No as a noun: Not a question marker

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Abstract

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It has been generally assumed in the literature since Saito and Hoji (1983) that Japanese has two question markers, *ka* and *no* (Lasnik and Saito 1984, Aoun and Li 1993), and that though *ka* can be used both in the matrix and embedded clause, no can be used only in the matrix clause. In this paper, we argue that *no* is not a question marker but a noun in a true sense of the term. This explains why *no* cannot be used for an embedded question. The analysis of *no* as a noun has a nontrivial consequence for extraction of *naze* 'why' out of islands with respect to Empty Category Principle (ECP). We show that the Barriers framework of Chomsky (1986b) faces a problem in accounting for sentences involving *no* in Japanese.

1. Introduction

Since Saito and Hoji (1983), it has been generally assumed, without justification, by most writers such as Fukui (1988), Lasnik and Saito (1984, 1992), Nishigauchi (1990), Saito (1985), Hoji (1987), Aoun and Li (1993:221, note 9) that *no* is a matrix clause question marker and *ka* an embedded clause question marker in sentences like (1).

(1) John-wa   [Mary-ga   nani-o   katta   ka]
       John-Top   Mary-Nom   what-Acc   bought   Q
       sitteiru   no?
       know   Q
       'Does John know what Mary bought?'

Ka is the embedded indirect question marker [+Q,+wh], and *no* is the matrix question marker [+Q,-wh]. They are treated as complementizers.

In section 2, however, we argue that *no* appearing in the matrix clause[2] is not a question marker, but rather a noun: a question marker in Japanese is always *ka*. Section 3 discusses consequences, both factual and theoretical, arising from the present analysis. We show that there are cases that extraction of *naze*

'why' from syntactic islands does not result in an ECP violation at LF in Japanese. A brief summary concludes the paper.

2. Discussion

2.1. *No* not a question marker

The clause-final *no* in (1) is a reduced form of *no desu ka/no ka*, as illustrated in (2).

(2) a. John-ga [Mary-ga nani-o katta ka] sitteiru no desu ka

    b. John-ga [Mary-ga nani-o katta ka] sitteiru no (*da) ka[3]

In the same way *no* appearing in a simple question sentence like (3) is the shortened version of (4).

(3) John-ga   hon-o   katta no?

    John-Nom book-Acc bought Q

    'Did John buy a book?'

(4) a. John-ga hon-o katta no desu ka?

    b. John-ga hon-o katta no (*da) ka?

       'Is it that John bought a book?'

If *no* were a question marker, sentences (2b) and (4b), where *da* must delete before *ka*, would end up having two question markers, *no* and *ka*: obviously an unwanted result. Also, consider (5).

(5) a. Kore-ga keeki desu ka? 'Is this a cake?'

    b. Kore-ga keeki (*da) ka?

    c. *Kore-ga keeki desu no?

    d. *Kore-ga keeki no?

       'this-Nom cake be Q'

If *no* were a question marker, it could replace *ka* in (5a,b). However, it cannot, as in (5c,d). The ungrammaticality of (5c,d) strongly casts doubt on the claim that *no* is a matrix interrogative marker.

Second, *ka* does not require rising intonation towards the end of a sentence in sentences (2) and (4), while *no* does in (1) and (3) as a question. Otherwise, they are interpreted as a declarative statement; that is, as a short form of (2c) and (4c) below, respectively.

(2) c. John-ga [Mary-ga nani-o katta ka] sitteiru no da/desu

(4) c. John-ga hon-o katta no da/desu

Without rising intonation, (1) and (3) with *no* are not interpreted as a question; *no* above cannot form a question. In the following subsection, we present three arguments that show nounhood of *no*.

2.2. No as a noun[4]
2.2.1. Nouns before copula

Only nouns appear before the copula *da*, as in (6a). *No* occurs in the same place as nouns do in the *no da* construction, as (2a,c) and (4a,c) show.

2.2.2. Negation

Only nouns are negated by the following *zya nai desu* form, as in (6b).

(6) a. Kore-wa hon da

        this-Top book be

        'This is a book.'

     b. Kore-wa hon zya nai desu

        this-Top book   Neg be

        'This is not a book.'

If *no* were a noun, it would require the *zya nai* desu form for the negative counterpart of (4c). This is borne out, as in (7).

(7) John-ga hon-o katta no zya nai (desu)

     'It's not that John bought a book.'

2.2.3. Cooccurrance with an adnominal *na*

A class of nouns, called na-nouns (Jorden 1988), takes on the *na* form when they modify the following noun, as shown in (8).

(8) dame-na hito   rippa-na hito

     'dull person'   'great person'

     benri-na hon   huben-na hon

     'convenient book' 'inconvenient book'

That is , *na* "occurs only before nouns" (Jorden 1988:19). The *na*-nouns occur before *no* under discussion, as in (9).

(9) a John-ga dame-na no desu ka   (Distal style)

     b. *John-ga dame-da no desu ka   (Distal style)

     c. John-ga dame-na no (*da) ka   (Direct style)

'Is it that John is dull?'

    d. dame-na   no   kirei-na   no

        dull   one   pretty   one

        'a dull one'   'a pretty one'

Da, the direct style form of copula in (9b) must become *na*, the adnominal form when it occurs before a noun, as shown in (9a). Note also that *da* must delete before *ka*, as in (9c). *No* in the *no da* construction as seen in (9a-c) differs from *no* in (9d), which is a pro-noun referring to an item already appeared in the preceding discourse. We exclude the pro-form *no* from the discussion.

2.3. Structure of the *no da* construction

We have argued that *no* in the *no da* construction is not a question marker but a nominalizer and that *no* forms an NP with the preceding clause. We assume that the preceding clause that is nominalized by *no* is IP, since *no* does not select for a complementizer such as *to* 'that' or *toyuu* 'saying that', as in (10).

  (10) a. *[John-ga kita   to]   no   desu

            John-Nom came   that   NM   be

        b. *[John-ga kita   toyuu] no   desu

            John-Nom came   saying NM   be

            'It is that John came.'

Or, one could argue that it may be CP headed by an empty complementizer, as in (11)

  (11) [John-ga kita e] CP no   desu

        John-Nom came   NM   be

        'It is that John came.'

However, if it were a CP, then the fact that the question marker cannot appear in the CP but must be outside it cannot be explained, as shown in (12).

  (12) a. *[John-ga kita ka] no?

            John-Nom came Q   NM

        b. [John-ga kita] no ka?

            'Is it that John came?'

In the same way, if the clause contains a *wh*-phrase, a question marker appears in the matrix clause: the *wh*-phrase is interpreted/takes scope in the matrix CP, as in (13).
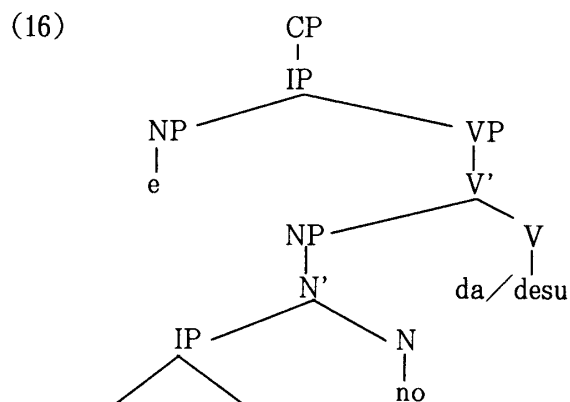
(13) [[[John-ga   nani-o   katta]   no]NP   desu   ka]CP?

    John-Nom   what-Acc   bought   NM   be   Q

    'What is it that John bought?'

Though we can say from the discussion above that the clause that precedes *no* is IP, it is unclear whether *no* L-marks it or not. Since no APs can appear either before or after the clause modifying *no*, as in (14), and since *no* cannot appear without an accompanying clause, it may be analyzed as taking the clause as a complement, and hence L-marking it. However, since *no* has no semantic content and hence has no theta role-assignability, it may be argued that *no* cannot L-mark the preceding clause.

(14) a. *[[John-ga   kita]   okasii   no]

         John-Nom   came   strange   NM

     b. *[Okasii   [John-ga   kita]   no]

         strange   John-Nom   came   NM

     'The strange fact that John came.'

Let us now consider the structure of the *no da/desu* construction. We assume that it has the same structure as subjectless sentences like (15), since Japanese, unlike English, does not have an overt expletive element. We believe that the *no da/desu* construction has the structure in (16).[5],[6]

(15) a. Hon   desu   b.   ni-zi   desu

         book   be   two o'clock   be

         'It is a book.'   'It is two o'clock.'

(16)

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                    CP
                    |
                    IP
          NP ─────────────── VP
          |                  |
          e                  V'
                  NP ─────────── V
                  |              |
                  N'          da/desu
           IP ─────── N
          /\          |
         /  \         no
        ──────
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In the next section we consider the consequences of the present analysis of the *no* construction and see how the ECP account deals with these sentences.

3. Consequences

3.1. Factual consequences

The claim that *no* is a noun explains the following facts. First, *no* cannot be used for an embedded question. Lasnik and Saito (1992:188, n. 18) report that *no* cannot be used as a question marker in embedded question, as in (17).

(17) John-ga   [Mary-ga   nani-o   katta   ka╱*no]   sitteiru

      John-Nom   Mary-Nom   what-Acc   bought   Q   know

      'John knows what Mary bought.'

Though they do not explain why this is the case, this follows simply because *no* is not a question marker but a noun. Since *no'* is a noun, it cannot mark the scope of *nani* 'what'.

Second, the *no* in the embedded clause in (18) is the same *no* of the *no da╱desu* construction.

(18) John-ga   [Mary-ga   nani-o   katta   no   *(ka)] sitteiru

      John-Nom   Mary-Nom   what-Acc   bought   NM   Q   know

      'John knows what it is that Mary bought.'

The verb in the embedded clause must be in the direct style form. Thus, *desu*, the distal style form of copula, cannot appear. *Da*, the direct counterpart of *desu* cannot appear there, either, because *da* must delete before *ka* (see footnote 3). If *no* were a question marker, *ka* need not appear. But, the sentence is ungrammatical without *ka*. *Ka* is needed there in order to mark the scope of the *wh*-phrase because *no* cannot.

3.2. A theoretical consequence

3.2.1. Antecedent-government for adjuncts (ECP)

Let us consider the consequence of the present discussion in terms of Empty Category Principle (ECP) of Chomsky (1981, 1986b).

(19) ECP

      A nonpronominal empty category must be either lexically governed or antecedent-governed.

(20) Antecedent-government

      X antecedent-governs Y iff there is no barrier between X and Y, and X binds Y.

Argument traces are always lexically governed, but adjunct traces must be

antecedent-governed to satisfy the ECP. The contrast in ungrammaticality between (21) and (22) can be accounted for by an ECP violation.

(21) John-ga   [[nani-o   katta]CP   hito]NP-o   mita   ka
      John-Nom   what-Acc   bought   person-Acc   saw   Q
      'What did John see that bought t?'

(22) *John-ga   [[Mary-ga naze katta]CP   hon]NP-o   mita   ka
      John-Nom   Mary-Nom why   bought   book-Acc   saw   Q
      'Why did John see the book Mary bought t?'

We assume that Subjacency is irrelevant to movement not only at LF (Huang 1982) but also at S-Structure (Haig 1993a, b; and Izutani 1993), contra Watanabe (1992). The trace of object NP *nani* in (21) is lexically governed by the verb *katta* and hence the ECP is observed. In contrast, an ECP violation occurs in (22): antecedent-government of the intermediate trace of *naze* in the Spec of the lower CP from its antecedent in the Spec of the matrix CP is blocked by the two intervening barriers: both the lower CP and the NP dominating that CP (by inheritance) constitute a barrier. The ungrammaticality of (22) is attributable to an ECP violation.

3.2.2. ECP account for the *no* and relative clause constructions
3.2.2.1. *No da* constructions
Consider (23) with the structure in (16).

(23) *Mary-wa   [[John-ga   naze   kita]IP   no]NP-o   sitteiru   ka
      Mary-Top   John-Nom   why   came   NM-Acc   know   Q
      '*Why does Mary know that John came t?'

Let us assume first that *no* does not L-mark the preceding clause. The embedded IP is a BC. The NP above it inherits barrierhood even though it is L-marked by the matrix verb. Thus, the movement of *naze* is illicit, crossing one barrier. (23) is correctly predicted to be ungrammatical.

     Now, consider (24).

(24) [[John-ga   naze   hon-o   katta]IP   no]NP   desu   ka
      John-Nom   why   book-Ac   bought   NM   be   Q
      'Why is it that John bought a book?'

Whether or not copula *desu* 'be' theta-marks the associated predicate NP, the movement of *naze* crosses one barrier and is illicit in the same manner as (23).

Thus, (24) is incorrectly predicted to be ungrammatical by the ECP under the Barriers system.

Let us assume next that *no* does L-mark the preceding clause. Assuming also that copula *desu* 'be' does not theta-mark the associated predicate NP (cf. Chomsky 1986a:95) in (24)[7] , the NP is construed as a barrier. Hence, the movement of *naze* is illicit, crossing one barrier. (24) is incorrectly predicted to be ungrammatical. The situation is much worse for the ECP account in (23). Here, both the embedded IP and NP are neither a BC nor a barrier. The NP that immediately dominates the IP is not construed as a barrier because it does not inherit barrierhood from within and is L-marked by the matrix verb. Thus, the movement is licit, crossing no barriers. This time, the ungrammatical (23) is incorrectly predicted to be acceptable.

Extraction of *naze* out of the *no da/desu* construction is always a problem under the ECP account whether or not *no* L-marks the preceding clause, whether the preceding clause is IP or CP, and whether or not the copula L-marks the predicative NP.[8] Extraction of *naze* out of relative clauses is also a problem to the Barriers account, to which we return directly.

3.2.2.2. Relative clause constructions

Let us look at Complex NP (CNP) sentences (25) and (26) involving a relative clause.[9]

(25) *John-ga   [[Mary-ga   naze   katta]CP hon]NP-o yonda ka
       John-Nom   Mary-Nom   why   bought   book-Acc read   Q
       '*Why did John read the book that Mary bought t?'

(26) Kore-ga   [[gakusei-ga   naze   yom-anakerebanaranai]CP
      This-Nom   student-Nom   why   read-must

      hon]NP   desu   ka
      book   be   Q
      'Why is this a book that the students must read t?'

Relative clauses are always a barrier as well as a BC because they are not L-marked. The NPs that immediately dominate the relative clauses become a barrier by inheritance. As mentioned at the outset, extraction of *naze* 'why' is doomed to violate the ECP. Therefore, both (25) and (26) should be equally ungrammatical. But, (26) is perfectly grammatical with *naze* modifying the

embedded verb. Further, (27), where (26) is embedded in the *no da/desu* construction, is also acceptable.

(27) [[Kore-ga   [[gakusei-ga   naze   yom-anakerebanaranai]CP
         This-Nom   student-Nom   why   read-must
         hon]NP   na[10]]IP   no]NP   desu   ka
         book   be   NMbe   be   Q
         'Why is it that this is a book that the students must read t?'

Here, extraction of *naze* would cross at least three barriers (indicated in bold face) whether *no* L-marks the preceding clause or not. Even with the assumption that copula L-marks the preceding clause, the CNP containing the relative clause, forming two barriers, blocks antecedent-government. Hence, (27) is predicted to be ungrammatical by the ECP account. Contrary to this prediction, it is as perfect as (26). The Barriers system with the ECP in (19)-(20) fails to account for the contrast in (25) and (26)-(27).

Summarizing, we first presented several pieces of evidence showing the nounhood of *no* in the *no da/desu* construction, and then discussed that *no* may or may not L-mark the preceding clause (IP or CP). We argued that sentences involving *no* and relative clause constructions cannot be accounted for in a principled manner by the ECP in the Barriers framework of Chomsky (1986b). Since giving a solution to the problem just noted is not our purpose, we do not discuss it here.[11]

It must be noted, however, that though *naze* cannot be construed with the embedded verb in (25), it can be construed with the matrix verb and have matrix scope, in spite of the fact that it appears in the embedded clause. That is, *naze* can be interpreted as requesting reason for John's reading the book which Mary bought (see Izutani (1996) for the details).

4. Conclusion

We argued that *no* as appearing in sentences like (1) is not a question marker but a noun and that it as a noun appears both in the matrix and embedded clauses. We also discussed as a consequence of the present analysis of *no* that LF extraction of *naze* 'why' out of a CNP does not always result in a violation of an ECP (antecedent-government), unlike traditionally assumed in the literature. We discussed just one use of *no* as a noun as it appears in sentences like (3).

We hope that the other uses of *no* (cf. note 4) would be also explored along the same line suggested here in the near future.

NOTES

1 We would like to thank John Haig and William O'Grady for their valuable comments and suggestions. Any errors are of course ours.

2 The sentence ending in *no da/desu* is referred to as the *no da/desu* construction in Kuno (1973:224), where no is considered as a nominalizing particle and *da/desu* as the direct/distal style form of copula, respectively.

3 The direct style form of copula *da* must delete before *ka*. We assume that *da* is deleted at PF.

4 For other uses of *no* (e.g. as a pro-form and a relative pronoun) and the analyses, see Haig (1986, 1987).

5 Kuno (1973:230-233) assumes that "the NP-*ga* initiating the *no da/desu* construction can be either inside the *no* clause or outside of it (p. 233)", as in (i).

(i) a.   NP-ga [IP e VP] no desu

         (where NP-*ga* has the exhaustive-listing interpretation)

     b. [IP NP-ga VP] no desu

This was pointed out to us by John Haig.

6 The structure with empty subject for the *no da* construction is not new. Nakau (1973) assumes the same structure as (16).

7 We believe that the copula *desu* does not L-mark the preceding NP; it is semantically empty and hence does not have theta role assignability.

8 Extraction of *naze* out of *koto* constructions is, as discussed in Hirano and Izutani (1994a), also a problem with the ECP account.

9 Relative clauses may be IP rather than CP because no complementizers/relative pronouns appear in relative clauses in Japanese, unlike in English. Since the choice of CP/IP for relative clauses does not affect the discussion below with respect to the ECP violation, we use the traditional analysis of CP for them.

10 *Na* is the adnominal form of copula *da/desu*.

11 For a solution to the contrasts in (23)/(24) and (25)/(26) from a semantic view point, see Hirano and Izutani (1994b) and Izutani (to appear).

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