A Compositional Approach to the Exclamatory Use of the Particle *Koto* in Japanese[*]

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1. Introduction

Exclamatives are, in general, used to "express a speaker's emotive attitude towards a certain state of affairs that is not in accordance with his or her expectations" (D'Avis (2002:26)).   English, for example, has *wh*-exclamatives and nominal exclamatives:

(1) a.   What strange things$_i$ he says t$_i$!   [clausal exclamative]
     b.   The strange things$_i$ that he says t$_i$!   [nominal exclamative]
                    (Portner and Zanuttini (2005:57), with slight modifications)

(1a) is a clause, and thus syntactically different from (1b), which is an NP containing a relative clause.   The two exclamative constructions, however, seem to share a similar meaning; that is, they express the speaker's surprise at the great strangeness of what the person in question says.   To put it in another way, the exclamatives in (1a, b) convey a comparison meaning such that the degree of the strangeness of what the person in question says is greater than the alternatives under consideration, or what the speaker expects.

Although there are few studies dedicated to the typological survey of exclamatives (cf. Michaelis (2001)), there is growing agreement that the exclamative sentence type is characterized by (at least) two semantic properties from a cross-linguistic perspective: scalar implicature and presupposition (e.g. Zanuttini and Portner (2003) for English and Paduan, a dialect of Italian, Villalba (2003) for Catalan, Yamato (2010) for Japanese, etc.).   In short, scalar implicature denotes the property that exclamatives express the speaker's extreme degree evaluation; presupposition refers to the property that the truth value of the propositional content of exclamatives is uncontroversial, or not at issue, for the speaker (and the hearer). These two semantic components contribute to the exclamative interpretation.   An interesting proposal made by Zanuttini and Portner (2003) and Portner and Zanuttini (2005) is that any syntactic structure realizing scalar implicature and presupposition can be associated with the exclamative interpretation.   More precisely, they propose the following structures for (1a) and (1b):

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(2) a.   [CP2 what strange things$_i$ [CP1 OP$_{FACT}$ [TP he says t$_i$]]]   (= (1a))

   b.   [DP the [CP strange things$_i$ [C' that [TP he says t$_i$]]]]   (= (1b))

The syntactic structure of the clausal exclamative in (2a) realizes both scalar implicature and presupposition in the CP domain (Zanuttini and Portner (2003)); the former is encoded at the first highest CP layer (CP2) occupied by the *wh*-operator, and the latter is realized at the second highest CP layer (CP1) containing the factive operator (indicated as OP$_{FACT}$).   The structure of the nominal exclamative in (2b), in which the D head selects the CP as its complement, also syntactically realizes the two semantic components (Portner and Zanuttini (2005)); the CP layer involving the relative operator encodes scalar implicature, and the DP layer containing the definite article *the* realizes presupposition.[1]   The syntactic structures in (2a, b) realizing scalar implicature and presupposition are, furthermore, associated with the sentential force of widening, or a domain comparison interpretation.[2]   Take, for example, the clausal exclamative in (1a).   Suppose that there are two domains, D1 and D2, each of which is a set of degrees of strangeness.   D1 reflects the speaker's expectation values, or roughly speaking, the set of the strange utterances that the speaker has in mind in the context, and D2 includes the extreme degree of the strangeness of what the person in question says.   D1 is, then, widened to D2 so as to include the extreme degree of the strangeness of the person's utterance.   The concept of widening captures the intuition that exclamatives convey the kind of comparison meaning (see (1a, b)).   It should be noted here that the set of alternatives in D1 is contextually given, or what the speaker has in mind in a given context.   There can be some stranger utterance than what the person in question says, but it is unlikely that the speaker uttering (1a) has the intention to compare the person's strange utterance with all the other strange utterances that s/he could hear (or actually had heard) in the real world.   In sum, clausal exclamatives encode scalar implicature at

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[1] Portner and Zanuttini (2005) adopt Kayne's (1994) head NP raising analysis of relative clauses, and assume that relative clauses have the DP-CP structure.   When a restrictive relative clause occurs with the complementizer *that*, the relative head NP directly moves into [Spec, CP]. The head raising forms an operator-variable configuration at LF.

[2] Zanuttini and Portner (2003) defines *widening* as follows:

(i)   WIDENING: For any clause *S*, containing R$_{widening}$, widen the initial domain of quantification for R$_{widening}$, D1, to a new domain, D2, such that
   (a) $[[S]]_{w,D2,<} - [[S]]_{w,D1,<} \neq 0$ and
   (b) $\forall x \forall y[(x \in D1 \& y \in (D2 - D1)) \rightarrow x < y]$.
                         (Zanuttini and Portner (2003:52), with slight modifications)

According to their analysis, widening is the source of a speaker's emotional attitude toward the propositional content.

the first highest CP layer and presupposition at the second highest one; nominal exclamatives realize presupposition at the DP layer and scalar implicature at the CP layer selected by the D head.

Apart from the types of English exclamatives in (1a) and (1b), Japanese allows an exceptional type of nominal clause with the particle *koto* which expresses the speaker's surprise at some situation (e.g. Adachi (2002), Sasai (2006)):[3, 4]

(3)   (The speaker is enjoying a musical performance)
       Maa,   kono-ensoo-no   suteki-na   koto!
       INTERJ this-performance-Gen   nice-Cop.Pres   PRT
       'Wow, how very nice this musical performance is!'

(3) is a nominal clause in the sense that the subject *kono-ensoo* 'this performance' receives the genitive case marker -*no*, and the adjectival predicate takes the so-called "rentai (attributive)" form -*na*.   The nominal clause with the particle *koto* in (3), as well as the English nominal exclamative in (1b), expresses an exclamative meaning, or a kind of comparison meaning (cf. Sasai (2006:20)); (3) implies that the musical performance that the speaker is enjoying is greater than the alternatives under consideration, or what s/he expects.   From Zanuttini and Portner's (2003) viewpoint, this amounts to saying that the nominal clause with the particle *koto* in (3) receives a domain comparison interpretation by syntactically realizing scalar implicature and presupposition.   This raises the question of how *koto*-exclamatives like the one in (3), which apparently have a different syntactic structure from English nominal exclamatives (cf. (2b)), syntactically realize scalar implicature and presupposition.

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[3] The following abbreviations are used in the glosses throughout this paper: Cop = Copula, Gen = Genitive, HNR = Honorific, INTERJ = Interjection, Nom = Nominative, Past = Past tense, Pol = Politeness form, Pres = Present tense, PRT = Particle, Q = Q-marker, SFP = Sentence-Final Particle, Top = Topic.

[4] As Teramura (1992) and McGloin (1993) point out, the exclamatory use of the particle *koto* usually implies that the speaker is a female:

(i)   Maa,   φ   go-sei-ga   de-masu   koto.
       INTERJ (you) HNR-energy-Nom   emerge-Pol.Pres   PRT(SFP)
       'Wow, you are working so vigorously!'

(Teramura (1992:91))

Note that *koto* in (i) behaves as a sentence-final particle because the verb is in the "syuusi (conclusive)" form.   The exclamatory use of the particle *koto* to be discussed in this paper may somewhat sound like a female expression, but this point will not seriously undermine the claim in this paper.   Rather, the focus of this paper is on the syntactic-semantic mechanism behind the exclamatory use of the particle *koto*.

This paper attempts to provide an answer to the question above by assuming (i) that *koto*-exclamatives, as well as English nominal exclamatives, has the DP-CP structure, wherein the D head selects the CP as its complement, and (ii) that scalar implicature is marked at the CP layer occupied by the null degree operator (indicated as OP) and presupposition is realized at the DP layer containing the particle *koto*, as shown below:

(4) $[_{DP} [_{CP} \textbf{OP}_i [_{TP}$ kono-ensoo-no $\textbf{t}_i$-suteki-na]] koto]   (= (3))

Movement
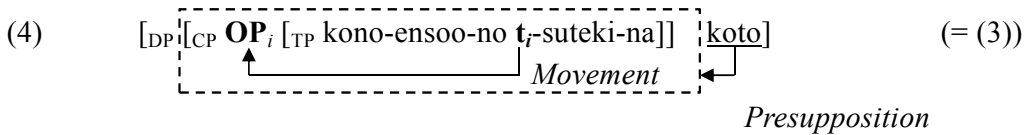
Presupposition

The syntactic structure to be proposed for *koto*-exclamatives in (4) realizes scalar implicature and presupposition, and therefore, is associated with widening, or the domain comparison interpretation.   In addition, I provide evidence for the proposal in (4), with reference to genitive-nominative conversion, topic marking by the particle -*wa*, and negative island effects.

This paper is organized as follows.   Section 2 shows that nominal *koto*-exclamatives indicate scalar implicature and presupposition, and therefore, their syntactic structure realizes the two meanings.   Section 3 provides some more details of the proposal schematically illustrated in (4).   Section 4 presents evidence for the proposal, focusing on genitive-nominative conversion, topicalization, and negative island effects.   Section 5 concludes this paper with some remark on clausal *koto*-exclamatives.

2.   The Semantic Properties of Nominal *Koto*-Exclamatives

As briefly mentioned in section 1, from a cross-linguistic perspective, exclamatives express the degree comparison meaning, which corresponds to widening in Zanuttini and Portner's (2003) term.   The degree comparison meaning is, furthermore, decomposed into the two semantic properties *scalar implicature* and *presupposition* (cf. Zanuttini and Portner (2003)).   Then, any syntactic structure realizing the two meaning components is associated with widening.   In the case of nominal exclamatives, scalar implicature is syntactically encoded at [Spec, CP], and presupposition is encoded at the DP layer, or the D head selecting the CP as its complement (see (2b)).

Koto-exclamatives like the one in (3) also receive a degree comparison interpretation such that the degree of some property is greater than what the speaker expects (cf. Sasai (2006)).   Hence, it will follow that *koto*-exclamatives show some properties relevant to scalar implicature and presupposition.   If this is correct, then

it will be the case that nominal *koto*-exclamatives have a syntactic structure realizing scalar implicature at [Spec, CP] and presupposition at the D head embedding the CP as its complement. The following subsections confirm that *koto*-exclamatives indicate properties related to scalar implicature and presupposition.

2.1. Scalar Implicature

As briefly mentioned in section 1, scalar implicature refers to the property that exclamatives express the speaker's extreme degree evaluation. For concreteness, let us consider the following examples:

(5) a. [$_{CP2}$ what strange things$_i$ [$_{CP1}$ OP$_{FACT}$ [$_{TP}$ he says t$_i$]]] (= (2a))

   b. [$_{DP}$ The [$_{CP}$ strange things$_i$ [$_{C'}$ that [$_{TP}$ he says t$_i$]]]] (= (2b))

The clausal and nominal exclamatives in (5a, b) convey an extreme degree meaning such that the property of strangeness lies at the extreme end of some contextually given scale. The extreme degree meaning is attributed to the *wh*-operator-variable configuration (cf. Zanuttini and Portner (2003)). In the case of the nominal exclamative in (5b), the CP layer occupied by the relative operator syntactically encodes scalar implicature.

Given the discussion above, *koto*-exclamatives are also expected to show properties of scalar implicature. In the literature of Japanese linguistics, Sasai (2006) describes the meaning of *koto*-exclamatives as follows: *koto*-exclamatives are used to denote an expectation value which is greater than what the speaker expects. To understand Sasai's (2006) idea clearly, let us consider (6):

(6)   (The speaker is enjoying a musical performance) (= (3))

   Maa,   kono-ensoo-no   suteki-na   koto!

   INTERJ this-performance-Gen nice-Cop.Pres PRT

   'Wow, how very nice this musical performance is!'

Suppose that the speaker in (6) is a referee of a certain musical competition. The utterance in (6) implies that the musical performance s/he is listening to is greater than what s/he expects or the other musical performances s/he had already enjoyed in the competition. Sasai's (2006) description seems to indicate that *koto*-exclamatives are endowed with scalar implicature closely tied to the presence of a gradable predicate. The following examples, as well as (6), involve the gradable adjectival predicate *kirei*(-*da*) 'beautiful' in (7a) and the gradable adverbial expression *yoku* 'well' in (7b), respectively:

(7) a. (The speaker is looking up at the sky)

        Maa,   sora-no   kirei-na   koto!

        INTERJ sky-Gen   beautiful-Cop.Pres PRT

        'Wow, how very beautiful the sky is!'

    b. (The speaker is taking care of her baby)

        Maa,   musuko-no yoku nemur-u   koto!

        INTERJ son-Gen   well   sleep-Pres PRT

        'Wow, how very well my son sleeps!'

These observations will lead us to predict that *koto*-exclamatives obligatorily contain a gradable expression. The following examples show that any *koto*-exclamative with no gradable expression becomes ungrammatical:

(8) a. (The speaker is meeting a girl$_i$ who is serious sick)

      * φ$_i$ Byooki-no   koto!

      (the girl) sick-Cop.Pres   PRT

      '[Intended] You are serious sick!'

    b. (The speaker is taking care of her baby)

      * Musuko-no nemur-u   koto!

      son-Gen   sleep-Pres PRT

      '[Intended] My son sleeps!'

The *koto*-exclamative in (8a) includes the non-gradable predicate NP *byooki*(-*da*) 'sick', and is unacceptable.[5] The *koto*-exclamative in (8b) lacks any gradable expression, and is also unacceptable. The examples above suggest that *koto*-exclamatives must syntactically involve a gradable expression; the lack of a gradable expression leads to semantically vacuous quantification, resulting in an illegitimate LF configuration (cf. Fox (2000)).

     Scalar implicature, or the extreme degree evaluation, also explains the limitation on the range of degree adverbs which occur in *koto*-exclamatives. The example in (9) below contains three different types of degree adverbs: namely, the high degree adverb *tamaranaku* 'screamingly', the middle degree adverb *nakanaka* 'quite', and the low degree adverb *sukosi* 'a little'.[6] Each of the degree adverbs can

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[5] The non-gradable adjectival predicate in (8a) takes -*no* as the attributive form.

[6] The classification of degree adverbs presented here is based on Tawa (2011, 2012), but is slightly modified by adding the high degree adverb class including those which have their roots in emotional adjective expressions (cf. Narumi (2013)). It should be noted that there is a tendency that some emotional adjective expressions develop as high degree adverbs from a diachronic perspective (see Elliott (1974) for the occurrence of such high degree adverbs in English

be used to modify gradable predicates like *kawai*(-*i*) 'cute' in declarative sentences, as shown below:

(9)   Sono-neko-wa {tamaranaku / nakanaka / sukosi}   kawai-i.
        the-cat-Top   {screamingly / quite / a little}   cute-Pres
        'That cat is {screamingly / quite / a little} cute.'

Given that *koto*-exclamatives convey scalar implicature, it will be predicted that they occur only with the class of high degree adverbs because they serve to intensify the extreme degree interpretation.   The following contrast shows that this is the case:

(10) a.   (The speaker is watching a cat$_i$)
        φ_i tamaranaku kawai-i   koto!
        (the cat)   screamingly cute-PRES PRT
        'The cat is screamingly cute!'
    b.   (The speaker is watching a cat$_i$)
        φ_i {$^{??}$nakanaka / *sukosi}   kawai-i   koto!
        (the cat)   {quite / a little}   cute-PRES PRT
        '[Intended] The cat is {quite / a little} cute!'

The high degree adverb naturally fits with the *koto*-exclamative in (10a), but the use of both the middle degree adverb and the low degree adverb degrades the acceptability, as shown in (10b).   This fact will be naturally captured under the assumption that *koto*-exclamatives are tied to scalar implicature, because the use of adverbs denoting low and middle degree contradicts the speaker's high degree evaluation.
        This subsection confirmed that *koto*-exclamatives are tied to scalar implicature.   This fact, furthermore, suggests that they syntactically realize scalar implicature by merging some syntactic morpheme at the CP layer (see (4)).

2.2.   *Presupposition*
        The next property to be discussed is presupposition.   Presupposition is the property that the truth of the propositional content of exclamatives is not at issue for the speaker (and possibly the hearer, too); that is, the speaker takes the propositional content of exclamatives as background information, and hence it cannot be an

exclamatives).

assertive part (cf. Stalnaker (2002)).   This property can be seen as a consequence of the fact that exclamatives express the speaker's emotional attitude toward a given situation.   For concreteness, let us consider the following examples:

(11) a.   [$_{CP2}$ what strange things$_i$ [$_{CP1}$ OP$_{FACT}$ [$_{TP}$ he says t$_i$]]]   (= (2a))

    b.   [$_{DP}$ the [$_{CP}$ strange things$_i$ [$_{C'}$ that [$_{TP}$ he says t$_i$]]]]   (= (2b))

The exclamatives in (11) convey such a meaning that the person in question says (extremely) strange things, and this information is backgrounded for the speaker (and possibly the hearer, too); in other words, the speaker does not commit her/himself to the truth of the propositional content.   Instead, the main focus is on the speaker's emotional attitude indicating that the propositional content is unusual or surprising for her/him.   The presupposition meaning is encoded at the second highest CP layer (CP1) involving the factive operator in the clausal exclamative in (11a).   The nominal exclamative in (11b), on the other hand, encodes presupposition at the DP layer containing the definite article *the* as its head.

    Given that presupposition is the property that the truth of the propositional content of exclamatives is uncontroversial for the speaker, it will be predicted that *koto*-exclamatives semantically conflict with a range of syntactic-semantic phenomena in which the speaker commits to the truth of the propositional content. In what follows, I show that the following two facts can be accounted for by assuming that the propositional content of *koto*-exclamatives is presupposed: the unavailability of the nominative subject with exhaustive focus and the inability of *koto*-exclamatives to function as answers.   It should be noted that the speaker, in both cases, asserts or commits her/himself to the truth of the propositional content. These properties also indicate that nominal *koto*-exclamatives encode presupposition at the DP layer by merging some syntactic element.

    To begin with, let us briefly review the relationship between nominative-case marking and exhaustive focus.   In the literature, Kuno (1973) observes that subjects with the nominative case *-ga* may receive an exhaustive focus interpretation. For example, the nominative subject of the adjectival predicate *subarasi*(-*i*) 'great' in (12a) refers to the specific music performance the speaker is enjoying, and prefers an exhaustive focus reading like the one described in (12a).   The declarative sentence with the nominative subject referring to the sky in (12b), on the other hand, simply describes what the speaker is looking at:

(12) a.   Kono-ensoo-ga   subarasi-i.
          this-performance-Nom   great-Pres

        'This performance is truly great (but the other performances are not).'
    b.   Sora-ga   kirei-da.
         Sky-Nom   beautiful-Cop.Pres
         'The sky is beautiful.'

To put it in another way, the speaker of (12a) commits her/himself to the truth of the propositional content by asserting that of all the performances that the speaker has enjoyed, the only (truly) great one is what the speaker is enjoying in the context. The nominative subject in (12b), on the other hand, does not bear such an exhaustive focus reading. If the pattern in (12) is taken together with the presuppositional property of *koto*-exclamatives, it will be predicted that (12a) with exhaustive focus does not occur in *koto*-exclamatives, while (12b) does. This is because the nominative subject with exhaustive focus in (12a) forces the speaker to assert the truth of the propositional content, which is presupposed in *koto*-exclamatives. This prediction is borne out with the following contrast:

  (13) a.   Kono-ensoo{-no/*-ga}   subarasi-i   koto!
           this-performance{-Gen/-Nom} great-Pres   PRT
           'How very great this musical performance is!'
      b.   (The speaker is looking up at the sky)
           Maa,   sora{-no/-ga}   kirei-na   koto!
           INTERJ sky{-Gen/Nom} beautiful-Cop.Pres PRT
           'Wow, the sky is so beautiful!'

As expected, (13a) is minimally different from (13b) in that nominative-case marking is impossible in (13a). This fact indicates the semantic incompatibility between the nominative subject with exhaustive focus and presupposition; that is, the nominative subject with exhaustive focus in (13a) forces the speaker to commit her/himself to the truth of the propositional content, but at the same time, presupposition says that it is uncontroversial.[7] There is no such semantic incompatibility in (13b); hence, nominative-case marking is available in (13b).

     There is another piece of evidence indicating presupposition of *koto*-exclamatives. One property that Zanuttini and Portner (2003) attribute to

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    [7] Adachi (2002) observes that nominative-case marking is unavailable in examples like the one in (13a), but does not discuss an acceptable case like (13b). My point here is that nominative-case marking is, in principle, possible in *koto*-exclamatives, but it is impossible when the nominative subject bears an exhaustive focus interpretation.

presupposition is the inability of exclamatives to function as answers. This property is illustrated below:

(14) A: How tall is Tony's child?
     B:＊ How very tall he is!

<div align="right">(Zanuttini and Portner (2003:48))</div>

Person A in (14) is asking the degree question to Person B, and Person B attempts to answer the question by using the *wh*-exclamative.   The *wh*-exclamative, however, cannot serve as an answer to the question, as in (14).   Analyzing *wh*-exclamatives as presuppositional in nature (cf. Grimshaw (1979)), Zanuttini and Portner (2003) argue that *wh*-exclamatives are not used as answers because their propositional content is presupposed: in other words, a sentence being used as an answer must contain some assertive part, as originally pointed out by Grimshaw (1979).[8] Having their discussion in mind, let us turn to *koto*-exclamatives.   The following example shows that *koto*-exclamatives cannot be used as answers:[9]

(15) A: Anata-no-neko-wa   dorekurai   kawai-i   no-des-u-ka?
         you-Gen-cat-Top   how much   cute-Pres PRT-Cop.Pol-Pres-Q
         'How cute is your cat?'
    B: [i]   φ   tamaranaku   kawai-i(-des-u).
              (my cat)   screamingly   cute-Pres(-Cop.Pol-Pres)
              'My cat is screamingly cute.'
        [ii] ＊ φ   tamaranaku   kawai-i   koto!
              (my cat)   screamingly   cute-Pres PRT
              'How screamingly cute my cat is!'

Person A in (15) is asking the degree question to Person B, and Person B is trying to answer the question by using either the declarative sentence in [i] or the *koto*-exclamative in [ii].   Here, the declarative sentence in [i] can be used to

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[8] Grimshaw (1979), in support of this view, provides the following data:

(i)   A: Did Bill leave?
     B: ＊ It's odd that he did.

<div align="right">(Grimshaw (1979:321))</div>

Based on (i), Grimshaw suggests that factive sentences do not serve as answers to questions.
    [9] Keita Ikarashi points out to me the possibility that the unacceptability of (15) [ii] may be improved if they occur with the sentence-final particle *yo* 'I tell you'.   I agree with this judgement, but assume that such a case can be seen as an indirect answer.

provide an answer to the question, while the *koto*-exclamative with the high degree adverb in [ii] does not.   This fact suggests that *koto*-exclamatives cannot be used as answers because their propositional content is presupposed.

This subsection showed that *koto*-exclamatives indicate the property of presupposition; in other words, the truth value of the propositional content is not controversial and background for the speaker (and possibly the hearer, too). Hence, nominative-case marking with exhaustive focus is not semantically compatible with the presuppositional property of *koto*-exclamatives because it implies that the speaker asserts or commits her/himself to the truth of the propositional content.   *Koto*-exclamatives, furthermore, cannot be used as answers because the propositional content is presupposed.   These properties indicate the presence of a grammatical morpheme encoding presupposition at the DP layer. The next section provides the details of the compositional analysis of the exclamatory use of the particle *koto*.

3.   Proposal

Having seen that *koto*-exclamatives show the two semantic properties *scalar implicature* and *presupposition*, this section turns to the issue of how the two semantic properties are syntactically realized.   As outlined in section 1, *koto*-exclamatives encode scalar implicature at [Spec, CP] occupied by the null degree operator and presupposition at the D head in which the particle *koto* occurs. This proposal is schematically illustrated below:

(16) a.   Sono-hana-no   kirei-na   koto!
the-flower-Gen   beautiful-Cop.Pres   PRT
'How very beautiful the flower is!'

b.   [$_{DP}$ [$_{D'}$ [$_{CP}$ **OP**$_i$ [$_{C'}$ [$_{IP}$ sono-hana-no **t**$_i$-kirei-na]]] koto]]

Movement   *presupposition*

The *koto*-exclamative in (16a) has the configuration in (16b).   The null degree operator originally attached to the gradable predicate moves into [Spec, CP], and opens the set of degrees; the D head is occupied by the particle *koto*, and encodes the CP complement as presupposition.   The syntactic configuration in (16b) realizes both scalar implicature and presupposition, and as a result, is associated with the sentential force of widening.   For example, the *koto*-exclamative in (16a) receives a domain comparison interpretation such that D1, a set of the speaker's expectation values, is expanded to D2 so as to include the extreme degree of the flower's beautifulness.   Thus, the syntactic structure of *koto*-exclamatives reflects

Zanuttini and Portner's (2003) compositional view on the exclamative sentence type.

To summarize, the syntactic structure of *koto*-exclamatives proposed in (16b) shows two syntactic properties. First, it has the nominal embedding structure in which the D head takes the CP as its complement. Second, it involves the movement of null operator to [Spec, CP], which opens the set of degrees at LF. The next question is whether these syntactic properties can be supported by any evidence, which the next section deals with.

4. Supportive Evidence

This section provides further evidence for the syntactic structure proposed for *koto*-exclamatives in (16a). In my proposal, *koto*-exclamatives have the nominal embedding structure in which the D head takes the CP as its complement, and contain an operator-variable configuration formed by the movement of null degree operator. This section shows that the DP-CP structure of *koto*-exclamatives is supported by Genitive-Nominative Conversion (GNC) and topicalization, and that the movement of null degree operator accounts for the lack of negative island effects in *koto*-exclamatives with gradable adjectival predicates.

4.1. *Genitive-Nominative Conversion*

In the literature, it has been argued that GNC is licensed in the nominal embedded context, which is well known as the D licensing approach (e.g. Harada (1971), Miyagawa (1993), Maki and Uchibori (2008)).[10] Putting aside the details of the D licensing mechanism, genitive-case marking is licensed by the presence of a DP.[11]

Given that *koto*-exclamatives have the nominal embedding structure in my proposal, the D licensing approach predicts that GNC is possible in *koto*-exclamatives. This prediction is confirmed with (13b), repeated as (17) below:

(17)   (The speaker is looking up at the sky)   (= (13b))
         Maa,   sora{-no/-ga}   kirei-na   koto!

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[10] An alternative view on GNC is called the C licensing approach (Watanabe (1996), Hiraiwa (2001)). I will not discuss which approach captures a range of phenomena relevant to GNC, but Hiraiwa (2006) admits that GNC is essentially an instance of embedded clause phenomena; GNC is licensed in the syntactic environment where the clausal syntactic object (including the subject to be genitive-marked) is selected as a DP by some embedding verb.

[11] Under the D licensing approach, genitive-case marking is licensed in situ (Maki and Uchibori (2008)) or by moving the subject to [Spec, DP] (Miyagawa (1993)).

INTERJ sky{-Gen/Nom} beautiful-Cop.Pres PRT

'Wow, the sky is so beautiful!'

It should be noted here that GNC is optional in *koto*-exclamatives unless the nominative subject receives an exhaustive focus interpretation (see the contrast in (13) and the relevant discussion).

4.2. *Topicalization*

The other evidence for my proposal comes from topicalization.   In the field of Japanese linguistics, it is well-known that the particle *-wa* cannot appear in the embedded context.   Let us consider the following examples, cited from Akaso and Haraguchi (2011:93):

(18) a. * Taroo-wa   it-ta   konsaato.
         Taroo-Top go-Past   concert
         'the concert which Taroo went to'
     b. * Hanako-wa   tsukut-ta   keeki
         Hanako-Top make-Past cake
         'the cake that Hanako made'

The relative clauses in (18) both contain the *wa*-marked phrases as topic markers (but not as contrastive markers), and are ungrammatical.   The point here is that the topic marker *-wa* cannot occur in the embedded context.

Having the discussion above in mind, let us turn to *koto*-exclamatives.   The syntax of *koto*-exclamatives is proposed to be the embedding structure in which the D head selects the CP as its complement.   Given that the topic marker *-wa* cannot occur in the embedding context, it is predicted that topic marking is unavailable in *koto*-exclamatives because they take the embedding syntactic structure.   This prediction is confirmed with Adachi's (2002) observation that the subject of *koto*-exclamatives is incompatible with topic marking by *-wa*:

(19)   (The speaker is enjoying a musical performance)   (cf. (3))
         Maa,   kono-ensoo{-no / *-wa}   subarasi-i   koto!
         INTERJ this-performance{-Gen/-Top} great-Pres   PRT
         'Wow, how very great this musical performance is!'

As shown in (19), the topic marker *-wa* cannot occur in the *koto*-exclamative. The fact that both relative clauses and *koto*-exclamatives cannot tolerate topic marking by the particle *-wa* indicates that they have the embedding structure.

4.3. *Negative Island Effects*

It is a traditional observation that *wh*-movement usually cannot cross negation in degree *wh*-constructions in English (e.g. Ross (1983), Rizzi (1990)). This so-called Negative Island Effect is observed in *wh*-exclamatives with gradable adjectival predicates, as in (20a):

(20) a. * **How nice**$_i$ John isn't **t**$_i$!   (Oda (2002:102), with slight modifications)
   b.   [$_{CP}$ **How**$_i$ [$_{TP}$ John isn't **t**$_i$-nice]]

The *wh*-exclamative in (20) involves the movement of the *wh*-operator containing the gradable adjective over negation, giving rise to the negative island violation. One crucial point here is that overt syntactic movement determines which predicate to be quantified over in English. For example, the complex degree operator in (20a) involves the *wh*-word and the gradable adjective *nice*. The gradable adjective predicate is, then, reconstructed into its original position, and the LF configuration in (20b) results. The *wh*-operator quantifies over the gradable predicate at LF, but the LF configuration is excluded either as a syntactic violation of locality (e.g. Rizzi's (1990) relativized minimality violation) or a semantic violation (e.g. the problem of an undefined maximal degree in the sense of Oda (2002, 2005)).[12]

The situation, however, seems to be different in Japanese, a *wh*-in-situ language, for two reasons. First, Japanese does not involve obligatory overt *wh*-movement, and therefore, does not determine which gradable predicate to be quantified over with recourse to overt syntactic movement. Second, the type of negation which attaches to adjectival predicates can be lexical (see Tagawa's (2005) argument, which is based on Nishiyama (1999), that the type of negation which attaches to adjectival predicates is a combination of negation and the dummy covert predicate *ar(-u)* 'be'). These two considerations will lead us to predict that *koto*-exclamatives with gradable adjectival predicates do not show the negative island effect violation because the null operator may be attached to the complex

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[12] According to Oda (2002, 2005), examples like (20) are excluded because the problem of an undefined maximal degree arises; that is, maximal degrees are undefined in a downward entailing context including negation.

predicate consisting of the adjectival predicate and lexical negation.[13]   This prediction is confirmed with the following examples:

(21) a.   Hanako-no   sunao-na   koto!
           Hanako-Gen   honest-Cop.Pres   PRT
           'How very honest Hanako is!'
     b.   Hanako-no   sunao-zya-nai   koto!
           Hanako-Gen   honest-Cop-Neg.Pres   PRT
           'How very dishonest Hanako is!

The acceptable sentence in (21b) will be naturally captured by assuming that the adjectival predicate and negation behaves as a complex predicate, and it is quantified over by the null operator; as a result, (21b) can express the speaker's extreme degree evaluation on Hanako's dishonesty.   Hence, (21b) does not show the negative island violation.[14]

5.   Concluding Remarks

This paper proposed the compositional analysis of the exclamatory use of nominal clauses ending up with the particle *koto* in Japanese on the basis of Zanuttini and Portner's (2003) view that any syntactic structure realizing scalar implicature and presupposition receives the exclamative (domain comparison) interpretation.   The proposal was twofold.   First, *koto*-exclamatives have the nominal embedding structure, wherein the D head takes the CP as its complement. Second, the D head containing the particle *koto* encodes presupposition, and the CP layer occupied by the null degree operator realizes scalar implicature; thus, *koto*-exclamatives are associated with the sentential force of widening.

The proposed structure is, furthermore, supported by three facts.   First, GNC is licensed by the presence of the DP layer in *koto*-exclamatives, as the D licensing

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[13]   See Tagawa (2005) for the details of the proposal and the relevant discussions.   Tagawa's (2005) proposal will capture a well-known observation that a verbal predicate needs a tense support by the morpheme -*si* when it is separated from negation by a particle like -*wa* (e.g., *kai-wa-si-nai* 'buy-Top-si-Neg.Pres'); this morpheme, however, does not occur in adjectival predicates (e.g., *sunao-de-wa-nai* 'honest-Cop-Top-Neg.Pres').   In the latter case, the covert dummy predicate *ar*-(*u*) 'be' is inserted between the particle -*wa* and negation (e.g., *sunao-de-wa-(aru)-nai* 'honest-Cop-Top-(be)-Neg.Pres').

[14]   Oda (2005) also observes that Japanese exclamative sentences with the exclamatory marker *nante* also obviate the negative island violation when they occur with gradable adjectival predicates.   Oda (2005) argues that the lack of negative island effects in Japanese exclamatives with the exclamatory marker *nante* indicates that Japanese lacks movement, and therefore does not open the set of degrees.   I will leave open for future research the question of whether the analysis proposed here can be extended to Japanese exclamatives with the exclamatory marker *nante*.

approach predicts.   Second, the topic marker -*wa*, which is available only in the root context, is not allowed in *koto*-exclamatives because they have the nominal embedding structure.   Third, *koto*-exclamatives with gradable adjectival expressions obviate the negative island violation because their derivation lacks overt syntactic movement, which determines which predicate to be quantified over in English.

Before closing this paper, I would like to mention another type of *koto*-exclamatives which has a main clause status (cf. Adachi (2002)):

(22)   Hanako-wa   yasasi-i   gakusei-da   koto
Hanako-Top   kind-Pres   student-Cop.Pres   SFP
'What a kind student Hanako is!'

The *koto*-exclamative in (22) is different from nominal *koto*-exclamatives from several viewpoints.   First, the subject can be marked with the topic marker -*wa*, and the copula attached to the nominal predicate takes the "syuusi (conclusive)" form. The two properties above suggest that the syntactic status of (22) is much more like clausal, but not nominal, and *koto* in (22) will be seen as a sentence final particle (cf. Teramura (1992), Adachi (2002)).   One might wonder whether the *koto*-exclamative in (22) is not an instance of exclamatives, but it is impossible to omit the gradable adjectival expression *yasasi*(-*i*) 'kind'.   This paper does not discuss clausal *koto*-exclamatives like the one in (22), but tentatively assumes that they have the following structure (cf. (2a)):

(23) $[_{CP3}$ $[_{CP2}$ **QP$_i$** $[_{CP1}$ Hanako-wa $[_{IP}$ **t**$_i$-yasasi-i gakusei-da]]] koto]
Movement

Presupposition

I will leave open for future research what the syntactic structure in (23) for root *koto*-exclamatives predicts.

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