《論　文》

A Hitchhiker's Guide to Standard Japanese Nominal and Verbal Morphology

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標準日本語の名詞・動詞形態論へのヒッチハイク・ガイド

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Abstract:

　Despite the large body of linguistic research conducted on Standard Japanese and the increasing number of L2 learners worldwide, there remains a lack of clear and concise explanations and descriptions of the language. This is due to both miscommunications between how Japanese and overseas scholars describe the language and by a largely entrenched L2 educational system primarily focused on helping students pass the Japanese Language Proficiency Exam with courses and books designed by Japanese teachers. This paper provides an up-to-date analysis of Standard Japanese nominal and verbal morphology from a modern typological perspective. Aspects of the morphology critical for L2 learning that are often left out of most courses are highlighted in a format that also functions as a "crash course" introduction to two major parts of speech in Japanese grammar (nouns and verbs) and descriptive Japonic linguistics for linguists. The nominal section covers such topics as the pragmatic function of appellative nouns, plural suffixes, and pronouns. The clear yet comprehensive description of the agglutinative verbal morphology of Japanese presents the reader with a bigger picture to better understand how to successfully parse natural discourse and produce more fluent-sounding utterances. The article concludes with specific examples of aspects of functionality key to Standard Japanese that are important to be aware of for those coming from languages unrelated to Japonic.

　日本語の「標準語」に関する言語学的研究が国内外で数多く行われ，世界中でL2語学者の数が増加しているにもかかわらず，標準語に関する明確で簡潔な説明や記述は依然として不足している。これは，日本国内の研究者と海外の研究者が日本語をどのように説明しているかの間に記述的な一貫性がないことと，主に日本人教師によってデザインされたコースや教育資料で「日本語能力試験」に合格させることに焦点を当てたL2教育システムが定着していることによるものである。本稿では，現

代的な類型論的観点から，標準語の名詞と動詞の形態論について最新の分析を紹介する。 L2語学学習にとって重要な形態素のうち，多くのコースでは省かれがちな部分に焦点を当て，日本語の文法における２つの主要品詞（名詞と動詞）を言語学者向けに紹介する「クラッシュ・コース」としても機能するような形式をとっている。名詞のセクションでは，名詞の語用論的機能，複数形の接尾辞，代名詞などを扱っている。動詞の形態論については，明確かつ包括的な記述により，読者はより自然な日本語の理解・発言する能力を習得する方法を大局的に理解することができる。最後に，日琉諸語とは関係のない言語から来た専門家・研究者にとって重要な，標準語の機能の鍵となる側面について，具体的な例を挙げて締めくくられている。

1 . Introduction

Modern Standard Japanese (SJ) is spoken as a native language by approximately 125 million people, ranking around ninth in the world in terms of the number of native speakers. Currently, these speakers run the world's 4th largest economy. This combined with the popularity of Japanese pop culture overseas has led SJ becoming one of the most studied L2 languages worldwide. In the realm of scholarly linguistics literature, Japanese has been one of the most common subjects of inquiry in various subfields—including generative syntax, phonology, typology, and historical/diachronic linguistics, among others.

However, given its popularity in the literature for several decades, there exist a number of different and oftentimes conflicting approaches to accounting for linguistic phenomena in Japanese. The study of Japanese within Japan itself (the *kokugogaku* tradition) also makes use of many idiosyncratic terms and analyses which are frequently at odds with how Japanese is described by non-Japanese researchers.

This paper seeks to present an up-to-date analysis of SJ nominal and verbal morphology from a modern typological perspective, aiming to bring together descriptions from a variety of sources to produce an easily accessible resource for the substantial number of L2 learners of Japanese worldwide. This paper is also intended for linguistics specialists who may be unfamiliar with SJ and have an interest in a "crash course" introduction to two major parts of speech in Japanese grammar (nouns and verbs). While this paper does include a fair amount of terminology challenging to the standard L2 learner, effort has been made to describe key concepts in a digestible manner. These concepts are essential for understanding the language and are rarely mentioned in Japanese educational materials such as textbooks and online resources. When possible, insights into Japanese culture have been used as examples.

2 . Noun Morphology 名詞形態論

Standard Japanese nominals make up one of the three main classes of words in Japanese along with verbs and adjectives (including verbal and nominal adjectives) and are divided into pronouns, nouns, and numerals. Nouns denote things such as *habushu* 'snake liqueur' and *takowasa* 'a dish of

raw octopus and wasabi' or ideas like *meiwaku* 'the sense of causing others trouble' and *nominication* 'communication with the help of intoxication.' Syntactically, nominals are noun phrases (NP) that can function as the argument (subject, object) or the predicate of a sentence. The lexicon of nouns comprises three strata of vocabulary: native words, Sino-Japanese words, and more modern loan words known as *gairaigo* coming from European languages (and particularly from English) such as *ibento* 'event' and *pawahara* 'power harassment.' Nouns are an open class that accepts borrowings from other languages. Nouns and pronouns are morphologically indistinguishable as neither inflects for number or other categories. Nouns can further be separated into common nouns (represented by the examples above) and proper nouns comprising place names (toponyms), family names, and given names.

2.1　Pronouns 代名詞

Pronouns comprise three general categories. Personal pronouns express grammatical person, demonstrative pronouns express deictic and anaphoric functions, and interrogative pronouns are used as question words or as indefinite nouns for undefined variables such as 'who', 'what', and 'when.' Pronouns are primarily gender neutral with a few clear exceptions and some more convoluted terms such as *boku* 'I' that has largely seen use as a masculine term but has recently become quite common among young women and girls. First-person pronouns are all clusivity neutral and there is only one reflexive pronoun, *jibun,* that can be used to refer to living creatures as high or higher on the animacy hierarchy than small animals. An important thing for all L2 learners to understand about SJ is that it is an argument-drop language where all contextually recoverable nouns must be left unstated. Put simply, if there is any other way of determining what the subject or object of a sentence is, then that must go unstated[1]. This is especially apparent with pronouns, which are generally omitted when the meaning is readily perceivable through context, for example, ~~boku wa~~ *ima kaetta yo* 'I just got home.'

2.1.1　Personal Pronouns 人称代名詞の体系

In Japanese and other languages found particularly in East Asia (Brown and Levinson 1987), pronouns play a role in honorific speech used to express respect, anti-honorific attitudes, aspects of social status, and gender. Over time, Japanese pronouns fade out of use as others come into play so that, synchronically, many of the anti-honorific or informal terms were diachronically once those of higher registers including *kisama, omae,* and *temee/temae.* Attempting to become cognizant of all social meanings contained in each personal pronoun remains a significant challenge for any L2 speaker and is often hardly addressed in Japanese language classes. An exhaustive account including regional variation is beyond the scope of this article. As an example of this complexity, the second person pronoun *kimi* 'you', often used with subordinates is classified as a slightly formal register by Irwin and Zisk (2019:149), but can be seen as teasing or reprimanding when used

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1) Translations of English literature into Japanese generally contain less than one third the number of pronouns as the source text, however, they still contain more pronouns than literature written originally in Japanese (Guay 2020).

between a married couple, and while not so often heard in general conversation, suddenly steals the limelight in a karaoke booth as the by far most overwhelmingly used word for 'you' in Japanese song lyrics.

A number of other pronominals share this multilayered honorific ability such as how *omae* 'you' can be used for bonding in some contexts and insults in others. Pronominal use is further complicated by the fact that even the politest pronouns can be considered an insult in situations where an appellative noun more closely associated with the relationship between the speaker and hearer should have been used such as *sensei* 'teacher' for professions ranging from doctors to politicians and name + *no* + *okaasan* for someone's mother and the equivalent for other family relationships. All the tables include an abbreviated list of the most common pronouns for first person (table 1), second person (table 2), and third person (table 3), additionally, only the most common plural form(s) are included.

Table 1. Most common first person pronominals

First Person	Register	Plural form	Kanji	Comments
watakushi	Very formal	*taci, ra, domo*	私	the most formal but outdated 1P pronoun
watashi	formal/informal	*taci, ra, domo*	私	default 1P pronoun
atashi	female informal	*taci, ra, domo*	私	conversational feminine 1P
boku	formal/informal	*taci, ra*	僕	young boys, men, tomboys
ore	informal/rough	*taci, ra*	俺	very masculine
jibun	nuetral	*taci, ra*	自分	(my)self -reflexive
ware	formal	*wareware* (reduplication)	我々	used primarily in the plural to refer to all members of an organization (exclusive?)

Table 2. Second person pronominals

Second Person	Register	Plural form	Kanji	Comments
anata	formal	*taci, ra, gata*	貴方	most common 2P but overuse can be offensive
anta	informal/female	*taci, ra*	貴方	contracted form expressing contempt or familiarity
kimi	informal	*taci, ra*	君	informal towards subbordinates
omae	informal/male	*taci, ra*	お前	2P expressing contempt or familiarity
temee	hostile	*taci, ra,*	手前	fighting term
kisama	hostile	*ra*	貴様	alternate fighting term

Table 3. Third person pronominals

Third Person	Register	Plural form	Kanji	Comments
kanojo	neutral/female	*taci, ra,*	彼女	she (created in the 19th century); also means girlfriend
kare	neutral/male	*taci, ra*	彼	he or boyfriend
yatsu	informal	*taci, ra*	奴	similar to 'thing' or 'dude'
aitsu/koitsu/soitsu	derogatory	*taci, ra*	彼奴 此奴 其奴	implies contempt 3rd person at distal/proximal/medial

All pronouns function in any syntactic position without any inflection and are marked with postposition case particles. For example, the genitive particle *no* is attached to show possession, *kare no gitaa* 'his guitar' and *boku no sekinin* 'my responsibility,' and the dative case is marked primarily with *ni*, *kono gitaa wo kare ni ageta* 'I gave this guitar to him.'

As with the pronouns, the four plural suffixes *taci, ra, domo,* and *gata* can have additional meaning beyond plurality and can also be used with nouns that are lifeforms. However, outside of pronouns, plural suffixes are not necessary to indicate plurality (See section 2.2). *Taci* and *ra* are the most common with *domo* only used with some first and second person pronouns and *gata* only with second person. *Taci* can also express the associative plural. *Domo* always and *ra* sometimes can be used to add derogatory connotations when used with lifeforms. However, *domo* can also be used to add humility rather than plurality. *Wareware* is the only synchronic example of the plural being formed via reduplication and indicates an in-group membership, for example, as used by the head of a company to refer to all the company's employees including themself, but also may be used by a section of the employees to refer to themselves and not to the whole company.

2.1.2　Reflexive Pronouns *Saiki daimeishi*（再帰代名詞）

There is one reflexive pronoun *jibun* 'oneself' that can be made into a collective noun (similar to plural) using *tati* or *ra*, and it can be used for masculine and feminine. It can only be used with lifeforms as high or higher on the animacy hierarchy than mammals, excluding fish, reptiles, and insects (Akiyama and Akiyama 2002). The word *jishin* 'oneself' may be added but does not change the meaning of the term significantly (however, *jibunjishin* cannot take a plural marker). The reflexive tends to be used more often to refer to others using the case markers *de* and *no, jibun de kimenasai* 'decide for yourself' or *jibun no mono wo katazukenasai* 'pick up your own stuff.'

2.1.3　Demonstrative and Interrogative Pronouns 指示代 名詞と疑問代名詞

Demonstrative and interrogative pronouns define the four levels of spatial deixis conceptualized by the language known as *kosoado* in Japanese, a combination of the four roots *ko*, *so*, *a*, and *do*, each of which is used for all proximals, medials, distals, and indefinites respectively. The suffix alters to express thing, place, and casual/polite/anti-honorific person, for example medial *so* is given suffixes as follows, *sore* 'that', *soko* 'there', and *socci*, *socira*, and *soicu* 'he' at different levels of politeness (see table 4).

Table 4. Primarily used *kosoado* demonstrative and interrogative pronouns

Referent	Proximal	Medial	Distal	Indefinite
thing	*kore*	*sore*	*are*	*dore*
place	*koko*	*soko*	*asoko*	*doko*
person/place (casual)	*kocci*	*socci*	*acci*	*docci*
person/place (polite)	*kocira*	*socira*	*acira*	*docira*
person (anti-honorific)	*koicu*	*soicu*	*aicu*	*doicu*

In addition to pronouns, the *kosoado* system also includes adverbial terms *soo* 'that way, and

soNnani 'that much', as well as adnouns such as *ano basho* 'that place (far) over there.' For interrogative pronouns, in addition to the indefinite terms, question words are rounded out with a series of terms beginning with *i* and *na* roots (see table 5).

Table 5. Interrogative pronouns and other interrogatives

Root	Term	English	Part of speech
do	*dore*	which (persons, things)	pronoun
	doko	where	pronoun
	docci	which (of two choices)	pronoun
	docira	where, which (direction, preference)	pronoun
	donata	which person, who (polite)	pronoun
	dare	who	pronoun
	doosite	why	adverb
	doo	how	adverb
na	*nani, nan*	what	noun
	nan(nin)	how many (people)	noun
	naze, naNde	why	adverb
i	*icu*	when	noun
	ikucu	how many, how old	noun
	ikura	how much	adverb
	ikaga	how (about it)	adverb

In addition to the spatial deixis mentioned above, demonstrative pronouns can be used to refer to discourse. This is particularly confusing for L2 learners but primarily follows the following rules. In general, 1) proximals reference information new to the listener, 2) medials reference information mentioned by the listener but new to the speaker, 3) distals refer to information known by both speaker and listener, and to past experiences. Finally, and potentially most important, 4) distals may be used to refer to difficult to mention or taboo subjects, allowing the broaching of the topic without having to say it out loud.

2.2　Nouns名詞

Noun morphology is relatively straightforward compared to many languages as nouns do not inflect for gender, case, or number, nor do they have countable/uncountable distinction. Nouns function as the head of a noun phrase taking case markers to function as the subject, object, or predicate of a sentence. When in the predicate they require a copula (*desu* or *da*) as in *tomu wa takkyū sensyu desu* 'Tom is a ping pong player,' though the copula may be dropped in spoken language. Nouns may be modified by derivation and affixation, usually with rules based on whether the noun is of native, Sino-Japanese, or foreign origin. Reduplication is also common with native Japanese words as is a set of honorific suffixes and prefixes. This section will also cover noun plurality, formal nouns, numerals, classifiers, and adnouns known as *rentaishi* in Japanese.

2.2.1　Internal Structure内部構造

2.2.1.1　Compounding and Reduplication複合語と畳語

Nouns are words denoting a thing or idea made up of a minimum of one mora but can be compounded. Compounding is one of the most productive forms of word formation and can take place between nouns and any other major part of speech (Shibatani 2002). The most common type of noun compound is with two Sino-Japanese words, as in *tenken* 'inspection' or *sanka* 'attend' and Sino-Japanese compounding can be done almost with limit. Native compounding however is rarely longer than three or four elements, as in *hito + goroshi + ya* 'assassin.' Nouns virtually always follow the modifier-head structure with the modifier coming before the head noun.

Noun reduplication occurs almost only with native Japanese terms using the kanji doubling marker 々 as in 人々 *hitobito* 'people' and 山々 *yamayama* 'mountains', and is generally no longer productive except for a few modern examples made with foreign words.

2.2.1.2　Prefixation接頭辞

Prefixes that can be attached to nouns include the intensifiers: *ma* and *do* for native nouns, *ma-fuyu* 'mid-winter' *do-inaka* 'middle of nowhere', and *coo* and *dai* for sino-Japanese words *daihōgen* 'big dialect' *cōikemen* 'very handsome guy.' The Sino-Japanese and foreign prefixes are sometimes separated from the stem by a prosodic boundary containing pauses or glottal stops followed by a pitch reset. This is also the case with Aoyagi prefixes that are primarily of Sino-Japanese origin (Kageyama 2001). Negative prefixes include *fu*, *fumajime* 'a not hard worker' and *mu*, *mukankei* 'unrelated' and honorifics *o-*, *oisyasan* 'doctor' and *go, gokyōryoku* 'cooperation.'

Table 6. Most common nominal prefixes

Type	*Native stratum*	*Sino-Japanese stratum*	*Foreign stratum*
Intensifier/degree	*ma(ma?), do,oo*	*coo, dai*	*za, biggu, suupaa*
Negation		*fu, bu, mu, hi*	*noo, noN*
Honorific	*o, mi, oN*	*go, gyo*	

2.2.1.3　Suffixation and Plurality 接尾辞と複数形態

As previously mentioned, nominal suffixes can be attached to express plurality or honorifics and to denote a class of actor. While plural and honorific suffixes attach regardless of word type, actor terms can also be divided into native terms such as *ya, tabemonoya* 'eatery', Sino-Japanese terms *ka, senmonka* 'expert', or *maN* for foreign words such as *sararimaN* 'businessman.' Honorific suffixes include those for people of higher status, *sama* 'sir/madam', and same status *san* 'Mr./Mrs.', that are conveniently non gender specific. However, gender specific suffixes are used to mark younger males *kun* and females *cyan*, though *cyan* is frequently used with boys who are below an age of around four. Other uses do exist and may vary depending on the speaker and the situation. Nouns also have several highly productive adjectival suffixes including: *teki*, for example *kanjoteki* 'emotional'; *rasii, otokorasi* 'manly'; *ppoi, doroppoi* 'mudlike'; and *mitai, sacujingennba mitai na daidokoro* 'a kitchen that looks like a murder scene.'

As with the example of the doctor above in section 2.2.1.2, honorific prefixes and suffixes may be used together including with the addition of a plural suffix, *oisyasantaci* with the honorific suffix always preceding the plural suffix in this derivation form: (-honorary prefix) Stem (-honorific suffix) (-plural suffix), however, *ra* is rarely placed after an honorific suffix. Five basic rules can be assigned to describe the use of plural suffixes *taci* or *ra*:

1) Outside of pronominals, plural markers are non-obligatory. A bare NP can be either singular or plural. *dansei* 'man' can be 1 or 10 men.

2) *Taci* marks plurality. *Danseitaci* can only be 2 or more men.

3) When speaking in general, for example, Japanese people or baseball players. When no contrast or other distinctions exist, adding a plural suffix is unnecessary (Nakanishi & Tomioka 2002). *nihonjin wa majime* '(the) Japanese are hardworking' **nihonjintaci wa majime*

4) *Taci* can have a pure plural meaning. *gakuseitaci* 'a number of students' and an approximate plural interpretation, *Tarotaci* 'Taro and his associates'

5) *Taci* contains other peculiarities (see Tomioka 2019) but cannot be used for non-animate lifeforms or inanimate objects. **kitaci* 'trees', *aritaci* 'ants'

2.2.2　Formal Nouns (Including Nominalizers) 形式名詞

Formal nouns are nouns that through time and the process of grammaticalization have been bleached of their original meaning and are used to perform grammatical functions, although most can still be used for their original noun meaning as well. While some of the most commonly occurring formal nouns are the key nominalizers *mono* 'thing (physical)' and *koto* 'thing' (abstract), formal nouns are used to perform the following functions: subordinator, aspectual, evidential, and modal in addition to nominalizer (see table seven).

Table 7. Common formal nouns

Form	Meaning	Grammatical function
aida	interval	Subordinator
cumori	intention	Modality
hazu	knock of an arrow	Modality
kagiri	limit	Subordinator
koto	thing (abstract)	Nominalizer
mono	thing (physical)	Nominalizer
soo	unkown	Evidentiality
toki	time	Subordinator

2.3　Numerals and Classifiers 数詞と類別詞

SJ utilizes both native and Sino-Japanese numbers. The Japanese native terms proceed from 1 to 10 and can be used in bare form or as count numbers *hito* or *hitocu*. The Sino-Japanese terms continue indefinitely with terms for 100, 1000, 10,000 and then in powers of 10,000. Numerals and classifiers function as nouns in Japanese as they can be the head of an NP, take case markers, take

a copula, and modify nouns in the typical modifier-noun structure.

> *hyaku nin ni hitori ga kaigai ni sumu* 'one in one hundred people lives overseas.' Here *hitori* is the head taking the nominal case marker *ga.*
> *sono futacu wo tanomimashō* 'Let's order these two dishes.'
> Here *futacu* takes the accusative case marker *wo* as the object of the sentence.
> *sono sensei no saiyō ni hantai shita nowa futari da.* 'Two people were against hiring the professor.' Here *futari* functions as the subject and takes the copula *da.*

Classifiers can be divided into two types, endocentric and exocentric. Endocentric classifiers, also known as measure words, form a single compound word when put together with a number, *go+meetoru* 'five meters', *yon+kai* 'four times', and *nana+jikan* 'seven hours.' Exocentric classifiers on the other hand refer to a third party and are thus seen as affixes: (*zō) san-tō* '3 (elephants)', *(neko) ni-hiki* '2 (cats)', *(tori) go-wa* '5 (birds). There are over 200 classifiers and some can offer glimpses into cultural values of the Japanese, such as the counter for bathtubs *oke*. However, more often the general classifiers based on shapes are used (see table 8). Additionally, while many classifiers use the Sino-Japanese counting system, some terms including *oke* use the native Japanese numbers, *hito oke, futa oke* 'one tub, two tubs.' In other exocentric classifiers both the number system and the classifier can change depending on the number, *hitori, futari, sannin, yonin,* '1 person, 2 people' with Japanese numbers and '3 people, 4 people' in Sino-Japanese.

Table 8. Most Common Inanimate Japanese Classifiers

個 (ko): used for small items, dice, paperclips, etc.; 1 個 (ikko), 6 個 (rokko), 8 個 (hakko),
冊 (satsu): used for volumes, books, magazines, etc.; 1 冊 (issatsu); 10冊 (jissatsu/jussatsu)
台 (dai): used for machinery, cars, vending machines, etc.
杯 (hai): used for drinks, beer, coffee, etc.; 1 杯 (ippai), 3 杯 (sambai), 6 杯 (roppai),
泊 (haku): used for overnight stays; 1 泊 (ippaku), 3 泊 (sampaku), 6 泊 (roppaku),
本 (hon): used for long cylindrical objects (pens, bottles, etc.); 10本 (jippon/juppon)
枚 (mai): used for thin sheets, paper, record sleeves, etc.

2.4　Adnouns 連体詞

Adnouns known as *rentaishi* are a class of modifiers that modify nouns without taking adnominalizer particles. They are the fossilized remains of nouns, adjectives, and verbs that alone can remain in the adnominal position without requiring case marking. This unique characteristic distinguishes them from other parts of speech illustrated here with the only modifier *kono* not requiring a case marker:

> kore wa *kare no hon desu* 'this is his book'
> *kono hon wa boku no hon desu* 'this is my book'

The most common examples are with *kono,* 'this' *sono,* 'that' and *ano* 'that over there' as well as *aru* 'a certain' *aru hito* 'a certain person' *aru toki* 'a certain time' (Irwin, and Zisk 2019: 53).

3 .Verbal Morphology 動詞形態論

Standard Japanese (SJ) verbs (*dousi*) generally denote an action (*tabe-ru* 'eat') or a state of being (*ar-u* 'be,' *sobie-ru* 'tower over').

Japanese verbs exhibit synthetic agglutinative verbal morphophonology. A verb stem has no grammatical meaning on its own but can take a variety of inflectional endings to express grammatical meaning (such as tense, aspect, modality, negation, and valency changing operations) and follow a set of morphophonological rules when doing so. These inflectional endings are clearly segmentable and have a one-to-one relationship between the inflectional ending and their category (=synthetic agglutination), as illustrated in the following example (cf. Irwin & Zisk 2019):

(1)

> *tabe-sase-rare-mas-i-ta-i*
> eat-CAUS-PASS-POL-THM-DES-NPST
> '(I) want to be force fed,' (lit. '(I) want to be made to eat')

3 . 1　Verb Stem Inflectional Classes 語幹の屈折クラス

SJ verbs can be classified into two major classes with two additional 'irregular' classes consisting of one verb each. They differ with respect to their inflectional suffix inventories. The first major class is consonant-stem (CS) verbs, whose stems end in in the consonants /k, g, s, t, n, b, m, r/; and vowel-stem (VS) verbs, whose stems end in either /i/ or /e/. The irregular classes are the S-irregular class and the K-irregular class, consisting of one verb each, which demonstrate stem alternation. The table below presents an example of a verb from each class in the basic (declarative nonpast)[2] and imperative forms.

Table 1. The four verbal classes of Standard Japanese (SJ)

Verb Class	Declarative nonpast	Imperative form
Consonant-stem verbs	*ik-u* 'go'	*ik-e* 'go!'
Vowel-stem verbs	*tabe-ru* 'eat'	*tabe-ro* 'eat!'
S-irregular verb	*su-ru* 'do'	*si-ro* 'do!'
K-irregular verb	*ku-ru* 'come'	*ko-i* 'come!'

3 . 1 . 1　CS and VS Verbs 子音語幹と母音語幹の動詞

In traditional Japanese linguistics, CS verbs are referred to as pentagrade verbs (*godan doushi* 五段動詞) and VS verbs are referred to as monograde verbs (*ichidan doushi* 一段動詞). In L2 learning materials for English speakers, the former are referred to as 'u-verbs' and the latter as 'ru-verbs.'

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2 ）Verbs are generally given in dictionaries, and discussed metalinguistically, in this form.

It should be noted that some verbs whose stems end in a vowel are actually treated as CS verbs due to a series of historical sound changes in which intervocalic *p lenited to w or disappeared entirely. This group consists of verbs such as a-u 'meet' (<OJ *ap-u), i-u 'say' (<OJ *ip-u), su-u 'suck, inhale' (<OJ *sup-u), and omo-u 'think' (<OJ *omop-u). This group can be called 'old p-stems.' Old p-stems are distinguishable from vowel-stem verbs by observing their basic forms: old p-stems take -u while vowel-stem verbs take -ru (giving rise to the above-mentioned terms in L2 learning materials).

There are also a number of consonant-stem verbs whose stem ends in -r that appear identical to vowel-stem verbs in their basic forms; compare, for example, kir-u 'cut' (CS verb) and ki-ru 'wear' (VS verb). Native speakers and L2 learners alike must memorize which inflectional class each verb belongs to.

3.1.2　Irregular Classes 不規則動詞
In the S-irregular-class, the stem alternates between se~si~su (meaning 'do') while in the K-irregular class, the stem alternates between ko~ki~ku (meaning 'come') as outlined in Table 2.

3.2　Inflectional Morphology 屈折の形態論
Verb suffixes can be broadly divided into four groups: adnominal-conclusive suffixes, conclusive suffixes, adverbial suffixes (sometimes called converbs [3]), and nominalizing suffixes. Adnominal-conclusive suffixes can form a verbal predicate at the end of a clause or modify an NP. Conclusive suffixes can only come at the end of a clause. Adverbials form subordinate or cosubordinate clauses. Nominalizers change a verb into a noun.

3.2.1　Finite and Non-finite Verbal Inflection 定動詞と不定動詞の屈折

SJ has finite vs. non-finite distinction in verb inflection.

3.2.2　Finite Inflection 定動詞の屈折
Finite-verb inflectional endings convey tense and can stand at the final position of a main clause, performing either predication or an adnominal function. On the other hand, non-finite inflections lack tense and only stand in the final position of a subordinate clause. These two groups can be called mandatory final suffixes because they obligatorily appear at the end of a string of other, non-obligatory suffixes.

The finite verbal inflectional categories can appear in adnominal-conclusive or conclusive environments. Inflectional suffixes that can appear in the former consist of nonpast, past, and, while suffixes that can appear in the latter consist of the conjectural-hortative, imperative, and prohibitive. Examples are given in the table below for each verbal class.

3）Converb is a blanket term that refers to a non-finite verb form marking adverbial subordination.

Table 2. Japanese finite verb inflectional endings

Inflectional label	Consonant stem kak- *'write'*	Vowel stem tabe- *'eat'*	S-irregular se-~si-~su- *'do'*	K-irregular ko-~ki-~ku- *'come'*
NPST	-u *kak-u*	-ru *tabe-ru*	-ru *su-ru*	-ru *ku-ru*
NEG NPST	-[a]-na-i *kak-a-na-i* write-THM[4)]-NEG-NPST	-na-i *tabe-na-i* eat-NEG-NPST	-na-i *si-na-i* do-NEG-NPST	-na-i *ko-na-i* come-NEG-NPST
PST	-ta *kat-ta*	-ta *tabe-ta*	-ta *si-ta*	-ta *ki-ta*
NEG PST	-[a]-na-katta *kak-a-na-katta* write-[THM]-NEG-PST	-na-katta *tabe-na-katta* eat-NEG-PST	-na-katta *si-na-katta* do-NEG-PST	-na-katta *ko-na-katta* come-NEG-PST
CJT	-oo *kak-oo*	-[y]-oo *tabe-y-oo*	-[y]-oo *si-y-oo*	-[y]-oo *ko-y-oo*
IMP	-e *kak-e*	-ro *(E. Japanese)* *tabe-ro* -yo *(W. Japanese)* *tabe-yo*	-ro *si-ro*	-i *ko-i*
PRH	-una *kak-una*	-runa *tabe-runa*	-runa *su-runa*	-runa *ku-runa*

３.２.３　Non-finite Inflection 不定動詞の屈折

Non-finite verb inflectional categories include the infinitive, the sequential (one function of the so-called '*te*-form'), representative, perfective conditional, provisional conditional, purposive, and concessive-simultaneous. Examples are given below for each verbal class.

Table 3. Japanese non-finite verb inflection categories

Inflectional label	Consonant stem kak[5)]- *'write'*	Vowel stem tabe- *'eat'*	S-irregular se-~si-~su- *'do'*	K-irregular ko-~ki-~ku- *'come'*
INF	-[i]- ∅ *kak-i-* ∅	- ∅ *tabe-* ∅	- ∅ *si-* ∅	- ∅ *ki-* ∅
SEQ	-[i]-te *kai-te*	-te *tabe-te*	-te *si-te*	-te *ki-te*
REP	-[i]-tari *ka-i-tari*	-tari *tabe-tari*	-tari *si-tari*	-tari *ki-tari*
COND	-[i]-tara *ka-i-tara*	-tara *tabe-tara*	-tara *si-tara*	-tara *ki-tara*
PRV	-eba *kak-eba*	-[r]-eba *tabe-reba*	-[r]-eba *su-reba*	-[r]-eba *ku-reba*
PURP	-[i]-ni *kak-i-ni*	-ni *tabe-ni*	-ni *si-ni*	-ni *ki-ni*
SIM	-[i]-nagara *kak-i-nagara*	-nagara *tabe-nagara*	-nagara *si-nagara*	-nagara *ki-nagara*

4 ） An explanation for the treatment of vowels and consonants enclosed in square brackets [ ] in this chart is given in section 3.2.4 Thematic Vowels and Consonants.

5 ） See section 3.2.5 Onbin rules for an account of why the stem-final consonant of consonant stem verbs gets deleted before certain inflectional suffixes.

3.2.4　Thematic Vowels and Consonants 語幹拡張母音・子音

Historically, sequences of vowels (VV) or consonants (CC) were phonotactically illicit in the native (和語) stratum of Japanese vocabulary. Thus, a consonant stem verb could not take suffixes beginning in a consonant and vowel stem verbs could not take suffixes beginning in a vowel. These inflectional restrictions still stand (other than old-*p* stems). Therefore, in order for an inflected verb to be phonotactically licit, a consonant or vowel must be inserted between the stem and suffix. There exist two vowels (*a* and *i*) and three consonants (*r, s, y*) in this category. These elements are marked in brackets [ ] in the above tables. These added sounds are further demonstrated in the following example, with the inserted element glossed as '?' (to be revised):

(2)

　　ik-[a]-na-i
　　go-?-NEG-NPST
　　'(I) do not/will not go'

There has been considerable debate in the typological literature regarding whether these vowels and consonants belong to the stem at the lexical level (thus treating *ika-* as an allomorph of *ik-*), to the suffix (treating *-ana-* is an allomorph of *-na-*), or as an independent morpheme. Tranter and Kizu (2012) consider them to be a component of the suffix, with Irwin & Zisk (2019) referring to these elements as 'union vowels and consonants' and treating them as part of the suffix as well, to give an example of a common approach in the recent English-language literature.

There are however some arguments against such an approach. Firstly, there is little reason to consider the inserted consonants in question simply as epenthetic elements arising from phonotactics, since there are actually no phonotactic restrictions on sequences of vowels in modern SJ:

(3)
　　a. /ia/: siawase (幸せ) 'happiness', kiai (気合い) '(fighting) spirit'
　　b. /ea/: deai (出会い) 'meeting, encounter'

Instead, following the work of Shimoji (2009, 2017, 2018) and Miyaoka (2019), these elements can be considered thematic consonants and vowels (glossed THM). Thematic consonants and vowels are independent morphemes whose function is to expand the verb stem. Similar examples are found in various languages of the Indo-European, Austronesian, and Caucasian language families.

Another piece of evidence for the thematic consonant and vowel approach can be found by examining infinitival forms:

(4)
　　a. V-stem:
　　　tabe-∅

　　　eat-INF

　　b. C-stem:
　　　kak-i
　　　write-INF

　　c. C-stem:
　　　kak-i-∅
　　　write-THM-INF

Analyzing *-i* as belonging to the suffix as in (b) is problematic since it requires a distinct INF form from (a); namely, a zero morph -∅ for vowel stem verbs alternating with *-i* for consonant stem verbs. However, if the inserted vowel is treated as independent of the suffix, then the inflectional INF suffix can be harmonized as -∅, eliminating the need for arbitrary allomorphic variation. The thematic vowel approach as in (c) harmonizes the infinitive structure of the two verb classes.

3.2.5　*Onbin* Rules 音便

When taking the PST *-ta* and SEQ *-te* suffixes, consonant stem verbs do not take a thematic vowel due to the fact they have undergone systematic sound changes known as *onbin* (音便, 'euphonic changes'), which began in approximately the 9th century, to produce the currently observed forms. The *onbin* rules for SJ verb inflection are summarized as follows:

Table 4. *Onbin* rules (Zisk 2023)

CS verb stem-final consonant	Stem-final consonant alternation				Voicing of -te ~ -ta	Examples (-PST)
	→si	→(∅)i	→C	→N		
s	✓					*sas-u*→*sasi-ta*
k		✓				*kak-u*→*ka(∅)i-ta*
g		✓			✓	*kog-u*→*ko(∅)i-da*
t			✓			*kat-u*→*kat-ta*
r			✓			*ar-u*→*at-ta*
∅ (old *p*-stems)			✓			*a-u*→*at-ta*
b				✓	✓	*yob-u*→*yoNda*
m				✓	✓	*yom-u*→*yoNda*
n				✓	✓	*sin-u*→*sin-da*

3.2.6　Auxiliary Constructions 助動詞

Auxiliary verbs follow main verbs and express various grammatical meanings. One type connects with the main verb via the *-te* (SEQ) form, another type connects directly to the stem. Auxiliaries express aspectual, diathetic (pertaining to voice), benefactive, modal, and negative meanings. A common example is *-te i-ru*, which can express the progressive, perfect, habitual, and stative

aspects. Similarly, *-te ar-u* expresses the stative aspect, but only for inanimate objects. *-te ok-u* (expressing an action done in preparation or at the request of another) and *-te sima-u* (expressing an action that is irreversible once completed) are also very common.

Table 5. Sequential *-te* auxiliary constructions

Category	Form	Lexical meaning	Function	Example
Aspectual	*-te ar-u*	exist	Inanimate perfect	*gohan-ga tukut-te ar-u* meal-NOM make-SEQ be-NPST 'The meal has been made'
	-te i-ru	be	Progressive, perfect, habitual, stative (rare, contracted to -teru PROG)	*ringo-wo tabe-te i-ru* apple-ACC eat-SEQ be-NPST 'I'm eating an apple' mou jonde-iru mainichi jonde-iru 'Kindaichi Type IV' verbs[6]
	-te ik-u	go	Departing action (exocentric)	*nedan-GA fue-te ik-u* price-NOM increase-SEQ go-NPST 'The price will increase continuously'
	-te ku-ru	come	Incoming action (endocentric)	*nedan-ga sagat-te k-u-ru* price-NOM decrease-SEQ go-THM-NPST 'The price will decrease continuously'

3.2.7　Compound and Complex Verbs (V-V Complexes) 複合動詞

　Japanese exhibits verb compounding (or V-V complexes following the terminology of Kageyama 2013), which can be broadly divided into syntactic types such as *ame ga furi-kakeru* 'starting to rain,' and lexical types such as *ame ga furi-yamu* 'stop raining'. Lexical verb compounds are learned 'as-is' with the auxiliary being generally unproductive and oftentimes possessing idiosyncratic meanings, whereas syntactic compounds are generally productive and readily interpretable. Thus, a syntactic compound forming auxiliary such as *kakeru* 'be about to' can attach to virtually any other verb; whereas the component *yamu* 'stop' is limited to certain lexical compounds. To express generally the same idea with a syntactic compound, an alternative such as *owaru* 'end' can be substituted instead, as in *tabe-owaru* 'finish eating.'

　Lexical and syntactic compounds observe the following ordering conditions:

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6) Kindaichi's (1950) Type IV verbs express an attribute or quality, similar to adjectives, when used together with *-te i-ru*. They almost never appear in their nonpast form without *-te i-ru*: *sobie-te i-ru* 'tower over', *sugure-te i-ru* 'excel', *ni-te i-ru* 'resemble.'

(5)

    A. [[lexical]-syntactic]

    ame-ga [[furi-yami]-kake-ru]
    rain-NOM [[rain-stop]-be.about.to-NPST]
    "It is about to stop raining"

    B. *[[syntactic]-lexical]

    *ame-ga [[furi-kake]-yamu]
    rain-NOM [[rain-be.about.to]-stop]
    ??

The following table presents a variety of auxiliary constructions (including syntactic compounds).

Table 6. Auxiliaries

Category	Form	Lexical meaning	Function	Example
Aspectual syntactic compound auxiliaries	*tsukus-u*	expend	Expended completive	*ume-tsukus-u ('fill to capacity')*
	tsuzuke-ru	continue	Continuative	*yom-i-tsuzuke-ru ('continue reading')*
	hajime-ru	start	Inchoative	*tsukur-i-hajimeru ('start making')*
	kir-u	cut	Completive	*tsuka-i-kir-u ('use up, exhaust')*
	makur-u	roll up	Iterative	tabe-makur-u ('binge eat')
	naos-u	fix	Revisional	yar-i-naos-u ('do over')
Diathetic auxiliaries	a-u[7]	match up	Reciprocal, harmonious	*hanas-i a-u ('discuss together')*
	-ku su-ru	do	Causative verbalizer (following adjectives)	*taka-ku su-ru* tall-INF do-NPST ('make (something) tall')
Modal auxiliaries	*e-ru ~ uru*	attain	Potential	*keturyuu-wo kaizen-shi-uru yakuzai ('drugs capable of improving circulation')*
	gata-i	solid	Universal labourative ('hard for anyone to do')	*wasure-gata-i jiken-ga okot-ta ('an unforgettable event occurred')*
	-te mi-ru	see	Attemptive, exploratory	*tsukat-te mi-ru ('try and see')*
	yasu-i	peaceful	Facilitative, frequentative	*yuka-ga suber-i-yasu-i ('the floor is slippery'=lit. 'easy to slip on')*
	zura-i	painful	Intimate labourative ('physically or mentally painful to do')	*shitsumon-ga wakar-i-zura-i* ('the question is difficult to comprehend')

Unlike English auxiliaries such as *may* or *can*, which have undergone full grammaticalization, in

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7) This is also a syntactic compound.

the case of nearly all Japanese auxiliaries, it is possible to identify the lexical meaning with the function (i.e., *-te ok-u* can be thought of 'placing an action' in advance or for the time being, or *-te sima-u* as 'putting away' or 'closing' an action such that it cannot be undone).

3.3　Derivational Verbal Morphology 派生形態論

3.3.1　Stem-expanding Derivation (Valency Changing Operations) 語幹を拡張する派生（使役，受動，尊敬など）

Non-final verbal suffixes are used for derivation, a word-building process in which the word class or lexical meaning of the base form is modified. These suffixes create additional stems upon which further suffixes can be added. This group includes valency-changing suffixes and polite language categories. These suffixes are summarized as follows, with 'slot' referring to the obligatory order in which they may appear after the stem.

Table 7. Example of slots in the derivation chain

	Root	*Slot 1*	*Slot 2*	*Inflection*
Example	*tabe*	*sase*	*rare*	*ta*
Function	eat	CAUS	PASS	PST
Meaning	'(I) was forced to eat.'			

Table 8. List of non-final derivational suffixes

Category	*Form*	*Slot*	*Type (verb or verbal adj.)*	*Final suffixes*
CAUS	*(-[s])-ase-ru*	1	verb	All
PASS	*(-[r])-are-ru*	2	verb	All
POT	*-e-ru ~ -(ra)re-ru*	2	verb	All
AHON	*(-[i])-yagar-u*	3	verb	All
DES	*(-[i])-ta-i*	4	adjective	All (rarely nominalizers)
NEG	*(-[a])-na-i*	4	adjective	All (rarely nominalizers)
POL	*(-[i])-mas-u*	4	verb	Most

The 'slots' here are merely possibilities; they need not all be filled. A (highly sarcastic) example of a maximally filled suffix string might look something like the following (Irwin & Zisk 2019):

(6)

　?tabe-sase-rare-ta-gar-iyagar-imas-u
　eat-CAUS-PASS-DES-VBLZ-AHON-POL-NPST
　'F**** want to be made to eat'

3.3.2　Part-of-speech-changing Derivation 品詞を変える派生（名詞語幹化，形容詞語幹化など）

Japanese verbs can take a number of nominalizing suffixes as summarized in the following table:

Table 9. Verb nominalizers

Nominalizers	Abbreviation	Example
Evidential nominalizer	EVDNM	*(-[i])-soo*
(De)verbal nominalizer	NMLZ	*(-[i])* *kaer-i=no šiNkaNseN* ('return shinkansen')
Instrumental nominalizer		*(-[i])-kata* *(-[i])-yoo* *tabe-kata* ('way of eating')
Tendential nominalizer		*(-[i])-gati* *kaze-ni kansen-shi-gati de-aru* ('tendency to catch colds')

3.4　Special Verbs 特殊な動詞

A small number of SJ and foreign borrowings may also take the suffix *-r-u* and function as consonant-stem verbs: *gyuuji* 'leader, lit. ears of an ox' → *gyuuji-r-u* 'control,' *memo* 'memo, note' → *memo-r-u* 'take notes,' *panikku* 'panic' → *paniku-r-u* 'to panic, to freak out.'

Finally, in rare cases, a foreign borrowing already ending in *ru* may be reanalyzed as a consonant-stem verb: *guuguru* 'Google' → *gugur-u* 'to google.'

3.4.1　Existential Verbs, Stative Verbs, Copulas 存在動詞・状態動詞・コピュラ動詞

Stative verbs express a state of being, unbound to progression. The two main stative verbs are the inanimate *ar-u* 'exist' and animate *i-ru* 'be.' These two stative verbs cannot take the progressive aspectual marker *-te i-ru*, just as an English stative verb such as *know* cannot typically take *-ing* (in most dialects).

One well-known way of capturing the distinction between stative/existential Japanese verbs and others is to divide them into two main groups following Kudo (1995): static and dynamic verbs. Static verbs express a state of being, attribute, or quality, whereas dynamic verbs express a physical action. Dynamic verbs are said to express verbal aspect in the traditional sense, while static verbs express no aspect; they are not bound to progression.

Table 10. Kudo's (1995) Japanese verb classification schema

Verb Type Definition			Example	Aspectual expression with SEQ AUX construction -te i-ru
Static	Not bound to progression (does not express aspect)		*tora-ga san-biki i-ru* tiger-NOM three-CNT be-NPST 'There are three tigers'	N/A
Dynamic	Expresses an action (expresses aspect in the traditional sense); divided further into three sub-categories semantic and aspectual grounds:	Subject-acting-and-object- modifying (SA+OM)	*doa-wo ake-ru* door-ACC open(tr.)-NPST	Progressive or perfect
		Modifies the state of the object through the subject's actions.	'I open the door'	
		Subject-modifying (SM)	*neuchi-ga agar-u* value-NOM rise(int.)-NPST	Perfect (agat-te i-ru 'risen', koware-te ir-ru 'broken') only
		Modifies only the state of the subject.	'(Something) appreciates in value'	
		Subject-acting (SA)	*bara-no nioi-wo kag-u* rose-GEN fragrance-ACC sniff-NPST	Progressive (ugokaši-te i-ru 'moving', kai-de i-ru 'sniffing') only
		Expresses an action by the subject that does not (directly) modify the state of the object.	'I sniff the rose'	

3.4.2 Light Verb Constructions 軽動詞 (「する」など)

Foreign borrowings and Sino-Japanese words can only function as verbs through derivation to become so-called nominal verbs/verbal nouns. These nouns are followed by the verb *su-ru*, 'do': *benkyou+su-ru* 'study, lit. do studying,' *ranningu+su-ru* 'go running, lit. do running.' This use of *su-ru* is referred to as a light verb because it relies on the previous element for semantic content.

4. Conclusion

The verb section of this paper has presented a detailed overview of Japanese verbal morphology, which exhibits considerable complexity and presents numerous challenges for the uninitiated. Furthermore, the agglutinative nature of Japanese means that a significant amount of grammatical functionality is expressed through verbal inflectional and derivational morphology. The breadth and nuance of Japanese verbal morphology is often given an extremely cursory treatment in L2 materials, leaving the L2 learner alone in trying to make sense of a very complex system on his or her own. To repeat the first example of the verb section, an utterance consisting of a single inflected verb can constitute a 'full sentence' in SJ:

(7)

tabe-sase-rare-mas-i-ta-i

eat-CAUS-PASS-POL-THM-DES-NPST

'(I) want to be force fed,' (lit. '(I) want to be made to eat')

Combined with the obligatory argument drop behavior as outlined in the noun section, the Japanese sentence can pose challenges for L2 learners, particularly those whose first language is English.

To reexamine another example, although the notion of lexical and syntactic compounds is largely ignored in L2 materials, a reader of this paper should be equipped to identify any he or she might encounter 'in the wild' and use this knowledge to produce natural utterances. Lexical and syntactic compounds are again summarized here:

(8)
　　Lexical compound using *ageru* 'finish'
　　　　Features:
　　　　・Idiosyncratic meaning (the literal meaning of *ageru* is 'raise up')
　　　　・Unproductive; *ageru* can only appear in a limited set of lexical compounds

　　　　Example:
　　　　・*tebukuro=o ami-age-ta*
　　　　　gloves=ACC knit-finish-PST
　　　　　'(I) finished knitting gloves'

　　Syntactic compounds using *owaru* 'finish'
　　　　Features:
　　　　・Meaning is easily interpretable (*owaru* means 'finish')
　　　　・Productive; *owaru* can readily appear in a compound with virtually any other verb

　　　　Examples:
　　　　・*hon=o yomi-owat-ta*
　　　　　book=ACC read-finish-PST
　　　　　'(I) finished reading a book'

　　　　・*yuuhaN=o tabe-owat-ta*
　　　　　dinner=ACC eat-finish-PST
　　　　　'(I) finished eating dinner'

　　　　・*biiru=o nomi-owat-ta*
　　　　　beer=ACC drink-finish-PST
　　　　　'(I) finished drinking a beer'

While an exhaustive pragmatic description of Japanese nominal use was beyond the scope of this paper, it was described with examples of how appellative nouns, pronouns, and plural suffixes are integral to successfully navigating the boundaries of insulting and bonding in the language. The sometimes murky waters of the counting systems have also been defined in a concise way that should allow an easier digestion of the classifier system to those keen to investigate it more deeply.

It is the authors' hope that this resource will enable the L2 learner to more easily make sense of natural Japanese discourse as well as media Japanese found in film and drama through a comprehensive description of SJ nouns and verbs.

MORPHEME GLOSS LIST FOR VERB SECTION

Abbreviation	Meaning
ACC	Accusative case
AHON	Anti-honorific
CAUS	Causative
CJT	Conjectural
CNT	Counter
COND	Conditional
DES	Desiderative
EVDNM	Evidential nominalizer
GEN	Genitive case
IMP	Imperative
INF	Infinitive
NEG	Negative
NMLZ	(De)verbal nominalizer
NPST	Non-past
PASS	Passive
POL	Polite
POT	Potential
PRH	Prohibitive
PROG	Progressive
PRV	Provisional conditional
PST	Past
PURP	Purposive
REP	Representative
SEQ	Sequential
SIM	Conccessive-simultaneous
VBLZ	Verbalizer

REFERENCES

Akiyama, Nobuo, and Carol Akiyama. 2002. Japanese Grammar. 2. edition. Hauppauge, N.Y: Barron's Educational series.

Brown, Penelope, and Stephen C. Levinson. 1987. Politeness: Some Universals in Language Usage. Studies in Interactional Sociolinguistics 4. Cambridge [Cambridgeshire]; New York: Cambridge University Press.

Guay, Matthew L. 2020. "Murakami Haruki's Translation Style and the Visibility Paradigm in the Japanese Context." Electronic Journal of Contemporary Japanese Studies 20 (2).

Irwin, Mark, & Zisk, Matthew. 2019. *Japanese Linguistics*. Asakura Publishing.

Kinuhata, Tomohide. (Ed.). 2019. *Kiso nihongogaku (Basics of Japanese Linguistics)*. Hitsuji Shobo̅.

Miyaoka, Hiroshi. 2019. *Nihongo ni okeru Shiin Gokan Doushi no Keitai Kouzou: Gokan Kakuchou Boin tosuru Bunseki (Morphological Structure of Japanese Consonant-Stem Verbs: A Stem- Extender Vowel Analysis)*. (BA dissertation).

Nakanishi, Kimiko and Tomioka, Satoshi. 2002. "On Japanese Associative Plurals," North East Linguistics Society: Vol. 32 , Article 8. Available at: https://scholarworks.umass.edu/nels/vol32/iss2/8

Shibatani, Masayoshi. 1990. *The Languages of Japan*. Cambridge University Press.

Shimoji, Michinori. 2008. *A Grammar of Irabu, a Southern Ryukyuan Language*. Department of Linguistics, Research School of Pacific and Asian Studies, ANU. Advisors: Malcolm Ross, Andrew Pawley, Peter Hendriks.

Shimoji, Michinori. 2017. *A Grammar of Irabu, a Southern Ryukyuan language*. Fukuoka: Kyushu University Press.

Shimoji, Michinori. 2018. *Dialects*. In Hasegawa, Yoko, ed., *Handbook of Japanese Linguistics*, 87-113, Cambridge: Cambridge University Press.

Tranter, Nicolas, & Kizu, Mika. (2012). *10: Modern Japanese*. In N. Tranter (Ed.), *The Languages of Japan and Korea* (pp. 279-284). chapter, Routledge.

Zisk, Matthew. 2023. List of Japanese Functional Morphemes. Available at: https://www.academia.edu/92091701/List_of_Japanese_Functional_Morphemes_2023_08_20_

工藤真由美．1995．アスペクト，テンス体系とテクスト―現代日本語の時間と表現―．ひつじ書房．

金田一春彦．1950．国語動詞の一分類．言語研究 15: 48-63.