

**AN LFG ACCOUNT OF THE COMPOUND PARTICLE
TOIUNO IN SPONTANEOUS JAPANESE**

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Abstract

Compound particles are an integrated unit of words that serves as a particle. This paper reveals novel characteristics of *toiuno* based on the Corpus of Spontaneous Japanese. In particular, (i) the selectional restriction on the compound particle *toiuno* is much more flexible than the composed counterpart *to-iu-no*, and (ii) the compound particle *toiuno* exhibits the ambivalence regarding the “head” and the “bound” status. These structural properties are naturally handled in LFG, with special reference to the DOM(INANT) attribute in line with Falk (2001).

1 Introduction¹

“Compound particles” (複合辞) have recently been extensively explored in Japanese linguistics (Fujita & Yamazaki 2006). This paper contributes to this growing body of research by presenting novel data of the compound particle *toiuno* based on a dialogue corpus and also by developing a formal account within the framework of Lexical-Functional Grammar (LFG).

Section 2 clarifies the notion “compound particle” and gives a preliminary characterisation of the compound particle *toiuno*. The following two sections, Sections 3 and 4, draw novel observations regarding structural/interpretive aspects of *toiuno* based on the Corpus of Spontaneous Japanese, setting out two syntactic puzzles: (i) the “flexibility” issue and (ii) the “ambivalence” issue. These puzzles are formally addressed in Section 5 within LFG, with special reference to the DOM attribute (Falk 2001). Finally, the main results of the paper are summarised in Section 6.

2 The Compound Particle *Toiuno*

A unique feature of Japanese is that it exhibits a great number of compound particles. A compound particle is an integrated cluster of words which, as a whole, behaves as a particle and has its own meaning/function irreducible to the semantic compositions of each item (Matsuki 1990: 35). As admitted in Matsuki (1990: 49), this definition is vague in some respects; in fact, it is not fully obvious how compound particles are clearly differentiated from idioms

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and constructions. Nevertheless, it offers a good starting point of explicating the notion of compound particles (Fujita 2006).

Compared with other verbs in Japanese, *iu* ‘say’ is exceptional in that it has given rise to a huge number of compound particles (Sunakawa 2006a), bringing about extensive research (Kim 1989, Masuoka 2012, Matsuki 1990, 2006, Nakahata 1990, Oshima 2010, Sunakawa 2006a, 2006b, Takahashi 1994, Takahashi 1996, Terakura 1983). A specific example of a compound particle that involves the verb *iu* is *toiuno*, as illustrated in (1).²

- (1) *Tom-wa* [*guaba toiuno*]-*o* *tabeta*
 Tom-TOP [guava TOIUNO]-ACC ate
 ‘Tom ate the thing called guava.’

In (1), *toiuno* may be interpreted as ‘the thing called,’ as in ‘the thing called guava,’ though this may not be appropriate for other instances of *toiuno*. In this paper, *toiuno* is simply glossed as TOIUNO because the main focus of our investigation is its syntactic aspects.

The compound particle *toiuno* is literally formed by a combination of three words: the complementiser *to*, the verb *iu* ‘say,’ and the nominaliser *no*. The linearly ordered three words may form the composed counterpart *to-iu-no*, as in (2). This counterpart of the compound particle *toiuno* is called the *no*-nominalisation *to-iu-no*.

- (2) [[*kare-ga baka da to*] *iu no*]-*wa* *hidoi*
 [[he-NOM stupid COP COMP] say NO]-TOP mean
 ‘Saying that he is stupid is mean.’

The complementiser *to* marks clause-embedding, and the embedded clause is selected as a complement by the verb *iu*, and it is finally nominalised by the particle *no*. That is to say, the nominaliser *no* turns the preceding clause *kare-ga bakada to iu* into a nominal that denotes the action ‘to say that he is stupid.’ Despite this decomposition in (2), native speakers of Japanese would feel that *toiuno* in (1) constitutes a fixed expression and that the whole complex *toiuno* functions as a particle, where the meaning of the verb *iu* ‘say’ is bleached. This intuition is orthographically reflected: the compound particle *toiuno* is notated in “hiragana” characters (というの), whereas the *no*-nominalisation *to-iu-no* is often written in “kanji” characters (と言うの). This orthographical distinction is also attested in a corpus used for my research (see Section 3). Further, they are also distinguished in terms of prosody, though intonation cues were not used in my current corpus work.

² In the literature, *toiu* is recognised as a compound particle, but there is no consensus as to whether *toiuno* is a compound particle. Section 3.2 presents the data indicating that *toiuno* is a compound particle. See also footnotes 5 and 6.

In the literature on *toiuno* and compound particles in general, a principal research aim has been to detect the meaning/function of *toiuno* in discourse. In the literature on the nominaliser *no* (Kamio 1983, Kitagawa & Ross 1982, Kuno 1973, Kuroda 1992, Makino 1968, McGloin 1985, Oshima 2010, Seraku 2013), a main research topic has been the syntactic/semantic aspects of *no*. Thus, while there is a wealth of previous studies on each of *toiuno* and *no*-nominalisation, the relation between them has not been seriously explored, though the two seem to be intuitively distinct, as reflected in orthographies and intonations. The next section attempts to establish the status of *toiuno* as a compound particle by revealing unique properties of *toiuno* that are not shared by the *no*-nominalisation *to-iu-no*.

3 The Flexibility of *Toiuno*

This section presents the corpus-aided observations that the compound particle *toiuno* significantly differs from the *no*-nominalisation *to-iu-no*. I collected the naturally-occurring data of *toiuno* by using the CSJ (Corpus of Spontaneous Japanese, 2nd edn.) (National Institute for Japanese Language and Linguistics, 2008). The CSJ is a digitalised collection of spontaneous Japanese strings of 7.52 million words (amounting to 660 hours). More than 90 % of the data are “monologue” (e.g., academic presentation speech), and the rest is “dialogue” (e.g., free conversation) or “recitation.”

For a concordancer, I utilised Himawari, ver. 1.3 (National Institute for Japanese Language and Linguistics, 2011). I searched the CSJ for the string *no-wa* in Hiragana characters (のほ), where *wa* is a topic marker. A reason for specifying the string as *no-wa* (rather than *toiuno*) is practical in that the data collection was part of my larger project for extracting “cleft sentences,” which involve the succession *no-wa*, from the corpus (Seraku 2013). I obtained 2,734 sentences containing the string *no-wa*, and I manually picked up the ones with *toiuno-wa* by resorting to the orthogonal distinction (というの for *toiuno* vs. と言うの for *to-iu-no*). The number of sentences with *toiuno-wa* was 1,656, as summarised in the table below:

	OCCURENCES	PERCENTAGE
<i>no-wa</i>	2,734	100%
<i>toiuno-wa</i>	1,656	60.57%

Table 1. The distribution of *toiuno-wa* over *no-wa* strings

Although the reason for specifying the string as *no-wa* is a practical one, it brings two advantages. First, in *no-wa*, what precedes *no* is underspecified and it allows phonological variants of *toiuno* to be hit, as in (3).

- (3) *tteiuno, tteeno, teno, tsuuno, cchyuuno, ...*

These variants are included in the 1,656 examples. Second, the specification of the string as *no-wa* allows the expression *toiunowa* to be hit, for more on which see Section 4 below.

Due to the specification *no-wa*, the data exclude examples of *toiuno* with particles other than *wa* in (4), where *ga* is a nominative case particle, *o* is an accusative case particle, *ni* is a dative case particle, etc.

(4) *toiuno-ga, toiuno-o, toiuno-ni, ...*

The exclusion of the expressions in (4) is not necessarily undesirable. Firstly, it is claimed that *toiuno-wa* behaves differently from the related phrases such as *toiuno-ga* (Masuoka 2012). Secondly, the sample size of 1,656 instances is large enough to shed light on interesting differences between the compound particle *toiuno* and the *no*-nominalisation *to-iu-no*, as will be shown below.

In what follows, four characteristics of the compound particle *toiuno* will be elucidated which are not shared by the *no*-nominalisation *to-iu-no*. These data lend support to the claim that *toiuno* constitutes a complex expression, distinct from the *no*-nominalisation *to-iu-no*. What is of special note for our purposes is that, as will be stated in Section 3.3, the compound particle *toiuno* allows a wider range of phrases to precede it than the *no*-nominalisation *to-iu-no*. This structural property is called the “flexibility” feature of *toiuno*.

3.1 Re-interpretation

Once again, consider the example (1), reproduced here as (5).

(5) *Tom-wa* [*guaba toiuno*]-*o* *tabeta*
 Tom-TOP [*guava TOIUNO*]-ACC *ate*
 ‘Tom ate the thing called guava.’

It is possible to re-interpret (5) as an instance of the *no*-nominalisation *to-iu-no*. The interpretation in (6) is not completely identical to the one in (5), but one might take this as counterevidence for our claim that *toiuno* is irreducible to the *no*-nominalisation *to-iu-no*.

(6) *Tom-wa* [*guaba to iu no*]-*o* *tabeta*
 Tom-TOP [*guava COMP say NO*]-ACC *ate*
 ‘Tom ate what they call guava.’

Yet, the CSJ is full of examples where such re-interpretations are not valid. To take (7) as an example, it is possible to re-interpret *toiuno* as *to-iu-no*, but the resulting interpretation (8) differs drastically from the original one in (7).

- (7) [kanzenni haishi **toiuno**]-wa muri nano-de...
 [completely abolish TOIUNO]-TOP impossible COP-because
 ‘Because abolishing it completely is impossible,’ (S00F0099)³
- (8) ‘Because saying “Completely abolish it” is impossible, ...’

These data show that the compound particle *toiuno* cannot be equated with the *no*-nominalisation *to-iu-no*.

One may object that the above data just show that *to* and *iu* in *toiuno* form a complex, but excluding *no*; that is, it is still possible to claim that there is no compound particle *toiuno* but it merely consists of the complex part *toiu* and a pronominal *no*. There are two grounds for this objection. First, *toiuno* in (7) may be contextually interpreted as, say, *toiu-keikaku* by replacing the seemingly pronominal *no* with the concrete noun *keikaku* ‘plan.’ The interpretation would be “A plan like abolishing it completely is impossible,” which is close, if not identical, to the interpretation in (7). Second, there are many cases where *toiu* follows a concrete noun, as illustrated in (9).

- (9) [kodomono-e-no kokugo-kyooikusya **toiu**
 [child-to-GEN national.language-educationalist TOIU
 gensetsu]-ga miraremasu
 statement]-NOM be.seen
 ‘We can see statements like “national language educationalists for children”.’ (A02F0148)

It is plausible to assume that there is a sequence “the compound particle *toiu* plus the pronominal *no*.” It seems, however, that not all of the cases can be analysed in this way; the next subsection shows there are examples where *no* is indeed an integral element of the compound particle *toiuno*.

3.2 Connotation

As pointed out in Kuroda (1992) among many others, when the nominaliser *no* denotes a human, the string is not compatible with polite expressions. This is because in these cases, *no* yields a derogatory-related connotation.⁴

- (10) ?[se-ga takai **no**]-ga irassyatta
 [height-NOM tall NO]-NOM came.POLITE
 ‘A tall person came.’

³ If an example is drawn from the CSJ, the ID is presented at the end of each example. In citing examples, irrelevant parts (e.g., meta-linguistic annotation) were suppressed. Further, phonological variants of *toiuno* (see (3)) are also expressed as *toiuno*.

⁴ Seraku (2013: Ch. 4) notes that the type of connotation is context-dependent; in some situations, it may be an affectionate familiarity to an individual denoted.

In (10), the *no*-headed part denotes a human, and, as expected, the string with the polite expression *irassyatta* is not felicitous due to a confliction between the politeness encoded in *irassyatta* and the derogatory-related connotation implied through the use of *no*.

Interestingly, the CSJ contains cases of *toiuno* where a human is denoted without such connotations being detected (see also Niwa 1993: endnote 2).

- (11) [saigomade yarinuita **kata** **toiuno**]-wa
 [until.the.end have.completed person.POLITE TOIUNO]-TOP
 [[imademo jibun-no senmonno shigoto-o motte
 [[even.now self-GEN specialised work-ACC have
 ganbatteyatteru] kata]-ga ooi
 work.hard.POLITE] person.POLITE]-NOM abundant
 ‘As for those who have completed their work, most of them pursue
 their specialised works even now.’ (S05F0463)
- (12) [nihon-jin nihon-bunka-ron nanteiu koto]-o
 [Japanese-people Japanese-culture-study such.as thing]-ACC
 kataru-sai-ni-wa yahari [Kawai.Hayao-san **toiuno**]-wa
 talk-time-at-TOP definitely [Kawai.Hayao-Mr.POLITE TOIUNO]-TOP
 hazusenai-kata toiuhuuni iwareru guraino-kata nandesu
 important-person like be.said like-person.POLITE COP
 ‘When we talk about things such as the study of Japanese people or
 Japanese culture, Mr. Hayao Kawai is definitely considered to be an
 essential person for such discussion.’ (S00M0004)

In (11), the politeness marker *kata* is used, but the sentence is acceptable; in a similar vein, (12) has the politeness marker *san*, but the sentence is felicitous. If there were derogatory-related connotations, the strings would be unnatural. So, it is reasonable to hold that *toiuno* constitutes a compound particle, where the nominaliser *no*, a locus of connotation, is not recognised as a separate word as in *to-iu-no* or *toiu-no*.⁵

⁵ As pointed out by an anonymous reviewer, one could view *toiuno* as a contraction of *toiu mono*, where *mono* refers to an entity in general. This is plausible for some cases of *toiuno* like (5), but it is not obvious whether it accounts for the full spectrum of my corpus data. First, as will be mentioned in the next subsection, *toiuno* may be preceded by an embedded question or a demonstrative, whereas *toiu mono* cannot be normally preceded by these elements. Second, *mono* refers to an entity (rather than an abstract concept or a thing, which is referred to by, e.g., the noun *koto*), whereas the *toiuno*-complex could refer to an abstract concept such as a query in the case of embedded questions (see (14)). Thus, while the contraction analysis is plausible for some cases, I contend that there also exists the compound particle *toiuno*.

3.3 Pre-*toiuno* Phrases

This subsection points out that the category of what precedes the compound particle *toiuno* is much wider than the category of what precedes the *no*-nominalisation *to-iu-no*.

Firstly, *iu* ‘say’ in *to-iu-no* is a verb which cannot select an embedded question as an argument. Thus, (13) is not acceptable unless the embedded part is understood to be a direct quotation.

- (13) **Bill-wa* [*Mary-ga mujitsu ka to iu no*]-*o kii-ta*
 Bill-TOP [Mary-NOM innocent Q COMP say NO]-ACC hear-PAST
 Int. ‘Bill heard that someone asks whether Mary is innocent.’

This restriction does not hold of the compound particle *toiuno*. As shown in (14), *toiuno* follows an embedded question even if the embedded part is not a quotation. Out of 1,656 cases of the compound particle *toiuno* (see Table 1), *toiuno* follows an embedded question in 65 examples.

- (14) [*sore-ga jibun-nitotte kooka-ga-a-tta nokadouka*
 [that-NOM self-for effect-NOM-exist-PAST whether
toiuno]-*wa gimon nandesu*
 TOIUNO]-TOP question COP
 ‘It is questionable whether it was effective for me.’ (S00M0065)

Secondly, two cases are found where *toiuno* follows a demonstrative.

- (15) [*sore toiuno*]-*wa [oto-o kikiwakeru*
 [that TOIUNO]-TOP [sound-ACC listen.distinguish
kontororu-ga dekite-nai
 control]-NOM possible-NEG
 ‘As for that, it cannot distinguish sounds while listening to them.’
 (S00M0053)

- (16) [*sore toiuno*]-*wa [tobira-no nai toire] nandesu*
 [that TOIUNO]-TOP [door-GEN non-existent toilet] COP
 ‘As for that, it is a toilet without a door.’ (S05F1600)

This contrasts with the *no*-nominalisation *to-iu-no*. In (17), *to-iu-no* cannot be preceded by a demonstrative unless the embedded part is a quotation; this is expected since *to* is a sentential complementiser.

- (17) **Tom-wa* [*Mary-ga [sore to] iu no*]-*o kii-ta*
 Tom-TOP [Mary-NOM [that COMP] say NO]-ACC hear-PAST
 Int. ‘Tom hears that Mary said that.’

To sum up, the compound particle *toiuno* is more flexible with respect to the types of element that may precede it than the *no*-nominalisation *to-iu-no*. This discrepancy corroborates our claim that the compound particle *toiuno* is irreducible to the *no*-nominalisation *to-iu-no*, as well as posing a challenge of how this flexibility is to be structurally characterised.

3.4 Form of the Compound Particle

The CSJ does not have any examples of *toiuno* where the verb *iu* is negated. In addition, there are no examples of *toiuno* where a subject of *iu* is expressed. In fact, if we negate *iu* or if we express a subject of *iu* in any examples of *toiuno* cited in this paper, they are no longer regarded as cases of compound particles. These results are consistent with our claim that *toiuno* forms a unit which is not reduced to the *no*-nominalisation *to-iu-no*.

Nevertheless, there are some (at least, seemingly) problematic examples. First, the CSJ contains instances of *toittano*, where *itta* is in past tense form of the verb *iu* ‘say.’ If *toiuno* is a complex unit, *iu* in *toiuno* should not be conjugated. In the case of *toittano*, however, it does not express a past tense; even if *toittano* in (18) is replaced with *toiuno*, it does not change the tense of the clause (see also Matsuki 1990: 51).

- (18) *[nenreesoo gotono wasya-no-tokutyoo*
 [age depending.on speaker-of-characteristics
toittano]-wa donoyouna mono dearu ka
 TOITTANO]-TOP how thing COP Q
 ‘What are the characteristics of speakers, depending on their age?’
 (A01M0115)

The suffix *ta* may be used for other purposes than the past-tense marker (see Tsujimura 2007 for a summary). Consider the following examples:

- (19) [Context: The speaker sees the princess approaching him/her.]
hime-ga ki-ta
 princess-NOM came-IFS
 ‘The princess is here!’
- (20) *kyou-wa [Tom-ga kuru hi] da-tta na*
 today-TOP [T-NOM came day] COP-RS SFP
 ‘(I recall that) today is the day when Tom comes, isn’t it?’
- (21) *saa, ka-tta ka-tta*
 come.on buy-COM buy-COM
 ‘Come on, buy this!’

In (19), the suffix *ta* is used to denote an “immediate future state.” In (20), what is denoted is a “recalled state.” In (21), *ta* specifies the speech act of the sentence as a “command.” Clearly, all of these functions are irrelevant to the *toittano* example in (18). I shall assume that *toittano* is a compound particle distinct from *toiuno*; that is, the language user knows two distinct compound particles *toiuno* and *toittano* (though they may be related diachronically and functionally). There seem to be slight meaning differences between clauses with *toiuno* and those with *toittano*, but they are too subtle to be explicated within the limit of the present paper.

Next, as shown in (22), the CSJ contains examples in which *moushimasu*, which is a polite form of *iu*, appears in the sequence of *toiuno*.

- (22) [suiron **tomoushimasuno**]-wa zentei-kara
 [inference TOMOUSHIMASUNO]-TOP premise-from
ketsuron-o *michibikidasu shikouyousiki da*
 conclusion-ACC derive style.of.thought COP
 ‘Inference is a style of thought that derives a conclusion from premises.’ (A02F0082)

But it seems to me that *suiron tomoushimasuno* is interpreted as “what I (humbly) call inference.” Further, in the CSJ, *moushimasu* is notated with the “kanji” characters (と申しますの), as in the case of the *no*-nominalisation *to-iu-no* (と 言う の). Thus, this may be yet another case of *no*-nominalisation.

A more problematic example is (23). The CSJ contains a single example where the particle *ka* is inserted into *toiuno-wa*, as in *tokaiuno-wa*.

- (23) [taiguu **tokaiuno**]-wa kesshite kotoba-dake-de
 [treatment TOKAIUNO]-TOP at.all language-only-by
jitsugenshiteru wakejyanai
 is.realised not.the.case
 ‘It is not the case at all that treatments are realised only by the language.’ (A13M0979)

This example may support Matsuki’s (1990: 37) idea that there is a degree of status as a compound particle: other things being equal, X is more like a compound particle than Y if the predicate part of X loses more properties of the predicate (e.g., conjugation) than that of Y. Even the data (18) and (22) may be treated in this fashion, but I shall leave this issue for future work.

3.5 Summary

The CSJ data shed light on the unique features of *toiuno* that are not attested in the *no*-nominalisation *to-iu-no*. It is concluded that *toiuno* is a fixed unit

that cannot be reduced to a mere composition of *to*, *iu*, and *no*.⁶ In particular, what is fruitful for building an account of *toiuno* is that *toiuno* is “flexible” in that it may be preceded by a range of elements such as nouns, demonstratives, declarative clauses, and embedded questions. In the next section, another structural feature of *toiuno* will be surveyed: the “ambivalence” of *toiuno*.

4 The Ambivalence of *Toiuno*

The native speakers would have the intuition that *toiuno* is a head of a phrase. This intuition is reflected by the translation in (1); what is denoted from the speaker’s perspective is not a guava but a thing called guava. The head status of *toiuno* also conforms to the head-finality of Japanese. Further, if *toiuno* is a head, the following ambiguity will be anticipated:

(24) [adjective [noun [_{HEAD} *toiuno*]]]

(25) [[adjective noun] [_{HEAD} *toiuno*]]

This two-way structuring manifests itself in (26), where the a-interpretation corresponds to the structure (24), and the b-interpretation to the structure (25).

- (26) *midorirooshita guaba toiuno*
 green.coloured guava TOIUNO
- a. ‘the green-coloured thing called guava’ (normally acceptable)
 - b. ‘the thing called green-coloured guava’ (requires a special context)

The acceptability patterns of these readings are explained if we assume that *toiuno* is a head of the *toiuno*-phrase, together with our world knowledge that the usual colour of guavas is green. The a-interpretation is felicitous, e.g., in a context where the speaker identifies guavas by mentioning their usual colour. The b-interpretation is normally infelicitous because it implies that there are non-green-coloured guavas. On these grounds, it is reasonable to assume that *toiuno* is a head that selects a preceding element as a complement.

At the same time, there are also pieces of evidence which suggest that the compound particle *toiuno* is not a head but rather a bound-morpheme. The

⁶ This does not deny a diachronic relation between *toiuno* and *to-iu-no*. According to Matsuki (2006: 207), (i) an essential process at the initial stage of compound-particle formation is “generalisation” (e.g., a verb loses selectional restrictions and a wider variety of items could be an argument), and (ii) what matters at a later stage is “subjectification” (e.g., a verb gains a discourse-oriented/inter-personal function). The “generalisation” is clearly seen in *toiuno*, and, as will be examined in Section 4, the “subjectification” is seen in *toiunowa*. It would then be reasonable to assume the diachronic path: *to-iu-no* > *toiuno* > *toiunowa*.

first piece of evidence is concerned with the obligatory presence of a *toiuno*-preceding element. The last section observed that *toiuno* allows a variety of elements to precede it. In fact, *toiuno* does not even have to follow anything as long as it is suffixed by the topic marker *wa*. There are 40 sentence-initial cases out of 2,734 strings with the string *no-wa* (see Table 1).

- (27) *toiunowa* *watashi-wa* *syoogakkoo-jidai-ni* *titioya-no*
 TOIUNOWA I-TOP primary.school-period-at father-GEN
tenkin-de *firipin-ni* *sundemashita*
 job.relocation-at Philippine-in lived
 ‘That is to say, when I was a primary student, I lived in Philippine due to my father’s job relocation.’ (S01F0217)

In this case, however, there is no sense of thematic/contrastive topic despite the presence of the topic marker *wa*. It then seems that *wa* is incorporated into *toiuno* and that the whole complex *toiunowa* forms another compound particle, distinct from *toiuno-wa*. Notably, *toiunowa* has a distinct function that is not shared by *toiuno-wa*: it serves as a discourse marker as shown in the translation ‘that is to say’ (see also footnote 6). As a further confirmation, consider (28). If *toiunowa* is a discourse marker, its position over a sentence is restricted to, e.g., a sentence-initial position. For instance, it is expected that *toiunowa* cannot be licensed at an argument position of a predicate. This expectation is borne out in (28).

- (28) **Tom-wa* *toiunowa* *tabeta*
 Tom-TOP TOIUNOWA ate
 Int. ‘Tom ate something (or a contextually salient entity).’

Therefore, assuming that *toiunowa* constitutes a distinct compound particle as a discourse marker, there is a morpho-syntactic restriction on the compound particle *toiuno*: *toiuno* cannot stand on its own and requires some element (whose syntactic category is quite flexible; see Section 3.3) to precede it.

Second, the fact that the *toiuno*-complex is case-marked (see (4)) suggests that the complex is an NP (see Section 5.3 for details). A subject NP in Japanese is usually marked with the nominative case particle *ga*, but a subject in a nominal-modifying clause may be marked with the genitive case particle *no*, a phenomenon called the “Nominative-Genitive Conversion” (Harada 1971). If the pre-*toiuno* part were a complement selected by the NP head *toiuno*, we would expect that when the pre-*toiuno* part is a clause, a subject NP in this nominal-modifying clause may be marked with the genitive case particle *no*. This expectation, however, is not satisfied, as shown in (29).

- (29) [Tom-gal/*no nai-ta **toiuno**]-wa odoroki da.
 [Tom-NOM/GEN cry-PAST TOIUNO]-TOP surprise COP
 ‘It is surprising that Tom cried.’

Third, adjectival verbs in Japanese have different forms depending on whether they appear within a nominal-modifying clause or a non-modifying clause (Frellesvig 2010). Adjectival verbs should be in “conclusive” form in a non-modifying clause and in “ad-nominal” form in a nominal-modifying clause. Thus, if *toiuno* were a head NP that selects the preceding clause as a modifying complement, an adjectival verb within the clause would be in ad-nominal form (but not in conclusive form). As demonstrated in (30), however, the form licensed in this environment is “conclusive” form (not “ad-nominal” form) of the adjectival verb meaning ‘genuine.’

- (30) [kono-houseki-ga honmonoda/*honmonona **toiuno**]-wa
 [this-jewel-NOM genuine.CON/genuine.ADN TOIUNO]-TOP
 odoroki da.
 surprise COP
 ‘It is surprising that this jewel is genuine.’

The upshot is that the compound particle *toiuno* poses the “ambivalence” puzzle. On the one hand, the native speakers have the intuition that in the *toiuno*-complex, the head is *toiuno* (rather than a pre-*toiuno* element), and this intuition is in conformity with (i) the free translation given in (1), (ii) the head-finality of Japanese, and (iii) the distribution of the readings in (26). On the other hand, *toiuno* seems to be a bound morpheme in that (i) it requires an overt preceding phrase, (ii) it disallows the Nominative-Genitive Conversion, and (iii) the embedded predicate must be in conclusive form. This puzzle, as well as the flexibility puzzle in Section 3, will be given a theoretical solution in the next section.

5 The LFG Account

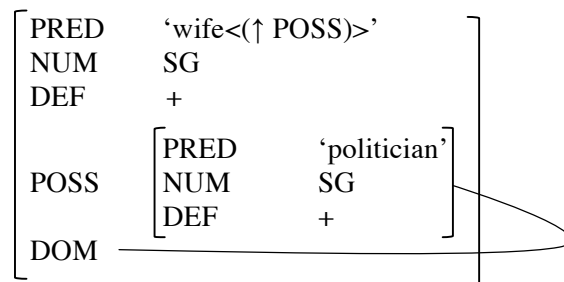
We turn to articulating an account which predicts syntactic characteristics of *toiuno*, especially its flexible and ambivalent nature. These issues are handled based on the core assumptions of LFG (Bresnan 2001, Dalrymple 2001):

- Grammatical functions are primitive syntactic notions, to be kept apart from syntactic tree structures. The former is represented in f(unctional)-structure while the latter in c(onstituent)-structure.
- Syntactic computations amount to satisfaction of a set of constraints rather than a series of derivations.

ešet. Based on the c-structure (33) above, this lexical specification generates the f-structure (35).⁸

(34) Entry of *ešet*
 N (↑ PRED) = ‘wife(↑ POSS)’
 (↑ NUM) = SG
 (↑ DOM)

(35) F-structure for (31)



To scrutinise parallelisms between the construct-state genitive and *toiuno* goes beyond the scope of the present paper; what is important to our concern is that in both constructions, there is a dependency relation of a head on its argument. To the extent that this affinity is observed, the attribute DOM is beneficial for developing an account of *toiuno* as well. First, *toiuno* is a head that selects a preceding phrase as an argument. Second, *toiuno* encodes DOM whose value is supplied by the f-structure of the *toiuno*-preceding phrase. So, the lexical entry of *toiuno* is (partially) defined in (36).

(36) Entry of *toiuno* (1st version)
 (↑ PRED) = ‘toiuno(↑ GF)’
 (↑ DOM)

What remains to be clarified is threefold as follows:

- What is a relevant grammatical function GF in (36)? (Section 5.2)
- What is the syntactic category of *toiuno*? (Section 5.3)
- What is a relevant phrase structure rule for *toiuno*? (Section 5.4)

Before closing the present subsection, a few caveats are in order. First, it is simply assumed that DOM is expressed over f-structure, leaving open a

⁸ The entry is simplified for purposes of presentation. In a fuller version, the constraint (↑ DEF) = (↑ DOM DEF) is included so that the definiteness of *ešet* always matches that of the dominating phrase *ha-politikay*.

possibility that it might be better represented in other structures. As also suggested in Falk (2001), the m(orphological)-structure (Butt et al. 1996) is a promising candidate. In more recent work, argument-structure is captured in s(ematic)-structure (Asudeh & Giorgolo 2012). See also Asudeh (2006) for a coherent view of correspondences among distinct LFG structures.

As a second caveat, one might wonder whether it is possible to derive the bound-property of *toiuno* in c-structure, rather than in f-structure. Recall that *toiuno* exhibits the head-property as well; so, if one posits a head-position to be occupied by a bound morpheme, it is not licit in terms of the Principle of Lexical Integrity (Dalrymple 2001).

5.2 The “Flexibility” Issue

Let us first clarify the grammatical function GF in the entry (36). As shown in Section 3.3, a range of phrases may precede *toiuno*. This flexibility is dealt with by hypothesising the disjunction of (\uparrow OBJ) and (\uparrow COMP), as in (37).

- (37) Entry of *toiuno* (2nd version)
 $\{(\uparrow \text{ PRED}) = \text{'toiuno} < (\uparrow \text{ OBJ}) > \} \mid (\uparrow \text{ PRED}) = \text{'toiuno} < (\uparrow \text{ COMP}) > \}$
 $(\uparrow \text{ DOM})$

This disjunction covers the data given in Section 3.3. OBJ encompasses NPs and demonstratives, and COMP declarative clauses and embedded questions.

The disjunction is independently motivated by the grammatical fact that some predicates in Japanese select either OBJ or COMP as a complement. For instance, *tazune* ‘ask’ selects OBJ in (38) or COMP in (39).

- (38) *Tom-wa* *sono-riyuu-o* *tazune-ta*
 Tom-TOP that-reason-ACC ask-PAST
 ‘Tom asked that reason.’

- (39) *Mary-wa* [*Tom-ga* *hannin ka*] *tazune-ta*
 Mary-TOP [Tom-NOM culprit COMP] ask-PAST
 ‘Mary asked whether Tom was a culprit.’

In fact, the distinction between OBJ and COMP is up to debate in the LFG literature (Alsina et al. 2005), and perhaps, our disjunction may be reduced to $(\uparrow \text{ PRED}) = \text{'toiuno} < (\uparrow \text{ OBJ}) > \}$. Further discussions are left for future work.

5.3 The Category of *Toiuno*

Recall that the *toiuno*-complex is case-marked (see Section 4). This suggests that the *toiuno*-complex is an NP. Provided that *toiuno* is a head of the phrase, the category of *toiuno* would be an N. The category information can thus be added to the entry of *toiuno* as in (40).

- (40) Entry of *toiuno* (final version)
 N
 $\{(\uparrow \text{ PRED}) = \text{'toiuno} < (\uparrow \text{ OBJ}) > \mid (\uparrow \text{ PRED}) = \text{'toiuno} < (\uparrow \text{ COMP}) > \}$
 $(\uparrow \text{ DOM})$

In this lexical specification, *toiuno* is an argument-taking noun. This is not a radical category; see, for instance, the relational noun *sister* in *sister of X*, where the PP *of X* is an argument of the head N *sister*.

But the argument of *toiuno* has a unique property. Japanese is fully pro-drop, and, in general, arguments may be omitted. In *toiuno*, however, its argument cannot be dropped (see Section 4). I suspect this is a residue of the complementiser *to* that obligatorily requires a preceding phrase. Another possible reason is that the *toiuno*-complex denotes an entity characterised by a preceding phrase. In (1), *guaba toiuno* denotes an entity characterised by being called guava. These dependency relations of *toiuno* on a preceding item are formally modelled as the attribute DOM in our account.

5.4 Phrase Structure Rule for *Toiuno*

So far, the following points have been established:

- *Toiuno* is a head N, and the *toiuno*-complex is an NP.
- *Toiuno* selects a preceding phrase as a complement.
- The function of a preceding phrase may be OBJ or COMP.
- The category of a preceding phrase may be an NP, a demonstrative DP, a declarative clause IP, or an embedded question CP.

These structural characterisations may be formulated as the phrase structure rule (41) with a metacategory notation XP (Dalrymple 2001: 94). I stipulate this phrase structure rule for *toiuno* (and possibly its related expressions such as *toittano* (18)) but not for nouns in general.

- (41) Phrase structure rule (1st version) for *toiuno*
- | | | | |
|--|---|--|-------------------------|
| NP | → | XP | N |
| | | $\{(\uparrow \text{ OBJ}) \mid (\uparrow \text{ COMP})\} = \downarrow$ | $\uparrow = \downarrow$ |
| where $XP \equiv \{\text{NP} \mid \text{DP} \mid \text{IP} \mid \text{CP}\}$ | | | |

The value of DOM is to be equated with the f-structure of a preceding phrase. In line with Falk (2001), this constraint is added to the phrase structure rule.

- (42) Phrase structure rule (2nd version) for *toiuno*
 NP → XP N
 {(↑ OBJ) | (↑ COMP)} = ↓ ↑ = ↓
 (↑ DOM) = ↓
 where XP ≡ {NP | DP | IP | CP }

Finally, the rule does not mention a specifier, but the *toiuno*-complex may be marked by a demonstrative as illustrated in (43). Thus, an (optional) specifier D is added to the rule. The final version of the rule is given in (44).

- (43) [*kono* [*guava* *toiuno*]]
 [this [*guava* TOIUNO]]
 ‘this thing called guava’

- (44) Phrase structure rule (final version) for *toiuno*
 a. NP → (D) N’
 (↑ DEF) = ↓ ↑ = ↓
 b. N’ → XP N
 {(↑ OBJ) | (↑ COMP)} = ↓ ↑ = ↓
 (↑ DOM) = ↓
 where XP ≡ {NP | DP | IP | CP }

5.5 Summary

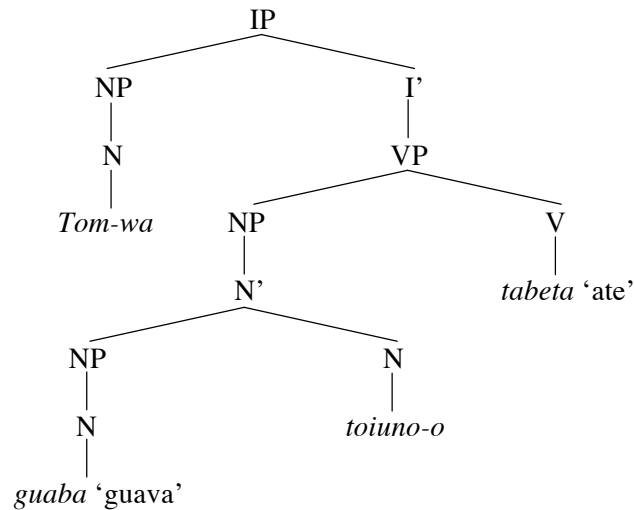
This section has proposed the entry of *toiuno* (40), reproduced here as (45) and the phrase structure rule (44). *Toiuno* is a noun that selects a preceding phrase as a complement and forms an NP (with an optional D as a specifier). The category of a preceding phrase is diverse, ranging over NP, DP, IP, and CP. The grammatical function of a preceding phrase is more restricted; it must be OBJ or COMP. The feature DOM models the bound status of *toiuno*, while its head status is directly encoded in the phrase structure rule.

- (45) Entry of *toiuno* (final version)
 N
 {(↑ PRED) = ‘*toiuno*<(↑ OBJ)>’ | (↑ PRED) = ‘*toiuno*<(↑ COMP)>’}
 (↑ DOM)

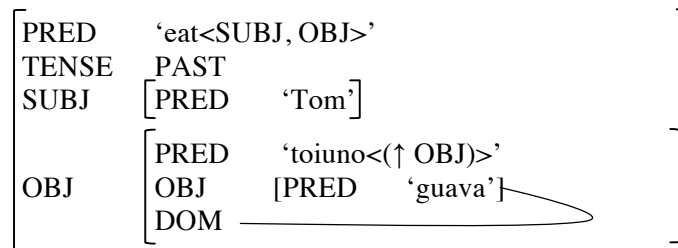
As an illustration, the entry of *toiuno* and the phrase structure rule map the string (46) onto the c-structure (47). The f-description is disregarded; what is essential is that *toiuno* selects an NP as a complement. The f-structure is presented in (48), where the grammatical function of the complement *guaba* ‘guava’ is OBJ.

- (46) *Tom-wa* [guaba *toiuno*]-o *tabeta*
 Tom-TOP [guava TOIUNO]-ACC ate
 ‘Tom ate the thing called guava.’

- (47) C-structure of (46)



- (48) F-structure of (46)



6 Conclusion

This paper has examined the corpus data of the compound particle *toiuno* and has set out the “flexibility” and “ambivalence” issues. These are satisfactorily handled in LFG. The flexibility of argument-selection by *toiuno* is reflected in the disjunction in the lexical entry of *toiuno*. As for the ambivalence issue, the head-property is expressed in c-structure where *toiuno* is a noun which selects a complement, and the bound-property is expressed in f-structure with the attribute DOM. Since the present paper has focussed on syntactic aspects of *toiuno*, semantic and other facets of the phenomenon are set aside. For instance, the syntactic exponent of the content of *toiuno* is represented as ‘toiuno<(↑ OBJ)>’ or ‘toiuno<(↑ COMP)>’, but its semantic properties have

been ignored. One plausible answer is to hold that *toiuno* encodes a semantic function of quotation (see also Niwa 1993); this will be adequate for (46) (see the translation ‘the thing called guava’), but it is not fully obvious what type of semantic function is operative in other examples. Further, there are also architectural issues with regard to the appropriate level for the attribute DOM to be represented (see Section 5.1) as well as the possibility of eliminating COMP from the LFG inventory (see Section 5.2). These are residual topics for future investigations.

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