

Naze in ‘That’-Clauses*

TAKESHI OGURO

Chiba University of Commerce

t2oguro@cuc.ac.jp

Abstract: There has been a general consensus in the study of Japanese linguistics that *naze* ‘why’ displays island effects, contrary to argument WH-phrases. In this paper, I deal with nominal island effects with *naze* and show that the island effects disappear when the adjunct is further embedded in a complement clause headed by *to* ‘that’ or *toyuu* ‘that.’ I argue that the lack of the island effect in this sort of environment comes from ‘that’-clauses containing *naze* ‘why’ functioning as argument WH-phrases. Support for this can be found in the behavior of *nanto*, a WH-expression which I show to be a version of *to* ‘that’ involving the WH-feature.

0. Introduction

One of the major issues in the generative approach to human language is how to assure the scopal properties of WH-phrases that are not raised to a scope position but remain in-situ. Huang (1982) proposed that all WH-phrases are found in their scope position at LF, suggesting that those that stay in-situ in overt syntax undergo covert movement to a scope position. Thus, (1a), which is a WH-question in Japanese, is assumed to have the LF structure in (1b).

- (1) a. Kimi-wanani-o katta no?
you-TOP what-ACC bought Q
‘What did you buy?’
b. [_{CP} nani [_{IP} kimi-wa *t*-okatta] no]

In (1a), the WH-phrase *nani* ‘what’ stays in the object position in overt syntax, but in (1b), it is raised in covert syntax to [Spec, CP], where it takes scope. This approach is theoretically desirable, since the behavior of WH-phrases in WH-movement language and WH-in-situ languages can be treated in the same manner at LF. What happens at LF is inaudible and therefore unlearnable; hence LF properties are not expected to be subject to parametrization and should not vary from language to language.

Not only is this approach theoretically appealing, but it is empirically justifiable as well. It gains support from the behavior of the Japanese reason adjunct *naze* ‘why,’ which has been observed by many linguistics to pattern like the English *why* with respect to island effects. To be exact, when *naze* is placed in a syntactic island, out of which overt movement leads to deviance,

* This is a substantially revised version of the paper that I read at The 3rd Annual Tampa Work-shop on Syntax, Semantics, and Phonology (TAW 3), which took place on March 9-10, 2012, at the University of South Florida in Tampa, Florida. I would like to thank the audience at the workshop. I am especially grateful to Stefan Huber, Aki Imaoka, Eric Potsdam, and Marga Reis for their comments and questions. Warren Elliott deserves special mention for suggesting stylistic improvements.

the result obtained has been observed to be quite degraded, even though the adjunct stays inside the island. This effect can be treated on a par with island effects with the English *why* if it is assumed that like *why*, *naze* also undergoes movement to a scope position, but only covertly.

This paper offers an alternative approach to scope taking of *naze*, according to which *naze* does not take scope on its own but it does so by being inside a complement clause headed by *to* ‘that’ or *toyuu* ‘that,’ which undergoes covert movement to a scope position, carrying along *naze*.

The organization of this paper is as follows: Section 1 touches upon the so-called nominal island effects with *naze* and its absence with argument WH-phrases in Japanese. Section 2 shows that what has been regarded as nominal island effects with *naze* can be accounted for in a way that has nothing to do with covert movement or islands. Section 3 presents cases where *naze* is allowed in nominal islands and provides the generalization that *naze* contained in a nominal island needs to be embedded inside a nonfactive complement clause headed by *to* ‘that,’ selected by a verb, or one headed by *toyuu*, ‘that,’ selected by a noun. In section 4, I attempt to derive this generalization by assuming that these ‘that’-clauses can function as clausal WH-phrases when containing *naze* in the C-domain. I also present some empirical support to this assumption, which involves the WH-expression *nanto*, which is comprised of the WH-part *nan* and the complementizer part. Section 5 concludes the paper.

1. The Argument/Adjunct Asymmetry in Japanese

The covert WH-movement hypothesis was put forth by Huang (1982) and further developed in Lasnik and Saito (1992) and numerous others. This hypothesis, according to which WH-phrases in WH-in-situ languages such as Japanese take scope by undergoing covert movement to a scope position, is empirically motivated by the so-called island effects.

It has been well known since Ross (1967) that there are constituents, which he termed islands, such that movement out of them yields degraded results. Huang (1982) and many others show that some islands marginally accept extraction of WH-arguments but not WH-adjuncts. For instance, the questions in (2) have WH-islands.

- (2) a. ?? What do you wonder [_{CP} whether John bought *t*]?
 b. * Why do you wonder [_{CP} whether John left *t*]?

The examples in (2) involve extraction of WH-phrases out of indirect questions, WH-islands, and they are degraded. They differ, however, on the acceptability. (2a), where the argument *what* is extracted, is only mildly deviant and marginally acceptable. (2b) involves extraction of the adjunct *why* and it is severely degraded and it is almost impossible to get the intended interpretation where the adjunct modifies the embedded clause.

This asymmetry with respect to grammaticality was captured in the framework of Government and Binding. Huang (1982) and Lasnik and Saito (1992), among others, assumed that there are two kinds of constraints on A-bar relations: one on movement and one on representation. The first one concerns various kinds of islands including WH-islands and nominal islands, only deals with overt movement, and is relatively weak. The second one regulates the distribution of traces created by movement, overt or covert. This is widely referred to as the Empty Category Principle (ECP).

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- (3) The Empty Category Principle
Nonpronominal empty categories must be properly governed.
- (4) α properly governs β iff
 - a. α lexically governs β , or
 - b. α antecedent-governs β .
- (5) α lexically governs β , if
 - a. α c-commands β , and
 - b. α assigns Case or a θ -role to β .
- (6) α antecedent-governs β if
 - a. α binds β , and
 - b. there is no γ (γ an NP or CP) such that α c-commands γ and γ dominates β , unless β is the head of γ .

Let us see how the facts in (2) can be covered with the two conditions. In (2a), the WH-phrase undergoes overt movement to a scope position, crossing the island, leading to the mild deviance. The condition on representation, the ECP, is satisfied, since the original trace in the object position is lexically governed by the verb. Intermediate traces, which are assumed to be in the VP-adjoined position in both the matrix and the embedded clauses, are absent at covert syntax, due to the lack of semantic significance. The ECP is irrelevant to those deleted intermediate traces. In (2b), the condition on movement is not respected, and in addition to it, the condition on representation, the ECP is violated. The relation between the trace of *why* in the matrix VP-adjoined position and the trace in the embedded clause is not local enough, severed by the WH-island, leading to the extremely degraded status of the example.

With this in mind, let us turn to Japanese. Here I employ cases involving a nominal island, since they show the island effects rather clearly.

- (7) a. Kimi-wa [NP [e_1 nani-o katta] hito₁]-o sagasite iru no?
 you-TOP what-ACC bought person-ACC looking-for be Q
 'What is the thing x such that you are looking for [the person [who bought x]]?'
- b. * Kimi-wa [NP [e_1 naze sono hon-o katta] hito₁]-o
 you-TOP why that book-ACC bought person-ACC
 sagasite iru no?
 looking-for be Q
 'What is the reason x such that you are looking for [the person [who bought the book for x]]?'
 (Lasnik and Saito 1992:36)

- (8) a. Mary-wa [NP [John-ga nani-o nusunda] koto]-o
 Mary-TOP John-NOM what-ACC stole fact-ACC
 mondai-ni siteiru no?
 problem-to make Q
 ‘What is the thing *x* such that Mary is making an issue out of [the fact [John stole *x*]]?’
- b. * Mary-wa [NP [John-ga naze sore-o nusunda] koto]-o
 Mary-TOP John-NOM why it-ACC stole fact-ACC
 mondai-ni siteiru no?
 problem-to make Q
 ‘What is the reason *x* such that Mary is making an issue out of [the fact [John stole it for *x*]]?’
 (Lasnik and Saito 1992:22)

The nominal islands in (7) contain relative clauses. As the contrast shows, the argument WH-phrase *nani-o* ‘what’ is allowed in the island, as in (7a), but, as shown in (7b), the adjunct *naze* is not, even though it is clear that it is supposed to modify the clause in which it is found. The examples in (8) depict the contrast of examples with noun complement clauses selected by the noun *koto* ‘fact.’ Just as in (7), the argument WH-phrase *nani-o* stays in the object position in the complement clause and it successfully takes matrix scope, but the presence of *naze* inside the complement clause leads to strong deviance.

Let us first consider the cases with argument WH-phrases in (7a) and (8a). In these cases, the WH-phrases undergo covert movement to the matrix, crossing an island, but their movement does not violate the condition on movement, which regulates only overt movement. It does not violate the condition on representation, either, because the original trace is in the lexically governed position. (7a) and (8a) are therefore perfect.

(7b) and (8b) are quite different from these cases. In (7b) and (8b), the local relation between the intermediate trace of *naze* in the matrix clause and the trace in the embedded clause is disrupted by the intervening NP, violating the condition on representation, yielding severe deviance.

In the minimalist approach to the generative grammar, too, attempts have been made to capture the relevant effects, for instance, by Takahashi (1994), Chomsky (1995), Saito and Fukui (1998), Rizzi (2006), Nakao and Yoshida (2006), among others. It is not our purpose here to review those accounts or to come up with an alternative proposal. The important thing here is the following set of generalizations that these authors have tried to derive.

- (9) a. Covert movement of argument WH-phrases is allowed from an island.
 b. Covert and overt movement of adjunct WH-phrases is disallowed from an island.

This summarizes the argument versus adjunct (especially, *naze*) asymmetry. In the next section, we see that (7b) and (8b) can be excluded independently of covert movement of *naze*.

2.2. *Naze* in a Factive Noun Complement Clause

Let us turn to (8b), where *naze* is contained in a noun complement clause. Fukui (1988) suggests that the noun *koto* takes a CP as its complement clause, since the clause can be headed by the complementizer *toyuu*, as in (13a).

- (13) a. [NP [CP [IP Taroo-ga sore-o te-ni-ireta] toyuu] koto]
 Taroo-NOM it-ACC obtained C fact
 ‘the fact that Taroo obtained it’
- b. [NP [Taroo-ga sore-o te-ni-ireta] koto]
 Taroo-NOM it-ACC obtained fact
 ‘the fact that Taroo obtained it’

As in (13a), the noun *koto* ‘fact’ may take a clause headed by the complementizer *toyuu*. (13b) indicates that this complementizer is optional. A question arises as to the categorial status of the clause without the complementizer. There is reason to believe that clauses selected by *koto* are invariably CPs, being headed by *toyuu* ‘that’ or its null counterpart when it is absent.¹

It is well known that the English complementizer *that* can be omitted when the clause which it heads is in the complement position, while it must be present when the clause is not there.

- (14) a. Bill knew [CP *e* [IP the teacher was lying]].
 b. * [CP *e* [IP the teacher was lying]] was hardly obvious.
 c. [CP That [IP the teacher was lying]] was hardly obvious.
 (Stowell 1981:396)

As the above paradigm shows, *that* must be phonetically present when the clause that it heads is not in the complement position. This suggests that the subject clause in (14b) is not an IP, but a CP headed by a null complementizer.

The same pattern obtains with noun complement clauses in Japanese as well. Each of the examples in (15) contains a relative clause (IP) and a complement clause.

- (15) a. [IP minna-ga sitteiru] [CP[IP John-ga kitaku-sita] *e*] koto
 everyone-NOM know John-NOM go-home-did C fact
 lit. ‘the fact [*e* John went home] [which everyone knows]’
- b. * [CP [IP John-ga kitaku-sita] *e*]₁ [IP minna-ga sitteiru] *t*₁ koto
 John-NOM go-hom-did everyone-NOM know fact
 lit. ‘the fact *t*₁ [which everyone knows] [*e* John went home]₁’
- c. [CP [IP John-ga kitaku-sita] toyuu]₁ [IP minna-ga sitteiru] *t*₁ koto
 John-NOM go-hom-did C everyone-NOM know fact
 lit. ‘the fact *t*₁ [which everyone knows] [that John went home]₁’

¹ Saito (1985) claims that clauses associated with nouns are invariably IPs, whether they are relative clauses or complement clauses. This is incorrect, as (15) indicates. Fukui (1988), on the other hand, assumes that relative clauses are CPs as well as complement clauses. I depart from Fukui and assume that relative clauses are IPs and complement clauses are CPs.

In (15a), the noun *koto* can take a clause without the complementizer *toyuu* ‘that.’ The contrast between (15b) and (15c) indicates that the complement clause must be headed by *toyuu* when it is fronted, patterning in exactly the same way as the *that*-clause in (14). Given the paradigm in (15), it is reasonable to state the following.

- (16) Noun complement clauses in Japanese are invariably of the category CP.

Now that the categorical status of Japanese noun complement clauses is clear, we can see how *naze* behaves in this environment. The clause selected by the noun is a CP, so the adjunct *naze* has a place to be originated. Its covert movement to a matrix scope position in (8b) crosses an island, hence the deviance. There appears to be nothing more to be added to this idea.

There is another way to exclude (8b), however. Note that the complement clause is factive. There is a condition on taking scope out of a factive clause. Szabolcsi and Zwarts (1993) and Oshima (2007) suggest the following sort of non-syntactic condition on extraction of a WH-phrase from a factive island.

- (17) If a factive clause involves a ‘one-time only’ predicate, WH-movement of a part of that predicate is not allowed out of that factive clause.

In other words, scope taking of WH-elements whose answers are necessarily unique is disallowed out of a factive clause. Consider the following questions.

- (18) a. From whom do you regret having gotten a letter?
b. * From whom do you regret having gotten this letter?
(Szabolcsi and Zwarts 1993:271)

“Having gotten this letter from someone” in (18b) is a ‘one time only’ predicate, since the event described is unique and cannot be repeated. In other words, there is only one individual such that the addressee regrets having gotten the letter from. Therefore asking the identity of that individual in the factive clause is disallowed in this case.

A similar contrast is provided in Comorovski (1996).

- (19) a. Who does John most regret having as a first cousin?
b. * Who does Edmund regret having as a natural father?
(Comorovski 1996:175)

In this set, too, the matrix verb is *regret*, a typical factive verb, so in asking something in the complement, the situation described in the complement must not be unique. (19a) must presuppose that John has more than one cousin, and it is a fine question. In (19b), however, the presupposition must be that Edmund has more than one natural father, leading to anomaly. Given (18) and (19), let us assume this presuppositional condition on scope taking from a factive clause.

This condition is motivated in Japanese as well. Consider (20).

- (20) * Mary-wa [NP [CP dare-ga John-no umi-no haha dearu] koto]-o
 Mary-TOP who-NOM John-GEN natural mother be fact-ACC
 sitteimasu ka?
 know Q
 ‘Who is the person *x* such that Mary knows the fact that *x* is John’s natural mother?’

This question sounds anomalous exactly like (18b) and (19b) in that it presupposes that there is more than one biological mother for John. This shows that the condition works in Japanese as well. Note that the WH-phrase in (20) is an argument, which suggests that the deviance in (8b) has nothing to do with island effects of any kind.

With this in mind, let us return to (8b). In order to keep to the condition on taking scope out of a factive clause, the event in the factive clause must not be unique, so John’s stealing ‘it’ for some reason must not be a ‘one time only’ predicate. This would mean that John stole ‘it’ for one reason on one occasion and on some other occasion he stole ‘it’ again for some other reason. It would be rather hard to imagine such a situation, which would force it to be a ‘one time only’ predicate. Thus the oddity found with (8b) can be regarded as violating the condition on taking scope out of a factive clause, which has nothing to do with nominal island effects.

3. *Naze* in Nonfactive Noun Complement Clauses

We have seen in the preceding section that nominal island effects might be irrelevant to Lasnik and Saito’s deviant examples involving *naze*. In order to check the island effects, we need to look into cases where *naze* is in a nonfactive noun complement CP. First consider (21).

- (21) Nihon-no keeki₁-wa Ken-no iken niyoruto
 Japan-GEN business-TOP Ken-GEN opinion according to
 [NP [CP *e*₁ naze waruku natta (toyuu)] kanoosee]-ga
 why bad became C possibility-NOM
 itiban takai desu ka?
 first high be Q
 ‘As for the business in Japan, according to Ken’s opinion, what is the reason *x* such that [the possibility [that it became dull for *x*]] is the strongest?’

This example contains an occurrence of *naze* in a clause selected by a nonfactive noun. It is complicated and hard to process at first, but it sounds better than (7b) and (8b). Let us consider what happens if the adjunct is embedded in an argument CP inside a relative clause.

- (22) [NP [IP [CP Sono syusyoo-ga naze sikyo-si-ta to]
 the prime minister-NOM why pass away-do-PAST C
 omotteiru] isi]-ga itiban ooi desu ka?
 think doctor-NOM most many be Q
 ‘What is the reason *x* such that [doctors [who think [that the prime minister passed away for *x*]]] are the largest in number?’

This example is fine, where *naze* is contained in a nonfactive CP inside a relative clause.

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The fine status of (21) and (22) tells us that the adjunct can satisfy its scopal property without causing the expected nominal island effect. More importantly, it suggests that the scope assignment of *naze* is possible only when the smallest clause containing it has the C projection.

The idea that the C projection headed by 'that' plays a role in saving *naze* is further strengthened by the following paradigm. There are cases where complement clauses which are selected by *kanoosee* 'possibility' cannot have the complementizer *toyuu* 'that.' In such cases, *naze* is disallowed. Consider the following.

- (23) a. John-ga yuuhuku-dearu (toyuu) kanoosee
 John-NOM rich-END C possibility
 'the possibility that John is rich'
- b. John-ga yuuhuku-na (*toyuu) kanoosee
 John-NOM rich-ADN C possibility
 'the possibility that John is rich'
- (24) a. [NP [CP John-ga naze yuuhuku-dearu (toyuu) kanoosee]]-ga
 John-NOM why rich-END C possibility-NOM
 itiban takai desu ka?
 first high be Q
 'What is the reason *x* such that [the possibility [that John is rich for *x*]] is the strongest?'
- b. * [NP [IP John-ga naze yuuhuku-na] kanoosee]-ga
 John-NOM why rich-ADN possibility-NOM
 itiban takai desu ka?
 first high be Q
 'What is the reason *x* such that [the possibility [that John is rich for *x*]] is the strongest?'

In (23a), the predicate in the complement clause ends with the ending form, in which case the complementizer is allowed. In (23b), on the other hand, the predicate ends with the adnominal form, which does not go with the complementizer. As shown in (24), *naze* is only allowed when the clause where it resides allows the presence of a complementizer, that is to say, when the relevant clause involves the C projection headed by 'that.' Given this whole pattern, we may state the following generalization.

- (25) The C projection headed by *to* 'that' or *toyuu* 'that' saves *naze*.

In the next section I consider how to derive this generalization.

4. 'That'-Clauses as WH-Phrases

Here I would like to consider why the generalization in (25) can be derived. It is important to note that, in the fine examples in (21) and (22), the clauses containing *naze* are arguments. In (21) the clause is headed by *toyuu* 'that' and selected by a noun. In (22) the adjunct is contained in the clause which is headed by *to* 'that' and selected by a verb. Given the generalizations in (9), the answer is straightforward, as in (26).

(26) ‘That’-clauses containing *naze* undergo covert movement to a scope position.

By assuming (26), a rough LF structure of the examples in (21) and (22) would look like (27).

(27) [CP [CP ...*naze* ... ‘that’]₁ [IP [VP [nominal island *t*₁ N] V] I] C]

In (27), the ‘that’-clause containing the adjunct undergoes covert movement from the argument position to a matrix scope position. Since the movement crosses the nominal island covertly, it does not violate the condition on movement, which only concerns overt movement. It also respects the condition on representation, since the trace in the island is in the complement position.

One question to be raised here has to do with the structure and interpretation of the ‘that’-clause. It acts as a WH-phrase because it undergoes covert WH-movement to a scope position, but it would be wrong to regard it as a [+WH]-clause because it is not an interrogative clause. The WH-adjunct stays in the C projection of a [-WH]-clause. This complex situation can be resolved by assuming an articulated CP structure of the kind suggested in Rizzi (1999), as in (28).

(28) Force ... Top ... Int ... Fin ...

In (28), the C projection is divided into several functional categories. The uppermost one is Force, which is responsible for the clause typing such as declarative, interrogative, imperative, etc. Then comes Top, which involves a topicalized element, and then comes the projection termed Int, which concerns clausal operators. The lowest one specifies finiteness. Drawing on this approach, I propose that the ‘that’-clause containing *naze* has the structure like (29).

(29) [_{Force(declarative)} [_{Top} [_{Int} *naze* [_{Fin} IP Fin]]] *to/toyuu*]

In (29) the complementizer *to/toyuu* ‘that’ is in the Force head, specifying the clause as declarative, and the WH-adjunct sits in the Spec of Int. The presence of Int is what makes this [-WH]-clause a WH-phrase. With this structure, the ‘that’-clause containing *naze* is correctly captured as being a noninterrogative clausal WH-expression.

The idea that ‘that’-clauses can function as WH-phrases is independently motivated, which has to do with the following interesting example.

(30) John-wa Mary-ni [CP *nan to*] itta no?
 John-TOP Mary-DAT what C said Q
 ‘What did John tell Mary?’
 (Kishimoto 2005:25)

Kishimoto takes (30) to indicate that the clause selected by the complementizer *to* can be WH-questioned, *nan* probably being a WH-version of IP, followed by *to*.

While I agree with Kishimoto that *nanto* is composed of two elements, I suggest that it does not involve two words. It is well known that the WH-item *nani* ‘what’ is sometimes pronounced as *nan* in certain environments such as the following.

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- (31) a. John-wa nani-to tatakatteiru no?
 John-TOP what-with fighting-is Q
 'What is John fighting against?'
 b. John-wa nan-to tatakatteiru no?
 John-TOP what-with fighting-is Q

In (31b) the WH-item is realized as *nan*, which is followed by the postposition *to* 'with,' which is a homophone of the complementizer *to* 'that.' The fact that (31b) has the exact same meaning as (31a) shows that *nan* in (31b) is merely a phonological variation of *nani*. It seems most natural then to assume that *nanto* involves a phonological variation of *nani* 'what' and the complementizer *to*. This view is, however, incorrect. Note that unlike the pair in (31), however, replacing *nanto* with *nani* to in (30) yields deviance, as in (32).

- (32) ?? John-wa Mary-ni nani to itta no?
 John-TOP Mary-DAT what C said Q
 'What did John tell Mary?'

In addition to it, *nani* can be uttered in a one-word question, but not *nan*.

- (33) a. Eh, nani?
 PRT what
 'Oh, what?'
 b. * Eh, nan?
 PRT what
 'Oh, what?'

Unlike *nani*, *nan* cannot stand alone. The contrast tells us that *nanto* is not a separable entity. Given this, I suggest that *nanto* has the following structure.

- (34) [CP [C' [C nan [C to]]]

Here *nanto* is analyzed as a CP, projected from the head composed of two parts, one being the WH-part, adjoining to the other, which is the declarative complementizer.

Assuming that declarative CPs can be clausal WH-phrases, let us consider how they behave with respect to island effects. As in (21) and (22), the nominal island effect with *naze* is absent when it is contained in an argument CP. The lack of the island effect is captured by assuming that CPs can undergo covert WH-movement, since argument WH-phrases can covertly move out of an island without causing the island effect. The expectation here is that *nanto* is allowed in nominal islands, which is confirmed in the following.

- (35) a. [NP [CP John-ga Mary-ni nanto itta (toyuu)] kanoosee]-ga
 John-NOM Mary-DAT nanto told C possibility-NOM
 itiban takai desu ka?
 first high be Q
 ‘What is [the possibility [that John told Mary t]] is the strongest?’
- b. Sono byooki nituite-wa [NP [IP e₁ nanto syutyoo sita] isi₁]-ga
 that disease about-TOP nanto claim did doctor-NOM
 itiban ooi desu ka?
 most many be Q
 ‘As for the disease, what are [the doctors [who claimed t]] the largest in number?’

In each of the examples in (35), *nanto* is an argument. It is placed in a noun complement clause in (35a) and in a relative clause in (35b). Both of them are fine, which lends support to the suggested analysis of *naze*.

5. Conclusion

In this study, I dealt with the distribution of the Japanese reason adjunct *naze* and showed that, despite the widely held observation, it is allowed in a nominal island if it is embedded in a non-factive argument clause headed by ‘that.’ I argued that this unexpected behavior of the adjunct can receive a natural account if it is assumed that ‘that’-clauses can function as WH-phrases when containing *naze*,

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