A Further Step towards a Minimalist Analysis of Japanese *-no*

Abstract. This paper revisits the possessive particle *no* in Japanese, taking a minimalist approach and concludes that *no* does not instantiate Case, but rather a type of D introducing a (reduced) relative CP and attracts a nominal predicate to its left. We pursues a purely derivational account similar in spirit to den Dikken & Singhapreecha 2004 but better in empirical coverage, attributing different distributional properties to differences in what is contained in the relative CP. (150 words or less)

1. Introduction

Complex noun phrases often contain a seemingly meaningless linking element in many languages (e.g., English *of*, French *de*, Thai $t^h\hat{\imath}$, Mandarin Chinese *de*, Japanese *no*). Their similarities have been noted and a uniform linker approach has been advanced by Den Dikken & Singhapreecha (2004). Their proposal is that these elements are syntactic linkers inducing DP-internal predicate inversion, assuming that the predicate is topic.

While drawing generalization based on a crosslinguistic survey is insightful in terms of understanding language universals, it tends to fall short of empirical coverage of each language. Consequently, thorough follow-up examinations of each language in order to account for the microparametric variation are required. Crosslinguistic unification, like the one proposed by Den Dikken & Singhapreecha (2004), is difficult to gain acceptance without establishment of language-internal unification, which is not always easy. For this purpose, we revisit Japanese *no* in possessive nominals, to which Japanese researchers have favored a fractionalizing approach.

Taking a minimalist approach, we pursue a unified treatment of *no* particles in Japanese possessive nominals. Specifically, we assume that all contexts where *no* appears in the form of [XP-

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no NP] have a common substructure involving 'relativization'. Although similar in spirit to Den Dikken & Singhapreecha 2004, our proposal is better in empirical coverage, including a previously overlooked property−contrastive focus interpretations of *no*-phrases.[1]

This paper is organized as follows. First, we introduce basic facts and the standard treatment of *no* in possessive nominals along with its motivation and challenges (section 1.1). Second, we lay out the proposal: possessive nominals are (reduced) subject relatives with *no* attracting the nominal predicate within CP to its left (section 2). We also introduce a new fact that strengthen our analysis. Third, we discuss predictions and consequences of our analysis (section 3) and the conclusion follows.

1.1   The Japanese no

There is a general consensus that two types need to be distinguished: the genitive case marker *no* (='s) and the modification marker *no* (the term adopted from Kitagawa & Ross 1982). The genitive case marker encodes the core possessive relations and appears in the DP-no NP frame, with the possessor preceding the possessed NP, as in (1).[2]

(1)   a.   Ken no {kuruma / ude}
            Ken no {car   / arm}
            'Ken's {car/arm}'   [(In)alienable possession]

        b.   Naomi no odori
            Naomi no dance
            'Naomi's dance'   [Agent]

        c.   sinrin no hakai
            forest no destruction
            'the destruction of the forest'   [Affected object]

        d.   kinoo   no sinbun
            yesterday no newspaper
            yesterday's newspaper'   [Time]

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[1]Japanese *no* is a multifunctional particle (e.g., Kuno 1973; Kitagawa & Ross 1982; Murasugi 1991; Kuroda 1992, 1999; Hiraiwa 2005; Watanabe 2010). Although literature do not agree in terms of the exact number of homophonous *no* particles, three functions have commonly distinguished: (i) genitive case marker, (ii) pronoun, (iii) complementizer/nominalizer. This paper concerns only with (i) uses of *no*.

[2]The particle *no* is glossed as *no* throughout this paper, in order not to bias the analysis.

e. NY no hakubutukan
    NY no museum
    'a museum in NY'   [Location]

The modification marker *no* (a.k.a. the attributive form of copula [e.g., Kuno 1973, Okutsu 1976]) differs from the genitive case marker *no* in terms of what precedes *no* and the availability of non-restrictive readings, as illustrated in (2).[3]

(2) a. Ken-to   no yakusoku
         Ken-with no promise
         'the promise with Ken'   [PP-no NP]

     b. {ni-satu/takusan} no hon
         {two-CL/many}   no book
         '{two/many} books'   [QP-no NP]

     c. [syuzinkoo-ga   inu] no syoosetu
          protagonist-NOM dog no novel
         'the novel whose protagonist is a dog'   [Non-finite clause]

     d. tomodati no Naomi
         friend   no Naomi
         'Naomi, who is a friend (my friend Naomi)'   [Non-restrictive]

Exception to this standard dichotomic approach is Kitagawa and Ross 1982, which has pursued a unified treatment of all instances of *no* particles, by subsuming the genitive case marker under the modification marker. The fact that *no* always appears in the same syntactic configuration leads them to propose the following modification marker insertion rule. (3) is its modified version given in Saito et al.(1982:n. 1) and Watanabe (2010:62).

(3) $[_{NP} \ldots XP(\text{-tense}) N^{\alpha}] \rightarrow [_{NP} \ldots XP(\text{-tense}) \text{Mod } N^{\alpha}]$

       where Mod = *no*

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[3]The terminology of *no* in (2)-type varies across researchers. Some examples are a contextual Case marker (Saito & Murasugi 1990, Saito, Lin & Murasugi 2008), a genitive linker (Hiraiwa 2012a), an appositive genitive particle (Hiraiwa 2012b), a linking element (Watanabe 2010). We will generally use the term the modification marker *no* (the term in Kitagawa & Ross 1982) when discussing the previous analyses.

A natural question is what is this modification marker *no*? The prevailing view is that it is 'a matter of morphology and is not represented structurally... It is inserted after the derivation is handed over to the PF branch.' (Watanabe 2006:256).

Unfortunately, Kitagawa and Ross's (1982) unified analysis of *no* has not been widely accepted, because the presence of the genitive Case in Japanese has been taken for granted by many researchers, including Kuno (1973), Murasugi (1991), Saito, et al. (2008), Hiraiwa (2010), Watanabe (2010). For instance, Watanabe (2010:68) reasons that having nominative and accusative case particles, Japanese is unlikely to lack a genuine genitive Case particle. However, the necessity of the modification marker *no* has never been doubted because of examples like (2-a)). As Watanabe (2010) notes, PP does not require Case. Besides, there is also a distributional difference between the two types of *no* which has been taken as a major piece of evidence for the dichotomy.

1.2 The N'-Ellipsis Paradigm

The difference in ellipsis patterns has been taken to confirm the validity for the dichotomy. The alleged descriptive generalization is that ellipsis is only possible with nominals containing the genitive case *no*, as in (4), but not with the ones containing the modification marker *no*, as in (5) (adapted from Saito, et al. 2008:253).

(4) a. [Taroo no taido]-wa   yoi ga   [Hanako no ~~taido~~] -wa yoku-nai.
          Taro   NO attitude-TOP good though Hanako NO   -TOP good-NEG
          'Taro's attitude is good, but Hanako's isn't.'

     b. [Rooma no hakai]   -wa [Kyooto no ~~hakai~~] -yorimo hisan   datta.
          Rome   NO destruction -TOP Kyoto   no   -than   miserable was
          'Rome's destruction was more miserable than Kyoto's.'

(5) a. *[Hare no hi]-wa yoi ga   [ame no ~~hi~~] -wa otikom-u.
           clear no day-top good though rain no   -top feel.depressed-PRS
          'Although clear days are fine, (I feel) depressed on rainy ones.'

     b. *Taroo-wa iti-niti-ni   [san -satu no hon]-o   yomu ga,   Hanako-wa [go-satu
           Taro-TOP one-day-in three -CL   no book-ACC read   though Hanako-TOP five-CL
           no ~~hon~~] -o   yomu.
           no   -ACC read
          'Taro reads three books in a day, but Hanako reads five.'

Saito, Lin and Murasugi (2008) claim that the contrast with ellipsis comes from the argument-adjunct asymmetry: N'-ellipsis is restricted to cases where the possessor remnant is an argument. This is because only arguments, including location and time (as assumed in Saito et al. 2008:255, Hiraiwa 2012b:13), not adjunct modifiers, can raise to Spec,DP, licensing NP-ellipsis. In contrast, Watanabe (2010) argues that genitive Case *no* is retained under ellipsis, while the modification marker *no* is not inserted when ellipsis takes place.

However, consideration of a wider range of ellipsis data reveals that neither of these proposals actually captures the empirical data (see also M. Takahashi 2011).[4]

(6) a. [Pinku no T-syatu] -wa atarasii ga   [midori no ~~T-syatu~~] -wa hurui.
          pink   no T-shirt -top new   though green no   -top old
          'Although the pink T-shirt is new, the green T-shirt is old.'

     b. [garasu-no kabin] -wa mot-tei-ru   ga   [tooki-no   ~~kabin~~] -wa mot-tei-nai.
          glass-no   vase -top have-asp-prs though ceramics-no   -top have-asp-neg
          'Although (I) have a vase made of glass, (I) don't have one made of ceramics.'

     c. [Ken-to   no yakusoku] -wa mamot-ta ga   [Jyon-to   no ~~yakusoku~~] -wa
          Ken-with no promise   -top keep-pst though John-with no   -top
          mamor-anakat-ta.
          keep-NEG-PST
          Lit. 'Although (I) kept the promise with Ken, (I) didn't keep the one with John.'

     d. [Kyooto-kara no kozutumi] -wa todoi-ta   ga   [Tookyo-kara no ~~kozutumi~~] -wa
          Kyoto-from no package   -top arrive-pst though Tokyo-from   no   -top
          mada todok-anai.
          yet arrive-neg.
          'Although the package from Kyoto has arrived, the one from Tokyo has not yet.'

The well-formedness of the examples in (6), where the possessor remnants are adjuncts, are unexpected to Saito et al. (2008). Likewise, in (6-c) and (6-d) the *no* particles must be modification markers, since the possessor remnants are PPs. Consequently, Watanabe's (2010) argument does not go through either.

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[4] As mentioned in n.1, Japanese has another *no*, which is comparable to the English indefinite pronoun *one*. In order to ensure the involvement of ellipsis, the examples here are modeled after examples given by Saito, et al (2008:253).

Furthermore, the following 'time' example shows an unavailability of ellipsis regardless of the genitive case marker status *no*.[5]

(7)   [Haru no hi] -wa suki-da ga   [aki   no *(hi)] -wa kirai-da.
        spring no day -top like-cop though autumn no day   -top hate-COP
       'Although (I) like spring days, (I) hate autumn ones'   (cf. Hiraiwa 2012b:13)

The nominal *aki no hi* 'autumn days' is an example of genitive Case marker *no* appearing with a 'time' possessor provided in Hiraiwa 2012b:13. However, the possessor remnant does not survive under ellipsis. These examples discussed above cast serious doubt on the dichotomy of *no*.

2.   Proposal

We propose that *no* is unrelated to Case, but rather a type of D that generates a prenominal (reduced) subject relatives. Specifically, we assume that the possessive nominal in Japanese has [D CP] structure, where *no* is a type of D selecting $C_{(no)}$ as its complement.[6] This proposal is consistent with Kayne's (1994) antisymmetry analysis of relative clauses as well as Koopman's (2003, 2005) idea that all DPs are essentially relative clauses with [D CP] structures.

Section 2.1 lays out our proposal in some detail. Section 2.2 introduces a new property of possessive nominals, which strongly motivates the proposed relative clause analysis. Section 2.3 discusses the edge property of *no*, and section 2.4 accounts for a wide variety of semantics *no*-phrases encode.

2.1   *Relative Clause Analysis of Possessive Nominals*

Our proposal consists of the following ideas:

(8)   a.   The particle *no* is a type of D that selects for C(*no*) as its complement.

       b.   C(*no*) merges with a complement varying in size, minimally containing a subject and a non-finite predicate, and provides an A'-landing site for subject relativization.

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[5]Deleting *no* altogether with 'day' significantly improves the sentence. This is also true for the example in (4b).
[6]The idea of *no* being D is not new: it is also proposed by linguists, for example Koike (1999) and Whitman (2001).

    c.   The particle *no* has an edge feature requiring a nominal element to occupy its specifier (i.e., epp of *no*), which generates 'prenominal' relatives.

    d.   Semantics and syntax of possessive nominals depend on the complement structure of C(*no*) (i.e., small claus, built from a restricted set of (silent) elementary predicates, such as AT, FROM, IN, TO, FOR).

Applying these ideas to the string *Ken-no kuruma* 'Ken's car', the following derived surface constituency arises:[7]

(9) $[_{DP}$ [~~car~~$_i$ AT Ken]$_j$ [no [CP car$_i$ [C t_j]]]][8]
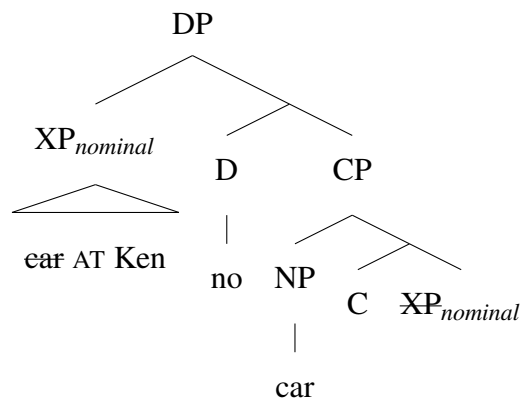
The CP consists of the subject predicate structure [car AT Ken], and the subject 'car' raises to the A'-landing site, Spec,CP. Subsequently, the remnant moves to specifier of *no* (i.e., yielding a pronominal relative), satisfying the epp property of *no*.

    Significantly, we assume that all contexts where *no* appearing before the head noun have a common substructure involving 'relativization', thus, our proposal takes a step towards a unified analysis for Japanese *no*. The next section introduces a previously overlooked fact that strongly supports our analysis.

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[7]The proposed structure here is unsurprising given that Japanese uses 'be' instead of an overt counterpart to English 'have' to express predicative possession (Harves & Kayne 2012). Namely, Japanese possessors are nominal predicates.

[8]Silent material are represented in small caps.

2.2   Contrastive Focus Interpretation

New evidence for the relative clause nature of *no* can be drawn from the following puzzle. Some color terms in Japanese can be expressed either as an adjective or as a noun, but the use of nouns, which requires *no*, is restricted to cases where alternative color choices are available, as illustrated in (10) and (11):

(10)   a.   aoi   {umi / seetaa}
             blue_{ADJ} {sea / sweater}
             'the blue {sea/sweater}'

        b.   ao   no {*umi / seetaa}
             blue_{N} no {sea   / sweater}
             'the {sea/sweater} which is blue'

(11)   a.   siroi   {yuki / kooto}
             white_{ADJ} {snow / coat}
             'the white {snow/coat}'

        b.   siro   no {*yuki / kooto}
             white_{N} no {snow / coat}
             '{snow/ the coat} which is white'

Examples (10-a) and (11-a) show that color adjectives can equally modify all the nouns−'sea', 'sweater,' 'snow', and 'coat', while the nominal counterparts followed by *no* are selective in terms of what it modifies. What makes *ao-no umi* '*blue_N-no sea' and *siro-no yuki* '*white_N-no snow' deviant? Unlike sweaters or coats, the sea is prototypically blue and snow is prototypically white, thus alternative colors are usually unavailable. We take this property as strong evidence of *no* being a type of D introducing a relative clause, since relative clauses introduce focus inside.

Significantly, this finding falsifies the standard assumption that *no* is inserted simply for morphological adjustment at PF, having no syntactic or semantic role (e.g., Watanabe 2006). The presence of *no* requires a contrastive focus interpretation, which we assume is a reflex of *no*-phrases being (reduced) relative clauses.[9]

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[9]The presence of a contrastive interpretation is also reported with French *de*, Thai $t^h\hat{\imath}$, and English *of* in Den Dikken & Singhapreecha 2004:2. In these languages, the predicate serves as a topic (old information), which is not the case with Japanese as shown by the incompatibility with prototypical colors, as in '*white_N-no snow' or '*blue_N-no

2.3   Motivating the epp Feature of no

The constituent that raises to Spec*no* must be 'nominal' (with Japanese PPs being nominal), thus excluding *no* occurring after APs or verbal phrases. This property of *no* contrasts with that of the linker *de* in Mandarin Chinese, which occurs between the head noun and any preceding modifying clause, as illustrated below:

(12)   a.   xiě   de shū
            write de book
            'written book'   (Mandarin)

       b.   kak-are-ta   (*no) hon
            write-pass-pst   book
            'written book'   (Japanese)

This property has led Japanese researchers, such as Saito, Lin, and Murasugi (2008) to conclude that the analysis of N-final relative D is correct for languages like Mandarin Chinese *de*, but not for Japanese *no* (cf. Simpson 2003). At first glance, this property seems unfavorable to the relative clause analysis of *no*-phrases. However, as exemplified in (13-b), *no* is actually required, once the verbal phrase or AP is embedded under a nominal element like *dake* 'only,' *bakari* 'just now / only'−which are adverbial particles originated as a noun.

(13)   a.   [TP oobun-de   yai-ta]   (***no**) piza
                 oven-INST bake-PST only -NO   pizza
            'the pizza which is only baked in an oven'

       b.   [NP [TP oobun-de   yai-ta]   **dake**] -**no** piza
                 oven-INST bake-PST only   -NO pizza
            'the pizza which is only baked in an oven'

Significantly, the contrast in (13) suggests that it is solely the nominal specifier requirement of *no* that rules out the presence of *no* after VP or AP. As our proposal predicts, what precedes *no*−the predicate type embedded in the CP complement of *no*−is unrestricted as long as it provides a nominal specifier for *no* at the end of the derivation. The reason *no* looks like a genitive Case

sky.'

marker is simply due to this requirement of nominal specifier.

2.4   Semantics of no-Phrases

Cross-linguistically, availability of silent Ps in the grammar is often discussed (e.g., Caponigro &

Pearl 2008, Emonds 1987, McCawley 1988). We also assume that a restricted set of elementary

(silent) predicates are available in the grammar and they are responsible for a wide variety of

semantics available with Japanese possessive nominals.

(14)   a.   Ken-(ni)-wa   ane   -ga   iru.
              Ken-(LOC)-TOP older.sister -NOM exist
              'There is an older sister (at) Ken. (cf, Ken has an older sister)'

        b.   Tokyo-(de)-no   kooen
              Tokyo-(LOC)-NO performance
              the performance, which is (done) (in) Tokyo

        c.   Osaka-(e)-no   syuttyo
              Osaka-(TO)-NO business.trip
              'the business trip which is (to) Osaka'

        d.   Naomi-(kara)-no   tegami
              Naomi-(FROM)-NO letter
              'a letter which is (from) Naomi'

        e.   Naomi-(to)-no   yakusoku-wa mamot-ta.
              Naomi-(WITH)-NO promise-top   keep-pst
              '(I) kept the promise which is (with) Naomi.'

        f.   Kurisumasu-(yoo)-no keeki
              Christmas-for-no   cake
              'a cake which is (for) Christmas'

In fact, utilization of silent postpositions is a general property of Japanese. Not only in the context

of reduced relative *no*-phrases, but, also under movement operations, such as passivization and

relativization, postpositions frequently disappear (see Kameshima 1989, Ishizuka 2012:54-59).

(15)   a.   [CP Naomi-ga   ~~naihu-de~~ niku-o   kit-ta] naihu-(*de)-wa togat-tei-ta.
                    Naomi-nom   meat-acc cut-pst knife-instr-top   sharp-asp-pst
                    'The knife which Naomi cut meat (with) was sharp.'   [Relativization]

      b.   [_{CP} Taro-ga ~~mise-de~~ hon-o   kat-ta] mise-(*de)-wa atarasi.
              Taro-nom   book-acc buy-pst shop-loc-top   be.newt
              Lit. 'The shop where Ken bought the books is new'   [Relativization]

(16)   a.   Inu-ga   Naomi-ni hoe-ta.
          dog-nom Naomi-dat bark-pst
          'The dog barked at Naomi.'

      b.   Naomi-(*ni)-ga inu-ni hoe-rare-ta.
          Naomi-dat-nom dog-by bark-pass-pst
          Lit. 'Naomi was barked (at) by a dog.'   [Passivization]

      c.   Otto-ga   tuma-kara nige-ta.
          husband-nom wife-from escape-pst
          'The husband escaped from his wife.'

      d.   Tuma-(*kara)-ga otto-ni   nige-rare-ta.
          wife-from-nom   husband-by escape-pass-pst
          Lit. 'The wife was escaped (from) by her husband.'   [Passivization]

The above examples show that Japanese in general has high tolerance to silent postpositions, thus our proposal that *no*-phrases contain silent predicates is quite reasonable. Due to disappearance of postpositions in passivisation and relativisation, researchers have often assumed that the semantics of passives or relatives is determined contextually, just as in Japanese possessive nominals. (Note that *no* is also called a contextual Case marker by Saito, et al. (2008).) However, this is incorrect since some plausible interpretations are unavailable in possessive nominals. For example, in *John-no ikari* 'John's anger,' John can be understood as an experiencer but not as the cause of someone's anger−which is also a plausible interpretation. This suggests that the semantics of *no*-phrases are not determined purely contextually, and 'because of' is not included in the available set of silent predicates in Japanese grammar. What elementary predicates are included in the set still needs to be identified, and further research is needed.

3.   Consequences of the Proposed Analysis

In this section, we first discuss three seemingly puzzling properties of Japanese possessive nominals and show that they in fact directly fall out from our proposed analysis. The three properties are (i) clausal possessors, (ii) the relation between word order and semantic/syntactic difference,

and (iii) unrestricted recursion property of *no*-phrases. Subsequently, we explain how we make out of the ellipsis paradigm under the current unified approach.

3.1   Accounting for the Properties of no-Phrases

As discussed in 2.3, under our analysis, the size of constituents occupying Spec,*no* is free as long as it provides a nominal specifier for *no*. This property allows *no* to follow a nominal small clause, as exemplified in (17).

(17)   a.   [~~yuuzin-no~~ musuko-ga isya]   -no yuuzin
              son-NOM   doctor -NO friend
        '(my) friend whose son is a doctor'

   b.   [~~hon-no~~ hyosi-ga   pinku] -no hon
          cover-NOM pink   -NO book
        'the book whose cover is pink'

   c.   [~~eiga-no~~ syuzinkoo-ga   utyuuzin]-no eiga
          main.character-NOM alien-NO   movie
        'the movie whose main character is an alien'

We can analyze the examples in (17) as involving possessor-raising and subject relativization followed by the remnant movement to Spec,*no*. For instance, the structure of (17-a) is as follows: [$_{DP}$ [~~friend$_i$~~ [~~friend$_i$~~ son] doctor]$_j$ [no [$_{CP}$ friend$_i$ [$_C$ t$_j$]]]]. Although *no* attaching to clausal constituents looks very different from core possessive nominals in the form of [DP-no NP], with the possessor-raising operation available in Japanese, examples like (17) are predicted to be well-formed.[10]

Let us now turn to another well-known characteristic of *no*, that is its seemingly unrestricted recursivity, which is often compared with that of English genitive *'s* (see Fukui 1986:227, Saito et al. 2008:253):

(18)   a.   kyonen no Yamada-sensei no so-no koogi
        last.year NO Yamada-teacher NO DEM lecture
        Lit. 'last year's Prof. Yamada's {that/the} lecture'   (Fukui 1986:202)

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[10]Examples like (17) probably contain something comparable to silent BEING which licenses the nominative case marker *ga*.

b. yabanzin no Rooma no hakai
    barbarian no Rome   no destruction
    'the barbarian's destruction of Rome'   (Saito et al. 2008:257)

c. [NY no hakubutukan] no [Pikaso no syoozyo no sakuhin]
    NY NO museum   NO Picasso NO girl   NO artwork
    'Picasso's artwork of a girl in NY museum' Lit. 'artwork which contains a girl which

    is at Picasso which is in the museum which is in NY'

For example, Fukui (1986) takes this recursive property as evidence that Japanese lacks functional

categories, and Saito, et al. (2008:257), comparing *no* with Chinese *de*, conclude that *no* is not

a D since multiple arguments can appear with *no*, as in (18-b). Den Dikken and Singhapreecha

(2004:24) also argue that recursion facts disfavor the determiner analysis of linking elements. Nev-

ertheless, if *no* is a special type of D licensing a (reduced) relative to its left, then the recursion

facts are no longer a puzzle but rather a favorable and expected outcome.

The current analysis also accounts for how word order difference results in different semantics

for a pair like (19a) and (19b) without ascribing to different *no* particles. Traditionally, *no* in (19a)

has been taken as a genitive Case marker, while *no* in (19b) as the attributive form of a copula.

(19) a. Naomi no tomodati
         Naomi no friend   'Naomi's friend' (the friend who is at Naomi)
         [$_{DP}$ [friend$_i$ AT Naomi]$_j$ [no [$_{CP}$ friend$_i$ [C t$_j$]]]]

     b. tomodati no Naomi
         friend   no Naomi   'Naomi, who is a friend'
         [$_{DP}$ [Naomi$_i$ friend]$_j$ [no [$_{CP}$ Naomi$_i$ [C t$_j$]]]]

In contrast, we propose that the lexical property of *no* is uniform across (19a) and (19b), taking a

relative C(*no*) and having an edge feature requiring a nominal specifier, as shown in the structures

above. Once we assume that *no* is never related to Case and that silent elementary predicates are

available in Japanese, the semantic difference between them is a natural result of the underlying

structure. The availability of non-restrictive relative interpretation in (19b) is also straightforwardly

accounted for if possessive nominals are (reduced) relatives, as restrictive and non-restrictive rela-

tives in Japanese do not superficially differ and are also ambiguous (Kuno 1973, Inoue 1976, Fukui 1986, among others).

The subject relativization clearly plays a significant role in distinguishing the nominal pair in (19). An analytical question is whether we can understand all possessive nominals as subject relatives. The answer we would like to pursue is yes. Instances like 'theme relatives' as in (1c) *sinrin no hakai* 'the destruction of the forest' can be analyzed as a reduced VP relative, with theme being the subject of VP.[11]

3.2   *Accounting for the Ellipsis Paradigm*

In section 1.2, we have seen that the ellipsis pattern has motivated the traditional 'genitive-modifier' dichotomy. However, once more data are considered, neither Saito et al's (2008) proposal (arguments vs. adjuncts) nor Watanabe's (2010) proposal (genitive Case vs. the modification marker) captures empirical data. Then how can we account for the ellipsis paradigm under the current unified analysis of *no*?

Our proposal is that the availability of ellipsis depends on the region or hight *no* merges with CP. Specifically, the possessive nominal needs to be larger than the inflectional & compound regions. This idea is along the line with Tsai's (2013) multiple-layered analysis of nominal and verbal projections. Recall the Japanese possessive nominal examples in (5-a) and (5-b) that do not survive under ellipsis, repeated below as (20-a) and (20-b), respectively:

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[11]A challenge might be cases that give rise to non-intersective (often adverbial) interpretations (see also Yamakido (2000) for similar cases with attributive adjectives in Japanese). For example, 'Ken is a true friend,' is well-formed, but the string 'Ken is true' is incomprehensible, as illustrated in (i):

(i)   Ken-wa hontoo-no tomodati-da. $\rightarrow$ Ken-wa hontoo-da. & Ken-wa tomodati-da.
       Ken-top true-no   friend-cop   Ken-top true-cop   Ken-top friend-cop
       'Ken is a true friend. $\rightarrow$ #Ken is true & Ken is a friend.'

While *hontoo* 'true' cannot be the main predicate of 'Ken', the subject relative analysis is still tenable, if we assume an extra step before the merger of *no*. From X BE [true friend], relativizing the nominal predicate derives [friend BE [true t]]. Then *no* is merged, followed by the subject relativization and the remnant movement to Spec,*no* yields: [$_{DP}$ [true t_i]$_j$ [no [$_{CP}$ friend$_i$ [C t_j]]]],

(20)   a.   *[Hare no hi]-wa yoi   ga   [ame no h̵i̵] wa otikom-u.
             clear no day-top good though rain no   top feel.depressed-PRS
             ' Clear days are fine, but (I feel) depressed on rainy ones.'

        b.   *Taroo-wa iti-niti-ni   [san -satu no hon]-o   yomu ga,   Hanako-wa [go-satu
             Taro-TOP one-day-in three -CL   no book-ACC read   though Hanako-TOP five-CL
             no h̵o̵n̵] -o   yomu.
             no   -ACC read
             'Taro reads three books in a day, but Hanako reads five.'

Interestingly, the Chinese counterparts of these nominals in (21) do not contain the linking element *de*, but rather takes the compound-like form [N N], which supports our proposal above.

(21)   a.   yu -tian
           rain -day
           'a rainy day'   (Saito et al. 2008:251)

        b.   san   -ben shu
           three -CL book
           'three books'   (Saito et al. 2008:248)

The reason possessive nominals must be larger than a certain size, containing compound and inflectional regions might relate to the availability of a focus region, which gives rise to a contrastive focus interpretation discussed in section 2.2. We will leave this issue, as well as crosslinguistic variations of compound formation, for future research.

4.   Conclusion

This paper has developed a minimalist analysis of *no* in Japanese nominals, where the properties follow from merge, lexical properties of *no* and C*(no)*, interacting with independently motivated principles. Traditionally, the pattern of ellipsis has been taken as evidence for positing two types of *no* particles in Japanese−the genitive case marker and the modification marker inserted post-syntactically (ex., Watanabe 2010). However, once a wider range of data on ellipsis is reviewed, it becomes clear that the ellipsis paradigm no longer supports the dichotomy.

     The conclusion this paper reaches is a unified analysis of *no*: *no* is neither related to Case nor a post-syntactic phenomenon, but it is a type of D that selects a (reduced) subject relative CP and

attracts the nominal predicate within CP to its left. The reason *no* 'looks' like a genitive case marker is because of its requirement of a nominal specifier, which the predicate in the relative CP provides. Our proposal is purely derivational, similar in spirit to Den Dikken & Singhapreecha (2004) but better in empirical coverage (ex., recursion of *no*-phrases, contrastive focus interpretations, and clausal *no*-phrases). Different distributional properties arise from differences in the complement of C(*no*). Our analysis of treating possessive nominals as subject relatives with (silent) elementary predicates sheds new light on the structure of DPs crosslinguistically as well as the theory of ellipsis.

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