The "Marginal Acceptability" of Noun Phrase Modification by an Adverb Clause

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1. Introduction

 This paper deals with what Kanetani (2013) calls the NP-Adverb Clause construction (henceforth, NP-AdvC construction), focusing particularly on its marginal acceptability. The construction in question appears in the subject of sentence (1):

> (1) ??His destruction of the fortune cookie before he read the fortune is
> to be regretted.
>
> (Ross 2004: 417 [underline added])

The underlined sequence in (1) is a noun phrase headed by the deverbal noun *destruction* followed by an adverbial *before*-clause modifying it. Ross (2004) suggests that such a modification is marginally acceptable (as indicated by the prefixed "??") and that *after-/because-/when-/if-/while*-clauses may also modify, though as marginally as a *before*-clause, a noun phrase headed by a deverbal noun. Intriguingly, Ross notes that sentence (1) "is far superior to [sentence (2), cited from Chomsky (1970: 193)], especially when *criticism* has the meaning not of an event, but of something that has been written (fn. 117, underline added)."

> (2) *?His criticism of the book before he read it
> (Ross 2004: 416, cited from Chomsky 1970)

That is, while putting double question marks (??) on sentence (1), Ross considers the sentence somehow acceptable. In fact, some native speakers *do* accept the sentence. Thus, by "marginal acceptability," I mean that the construction is not

perfectly grammatical but is acceptable. With sentences like (1) and other at-
tested examples with the same structure, Kanetani (2013) proposes the following
descriptive generalization for this phenomenon:[1,2]

(3)   NPs that convey sentence-like meanings may be modified by sen-
      tence adjuncts.   (Kanetani 2013: 47)

Not only does the generalization in (3) account for the distribution of the
attested examples but it also correctly rules out the ill-formed examples. How-
ever, since, as mentioned earlier, the NP-AdvC construction is marginal in ac-
ceptability, this paper considers (i) why this construction is anomalous, (ii) why
it may be used nevertheless, and (iii) how it becomes acceptable.

The answer to the first question is simple enough to be given here: The
structure is not favorable because an NP is modified by an adverbial, although
nominals should be modified by an adjectival, not by an adverbial. The rest of
the article explores the second and the third questions. In section 2, I will con-
sider the second question along the line of Ikegami's (1981, 1991) typological
view of the English language. In section 3, I will give an answer to the third
question in the framework of construction grammar.

2. English as a *Mono*-Oriented Language

As seen in the previous section, the reason that the construction is anom-
alous is simple. What is complicated is to answer why such modifications are
possible. The key to answering this question is the English speakers' preferred
way of construing situations: In comparison with languages like Japanese, Eng-
lish is said to be a language whose speakers prefer thing construal over process
construal (cf. Ikegami 1981, 1991). In particular, Ikegami (1991) argues that
English has a tendency to extract *mono* out of *koto,* while Japanese prefers to
submerge *mono* in *koto* (cf. Ikegami 1991: 297).[3] Following Ikegami's typological
view of these languages, I will henceforth refer to languages like English as
mono-oriented languages and languages like Japanese as *koto*-oriented languages,
respectively. Ikegami observes that this difference in preference is reflected in

various linguistic phenomena including the (non-)existence of relative pronouns, raising constructions, and head-internal relative clause constructions.

First, according to Ikegami (1981), relative pronouns are used in English, but not in Japanese. Observe the following example:

(4) Do you know the millions in Asia that are suffering from protein deficiency because they get nothing but vegetables to eat?

<div align="right">(Ikegami 1981: 258)</div>

What the speaker asks in (4) is whether the interlocutor knows the proposition that the millions in Asia are suffering from protein deficiency because they get nothing but vegetables to eat. Nevertheless, by using the relative clause, the object *the millions in Asia* is extracted out of that proposition and it metonymically represents the overall proposition. More explicitly, Ikegami (1991: 295) mentions that "the function of the relative clause construction is to focus on a *mono* entity involved in the event to be described, take it out of the frame of *koto* event, give it a special grammatical status as 'antecedent' and hang on it as a subordinate clause the remains of the destroyed *koto* event." Thus, he suggests the compatibility of the relative clause construction and the *mono*-oriented language.[4] In *koto*-oriented languages like Japanese, this way of construal (e.g. (5a)) is less preferred compared with sentences like (5b), in which the accusative marker *–o* is attached to *koto* (i.e. proposition):

(5) a. tanpakusitsubusoku de kurusindeiru aziano nanzenmanninno
        protein-deficiency   by suffering   Asian millions
        hitotati o   sitteimasu ka
        people   ACC know   Q
        '(lit.) Do you know millions of Asia suffering from protein deficiency?'
     b. aziano nanzenmannin toiu hitotati ga   tanpakusitubusoku
        Asian millions   say people NOM protein-deficiency
        de kurusindeiru koto o   sitteimasu ka
        by suffering   KOTO ACC know   Q

'(lit.) Do you know the proposition that millions of Asia are suffering from protein deficiency?'

(adapted from Ikegami 1981: 258)

Raising constructions, as in (6), are also said to be peculiar to *mono*-oriented languages.

(6) John happened to find the book.   (Ikegami 1991: 298)

Ikegami observes that although sentence (6) is logically odd because what happened is that John found the book, raising constructions of this kind are well developed in English.[5] However, as Ikegami puts it, "the illogicality [of sentence (6)] is overridden by the desire to foreground the *mono* notion (ibid.)." In short, the raising construction, as with the relative clause construction, singles out a particular participant, e.g. John, out of the overall proposition that it participates in, and gives it a special focus.

Contra to regular relative clause constructions, so-called head-internal relative clause constructions, as in (7), are found in Japanese but not in English.

(7) kokoni hon o   oiteoita no   ga   nakunatte iru
     here   book ACC placed   NOMINALIZER NOM gone   is
     '(lit.) That I placed the book here is gone'

(Ikegami 1991: 296)

Ikegami observes that the head-internal relative clause construction submerges *mono* in *koto*. In (7), what is gone is logically *hon* 'the book,' or a *mono*-type entity, but a clause containing it with the nominalizer *no*, or a *koto*-type expression, can be the subject of the predicate *nakunatteiru* 'is gone.' The head-internal relative clause construction is not used in English. Ikegami considers this fact as a reflection of the fact that Japanese, unlike English, prefers *koto*-type expressions.

These phenomena suggest that English is a (relatively) *mono*-oriented language, and hence its speakers prefer to focus on a particular individualism in-

volved in an event in the linguistic representation of the event (Ikegami 1991:
298).[6] Given the typological preference, we can say that the nominalization ob-
served in the NP-AdvC construction (e.g. (8a)) is preferred over the compliment-
tization (e.g. (8b)) in the English language. The former operation reflects a *mono*
construal of a situation and the latter a *koto* construal of the same situation.
That is, the expressions in (8a, b) are both nominal expressions reflecting differ-
ent ways of construal.

(8) a.   his destruction of the fortune cookie   (*mono*-type)
     b.   that he destroyed the fortune cookie   (*koto*-type)

The combination of an adverb clause with a *mono*-type expression like (8a) re-
sults in ungrammatical sequence, for the reason mentioned in section 1, while its
combination with a *koto*-type expression will be grammatical. The difference in
grammaticality is clearly shown in (9a) and (9b):

(9) a. ?? His destruction of the fortune cookie before he read the for-
            tune is to be regretted.
     b.   That he burned the contract before he read it was improper.
                                        (Ross 2004: 417 [underline added])

Nevertheless, the NP-AdvC construction *does* exist. From the discussion above,
I conclude that it is when the typological preference overrides the grammatical
restriction that a speaker dares to use the construction. In this sense, the con-
struction may not be stored in the grammar, but may be produced on-line due to
the (temporary) victory of the typological preference over the grammatical re-
striction as a result of their negotiation.   In the following section, I will focus on
how the construction is produced.

3. Licensing the NP-AdvC Construction

　　　In the previous section, I have accounted for why the NP-AdvC construc-
tion may be used while it is not favorable.   In this section, I consider the ques-

tion of how the construction comes to exist. In particular, dividing the NP-AdvC construction into the deverbal noun type and the non-deverbal noun type, I will argue that the former type, which is more basic, may be licensed by what I will call syntactic coercion, while the latter type is an extension from the former.

Let us first review the semantic restriction on this construction in (3), repeated here as in (10):

(10)   NPs that convey sentence-like meanings may be modified by sentence adjuncts.   (= (3))

This restriction does not rule out those NPs headed by a non-deverbal noun; rather, it guarantees that such NPs may participate in the NP-AdvC construction as long as their potential meanings conform to the meaning designated by this semantic restriction. Observe the following examples:

(11) a. ?? His destruction of the fortune cookie before he read the fortune
        is to be regretted.   (= (1))
     b. ? The storm after you left was terrifying.   (Ross 2004: 417)

In (11a), the noun phrase modified by the *before*-clause is headed by *destruction*, a deverbal noun; hence, its sentence-like meaning is straightforwardly observed. In (11b), on the other hand, the noun *storm* is not deverbal, so it is difficult to assert that the noun phrase conveys a sentence-like meaning in a straightforward fashion. *Longman Dictionary of Contemporary English* (5th edition) defines the noun *storm* as follows:

(12)   STORM: a period of very bad weather when *there is a lot of rain or snow, strong winds, and often lightning*   (LDOCE[5] [italics are mine])

With this dictionary definition in mind, we can say that *storm* can convey a sentence-like meaning in a manner that implies some eventuality (cf. Kanetani 2013: fn. 7). In other words, the italicized part in (12) could be foregrounded when the noun is used in the NP-AdvC construction (see, for example, Nunberg et al. 1994

for an argument for specialized meanings of words in specific constructions).

Assuming that the deverbal type of the construction (e.g. (11a)) is more basic than the non-deverbal type (e.g. (11b)), I will discuss their licensing mechanisms in the following subsections.[7]

3. 1.　The Deverbal Type

As described in (3), it is only sentence adjuncts that may modify an NP. Observe the following contrast:

> (13) a. ? [God's destruction of Sodom because homosexuality is a sin] is
> 　　　　widely known.
> 　　　b. * [God's destruction of Sodom because the Bible tells so] has been
> 　　　　studied widely.

The *because*-clause in (13a) is a sentence adjunct while that in (13b) is a disjunct. It is generally assumed in the generative literature that the former adjoins to VP, and the latter to TP or a higher functional category.　Hence, the combination of a VP with a sentence adjunct (as in (14)) forms the VP-AdvC construction, as in figure 1.

> (14) God destroyed Sodom because homosexuality is a sin.

syn $\begin{bmatrix} \text{cat V} \\ \text{function head} \\ \text{max +} \end{bmatrix}$　　sem [modified event]

syn $\begin{bmatrix} \text{cat V} \\ \text{function head} \\ \text{max +} \end{bmatrix}$ sem [event]　　syn $\begin{bmatrix} \text{cat C} \\ \text{function adjunct} \\ \text{max +} \end{bmatrix}$ sem [adverbial]
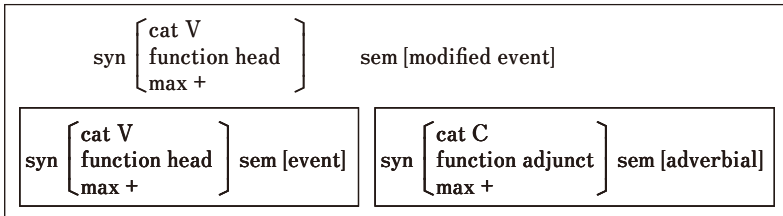
figure 1: the VP-AdvC construction

In figure 1, the outer box designates a maximal projection (max+) of a verb (cat [egory] V) functioning as a syntactic head that is paired with the meaning of a modified event.　The construction consists of a VP with a meaning of event, specified by the left side inner box and an adjunct CP with an adverbial function,

specified by the right side inner box. The mother (i.e. the outer box) and the head daughter (i.e. left side inner box) share the head feature, [cat V]. The VP-AdvC construction, exemplified by a sentence like (14), is a canonical and basic construction in English.

If one attempts to realize the VP-AdvC construction in a certain syntactic slot that requires a nominal category, such as subject of a sentence, prepositional complement, etc., that is, if an element of eventive/propositional semantic type needs to occur in such a slot, the VP-AdvC construction, as it is, does not meet the syntactic requirement from the construction to be embedded in. As a result, an ill-formed sentence would follow:

(15) *God destroyed Sodom because homosexuality is a sin is widely known.

In (15), a categorical mismatch occurs between what the global level construction (i.e. the subject-predicate construction, etc.) requires and what the local level construction (i.e. the VP-AdvC construction) actually represents.[8]

Presumably, the simplest way to satisfy the categorial requirement from the global level construction is to change the categorial value in figure 1 into N, with the rest of the construction unchanged. Hence, the NP-AdvC construction as represented in figure 2 comes to exist.
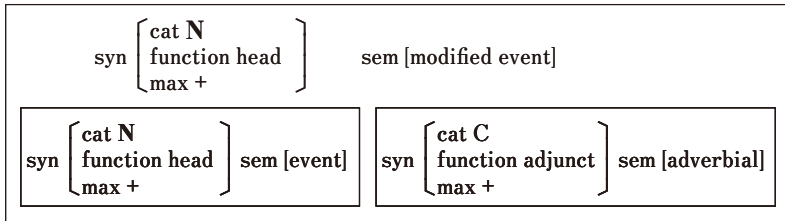
$$
\begin{bmatrix}
\text{syn} \begin{bmatrix} \text{cat } \mathbf{N} \\ \text{function head} \\ \text{max } + \end{bmatrix} \quad \text{sem [modified event]} \\[2em]
\boxed{\text{syn} \begin{bmatrix} \text{cat } \mathbf{N} \\ \text{function head} \\ \text{max } + \end{bmatrix} \text{sem [event]}} \quad
\boxed{\text{syn} \begin{bmatrix} \text{cat } \mathbf{C} \\ \text{function adjunct} \\ \text{max } + \end{bmatrix} \text{sem [adverbial]}}
\end{bmatrix}
$$

figure 2: the NP-AdvC construction

As with the VP-AdvC construction in figure 1, the categorical value of the mother is shared with that of the head daughter. Thus, along with the change of the mother's cateogrial value, the head daughter constituent also designates its categorical value as N. This, of course, yields an odd structure in which an adverbi-

al CP modifies a noun phrase. The oddness, however, is overridden by the typological preference advanced in section 2; i.e., those who prefer *mono*-type construal may use this construction to satisfy the requirement from the larger context that the construction is embedded in.

In this connection, Michaelis (2005), for instance, proposes the Override Principle as summarized in (16) and argues that relevant feature values of an input construction will switch to those required by the construction that it appears in.

> (16) **The Override Principle**: If a lexical item is semantically incompatible with its syntactic context, the meaning of the lexical item conforms to the meaning of the structure in which it is embedded.
>
> (Michaelis 2005: 51)

In accordance with the Override Principle, *pudding*, a mass noun, for example, will receive the value [count+] when combined with the indefinite determination construction, *a pudding* (Michaelis 2005: 54).

What Michaelis has in mind when speaking of switching of the feature value seems to be semantic features of a construction. In the present discussion, I simply extend her view to the syntactic feature values. However, since the categorial value is switched merely to satisfy the requirement from the larger context, the superficial oddness of the modification still remains. In short, the NP-AdvC construction is a product of concession between the local level (i.e. the categorical confliction between the modifier and modifee) and the global level (i.e. the categorical restriction).

3. 2. The Non-deverbal Type

In this subsection, I will investigate the non-deverbal type of the NP-AdvC construction (e.g. (17)) from the perspective of the construction's partial productivity of constructions.

> (17) ? The storm after you left (was terrifying).　　　　(= (11b))

Since the head daughter of construct (17), *the storm*, contains no deverbal ele-

ment, the syntactic coercion, such as the one proposed in section 3.1, will not work. Once the deverbal type of the construction is available, however, the non-deverbal type of the construction is yielded by analogy or partial productivity of the construction. Suttle and Goldberg (2011: 1238) note that constructions may be able to be extended for use with a limited range of items (cf. also Barðdal 2008). They (2011: 1258) also point out that in order for words to be coerced by constructions, (i) a novel coinage must be semantically interpretable, and (ii) a novel coinage cannot be statistically preempted by some other formulation that is semantically and pragmatically equivalent or preferred in the context of use.

In (17), the noun phrase *the storm* can be construed as expressing an event-type meaning, e.g. *it rained a lot,* as discussed earlier in this section. I have also argued that this meaning is foregrounded when the noun phrase is embedded in the NP-AdvC construction. Thus, just like a mass noun receives the value [+count] in the combination with the indefinite determination construction, the non-deverbal noun phrase *the storm* in (17) is construed as event when used in the NP-AdvC construction. In this way, an NP headed by a non-deverbal noun, whose original semantic value need not be event, may also be modified by an adverb clause. As long as the noun phrase is construed as expressing an event-type meaning, the construction with a non-deverbal noun is semantically interpretable.

As I argued in section 2 along with Ikegami's (1981, 1991) typology, English is a language whose speakers prefer *mono*-type construal over *koto*-type. As a matter of fact, this is the reason that the NP-AdvC construction, which in essence has an unfavorable structure, may be used. Thus, the use of non-deverbal nouns in the NP-AdvC construction is not preempted by any formulations that are equivalent or preferred at least pragmatically.

In sum, the non-deverbal type of the construction is licensed by the partial productivity of the NP-AdvC construction. That is, as long as a noun (phrase) that appears in the head daughter constituent is interpretable as expressing an event-type meaning, the NP-AdvC construction allows itself to accommodate such a noun phrase.

4. Conclusion

This article has examined the marginal acceptability of the NP-AdvC construction. The structure of the construction is not favorable because a nominal is modified by an adverbial, but the construction may be used (i) when it appears in certain linguistic slots that require a nominal category, and (ii) when the typological preference discussed in section 2 overrides the general grammatical restriction. After all, the NP-AdvC construction is a product of concession between the categorical confliction between the modifier and modifee, on one hand, and the categorical requirement from another construction, on the other. As a result, only marginally is the construction acceptable; it may not be memorized but may be produced spontaneously.

The present conclusion brings about several issues that cannot be dealt with in this article. First, as noted in footnote 6, the conclusion is drawn on a relative preference, so further investigations are necessary as to the acceptability of the NP-AdvC constructions in other *mono*-oriented languages with relative pronouns and/or raising constructions.

Also, the view of the non-deverbal type of the construction as an extension of the more basic deverbal type entails that the use of the former type relies upon the existence of the latter. Given that, one may predict as follows: (i) Those who do not accept the deverbal type will not accept the non-deverbal type either, and (ii) just because one accepts the deverbal type will not necessarily mean that s/he will accept the non-deverbal one, as the degree of constructional expansion may differ from person to person. Once again, to see whether the prediction is borne out or not, further research is necessary.

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Notes

1 See Kanetani (2013) for other attested examples of the same kind.

2 The generalization in (3) predicts that Chomsky's example (2) is no less acceptable than Ross's example (1), since the *before*-clauses in these examples are both sentence adjuncts and the NP in (2), *his criticism*, may be interpreted as conveying a sentence-like meaning, i.e. *that he criticized the book*. This interpretation itself is possible, as *Oxford Advanced Learner's Dictionary* (8th edition) gives the following definition to the word *criticism*:

(i) *the work or activity* of making fair, careful judgments about the good or bad qualities of sb/sth, especially books, music, etc. (OALD[8])

However, it is also true that with no context, the word is ambiguous in interpretation between the activity of writing and a written work.

3 As for the notion of *mono* and *koto*, Ikegami (1991: 294) notes that "it may appear that *mono* and *koto* correspond to an 'object' and a 'proposition' respectively."

4 Ikegami (1991: 296), however, observes that English *does* have an option of the *koto*-type expression as well, in which *mono* is not extracted out of *koto*. It should be noted that the distinction between *koto*- and *mono*-orientations should be taken as a matter of general preference.

5 Ikegami (1991: 298) describes the development of the raising construction in English as follows: English goes farther than its cognate language [German] in favoring this construction.

6 Note that this is a relative tendency, since Ikegami (1981, 1991) only compares the English language with the Japanese language; therefore, from Ikegami's typology, we only can say that English is *mono*-oriented in comparison with Japanese. However, the availability of the relative clause construction and the development of the raising construction are comparable to the use of the NP-AdvC construction in that these three constructions commonly extract *mono* out of *koto* and metonymically represent the latter by the former.

7 Although I consider example (11a) more basic, or protptypical, than example (11b), Ross judges the former worse than the latter, as so indicated. However, I will not take this subtle judgmental difference into consideration. Since the NP-AdvC construction is not canonical itself, even prototypical instances may well be considered marginal, if acceptable at all. Thus, what is important is that the deverbal type conveys a sentence-like meaning more readily and straightforwardly.

8 The subject-predicate construction in terms of Kay and Fillmore (1999) does not designate that the subject must be nominal but rather it designates that the subject is either a specifier or a filler marked local (for details, see, inter alia, Kay and Fillmore 1999: 12-14). In the present work, however, assuming that subject is generally restricted to a nominal in English, I simply ascribe this restriction to the subject (i.e. the left daughter) of the subject-predicate construction. Note further that this does not necessarily mean that the categorical value of the subject is specified as noun, i.e., I do not add the specification of "cat N" to the subject, because superficially different categories than NP, such as VP (e.g. gerunds), CP (e.g. *that*-clauses), or PP, may also appear as subject of a sentence.