (Waseda University) for their cooperation in distributing the questionnaires; I am also grateful to Professor Moriyama for the opportunity to discuss various aspects of this research project.

3 National Institute for Japanese Language and Linguistics (2025). *Balanced Corpus of Contemporary Written Japanese*, v.2.7.2. <https://chunagon.ninjal.ac.jp/bccwj-nt/search>.

- (1) *koko=ni inu=ga iru*
here=LOC cat=NOM be
'Here there is a dog/there are dogs.'

the word *inu* could be interpreted as either 'dog' (singular) or 'dogs' (plural). Similarly, in (2), *neko* could be interpreted as a single cat or multiple cats:

- (2) *kōen=de neko=ga ason-de-iru*
park=LOC cat=NOM to play-CVB-PROG-NPST
'A cat/some cats is/are playing in the park.'

The same applies to the word *kodomo*, which means 'child/children' and can today be interpreted as either singular or plural. From a morphological perspective, however, it consists of a semantic nucleus, *ko*, which means 'child/children', followed by the 'pluralising' suffix *-domo* (which, in this case, is no longer perceived as plural):

- (3) *kōen=de kodomo=ga ason-de-iru*
park=LOC child/children=NOM to play-CVB-PROG-NPST
'A cat/some cats is/are playing in the park.'

In fact *kodomo* can be combined with another 'pluralising' suffix, *-tachi* to mark plurality overtly yielding the word *kodomo-tachi*, as in (4):

- (4) *ima=no kodomo-tachi=wa hon=o yoma-naku-nari-mashi-ta*
now=GEN child-PL=TOP book=ACC read-NEG become-POLITE-PST
'Children today no longer read.'

Japanese nouns have been described as 'transnumeral' in the sense that they denote a general concept rather than carrying information about number. As Downing (1996, 219) observes, "they may be used not only to refer to specific, identifiable individuals, but also to refer to nonspecific members of the category denoted by the noun". When necessary, the number – singular or plural – can be specified by means of appropriate numeral classifiers.

3 Pluralising Suffixes

As previously noted, unlike in Italian (for example *can-e/i* ‘dog/s’, *gatt-o/i* ‘cat/s’), Japanese does not form the plural directly by modifying the noun. Instead, ‘pluralising’ suffixes – such as the already mentioned *-tachi* in *kodomo-tachi* – can be attached to the noun and, as we will see later, in some cases, must be. These plural suffixes are attached to personal pronouns (*watashi* ‘I’, *watashi-tachi* ‘we’; *kare* ‘he’, *kare-ra* ‘they’), but they may also occur with nouns (*gakusei* ‘student’, *gakusei-tachi* ‘students’), and demonstratives (*kore* ‘this’, *kore-ra* ‘these’) among other categories. In some cases, it is possible to reduplicate a noun to express a variety (rather than a ‘plural’ in the strict sense) of entities (e.g. *kami* ‘god’ > *kami-gami* ‘a variety of deities’, *hito* ‘person’ > *hito-bito* ‘several different persons’). Similarly, the prefix *sho-*, which precedes words of Chinese origin (so called *kango*), functions as a ‘variety’ marker. Examples include *sho-koku* ‘several countries’, *sho-jijō* ‘different conditions’, *sho-hōgen* ‘different dialects’, *sho-rei* ‘different examples’, etc. The most common are listed in Table 1.⁴

Table 1 Common pluralising suffixes

Form	Main function	Example
<i>-tachi</i>	standard/polite pluraliser	<i>josei-tachi</i> ‘girls’; <i>kodomo-tachi</i> ‘children’
<i>-domo</i>	humble (formal) pluraliser; derogatory pluraliser	<i>watashi-domo</i> ‘I-PL’=‘we’; <i>akutō-domo</i> ‘villains’
<i>-ra</i>	standard/humble pluraliser; derogatory pluraliser	<i>boku-ra</i> ‘I-PL’=‘we’; <i>kare-ra</i> ‘he-PL’=‘they’; <i>omae-ra</i> ‘you-PL’
<i>-gata</i>	respectful pluraliser	<i>anata-gata</i> ‘you-PL’; <i>sensei-gata</i> ‘professor-PL’;
<i>sho-</i>	variety pluraliser	<i>sho-mondai</i> ‘PL-problem’

Owing to semantic restrictions – most notably, the distinction between human and non-human, or animate and inanimate referents – or simply to conventional lexical collocations, not all pluralisers can be attached to all types of noun, nor do they share the same distribution.⁵ The choice of one form rather than another may also vary according

⁴ Others, less common, pluralisers include suffixes such as *shū* (*kodomo-shū* ‘child-PLURAL’) and *renchū* (*minarai-reichū* ‘apprentice-PLURAL’, slightly derogative).

⁵ For more information on the combination of pluralisers with personal pronouns see Irwin, Zisk 2019, 148-50; Fujimoto 2022, 32; Jung 2001, 60-3.

to diatopic variation, gender differences, and linguistic register (Jung 2001; Shimoji 2022, 515-16; Fujimoto 2022, 41).

Moreover, the use of different suffixes has undergone diachronic change, both with respect to the words to which they are attached, and in terms of linguistic register. This is not the place for an in-depth discussion of the subject, however, for example, *-tachi*, unlike its present-day usage, originally functioned as a honorific plural suffix, attached to nouns referring to deities, nobles and other socially elevated referents, and was not used with animals and inanimate objects (Murahata, Murahata 2023, 905-7).

In addition to its specific function as a pluraliser (e.g. *gakusei* 'student' vs. *gakusei-tachi* 'students'), *-tachi* may also indicate that the marked noun belongs to a set of entities sharing a salient property, thereby functioning as an associative plural (e.g. *Tanaka-san* 'Mr Tanaka' vs. *Tanaka-san-tachi* 'the Tanakas/Mr Tanaka and his family/Mr Tanaka and his colleagues', etc.).

4 The Use of Pluralisers

Although nouns marked by pluralisers express plurality, this does not necessarily mean that forms without pluralisers should be understood as singular. In many cases, an unmarked form can be interpreted as either singular or plural, but in others – as noted above – a plural marker is required. According to Moriyama, the need for a marked plural form that distinguishes the plural from the singular (*genmitsu na fukusū*, 'precise plural' in his terminology) may depend on several factors: a. In the case of personal pronouns and kinship terms, where the unmarked form cannot be interpreted as plural and therefore the use of a pluralising suffix is obligatory (*watashi* 'I' vs. *watashi-tachi* 'we'); b. When a demonstrative refers anaphorically to several elements belonging to different types (rather than to distinct units), as in a list (see (5)); c. When several actions are described within the same text and/or reference is made anaphorically to a plural entity (see also Nemoto 2005, 399; Downing 1996, 181), as in (6).

More generally, personal pronouns behave differently from other nouns with respect to plural marking. In particular, some varieties spoken in the Ryūkyū archipelago exhibit a trichotomic system comprising singular, plural and dual forms (Shimoji 2022, 505).

- (5) *Akai bara=no kafun.* *Kuroi agehachō=no* *hane=no fun.*
 red rose GEN pollen. black swallowtail butterfly GEN wing GEN powder.
Murasakizuishō hito-kakera. *Shiro-nezumi=no o* *hoshi-ta mono.*
 amethyst one-piece. white mouse GEN tail dry-PST thing
Sono hoka hon=no *shiji-suru mono=o* *atsume-te,*
 that other book GEN indicate-do thing ACC gather-CVB
sorera=o *komaka-ku kudaki,* *maze-awase,*
 that-PLUR ACC small-ADV crush-COORD mix-join-CONJ
asa-ito=no wa=no *naka=ni* *maki-chirashi-te-ita.*
 hemp-thread GEN inside LOC scatter-scatter-CVB-CONT ASP-PST
 ‘Red rose pollen. Black swallowtail butterfly wing powder. A piece
 of amethyst. Dried white mouse tail. I gathered other items listed in the book,
 crushed **them** into small pieces, mixed them together, and scattered them
 inside a circle of hemp thread.’
 (adapted from Moriyama 2015, 340)

- (6) *Kinō* *san-nin=no* *gakusei=ga* *tsuredat-te*
 yesterday three-CL:human=GEN student=NOM go-together-CVB
shitsumon=ni *ki-ta.* *Hanashi=ga* *hazun-de*
 question-DAT come-PST talk=NOM lively-CVB
sono *gakusei-tachi=ni* *kēki=to* *o-cha=o*
 that student-PLR=DAT cake and PFX-tea=ACC
gochisō *shi-te* *age-ta.*
 treat do-CVB give-PST
 ‘Yesterday, three students together came to ask questions. We had a lively
 conversation and treated **them** with cake and tea.’
 (adapted from Moriyama 2015, 345)

In both (5) and (6), nouns lacking plural markers are unacceptable, even in (6) where an unmarked plural form (*gakusei-Ø*) appears in the first sentence. In cases of anaphoric reference, as in example (6), the pluralising suffix conveys a connotation of ‘definiteness’ that is absent from the unmarked form. Several authors (Nakanishi, Tomioka 2004, 114-16; Kurafuji 2004, 215 among others) have observed that the use of *-tachi* may impart a connotation of ‘definiteness’ to the noun to which it is attached. A noun with a plural marker (as in example (7b)) is interpreted as denoting individuals known to both speaker and listener, in contrast to example (7a) in which a pluralising suffix is absent (Kurafuji 2004, 215).

- (7a) *Kono ie-ni* *kodomo-wa* *i-masu ka?*
 this house-in child-TOP exist-PRES Q
 ‘Is there a child in this house?’

- (7b) *Kono ie-ni kodomo-tachi-wa i-masu ka?*
this house-in child-PL-TOP exist- PRES Q
'Are the children in this house?'

At the same time, it has been observed that when a noun is marked with the suffix *-tachi*, the definite interpretation is only a tendency, and that its use cannot be uniformly analysed as definite:

- (8) *Kono kooen-de-wa itsumo kodomo-tachi-ga asonde-iru*
this park-LOC-TOP always child-TACHI-NOM play-PROG
'In this park, there are always children playing.'
(Nakanishi, Tomioka 2004, 121)

- (9) *Inoue-sensei-no ie-ni kodomo-tachi-ga*
Inoue-Prof.-GEN house-at child-TACHI=NOM
atsumatta-to-kiita-kedo watashi-wa dono
gathered-COMP-heard-while I-TOP which
kodomo-tachi-ka shira-nai.
child-TACHI-Q know-NEG
'(I) have heard that children gathered at Prof. Inoue's house, but I don't know which children.'
(Nakanishi, Tomioka 2004, 123)

Here, in both (8) and (9), *kodomo-tachi* cannot be interpreted as definite ('the children'); rather, it denotes a generic plurality of 'children'. According to the same Tomioka himself "the fact remains, however, that it is more commonly interpreted as definite, and the associativity presents a clue for this tendency" (Tomioka 2021, 480).

5 Unmarked 'Plurals'

On the other hand, there are many cases in which, despite the plurality of the objects or actions mentioned, it is possible to refer to them without overt plural marking. This is typically the case when the objects, or actions, can be regarded as belonging to the same type or as forming a conceptual 'set'. For example, in (10), although the demonstrative *sore* is not pluralised (even though the form *sore-ra* would also be acceptable in the same sentence), it refers to two buttons (distinct from one another but belonging to the same category):

- (10) *Kōto=o katta-ga, botan=ga niko tore-te i-ta.*
 coat-ACC buy-PST but button-NOM two-CL come off-CVB ASP-PST
Soko=de o-mise=de sore=o tsuke-te morat-ta
 there LOC HON-shop-LOC that-ACC attach-CVB receive-PST
 ‘I bought a coat, but two buttons were missing. So I had the shop sew **them** on for me.’
 (adapted from Moriyama 2015, 341)

The same applies in (11), where different objects (a knife and a fork) are referred to as belonging to the same category (i.e. cutlery):

- (11) *O-iwai=ni naifu=to fōku=o morat-ta.*
 HON-celebration-DAT knife-CMP fork-ACC receive-PST
Nanto, sore=wa ginsei dat-ta
 EXC that-TOP made of silver COP-PST
 ‘I received a knife and fork as a gift. Surprisingly, **they** were made of silver.’
 (adapted from Moriyama 2015, 342)

The use of pluralisers is not inherently obligatory in all contexts involving a plural situation. Rather, the situation described may be interpreted as either ‘plural’ or ‘singular’. The elements that favour one interpretation over another may be lexical or logic in nature. Consider, for example the following sentence:

- (12) *Kōtei=ni gakusei=ga atsumat-te iru*
 school grounds=LOC student=NOM gather-CVB-RES
 ‘Students gathered in the school grounds.’
 (adapted from Moriyama 2015, 339)

Here *gakusei* ‘student/students’ can only be interpreted as plural, since the verb *atsumaru* (‘to gather’-INTR) logically requires a plural subject; the suffix *-tachi* is therefore unnecessary.

In other cases, such as (13), the form *gakusei* is not marked by a plural suffix, but it tends to be interpreted as plural (‘students’) because the action described is construed as collective, rather than individual.

- (13) *Daigaku=no gakuhi-neage=no hōshin=ni gakusei=ga*
 university=GEN tuition fees-increase=GEN policy=DAT student/s=NOM
hanpatsu-shi-ta. Undō=no chūshin=to nat-ta
 protest-do-PST movement=GEN center=CMP become-PST
gakusei=wa kyōshitsu-senkyo=to iu
 student/s=TOP classroom-occupation=CMP say
shudan=de taikō-suru koto=ni shi-ta ga
 tool=INS resistance-do NMLZ=DAT do-PST but
jikkō-shi-ta gakusei=wa tadachi=ni taiho-sare-ta.
 implement-do-PST student/s=NOM immediately=ADV arrest-do-PASS-PST
 ‘Students protested against the university’s policy of raising tuition fees.
 The students who led the protest decided to occupy classrooms as a means
 of resistance, but those who carried out the protest were immediately
 arrested.’*
 * It is also possible to have the marked form *gakusei-tachi* in the first
 sentence, which means that the second and third occurrences, if interpreted
 as plurals, must also be marked with *-tachi*. For example, if only the third
 occurrence is unmarked (*gakusei-Ø*), this suggests that a single student
 carried out the protest and was arrested (Moriyama 2015, 344).
 (adapted from Moriyama 2015, 344)

As noted by Nomoto (2013, 6), citing Nakanishi and Tomioka (2004), there are several contexts in which the pluraliser *-tachi* does not occur and cannot even be used. Nomoto observes that first, *-tachi* plurals cannot serve as the internal argument in the relational possession construction. Whereas (14a), with a non-plural form, can express Mrs Inoue’s motherhood, (14b), containing the corresponding *-tachi* plural, cannot. Indeed, the sentence (14b) can only mean that Mrs Inoue has the children (to rely on, to live for, etc.).

- (14a) *Inoue-san-ni-wa kodomo-ga aru/iru.*
 Inoue-Mrs-DAT-TOP child-NOM exist
 ‘Mrs Inoue has a child/children. (= Mrs Inoue is a mother.)’
- (14b) *?*Inoue-san-ni-wa kodomo-tachi-ga aru/iru.*
 Inoue-Mrs-DAT-TOP child-PL-NOM exist
 ‘Mrs Inoue has the children.’
 (from Nakanishi, Tomioka 2004, 116)

Second, *-tachi* plurals cannot be used as predicates. Non-plural forms are used instead:

- (15) *Karera=wa gakusei(*-tachi) da.*
they=TOP student-PL COP
'They are students.'

Third, *-tachi* plurals are incompatible with generics. Only (15a), which contains a non-plural form, can express a generalisation about citizens of Italy. By contrast, (15b), with the *-tachi* plural, is acceptable only with the meaning 'A particular group of Italians are cheerful':

- (15a) *Itariajin=wa yōki-da.*
Italian-PL=TOP cheerful-COP
'Italians are cheerful.'
- (15b) ?? *Itariajin-tachi=wa yōki-da.*
Italian-PL=TOP cheerful-COP
?? 'Italians are cheerful.'

From the above observations, it can be inferred that, given their 'transnumeral' characteristic (Downing 1996, 199 ff.), Japanese nouns are not normally accompanied by plural suffixes – even when they refer to a plural situation – in the following cases: a. when they occur within a sentence for the first time; b. unless they are used to emphasise the definiteness of the subject of the sentence (i.e. a specific rather than generic subject); c. when the plurality denotes to a 'set' of similar entities; d. when the noun functions as the internal argument of a relational possession construction; e. when the noun is used as a predicate; f. when the noun, serving as the topic of a sentence, is used as a generic.

6 Results of the Survey on Number Discernment

The questionnaire comprised a series of sentences containing the main elements that may differentiate between singular and plural interpretations in Japanese. These included the cases discussed above, as well as instances in which plurality is expressed through the use of pluralising suffixes. The aim of the survey was to investigate speakers' perceptions of this phenomenon and, where possible, to identify additional morphosyntactic or semantic factors that may influence number interpretations. In many cases involving bare nouns, the respondents' interpretations varied between singular, plural, or both. This section outlines the principal motivations

reported by respondents for their interpretative choices, drawing on a selection of examples from the survey.

When a noun can be construed as ‘generic’, as in the following sentence, there is a strong tendency to interpret it as ‘plural’, since it is understood as a ‘generic noun’, comparable to English plural generics (e.g. *violins are string instruments*). This explanation was also provided by participants who selected the ‘both’ option.

- (16) *Ningen-chūshin=no ondo-settei=ni suru=to*
 human being centre=GEN temperature setting=DAT do=COND
inu=ni totte=wa hie-sugi=to nari,
 dog=DAT take-CVB=TOP chill-exceed-CMP become
reibōbyō=ya kaze=o
 air-conditioning sickness=COM cold=ACC
hika-seru gen'in=ni naru-node chū-shi-mashō.
 catch-CAUS cause=DAT become-CAUSL attention-do-VOL
 ‘When using a human-centred temperature setting, it may be too cold for **dogs**, causing them to catch a cold or develop air-conditioning sickness, so let us be cautious.’

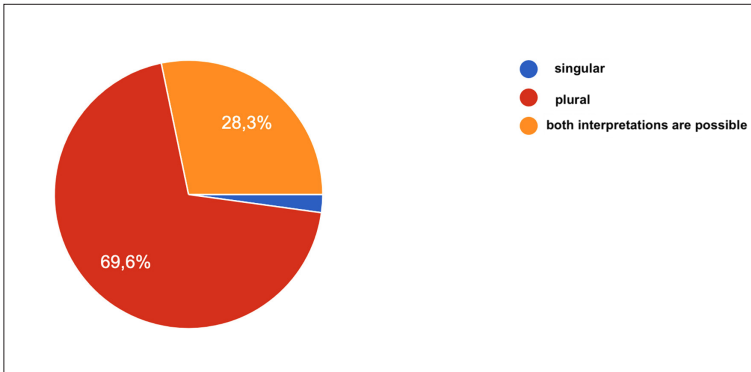


Figure 1 Respondents' responses for (16)

Even in the case of sentences such as (17), in which the noun *kodomo* ‘child’ is marked by the plural suffix *-tachi*, some respondents interpret the noun as plural not primarily on the basis of the suffix itself, but because they construe it as referring to a general ‘category’, or because they imagine the speaker to be a teacher addressing a large group of children:

- (17) *Heta-na hito=wa masumasu heta=ni na-tte-ikimasu.*
 unskilled person-TOP increasingly unskilled=DAT become-CVB-go
Kono shinjitsu=o shikkari=to wakimae-tara, kanarazu
 This truth-ACC properly=ADV understand-COND certainly
uma-ku naru=to kodomo-tachi=ni=wa kuchi=o
 skilfull-ADV become=CMP child-PL=DAT=TOP mouth=ACC
suppa-ku-suru hodo tsutae-te-imasu.
 sour-ADV-make extent tell-CVB-PROG
 'Those who are unskilled only become increasingly so. Once this truth
 is properly understood, I repeatedly impress upon children – until I am
 hoarse – that they will inevitably improve'.

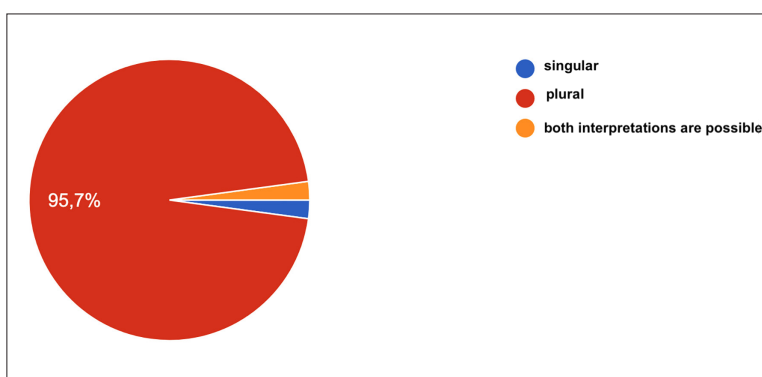


Figure 2 Respondents' answers for (17)

In other cases, such as (18), respondents' opinions were divided between a singular interpretation and the opinion that both interpretations are possible. Their choices were motivated by various considerations:

- (18) *Kodomo=o hasan-de, fūfu=wa, ikanimo sore-rashii*
 child=ACC to sandwich-CVB husband and wife=TOP just that-like
kata=ni hama-tte-i-ta. Aa, kore=ga fūfu na=no da.
 form=LOC fit-CVB-PRG-PST Ah, this=NOM husband and wife COP-GEN-COP
 'With **a child/children** between them, the couple was in a form that suited
 them perfectly. Ah, this is what it means to be husband and wife.'

In this case, respondents who opted for the 'singular' interpretation by arguing that the pluraliser *-tachi* or a numeral would have been required if the plural had been intended. Others observed that the verb *hasamu* ('to sandwich s.o./s.t.') evokes the image of a child lying between two parents, an image also expressed by the

Japanese phrase *kawa no ji* (lit. ‘the character of river’ 川, composed of three graphic strokes). By contrast, those who considered both interpretations possible argued that: a. *kodomo* can mean either the singular or plural of ‘child’, but can also mean ‘offspring’ in general; b. the number is not specified; c. it is not possible to determine the number. No one selected the option ‘plural’.

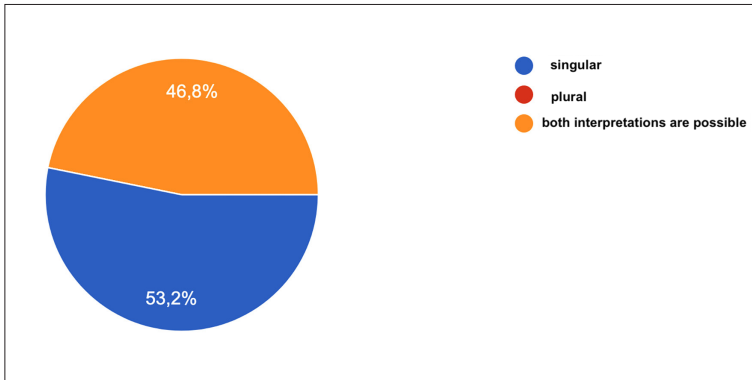


Figure 3 Respondents' answers for (18)

The interpretation of *inu* ‘dog/dogs’, which in (16) was predominantly plural, is conversely interpreted as singular by a large majority of respondents in (19):

- (19) *Chiisa-na, kabe=o shiro-ku nu-tta ie=no shūraku=o*
 small-ADN wall=ACC white-ADV paint-PST house=GEN village=ACC
sugiru. Ikken=no nōka=no soba=de jōriku-suru=to
 pass one-CL:building=GEN farmhouse=GEN near=LOC landing-do=COND
inu=ga oe-ta.
 dog=NOM bark=PST
 ‘I passed the village with small houses with white-painted walls. **A dog/Dogs**
 barked as I went ashore near a farmhouse.’

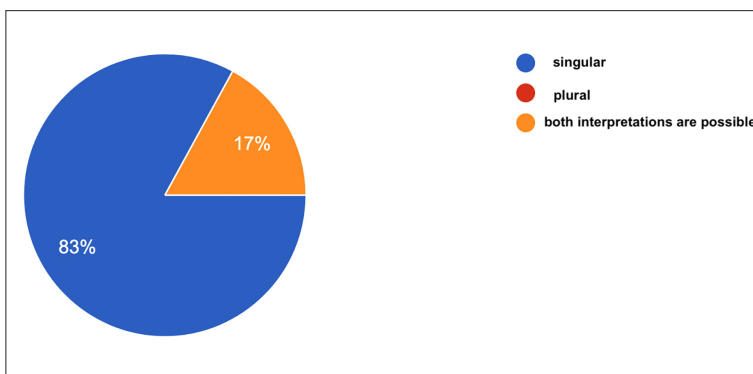


Figure 4 Respondents' answers for (19)

Leaving aside the minority of responses that allowed for a double interpretation, those who opted for the singular interpretation cited largely impressionistic or clearly subjective reasons, such as “it is easier to imagine a single dog in the scene”, “the scene is solitary”, or “in a farmhouse it is more likely that there is only one dog”. These explanations were sometimes also accompanied by grammatical considerations, such as the absence of pluralisers (*-tachi*, *-ra*) or the lack of a numeral. Unlike (16), where the predominantly plural interpretation was triggered by the generic use of the noun *inu* ‘dog’ as a category, here the singular interpretation is based on the factual context (a “solitary scene”) or “personal experience”. None of the respondents chose the plural option. The minority who selected the “both interpretations” option (8 out of 47) cited primarily the absence of a numeral or the fact that, “in principle”, *inu* may be either singular or plural (although some consider the singular reading more probable).

Let us now consider the following two sentences:

- (20) *Kōen=de otoko=no ko=ga ason-de-iru.*
 park=LOC male=GEN child=NOM play-CVB-PROG
 ‘A boy/Boys is/are playing in the park.’

- (21) *Otoko=no ko=ga ason-de-iru aida, heya=no sōji-shiyō.*
 male=GEN child=NOM play-CVB-PROG while room=GEN cleaning-do=HORT
 ‘While the boy/the boys are playing outside, let’s clean the room.’

While a clear majority of respondents opted for the singular interpretation in (20), the singular and ‘both interpretations’ options

received identical percentage in (21), with the plural option also registering a non-negligible proportion.

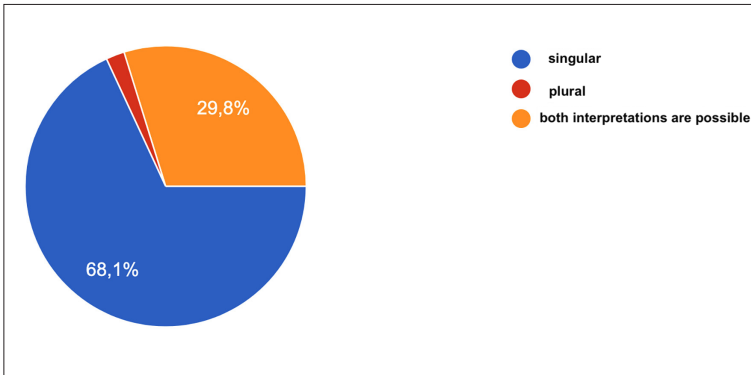


Figure 5 Respondents' answers for (20)

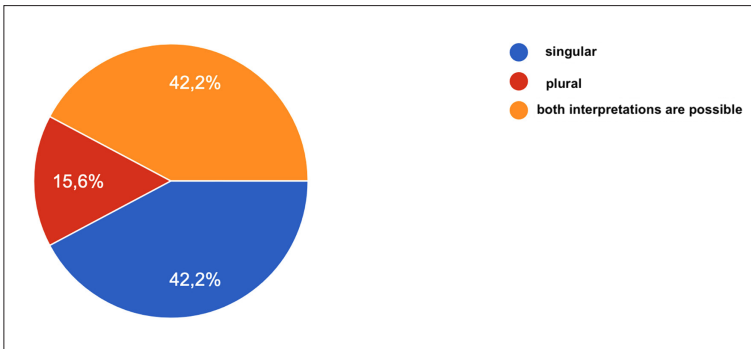


Figure 6 Respondents' answers for (21)

In (20), the singular interpretation is mainly justified by the absence of pluralising suffixes, whereas the 'both interpretations' option is supported by the impossibility of determining whether the referent is singular or plural. A similar motivation underlies the singular interpretation in (21). By contrast, respondents who selected the 'both interpretations' option in (21) invoked 'logical' considerations ("it depends on the meaning of *heya*: if it is a hospital room, a single child; if it is a room in a kindergarten, several children"; "the situation is unclear and therefore both interpretations are possible"). Those who supported the singular interpretation exclusively offered various additional arguments. Some maintained that the phrase *okoto no ko* cannot refer to a specific child. Others observed that, if a specific

child were intended, a personal name would normally be used, followed by an honorific suffix such as *-kun*.

The following two sentences were presented consecutively in the questionnaire. The first is taken from Nakanishi, Tomioka (2004, 114), and the second is a modified version in which the demonstrative *kono* and the subject particle *ga* have been added:

- (22) *Itariajin wa yōki da.*
Italians=TOP cheerful-COP
'Italians are cheerful.'
- (23) *Kono itariajin wa yōki da.*
This Italian=NOM cheerful-COP
'This Italian is cheerful.'

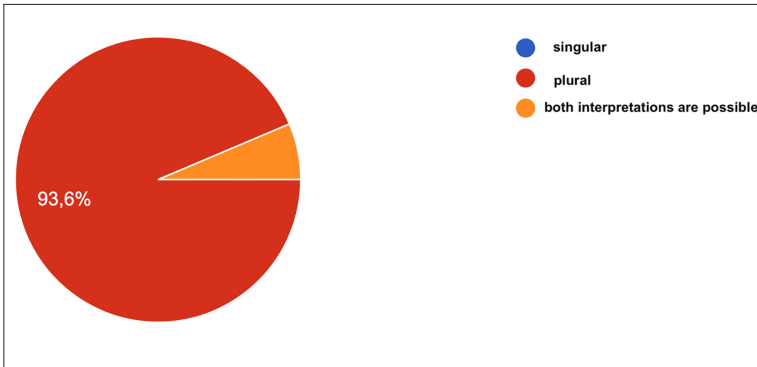


Figure 7 Respondents' answers for (22)

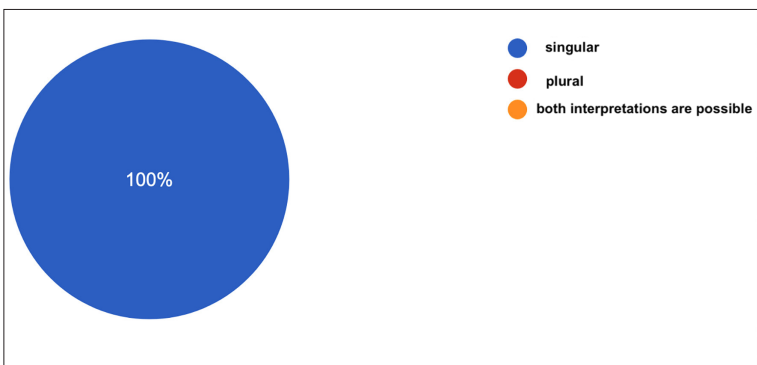


Figure 8 Respondents' answers for (23)

In (22), a striking majority of respondents interpret *Itariajin* as plural, in the sense that the noun is taken to denote a generalisation about Italian people as a group. By contrast, in (22) 100% of respondents interpret the demonstrative *kono* to mark a specific, singular ‘Italian’. The English equivalent of (23) should therefore be rendered as ‘This Italian is cheerful’. To express the plural (a specific group of ‘Italians’), a plural suffix such as *-tachi* should be added. The feature of ‘definiteness’, discussed in § 4, may also be extended to cases in which a demonstrative precedes a bare nouns. When a bare noun is modified by a demonstrative (*kono*, *sono*, *ano*), and no pluraliser is present, the noun is generally interpreted as singular.

Nakanishi and Tomioka (2004) provide the following example (24),⁶ which is used here to test respondents’ singular/plural interpretation:

- (24) *Hikkoshi=no tetsudai=ni gakusei=ga iru.*
moving=GEN help=DAT student-PL=NOM need
‘I need **a student / students** who can help me move.’

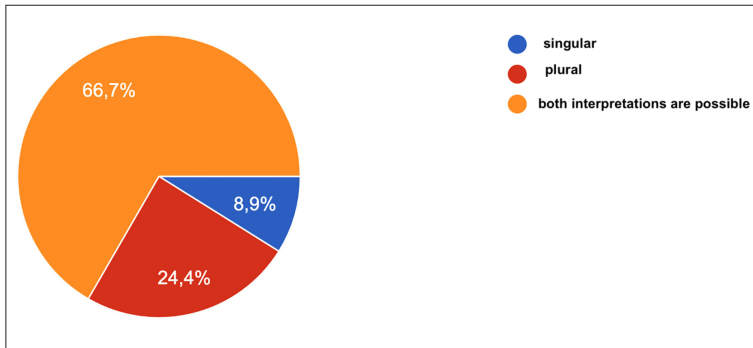


Figure 9 Respondents’ answers for (24)

First of all, at least three of the four respondents who opted for the singular reading interpreted the verb *iru* as the existential verb (‘to be’) rather than as its homophone meaning ‘to need’. In the questionnaire, the verb *iru* was written in *kana* rather than *kanji*, which would have disambiguated its meaning more clearly.

⁶ Tomioka and Nakanishi use this example, as well as its counterpart with the plural suffix *-tachi*, to discuss how the scope of the bare noun *gakusei* can be interpreted as either narrow or wide, depending on whether or not it is accompanied by *-tachi* (Tomioka, Nakanishi 2004, 115).

The ‘both interpretations’ and plural options require further analysis. The motivations underlying the ‘both interpretations’ choice may be summarised as follows. First, some respondents interpreted *gakusei* as a collective noun (understood as denoting a category and therefore as a plurality), while still granting that it could indicate a single subject. Second, others focused on the entity *gakusei*, in relation to the requirements of a move, arguing that the entity itself could be either singular or plural. Third, some respondents invoked personal experience and the scale of the move: for a small move, a single student would be enough, whereas for a larger move, many students would be required. Within the ‘both interpretations’ option, a further distinction was drawn depending on the meaning attributed to the verb *iru*: ‘to be’ or ‘to need’. A single interpretation was considered more plausible when *iru* was interpreted as an existential verb (‘there is *one student* among the other people helping with the move’), whereas the plural reading was regarded as more likely when *iru* was interpreted as ‘to need’ (‘*several students* are needed to help with the move’).

Finally, the plural option is primarily supported by factual considerations. Most respondents argued that a move typically requires the assistance of several people. Others added that, if reference had been made to a single student, this would likely have been specified by means of a numeral (e.g. *hitori no gakusei*, ‘one student’), especially given that the plural suffix *-tachi* is not required.

The following example (25) is sentence (14a), adapted from Nakanishi and Tomioka (2004, 116). It was read in a uniform manner, with respondents considering both readings possible:

- (14a) *Inoue-san=ni=wa kodomo=ga iru.*
Inoue-Mrs/Mr=DAT=TOP child=NOM exist
‘Mrs/Mr Inoue has a child/children. (= Mrs Inoue is a mother / Mr Inoue is a father.)’

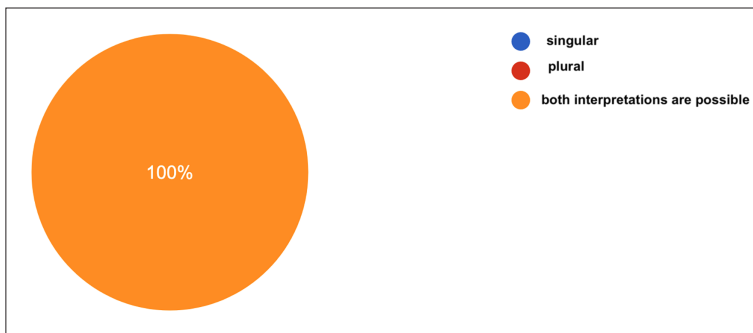


Figure 10 Respondents' answers for (25)

The general reasoning underlying the acceptance of both interpretations is that the sentence focuses on the existence or non-existence of children, rather than on grammatical number. Some respondents argued that, had the intention been to express the number, it would have been specified.

One respondent observed that if the phrase *kodomo-tachi* (with a pluraliser), had been used in this sentence, it would suggest that the children were not Mr Inoue's own. Rather, it would imply that Mr Inoue was, for example, responsible for several children. This observation lends support to the hypothesis formulated by Nakanishi and Tomioka that the sentence containing *-tachi* does not assert Mrs Inoue's motherhood. However, it does not support the general statement that a relational *CN+ -tachi* cannot function as the internal argument of the possession verb *iru* (Nakanishi, Tomioka 2004, 116, 138 note 3).

By contrast, in the following sentence (26), the vast majority of respondents (44 out of 46) interpreted the noun *gakusei* 'student/students', as plural because the verb 'to gather-INTR', appears:

- (26) *soko=ni atsumat-ta gakusei=wa ryūgakusei desu.*
there=LOC gather-PST student/s=TOP foreign-student COP
'The **students** gathered there are international students.'

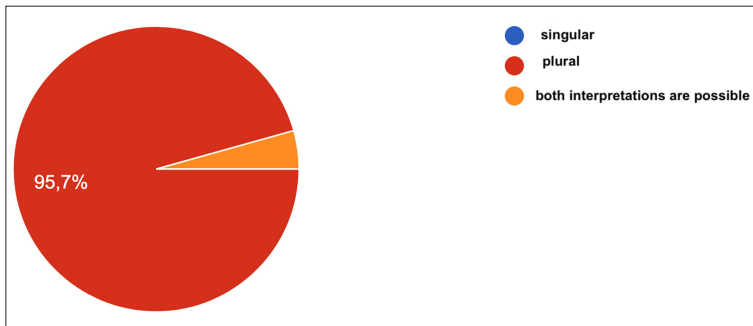


Figure 11 Respondents' answers for (26)

In this case, the factor triggering the interpretation is solely the intransitive verb, which, in its perfective aspect, entails the participation of multiple agents. Therefore, *gakusei* must be interpreted as a plural.

By contrast, in the following example (27), the subject was interpreted either as ambiguous between singular and plural, or as singular.

- (27) *Kokkyō-naki ishi-dan=no ishi=ga yūkai-sa-re-ta.*
 borders-NEG doctor-group=GEN doctor=NOM kidnap-do-PASS-PST
 ‘(A) Médecins Sans Frontières **doctor/doctors** has/have been kidnapped.’

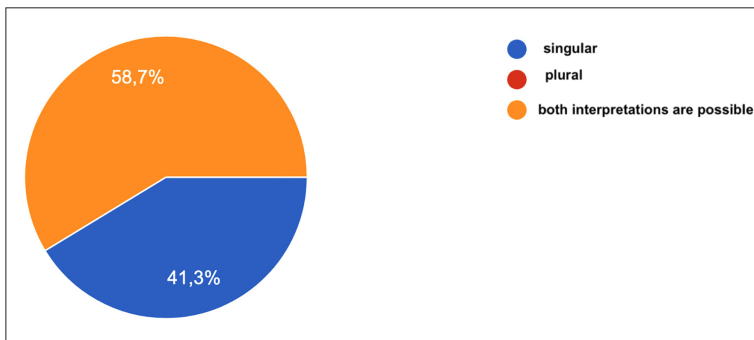


Figure 12 Respondents' answers for (27)

The ‘both interpretations’ option was selected because many respondents judged the utterance to be “natural” under either reading, or pointed to the absence of a numeral. Someone noted that *ishi* ‘doctor’ may refer to a professional category and can therefore also be used as a plural (i.e. one doctor or several doctors within the broader humanitarian organisation). Others observed that a kidnapping (unlike the ‘singular’ reading) could involve more than one person.

By contrast, the singular option was supported by mere factual assumptions (“kidnapping usually involves one person”) or by the perceived logical contrast between the organisation (a group of people) and the kidnapped doctor (one person). Here again, the term *fukusū* ‘plural’ was used by some respondents to define *ishidan* (lit. ‘group of doctors’). It was also been suggested that if *ishi* referred to several doctors, a numeral would likely have been added. Alternatively, given the extraordinary nature of the event, to specify the involvement of more than one doctor, the word *ishi* would have been used with a pluraliser like *-ra*.

A striking majority of respondents opted instead for the singular interpretation in case of (28):

- (28) *Doa=o ake-tara shira-nai hito=ga ta-tte i-ta.*
 door-ACC open-COND know-NEG person=NOM stand-CVB-PROG-PST
 ‘When I opened the door, a **stranger** was standing there.’

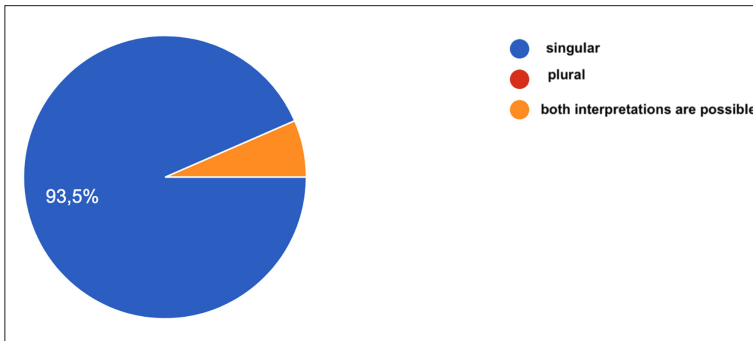


Figure 13 Respondents' answers for (28)

The subject of the phrase *shiranai hito*, lit. 'a person [I] do not know' was interpreted as singular by almost all of the respondents. Only three respondents allowed for both interpretations, although they acknowledged that the singular reading was more likely.

Respondents argued that, had a plural interpretation been intended, the pluraliser *-tachi* would have been required. Alternatively, the singular reading was justified by the absence of a numeral or a modifying expression preceding *hito*, such as *nannin ka no* 'a certain number of'. Some maintained that the crucial information in this context is that the person is unknown; if more than one had been involved, this would have been made explicit.

Finally, the following passage, taken from Matsumoto Seichō's novel *Zero no shōten* (1959), was used to investigate respondents' perception of the number associated with three different nouns.

- (29) *Tachikawa=no eki=ni ori-ta=no=wa ichiji-kan bakari nochi dea-tta.*
Teiko=ni=wa hajimete=no machi da-tta. Gaikokuhei=ga hiroi tōri=o arui-ta.
Akai shikisai=o tsuke-ta Nihon=no wakai onna=ga ude=o ku-nde i-ta. Sugu
atama=no ue=o, bikkuri-suru-yō-na oto=o hajika-se-te ōki-na gun'yōki=ga
jōshō-shi-ta. Arui-te-iru hito=wa nare-te-iru=no=ka, mimi=o ōi-ta-ku-naru
kurai=no bakuon demo, ue=o miru mono=mo naka-tta.

'It was only about an hour later that I got off at Tachikawa station. It was a town that Teiko was visiting for the first time. (A) foreign **soldier/soldiers** walked along the wide streets, while young Japanese **woman/women**, dressed in bright colours, walked arm in arm. Immediately overhead, a large military aircraft ascended with a startling roar. The **pedestrian/pedestrians** seemed accustomed to it; even with the deafening noise, no one looked up.'

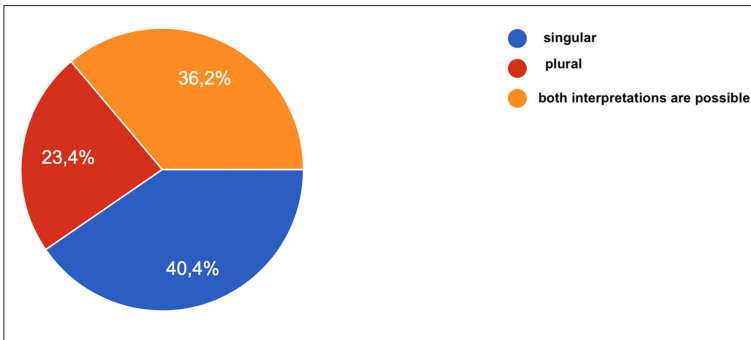


Figure 14 Respondents' answers for *gaikokuhei* in (29)

First of all, consider the case of the noun *gaikokuhei* 'foreign soldier(s)'. Respondents who favoured the singular interpretation associated the soldier with the young Japanese woman, who was likewise interpreted as singular. One interviewee who supported this reading stated that she had, initially, understood the noun as plural, but, upon inferring that there was only *one* girl, revised her interpretation accordingly. Another respondent added that, given that the passage it is taken from a novel, it is plausible that the narrative focuses on a single couple.

By contrast, respondents who opted for a plural interpretation relied primarily on contextual and logical considerations. For instance, one respondent observed that it is difficult to imagine only one soldier in a foreign city, and that *gaikokuhei* as representative of a foreign army, is therefore naturally perceived as plural. Soldiers typically operate in groups, and there is no specific rendering the noun definite – unlike *onna*, which is modified by the phrase *akai shikisai o tsuketa Nihon no wakai* 'young Japanese woman dressed in bright colours'.

The 'both interpretations' option combines elements of the two preceding lines of reasoning. In the absence of numeral specification, many respondents considered both interpretations acceptable. In the case of *onna*, as can be inferred from the explanations offered in relation to *gaikokuhei*, the main reason why the vast majority of respondents interpret it as singular lies in the 'definiteness' conveyed by the modifying phrase, which singles it out. In addition, the peculiarity of the clothing makes it difficult to imagine that the description refers to more than one woman. Only four respondents – two opting for a plural interpretation and two for the 'both interpretations' option – allowed for the possibility of multiple women with the same characteristics, or suggested that, depending

on whether *gaikokuhei* is interpreted as singular or plural, readings other than the singular one would be possible.

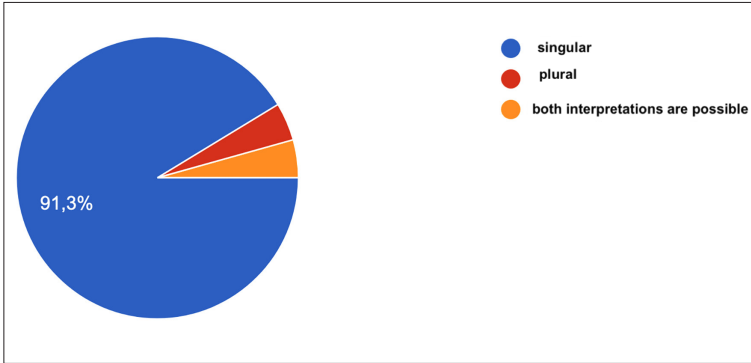


Figure 15 Respondents' answers for *onna* in (29)

The interpretation of *hito* in the phrase *aruite iru hito* 'walking person/people' is likewise concentrated on a single option, namely the plural reading, as only four respondents either of the other two possibilities.

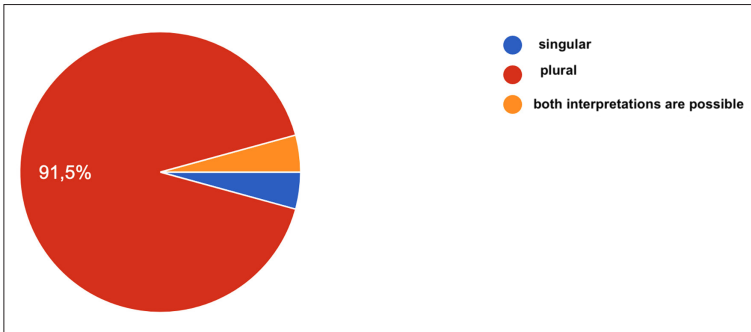


Figure 16 Respondents' answers for *hito* in (29)

The plural interpretation of *hito* arises primarily from its interaction with other elements in the sentence, and from pragmatic inferences about the extralinguistic context. In particular, the final clause *ue o miru mono mo inakatta* ('no one looked up') favour a distributive interpretation, implying the presence of multiple individuals walking down the street, none of whom looked up. Other respondents argued that it is unlikely for a single person to be walking alone down a wide street. Alternatively, given that other characters have already been

introduced, it was deemed improbable that the reference could be to a lone passer-by.

7 Perception of Grammatical Gender

As mentioned in the introduction, Japanese does not encode gender distinctions morphologically. Consequently, there is no requirement for morphological agreement – one of the defining criteria of grammatical gender (see Corbett 1991, 4) – between syntactically related elements, such as a noun and its modifiers. Nouns that are semantically specified for natural gender are therefore interpreted as masculine or feminine on the basis of their inherent lexical semantics. With the exception of cases in which gender attribution is grounded in semantic criteria directly linked to biological sex (e.g. *onna* ‘woman’ = feminine; *otoko* ‘man’ = masculine), gender does not constitute a salient grammatical or semantic property of Japanese nouns denoting inanimate entities (‘chair’, ‘bread’, ‘mountain’, etc.), which are not conceptualised as gendered (by contrast, nouns such as *otoko* ‘man’ and *onna* ‘woman’ are lexically specified for gender). In the absence of such semantic specification, and where no modifying element provides gender-related cues, a noun remains underspecified with respect to gender and may be interpreted as either masculine or feminine depending on contextual or pragmatic factors.

- (30) *Sūpā=no yasai-uriba=de o-kyaku-sama=ga*
 supermarket=GEN vegetables-counter=LOC HON-(he/she)customer-HON=NOM
nani-ka koma-tte-iru yō deshi-ta
 WH-Q be in trouble-CVB-PROG EVD COP-PST
 ‘At the supermarket’s vegetable counter, a (male/female) customer seemed to be having some difficulty.’

The Japanese word *o-kyaku* ‘customer’ is not gender-marked and, as in English, may be interpreted as either masculine or feminine. This contrasts with Romance languages such as Italian (*un/una cliente*; see (31)) or German (*ein/eine Kunde/Kundin*; see (32)), in which gender must be morphologically specified. This contrast is illustrated in the following two translations of the Japanese sentence:

- (31) *Al banco della verdura del supermercato, un/una cliente sembrava avere qualche difficoltà.*
 (32) *An der Gemüsetheke des Supermarkts schien ein Kunde/eine Kundin Schwierigkeiten zu haben.*

On the other hand, in Japanese in order to specify the gender in the sentence (30), a modifier such as *josei no* ‘woman=GEN’ or *dansei no* ‘man=GEN’, should be added: *josei no o-kyaku-sama/dansei no o-kyaku-sama*.

In contrast to number, which has received some attention in the linguistic literature – partly owing to the existence of pluralising suffixes – grammatical gender in Japanese has, to my knowledge, been the subject of very few academic studies, such as the classic work by Nomoto K. (1978). Accordingly, our survey, included questions on gender perception in order to investigate the principal factors that guide gender interpretation. Respondents were asked to indicate their initial impression of the target noun’s gender upon reading each example.

8 Results of the Survey for Gender Discernment

In the questionnaire, alongside sentences (30), (33)-(37), brief examples were also included in which the target noun was modified by an adjective hypothesised to influence gender interpretation.

Sentence (30), presented above, elicited a range of responses, as illustrated in Figure 17.

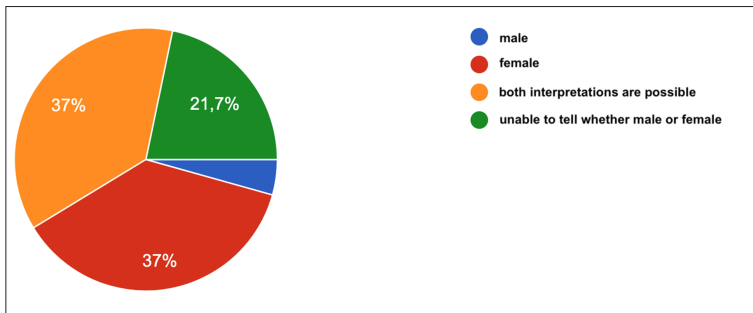


Figure 17 Respondents’ answers for *o-kyaku sama* in (30)

Responses indicating either that both interpretations were possible or that the noun’s gender could not be determined constituted the clear majority. The reasons provided by these two groups were largely similar, ranging from factual considerations (e.g. both men and women shop in supermarkets) to linguistic factors (gender is not specified; the expression *o-kyaku sama* may refer to either gender), as well as to perceptions concerning the informational focus (i.e. the reference is to ‘a customer’ in general rather than to the customer’s gender), with no gender-specific image emerging at first impression.

Those who selected the ‘woman’ option – a proportion equal to that of respondents who chose ‘both genders’ – justified their choice by arguing that women are more numerous in supermarkets, or by explicitly invoking the stereotype that women are primarily responsible for household tasks, a view also expressed by several female respondents.

The only two respondents (one man and one woman, out of 38) who selected the ‘man’ option justified their choice by stating that the phrase *o-kyaku sama* somehow evokes a male referent, or that it simply brought to mind a *sararīman* (‘an employee’).

However, the percentage distribution across the different options shifted when respondents were asked to reconsider the gender distinction, as illustrated in Figure 18:

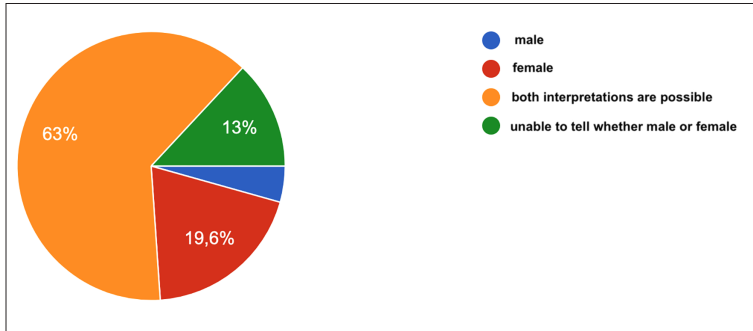


Figure 18 Respondents' answers for (30) reconsidered

As is evident from the results, there is an increase in the percentage of respondents who considered both options possible when asked to reflect explicitly on the gender of the target noun – particularly at the expense of the ‘female’ option. This trend was also observed in case (31)-(35):

- (33) *Jidōsha=no* *shōrūmu=de* *o-kyaku-sama=ga*
 automobile=GEN showroom=LOC HON-(he/she)customer-HON=NOM
koma-tte iru *yō deshi-ta.*
 be in trouble CVB-PROG EVD COP-PST
 ‘At the car showroom, a (male/female) customer seemed to be having difficulty.’

In this instance as well, cultural bias appears to have exerted a strong influence on gender perception. Unlike in (30), none of the respondents selected the ‘female’ option, whereas the ‘both genders’ and ‘male’ options accounted for the highest percentages. A non-negligible

proportion of respondents also reported being unable to determine the gender of the target noun. As in (30), when respondents were asked to reconsider their gender assessment, the proportion selecting the ‘both genders’ option increased. Nevertheless the ‘female’ option remained unselected.

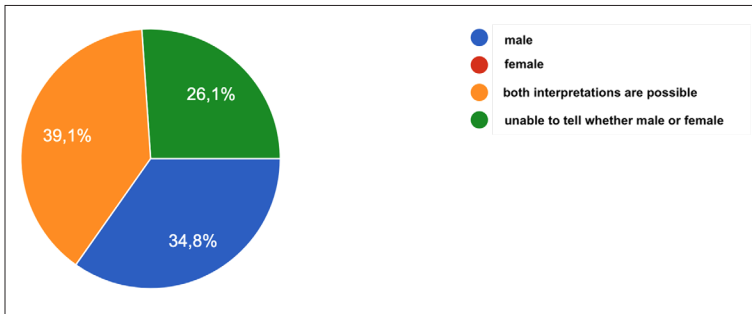


Figure 19 Respondents' answers for *o-kyaku sama* in (33)

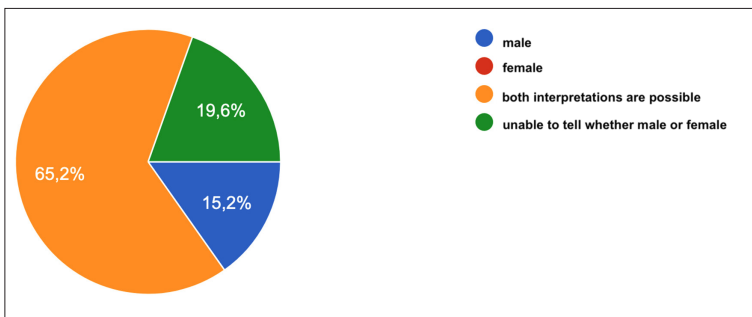


Figure 20 Respondents' answers for (33) reconsidered

In both (30) and (33), gender choice displays a clear polarisation that largely reflects the respondents' cultural beliefs or assumptions. In the case of (30), since the activity is associated with shopping in a supermarket, the percentage of respondents selecting the ‘male’ option is negligible. By contrast in (33) the opposite pattern emerges, with no respondents choosing the ‘female’ option.

Apart from a small number of grammatical justifications (e.g. “the gender is not specified” or “there are no lexical elements related to gender”), those who selected the gender they considered most representative (women in the supermarket context, men in the car showroom context) explained their choice on the basis of personal experience or culturally shared assumptions.

In (33), the cultural considerations, appear to constitute the main factors driving the interpretation of the noun's gender. In fact, the choice of 'mother' is motivated by the belief that women spend more time at home caring for the household and children; moreover, several respondents who opted for the 'both interpretations' option reported that their initial impression had been 'mother'.

- (34) *Yūjin=no jikka=no kodomobeya=ni iru toki=ni,*
 friend=GEN family home=GEN children's room=LOC be TIME=LOC
totsuzen oya=ga nokku=mo nashi=ni doa=o ake-te
 suddenly parent=NOM knock=ITO without=ADV door=ACC open-CVB
heya=o nozoi-te ki-tara dō omoi-masu-ka
 room=ACC peer-CVB come-COND how think-POL-INT-Q
 'What would you think if, while you were in the children's room at your friend's family home, their parent suddenly opened the door without knocking and peered in?'

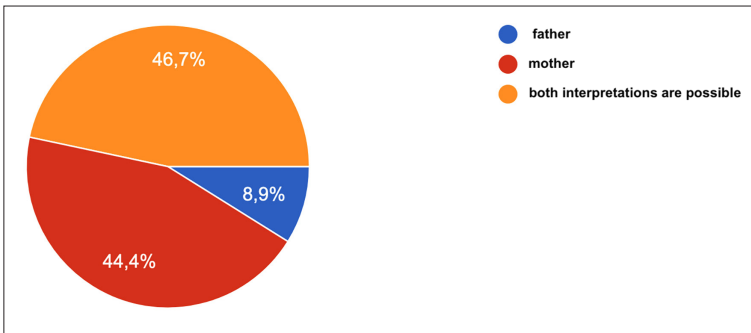


Figure 21 Respondents' answers for *oya* in (34)

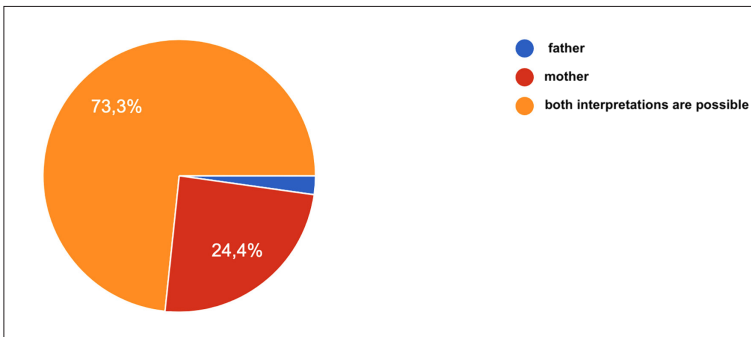


Figure 22 Respondents' answers for (34) reconsidered

In (35) both cultural and situational elements are important to guide the respondents' choices.

- (35) *Piasu, kinpatsu=no gakusei=mo imasu.*
 piercing blond hair=GEN students-ITO be-POL
odorokimashita ga chokusetsu=ni kii-te miru-to
 surprise-POL-PST but, direct-ADV listen-CVB try-COND
jibun nari=no kangae=ga ari, "kanja=no
 self in.one's.own.way=GEN thinking-NOM exist patient=GEN
mae=de=wa shi-masen"=to wakimae-te-i-mashi-ta.
 in front=LOC=TOP do-POL-NEG=CMP discern-CVB-PROG-POL-PST
- 'There are students with piercings and dyed blonde hair. I was surprised, but when I asked them directly, they had their own reasons and understood the need for discretion, stating, "We don't do it in front of patients".'

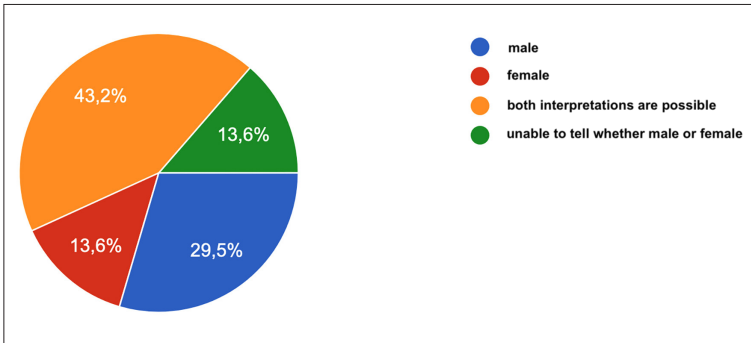


Figure 23 Respondents' answers for *gakusei* in (35)

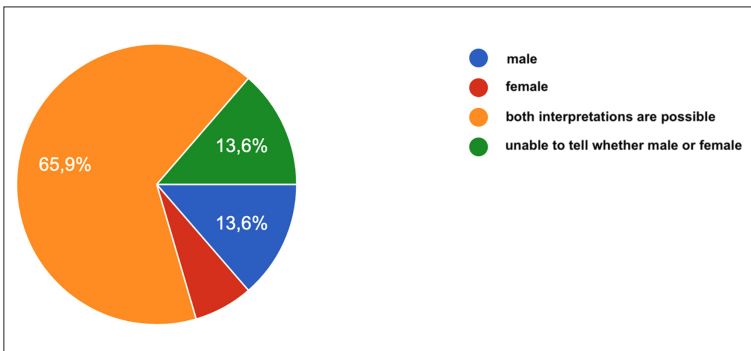


Figure 24 Respondents' answers for (35) reconsidered

Here, gender assignment for the noun *gakusei* exhibits considerable variability, largely due to divergent interpretations of the information conveyed by the modifying phrase *piasu*, *kinpatsu no* ('piercings, blond hair=GEN). These interpretations led some respondents to construe the referent as male – interpreting *piasu* as 'piercing' and *kinpatsu* as a conspicuous blond hairstyle stereotypically associated with certain young men – while others construed it as female, understanding *piasu* as 'earrings' and associating the description with attention to physical appearance. A further group considered the properties expressed by the modifier to be compatible with either genders.

- (36) *Soko=de=wa, suwaru futari=no josei=to*
 there=LOC=TOP sit two-CL:human=GEN woman=COM
aso-nde-iru kodomo=ga i-masu
 play-CVB-PROG child=NOM be-POL
 'There is a child playing with two women there.'

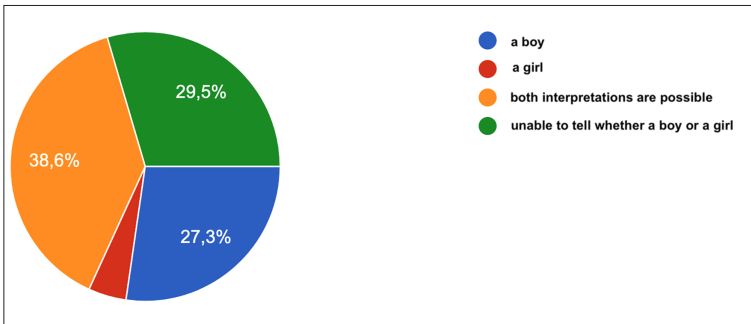


Figure 25 Respondents' answers for *kodomo* in (36)

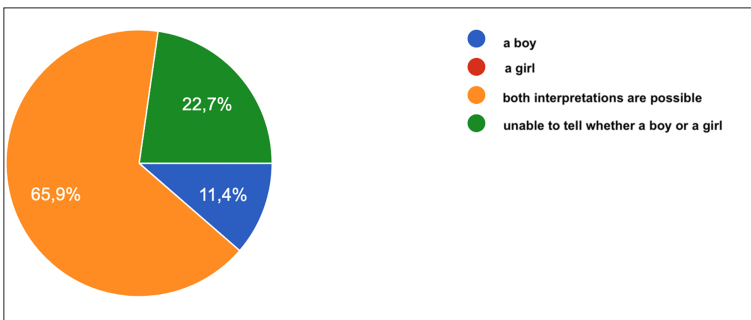


Figure 26 Respondents' answers for (36) reconsidered

In the case of *kodomo* (36), the responses were based either on logical reasoning – namely that both boys and girls may play in a park and that, therefore, both interpretations are possible and gender cannot be determined – or, among those who selected the ‘male’ option, on a perceived contrast with the two women, whose gender was explicitly specified.

In the following example (37) the majority of respondents – both those who selected the ‘both interpretations’ option and those who were unable to choose between the two genders – stated that, in the case of an animal (*inu* ‘dog’), specifying gender is not particularly relevant. In this instance, gender distinction was not considered salient to the overall meaning of the utterance. In a limited number of cases, the ‘male’ option was selected either on the basis of impressionistic judgement or because it was regarded as representative of dogs in general, in a manner analogous to the use of the generic masculine in gendered languages such as Italian.

- (37) *Shōgakusei=no koro, kinjo=ni totemo*
 primary school student=GEN time neighbourhood=LOC very
kawaisō-na inu=ga i-mashi-ta. Esa=mo roku=ni
 pitiful dog=NOM be-POL-PST feed=ITO hardly=ADV
atae-rare-naka-tta yō de, karada=wa garigari.
 give-PASS-NEG-PST apparently COP-CVB body-TOP skinny
 ‘When I was in primary school, there was a very pitiful dog in the
 neighbourhood. It seemed to be barely fed at all, its body was skin and
 bones.’

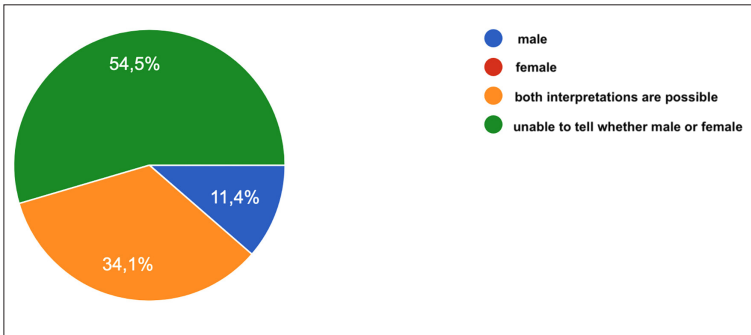


Figure 27 Respondents' answers for *inu* in (37)

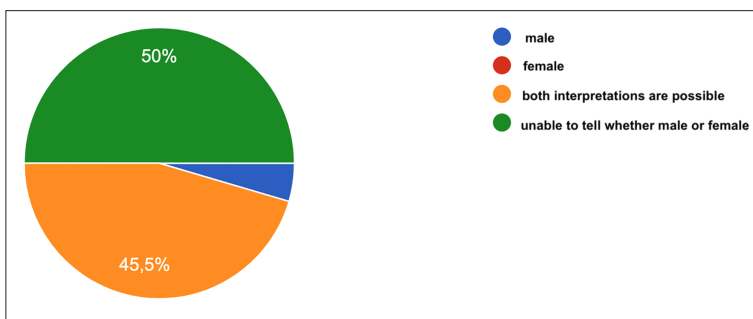


Figure 28 Respondents' answers for (37) reconsidered

Interestingly, in the case of a generic term (*hito* 'person', 'man/woman'), in a context devoid of specific cues favouring one gender over the other – such as that presented in (28) – the noun is predominantly perceived as masculine, while the feminine option is not selected at all. This pattern suggests the presence of what Braun defines as “covert gender” in Turkish, in the sense that “Turkish terms for person reference are not semantically neutral” (Braun 1999, 194).

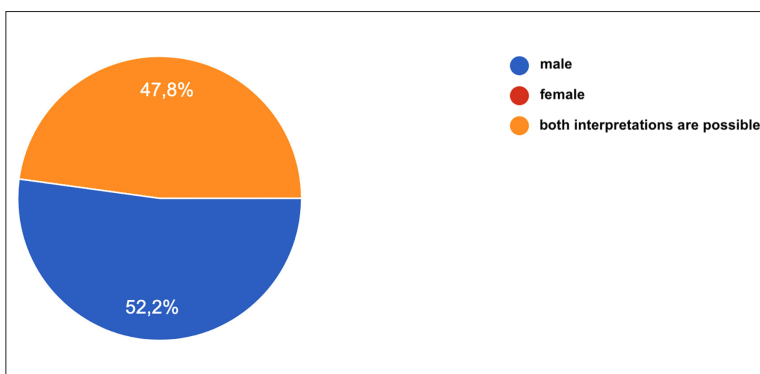


Figure 29 Respondents' answers for (28) reconsidered

Given that differences in gender perception appeared to be heavily influenced by cultural factors, the questionnaire also included a series of simple adjectival phrases (ADJ-N) in which *ko* 'child' served as the noun. Respondents were asked to indicate whether they imagined the referent to be a boy or a girl in each case. The combinations employed together with their respective results, are presented below:

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- (38) *sono ko wa tsuyoi ko desu* 'that child is a **strong** child' (both possible 65.1%; boy 34.9%)
 - (39) *sono ko wa yasashii ko desu* 'that child is a **kind** child' (both possible 89.4%; girl 18.6%)
 - (40) *sono ko wa kirei-na ko desu* 'that child is a **pretty** child' (girl 69.8%; both possible 30.2%)
 - (41) *sono ko wa majime-na ko desu* 'that child is a **serious** child' (both possible 88.4%; girl 9.3%; boy 2.3%)
 - (42) *sono ko wa ganko-na ko desu* 'that child is a **stubborn** child' (both possible 72.1%; boy 23.3%; girl 4.7%)
 - (43) *sono ko wa kayowai ko desu* 'that child is a **delicate** child' (both possible 60.5%; girl 34.9%; boy 4.7%)
 - (44) *sono ko wa hiyowa-na ko desu* 'that child is a **frail** child' (both possible 74.4%; boy 20.9%; girl 4.7%)
 - (45) *sono ko wa kashimashii ko desu* 'that child is a **noisy** child' (girl 47.5%; both possible 40.0%; boy 12.5%)
 - (46) *sono ko wa kimuzukashii ko desu* 'that child is a **difficult** child' (both possible 81.4%; boy 16.3%; girl 2.3%)
 - (47) *sono ko wa mukuchi-na ko desu* 'that child is rather a **taciturn** child' (both possible 90.7%; boy 7.0%; girl 2.3%)
 - (48) *sono ko wa muteppe-na ko desu* 'that child is a **reckless** child' (both possible 53.5%; boy 46.5%)
 - (49) *sono ko wa isamashii ko desu* 'that child is a **brave** child' (both possible 51.2%; boy 48.8%)
 - (50) *sono ko wa sunao-na ko desu* 'that child is a **docile** child' (both possible 86.0%; boy 7.0%; girl 7.0%)

As expected, attributes such as 'kindness', 'docility', or 'prettiness' lead respondents to perceive the referent as female, whereas 'bravery', 'strength', and 'recklessness' are associated with males. In certain instances, gender polarisation is so pronounced that one gender is entirely excluded, although the 'both' option is still considered possible. This is evident in the cases of *tsuyoi* and *isamashii*, where the female option is excluded, and conversely, *yasashii* and *kirei* which are not attributed to males. These findings appear to reflect cultural stereotypes that closely resembles those documented in many Western societies.

9 Conclusions

As the foregoing discussion has shown, the linguistic perception of number and gender in Japanese operates through mechanisms in which morphological marking does not play a central role. The factors guiding distinctions of number and gender therefore appear to differ substantially from those found in languages that rely on morphological markers for these nominal properties.

Responses to our questionnaire reveal a clear asymmetry between the perception of number and that of gender in Japanese.

With regard to number, as emerges both from the discussion in the studies cited above and from the analysis of our data, a noun is unambiguously interpreted as plural when it is accompanied by an explicit plural marker, as one would expect. In other cases, the interpretation as singular or plural depends on syntactic factors (such as the presence of a demonstrative, as in (23), where 100% of respondents interpreted the noun as singular), on the co-occurrence of lexical items that constrain semantic interpretation (as in (26), where the verb *atsumaru* requires a plural subject), or, alternatively, on contextual information alone (as in *aruite iru hito* in (29)). In many instances – particularly where no decisive syntactic cues are available – the perception of number varies across speakers, depending on cultural or experiential factors and on pragmatic inferences about the extralinguistic situation, as evidenced by the responses to the questionnaire.

A factor contributing to the perception of a noun as singular is the presence of elements that specify or delimit its reference. These may include, as in (23), a demonstrative, or alternatively a modifying phrase as in (29) (*akai shikisai o tsuketa wakai Nihon no onna* ‘young Japanese woman dressed in bright colours’). Such elements tend to favour a singular interpretation (in this example *onna* ‘woman’), since they restrict the referent to a specific individual, as indicated in the explanations provided by the respondents.

As for the plural, the categories of ‘plural’ and ‘generic’ appear to coincide in speakers’ perception. This is evident in (15a), where respondents describe *itariajin* as ‘plural’ because it refers to Italians in general, in contrast to the ‘plural’ of the form *itariaji-tachi* cited by Nakanishi and Tomioka (2004, 429).

Likewise, in (27) some respondents interpret *ishi* ‘doctor’ as singular, insofar as it is contrasted with *ishidan* ‘group of doctors’, which they explicitly define as ‘plural’ (*fukusū*) because it denotes a multiplicity of individuals.

Finally, there are also cases in which all respondents selected the option ‘both interpretations are possible’, as in (11a) (an example adapted from Nakanishi, Tomioka 2004, 116). In this instance, the sentence is very short and, in addition to lacking a plural marker,

contains no syntactic or contextual elements that would guide interpretation in one direction or the other. As already repeatedly noted, in the absence of a morphological marker for number, in sentences such as the one above – where no other logical or syntactic elements are present – the speaker is unable to perceive a mental image characterised by a specific number.

With regard to gender, however – and in contrast to number – syntactic factors do not appear to play a role in the differentiation between masculine and feminine interpretations.

In general, it is instead the speaker's own biases or prior experiences that appear to influence the gender attribution. Therefore, a 'customer' may be perceived as female when contextualised within a supermarket, but as male when situated in a car showroom. It should be noted that, when asked to reconsider their assessment, respondents may revise their evaluation (on the basis of theoretical reasoning), while the general trend remains unaltered in cases where there is a polarisation of choices (see (31)).

In processing of linguistically conveyed information, the speaker does not appear to treat gender as a structurally determining factor in constructing the communicative semantic framework. This is especially true in the case of animals, as opposed to human referents. In this respect, the situation is reminiscent of that found in languages, such as Italian, which are morphologically marked for gender: in a generic sentence such as *c'è un cane per strada* ('there is a dog in the street'), the noun *cane* is a generic masculine that may denote either a male or a female 'dog'.

Ultimately, in Japanese, information appears to be constructed through addition. With respect to both number and gender, the speaker processes the information conveyed in the first instance without it being fully defined. This is similar to the case of gender in Italian in a sentence such as *c'era una persona nella stanza* ('there was a person in the room'), where – apart from the grammatical gender (*persona* is feminine in Italian) – the recipient cannot infer whether the person is a woman or a man. This observation also applies to number when there are no markers (such as pluralisers or demonstratives) to attribute definiteness to the noun. Finally, as far as the questionnaire results are concerned, the interpretation of number and gender does not appear to be influenced by differences in the respondents' gender or age, nor by their contact with foreign languages. The acquisition of languages in which gender and number are morphologically marked did not give rise to any discernible interpretative tendencies.

Abbreviations

ACC	accusative
ADV	adverbial form
ADN	adnominal
ASP	aspectual
CAUS	causative
CAUSL	causal
CN	common noun
CL	classifier
COM	comitative
COND	conditional
COP	copula
CMP	complementiser
CVB	converb
DAT	dative
EVD	evidential
EXC	exclamative
GEN	genitive
HORT	hortative
HON	honorific
INTR	intransitive
INS	instrumental
ITO	inclusive topic
lit.	literally
LOC	locative
NEG	negative
NMLZ	nominaliser
NOM	nominative
NPST	non past tense
PASS	passive
PFX	prefix
POL	polite
PRES	present
PL	plural
PROG	progressive
PST	past tense
Q	question marker
RES	resultative
TOP	topic
VOL	volitional

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